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PERINATAL GRIEF: COMPLICATED OR WHAT?

An analysis of the symptoms of perinatal
grief in two samples of bereaved mothers
in Australia

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This thesis is dedicated to
my stillborn brother,
Joseph
and
my miscarried baby,
'Alex'.

Many thanks are due to all those who have assisted me with this research.

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ABSTRACT

Background: Perinatal grief, which affects parents whose babies die during pregnancy or within a year after birth, has been shown to lead to severe morbidity and, in some cases, mortality. Despite the assertion that all these parents are susceptible to developing complicated grief because of the nature of their loss, there has been little evidence to support this. However, some variables which may predict the likelihood of these bereaved mothers having unremitting, intense grief have previously been identified, including: maternal age, education, marital status, occupational status, other losses and the presence of living children.

Objective: The present studies assessed perinatal grief and the impact of these variables on the risk of developing complicated grief using self-reported data in two separate samples of perinatally bereaved mothers (N = 121) and (N = 146) up to five years after their loss. In *Study 2* other psychopathological symptoms, including: depression, anxiety, stress and post-traumatic stress were also assessed.

Results: Contrary to expectations, findings indicated that the proportion of these mothers who experienced complicated grief, 12.5% in *Study 1* and 18% in *Study 2*, was similar to other populations of grievers. In both studies those variables that had been suggested as indicative of higher risk for

developing psychopathology were not supported except for the absence/presence of other children.

Conclusion: Perinatally bereaved mothers report clinically significant symptoms of complicated grief as well as other psychopathology such as depression, anxiety, stress and post-traumatic stress at levels similar to other populations of grievers. The symptomology of these mothers should be routinely monitored to assess need for referral for treatment when indicated. Limitations, such as the convenience samples of participants and strengths, such as, quantitative design of the study, are addressed and implications are outlined.

Chapter 1

INTRODUCTION and LITERATURE REVIEW

1. GRIEF

Bereavement is a universal experience which most people adapt to within a six months of their loss (Bonanno & Kaltman, 2001; Prigerson et al., 2009). In recent years there has been increasing research into the grief experiences of bereaved people, to assist in the identification of grievers who may need professional assistance in managing their grief, especially for more prolonged and/or intense experiences. Simultaneously theorists have sought to delineate other features which characterise these grief experiences, such as the relationship to the deceased (Shear, 2012). This work emerged from an interest into the experience of perinatal grief, which is the grief experienced by the parents when a baby dies during the perinatal period which has been defined as during pregnancy or within a year of birth (Austin, Highet, & the Guidelines Expert Advisory Committee, 2011).

In order to assist in the understanding of many terms used to describe and discuss grief. It may be useful to firstly review some definitions. Bereavement has been defined as, "the objective situation of having lost someone significant through death..." which is "usually associated with intense distress" (Stroebe, Hansson, Schut, Stroebe, & Van den Blink, 2008, p. 4). These authors have defined mourning as, "the public display of grief...shaped by beliefs and practices of a given society or cultural group"

(Stroebe et al., 2008, p. 5) and defined grief as, “the primarily emotional (affective) reaction to the loss of the loved one” and “it incorporates diverse psychological (cognitive, social-behavioural) and physical (physiological-somatic) manifestations”, (Stroebe et al., 2008, p. 5).

1A. GRIEF SYMPTOMS

The seminal work of Lindeman (1944) to systematically outline the symptoms of grief from the survivors of a traumatic event identified four important points about acute grief:

1. “It is a definite syndrome with particular psychological and somatic symptoms
2. It may appear immediately after a crisis; it may be delayed; it may be exaggerated or apparently absent
3. In place of the typical syndrome there may appear distorted pictures each of which represents one special aspect of the grief syndrome
4. By appropriate techniques these distorted pictures can be successfully transformed into a normal grief reaction with resolution” (p.141).

He also identified six factors which he considered to be important: somatic distress; preoccupation with the deceased; hostility; guilt behavioural changes and identification with the deceased. However, it was not until the work of Parkes and Bowlby (1980) that the features of ‘normal’ grief were really clarified. Worden (2009) has expanded on these factors and placed the signs of grief into four categories:

- Feelings: such as sadness, anger, guilt and self-reproach, anxiety, loneliness both social and emotional, fatigue, helplessness, shock, yearning, numbness, emancipation and relief.
- Physical sensations: tightness in the chest and throat, hollowness in the stomach, sensitivity to noise, depersonalisation, breathlessness, muscle weakness, lack of energy and dry mouth.
- Cognitions: disbelief, confusion, preoccupation with and sense of presence of the deceased , visual and/or auditory hallucinations
- Behaviours: sleep and appetite disturbances, absentmindedness, social withdrawal, dreams of the deceased, searching for the deceased, sighing, restless hyperactivity, avoiding or visiting reminders of the deceased and crying.

However, one limitation of this list is that it unable to account for the potential impact of the context of the death on the griever. These contextual factors have been included by other researchers who described normal grief as, " ...the emotional reaction to bereavement, falling within expected norms, given the circumstances and implications of the death" (Stroebe et al., 2008, p. 5), This expanded definition, while acknowledging the potential that social expectations can have on the expression of grief, lacks information about these expected norms as those griever whose expression of grief is outside these norms may be experiencing an 'abnormal' grief reaction. They may be expressing more or fewer of these symptoms, in a more intense or less

intense manner, for a shorter or longer period of time than is considered acceptable within the society in which they live. Those who display fewer symptoms, in a less intense manner, for a shorter period of time may be considered to be experiencing absent or delayed grief and thus, may not be identified by commonly employed assessment instruments (Worden, 2009, p. 140). Delayed or absent grievers may need an interview by a skilled clinician for the impact of the death to be accurately assessed. Other 'violations' of the norms of grieving may occur with disenfranchised grief where the right of the griever to express their grief may not be understood or acknowledged by the society in which they live (Doka, 2002), such as has been the case for unmarried lovers, homosexual partners or ex-spouses. This phenomenon of not acknowledging the right of a person to grieve has been termed 'empathic failure' (Neimeyer & Jordan, 2001). Those who continue to express some of the symptoms of intense grief beyond the first anniversary of the death of their loved one may also be experiencing an abnormal form of grief.

1B. NORMAL and ABNORMAL GRIEF

Over the last 30 years, since the work of Parkes & Weiss (1983) about risk factors for abnormal grief, much research into grief has attempted to identify the features of both 'normal' and 'abnormal' grief for all types of losses. Some theorists have suggested that 'normal' grief is the type experienced by most grievers as they adapt/adjust to the loss with support from family and friends during the passage of time (Barry, Kasl, & Prigerson, 2002). It is generally expected that the intense expression of grief will subside, usually

within six months of the death (Lannen, Wolfe, Prigerson, Onelov, & Kreichberg, 2008). However, it has also been recognized that not all grieverers manage to adapt to the loss as may be expected, their grief may be more severe and prolonged and may have an on-going, negative impact on their lives. Those grieverers who experience many grief symptoms in a very intense manner, especially yearning, and who do not adapt/adjust to their grief within six to twelve months post-loss, may be candidates for a type of grief which has variously been termed 'chronic' (Bonanno et al., 2002), 'pathological' (Bryant, 2013), 'traumatic' (Prigerson, Bierhals, Kasl, Reynolds, & et al., 1997) or 'complicated' (Prigerson et al., 1995). Unfortunately, as theorists have struggled to adequately describe the experiences of grief outside the normal range of severity and persistence of symptoms, the subtle and evolving differences in meaning for common terms have created some confusion in the literature.

There have been multiple descriptions of the concept of grief that does not fit normal expectations and the term used to express this form of abnormal grief has changed several times over the last few decades. In 1997 one group of researchers stated, "The name of symptoms was changed from 'complicated' to 'traumatic' grief because we considered the latter to capture more precisely the underlying dimensions of the syndrome i.e. trauma and separation distress (Prigerson, Bierhals, et al., 1997, p. 1003). However, after the terrorist attacks in the USA in September 2001, the term used to describe this expression of grief was reversed to be called complicated grief again.

Following intense research two alternative diagnostic algorithms for complicated grief had been proposed (Horowitz, 2005; Prigerson & Jacobs, 2001) . These developments had led to a combined “consensus definition” of complicated grief, which was then termed Prolonged Grief Disorder (Prigerson et al., 2009). In 2013 this form of maladaptive grief has been described as Persistent Complex Bereavement Disorder in Requiring Further Research section of the Diagnostic and Statistical Manual – 5 (DSM-5) (American Psychiatric Association, 2013) with the most significant change being the increase in persistence of the symptoms from more than six to more than 12 months. There is a comparison of the symptoms for, and timing of, normal grief, complicated grief and persistent complex bereavement disorder presented in Table 1. This indicates that while some symptoms abate, others, which may persist indefinitely, have been specifically grouped for these different experiences of grief. One of the difficulties for researchers and practitioners is that the term ‘complicated grief’ is used both as a clinical description as well as a collective term for experiences of grief that are outside the range of the usual expectations. Nonetheless, despite the recent change in the description of unrelenting grief symptomology, for the purposes of this thesis the term complicated grief will be used as it was the recognised and dominant term during the period of research; it is also more commonly used by practitioners who did not participate in speculation about how to describe this form of grief prior to the release of the DSM-5; and it expresses the potential for the complexity of this experience of grief to encompass more than only an extended passage of time since the death.

1b i) Complicated Grief

Complicated grief has been defined as, "a unidimensional symptom cluster comprised of symptoms of separation distress (i.e. yearning for the deceased, excessive loneliness) and traumatic distress (i.e. feelings of disbelief, a fragmented sense of security and trust)" (Latham & Prigerson, 2004, p. 351). Complicated grief has been shown to be a theoretically distinct concept from normal grief (Lichtenthal, Cruess, & Prigerson, 2004), depression and anxiety, with a particular physiological expression (O'Connor, Wellisch, Stanton, Olmstead, & Irwin, 2012). It is at the severe end of the grief continuum (Holland, Neimeyer, Boelen, & Prigerson, 2009) with rates between 10% to 20% of grievers (Middleton, Burnett, Raphael, & Martinek, 1996). Researchers attempting to identify the factors which pre-dispose grievers to an abnormal experience grief have suggested that the type of death and relationship to the deceased may also be of particular importance (Bonanno & Kaltman, 1999; Parkes, 2002). The criteria that have been adopted for the diagnosis of complicated grief, prolonged grief disorder and persistent complex bereavement disorder are compared in Table 2. This table indicates that while there is much commonality in the manner in which these descriptions of unremitting grief are prescribed, it is the finer distinctions between them that provide important information about the differences, such as the required duration of symptoms before diagnosis.

Table 1.
Comparison of symptoms of Normal Grief, Complicated Grief and Persistent Complex Bereavement Disorder

Symptom	Normal Grief Acute symptoms decrease in intensity and severity from 6 - 24 months	Complicated Grief Acute symptoms persist unresolved after 6 months	Persistent Complex Bereavement Disorder* Symptoms persist unresolved for more than 12 months
Feelings	Sadness Anger Guilt Anxiety Loneliness Fatigue Helplessness Shock Yearning Numbness Emancipation Relief	Sadness Anger Loneliness Shock Yearning Numbness	Intense Sorrow Anger Self-blame Loneliness Yearning
Physical sensations	Tightness in chest Hollowness in stomach Sensitivity to noise Depersonalisation Breathlessness Muscle weakness Lack of energy Dry mouth		
Cognitions	Disbelief Wanting to die Preoccupation with deceased Visual and or auditory hallucinations Confusion	Disbelief Wanting to die to be with the deceased Preoccupation with the deceased Visual and auditory hallucinations Rumination about the circumstances of the death Intense reactivity to memories	Disbelief Wanting to die to be with the deceased Preoccupation with the deceased Preoccupation with circumstances of the death Loss of role/identity Difficulty with positive reminiscing
Behaviours	Sleep difficulties Appetite disturbance Absentmindedness Social withdrawal Dreams about the deceased Searching Sighing Restless hyperactivity Avoiding/visiting reminders of the deceased Crying Loss of interest in daily activities	Sleep difficulties Social withdrawal Searching Avoidance/proximity seeking Loss of interest in daily activities Life is meaningless Difficulty trusting others	Social withdrawal Avoidance of reminders of the loss Loss of interest in daily activities Life is meaningless or empty Difficulty trusting others
Traumatic loss			Persistent preoccupation with nature of the death

*DSM - 5

Table 2.
Comparison of criteria for Complicated Grief, Prolonged Grief Disorder and Persistent Complex Bereavement Disorder

Complicated Grief (Shear et al, 2011)	Prolonged Grief Disorder (Prigerson et al, 2009)	Persistent Complex Bereavement Disorder (DSM-5, 2013)
A The person has been bereaved, that is experienced the death of a loved one, for at least 6 months	A Event: Bereavement (loss of as significant other)	A The individual experienced the death of someone with whom he or she had a close relationship
B At least one of the following symptoms of persistent acute grief has been present for a period longer than is expected by others in the person's social or cultural environment <ol style="list-style-type: none"> 1. Persistent yearning or longing for the person who died 2. Frequent intense feelings of loneliness or like life is empty or meaningless without the person who died 3. Recurrent thoughts that it is unfair, meaningless, or unbearable to have to live when a loved one has died, or a recurrent urge to die in order to find or join the deceased 4. Frequent preoccupying thoughts about the person who died, for example, thoughts or images of the person intrude on usual activities or interfere with functioning 	B Separation distress: the bereaved person experiences yearning (for example, craving, pining, or longing for the deceased; physical or emotional suffering as a result of the desired, but unfulfilled, reunion with the deceased) daily or to a disabling degree	B Since the death, at least one of the following symptoms is experienced on more days than not and to a clinically significant degree and has persisted for at least 12 months after the death in the case of bereaved adults and 6 months for bereaved children: <ol style="list-style-type: none"> 1. Persistent yearning/longing for the deceased 2. Intense sorrow and emotional pain in response to the death 3. Preoccupation with the deceased 4. Preoccupation with the circumstances of the death.
C At least two of the following symptoms are present for at least a month: <ol style="list-style-type: none"> 1. Frequent troubling rumination about circumstances or consequences of the death, for example, concerns about how and why the person died, or about not being able to manage without their loved one, thoughts of having let the deceased person down, etc. 2. Recurrent feelings of disbelief or inability to accept the death, like the person cannot believe or accept that the loved one is really gone 3. Persistent feelings of being shocked, stunned, dazed or emotionally numb since the death 4. Recurrent feelings of anger or bitterness related to the death 5. Persistent difficulty trusting or caring about other people or feeling intensely envious of others who have not experienced a similar loss 6. Frequently experiencing pain or other symptoms that the deceased person had, or hearing the voice or seeing the deceased 7. Experiencing intense emotional or physiological reactivity to memories of the person who died or to reminders of the loss 8. Change in behaviour due to excessive avoidance or the opposite, excessive proximity seeking, for example, refraining from going 	C Cognitive, emotional and behavioural symptoms: The bereaved person must have five (or more) of the following symptoms experienced daily or to a disabling degree: <ol style="list-style-type: none"> 1. Confusion about one's role in life or diminished sense of self (that is, feeling that a part of oneself has died) 2. Difficulty accepting the loss 3. Avoidance of reminders of the reality of the loss 4. Inability to trust others since the loss 5. Bitterness or anger related to the loss 6. Difficulty moving on with life (for example, making new friends, pursuing interests) 7. Numbness (absence of emotion) since the loss 8. Feeling that life is unfulfilling, empty or meaningless since the loss 9. Feeling stunned, dazed or shocked by the loss 	C Since the death, at least six of the following symptoms are experienced on more days than not and to a clinically significant degree, and have persisted for at least 12 months in the case of bereaved adults. <p>Reactive distress to the death</p> <ul style="list-style-type: none"> ▪ Marked difficulty accepting the death ▪ Experiencing disbelief or emotional numbness over the death ▪ Difficulty with positive reminiscing about the deceased ▪ Bitterness or anger related to the loss ▪ Maladaptive appraisals about oneself in relation to the deceased or the death(for example, self-blame) ▪ Excessive avoidance of reminders of the loss (for example, avoidance of individuals, places, or situations associated with the deceased) <p>Social/identity disruption</p> <ul style="list-style-type: none"> ▪ A desire to die in order to be with the deceased ▪ Difficulty trusting other individuals since the death ▪ Feeling alone or detached from other individuals since the death ▪ Feeling that life is meaningless or empty without the deceased, or

<p>places, doing things, or having contact with things that are reminders of the loss, or feeling drawn to reminders of the person, such as wanting to see, touch, hear, or smell things to feel close to the person who died. (Note: sometimes people experience both of these seemingly contradictory symptoms.)</p>		<p>the belief that one cannot function without the deceased</p> <ul style="list-style-type: none"> ▪ Confusion about one's role in life, or a diminished sense of one's identity (that is, feeling that part of oneself died with the deceased) ▪ Difficulty or reluctance to pursue interests since the loss or plan for the future (for example, friendships, activities)
<p>D The duration of symptoms and impairment is at least 1 month</p>	<p>D Timing: Diagnosis should not be made until at least 6 months has elapsed since the death</p>	<p>D Disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning</p>
<p>E The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning, where impairment is not better explained as a culturally appropriate response.</p>	<p>E Impairment: The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning (for example, domestic responsibilities).</p>	<p>E The bereavement reaction is out of proportion to or inconsistent with cultural, religious, or age-appropriate norms.</p>
	<p>F Relation to other mental disorders: The disturbance is not better accounted for by major depressive disorder, generalised anxiety disorder, or posttraumatic stress disorder.</p>	
		<p>Specify if: With Traumatic Bereavement: Bereavement due to homicide or suicide with persistent distressing preoccupations regarding the traumatic nature of the death (often in response to loss reminders), including the deceased's last moments, degree of suffering and mutilating injury, or the malicious or intentional nature of the death.</p>

1b ii) Traumatic Grief

Researchers interested in understanding how the type of death affects grief have undertaken studies into the impact of traumatic deaths on the grief experience (Raphael, Martinek, & Wooding, 2004). Traumatic deaths are those that are likely to be premature, sudden, violent and unexpected. It has been stated that, “traumatic loss disrupts a person’s sense of safety and control and causes the loss of a sense of identity and purpose” (Prigerson, Shear, et al., 1997, p. 1007) as the griever’s assumptions about both their personal and outside world have been disturbed. Symptoms of post-traumatic stress disorder (PTSD) may occur for some of these grievers with an intense anxiety response, or terror and acute distress being experienced (Kaltman & Bonanno, 2003). They may express a tendency to remember the experience while simultaneously having a desire to avoid and suppress memories of it, in continual cycles of intrusion and denial (Horowitz, Siegel, Holen, & Bonanno, 1997). Studies have also shown that up to 80% of people meeting criteria for PTSD also experience at least one other disorder, such as depression or anxiety (Brady, Killeen, Brewerton, & Lucerini, 2000; Kessler, Davis, & Kendler, 1997).

1b iii) Traumatic Bereavement

While the research of Latham and Prigerson (2004) has focused on the traumatic elements of complicated grief, the majority of other theorists have

mostly emphasised the extended duration of the acute symptoms of grief. It has also been shown that complicated grief is distinct from bereavement-related PTSD (Prigerson, Shear, et al., 1997). Whilst it has been found that intrusive images are a common feature of both complicated grief and bereavement-related PTSD (Horowitz et al., 1997; Raphael, Martinek, & Wooding, 2004), it has also been found that traumatic experiences can have different psychological impact for the griever depending on the meaning they attribute to the event (Neria & Litz, 2004). Maybe the distinction needs to be made for the complicated experience of grief after a 'natural' death from the enduring experience of PTSD symptoms in those grieving a traumatic death as well as other co-morbidities (Simon et al., 2007). Traumatic bereavement may be the result of a complex interaction between the traumatic stress phenomena and the bereavement phenomena.

2. CO-OCCURRING PSYCHOPATHOLOGY

Practitioners working with grieving people may be unsure about interpreting their experience as it may appear to manifest as depression because of a commonality of symptoms for these two conditions, such as, insomnia, sadness and appetite disturbances. Also, if these symptoms have persisted for an extended period of time it may be that neither the practitioner nor their client will attribute them to grief as they may no longer be aware of the connection. It has also been recognized that up to 54% of grievers may also develop a Major Depressive Disorder while grieving (Prigerson et al., 1995) and up to 50% PTSD (Silverman et al., 2000).

3. OVERVIEW AND PREVALENCE OF PERINATAL GRIEF

One of the experiences of grief that has also generated much debate among researchers has been perinatal grief, which is experienced by parents after a perinatal death. This occurs when a baby dies during pregnancy or within the first year after birth, with more than 2500 babies dying during this period per year in Australia (Li, Zeki, & Hilder, 2012). In many of the studies into perinatal grief there has been an assertion that the older age, including gestational age, of the baby may be predictive of more acute experiences of grief for the parents (Hughes, Turton, Hopper, & Evans, 2002). However, the classification of the death of a baby as a miscarriage or stillbirth varies between countries with up to 35 definition systems being used throughout the world (See Table 3).

Nevertheless, no matter how the deaths during pregnancy are defined, the death of a baby during the perinatal period can have long term negative outcomes such as, depression, post-traumatic stress, anxiety and mortality for the parents (Harper, O'Connor, & O'Carroll, 2011; Middleton, Raphael, Burnett, & Martinek, 1998).

Table 3.
Comparison of definitions for Miscarriage and Stillbirth

	World Health Organization^a	UK^b	USA^c	Australia^d
Miscarriage	Up to 28 weeks gestation or less than 1000 grams birth weight	Up to 28 weeks gestation	Up to 20 weeks gestation or less than 400 grams birth weight	Up to 20 weeks gestation or less than 400 grams birth weight
Stillbirth	After 28 weeks gestation or at least 1000 grams birth weight	After 28 weeks gestation	After 20 weeks gestation or at least 400 grams birth weight	After 20 weeks gestation or at least 400 grams birth weight
Neo-natal Death	The death of a live born baby within 28 days after birth	The death of a live born baby within 28 days after birth	The death of a live born baby within 28 days after birth	The death of a live born baby within 28 days after birth
	^a World Health Organization. Definitions and indicators in Family Planning Maternal & Child Health and Reproductive Health. Geneva: WHO Press, 2001.	^b Birth and Deaths Registration Act 1953, Section 41 as amended by the Stillbirth (Definition) Act 1992 Section 1 (1)	^c Procedures for coding fetal cause of death (2001 revision). Available at www.cdc.gov/nchs/about/major/fetaldth/abfetal.htm#	^d Laws, 2004

3A. PERINATAL GRIEF

Perinatal grief is the grief experienced after a perinatal death and is estimated to affect 1% of mothers (Li et al., 2012), which may be an underestimation as miscarriages, which account for about 20% of pregnancies (García-Enguános, Calle, Valero, Luna, & Domínguez-Rojas, 2002) may have not been included in this calculation because of lack of reliable statistics due to the definitional disparities already noted. One difficulty for both researchers and practitioners in understanding perinatal grief is a lack of definition in the literature. While researchers define the

length of gestational or post-birth age for the types of losses included in their studies in detail, most have failed to define perinatal grief (Gaudet, 2010; Lasker & Toedter, 2000). There is one definition of perinatal grief, “the complex of painful experiences associated with the loss of a pregnancy or death of a newborn” (Lathrop, 2005). However, many reviewed studies included a mixture of combinations of these losses as well as the loss of babies who died after this age (Barr, 2004; Barr & Cacciatore, 2007, 2008; Elklit & Bjork Gudmundsdottir, 2006; Forray, Mayes, Magriples, & Epperson, 2009; Franche, 2001; Lasker & Toedter, 2000; Yan, 2008). One systematic review has shown that there have been many studies into the experience of perinatal grief (Toedter, Lasker, & Janssen, 2001) but there is still a lack of understanding of the course of this experience over time, as most of the studies in this review, as well as subsequent studies, have only focused on the acute phase (Ademyemi et al., 2008; Conway & Russell, 2000; Engelhard, van den Hout, & Arntz, 2001; Saflund & Wredling, 2006) or have failed to identify any differences in the acute and longer term effects of the death of a baby on the mother (Cacciatore, Radestad, & Froen, 2008b).

In the 1980s an instrument, the Perinatal Grief Scale–33(PGS-33), (Potvin, Lasker, & Toedter, 1989) was developed to measure the grief of parents whose babies had died within the perinatal period. A review of studies using this instrument (Toedter et al., 2001) supported its suitability for measuring the grief of perinatally bereaved parents. It has three subscales: (i) Active Grief which focuses on normal grief with items about sadness, missing the baby and crying about the baby; (ii) Difficulty Coping,

which examines the problems bereaved parents may face in dealing with everyday activities and other people after the loss; and (iii) Despair, which measures the longer-term effects of the loss, with items about 'the best part of me dying with the baby' and it being 'safer not to love'; However, it could be that these subscales add to the confusion about perinatal grief and its psychopathology as they use different terms to describe increasing symptomology which may not be understood by practitioners unfamiliar with their research. This instrument has been shown to be suitable for identifying those bereaved parents who are experiencing a severe form of perinatal grief, which the authors suggested might be termed 'complicated grief' (Lasker & Toedter, 1991, p. 510). While they acknowledged that normal grief may abate from six to twelve months after of the death (Lasker & Toedter, 1991, p. 512), they did not include a requirement that the parent must be at least six months from the death before their concept of 'complicated grief' could be identified in this population as they believed that that the level of active grief shortly after the death was indicative of likelihood to experience 'complicated grief', as the acute symptoms do not actually abate. However, as most other general grief theorists agree that pathological expressions of grief should not be assessed until after at least 6 and now, more commonly, 12 months from the death, their theory is not in agreement with these as it has not been realigned with the developments in general grief theory as it has evolved over time.

It has been suggested that perinatal deaths have some particular features that make the experience of perinatal grief different to other forms of grief, such as spousal loss:

1. death occurring at the beginning of a life;
2. maternal trauma from a sudden and unexpected event;
3. no explanation for the cause of death in most miscarriages and up to 40% of stillbirths (Nikcevic, Kuczmierczyk, Tunkel, & Nicolaides, 2000);
4. lack of acknowledgement of the birth/death from family and friends (Callahan, Brasted, & Granados, 1983);
5. heightened sense of maternal responsibility /guilt/ shame about the death as they were carrying the baby (Giles, 1970);
6. mothers' loss of confidence in their bodies (Côté-Arsenault & Mahlangu, 1999).

Bereaved mothers may also be more susceptible to complications in their grief because of these factors (Hughes et al., 2002). Their grief may be disenfranchised as some people may not acknowledge a baby that has been miscarried, terminated, stillborn or died soon after birth. As these people have not had a relationship with the baby they may fail to recognise the bond between the mother and her baby (Callahan et al., 1983). Thus, mothers may perceive the lack of acknowledgement of their baby as a lack of permission to grieve their death, which may prolong the expression of intense symptoms

and lead to social isolation as they seek to find an appropriate way remember and memorialise their baby without the support of others.

3B. IMPACT OF CHANGING MATERNAL CHARACTERISTICS

The demographic characteristics of childbearing parents in countries like Australia have undergone great change in recent years which has increased the potential for more mothers to experience perinatal grief. In 2010 the average age of mothers was 30 years, with the proportion of first time mothers aged 35 years and over having increased from 17.5% in 2001 to 23%; those over 40 years of age were up from 2.9% to 4.1%; and .2% were over 45 years of age (Li et al., 2012, p. 9). As risk of miscarriage and stillbirth increases with maternal age there may be an increased likelihood that women who are over 35 years of age will experience perinatal grief as they are at higher risk of adverse birth outcomes, including perinatal death (Cleary-Goldman et al., 2005). Assisted Reproductive Technology, such as In Vitro Fertilisation (IVF), has also become more readily available in recent years to assist otherwise infertile couples to achieve a pregnancy. There has been a 50% increase in usage of these procedures between 2004 and 2009 and they accounted for 4.1% of live births in Australia in 2010 (Li et al., 2012). Thus, most women using ART will experience 'failed cycles' when the implanted embryo does not develop in a viable pregnancy and this experience of loss may be similar, if not more distressing, than 'natural' miscarriages or stillbirths for these mothers (Cheung, Hoi-yan, & Hung-yu, 2013). Currently families in Australia have an average of 1.9 children

(Australian Bureau of Statistics, 2012) and the conception of a baby is typically a planned and wanted event. When such a pregnancy ends in the death of the baby the mother is likely to experience great distress. Overall these changes in maternal characteristics increase the likelihood of contemporary mothers experiencing fertility difficulties, birth complications and adverse outcomes.

3C. BARRIERS TO UNDERSTANDING PERINATAL GRIEF

There are many barriers to understanding perinatal grief some of which have been identified above and also include: inconsistent terminology; conflicting findings; use of outdated theories; and lack of evidence-based practice (Wright, 2011). Another barrier, and perhaps the source of the inconsistent terminology and conflicting findings, has been that the research into perinatal grief has emerged from several different professional perspectives, such as midwifery, social work and psychology all of which may have different foci of interest. The involvement of these health practitioners may occur at different points in the grief process of their clients, for example, midwives assist mothers during the pregnancy and birth process (Lang, Goulet, & Amsel, 2004). Social Workers often focus on some of the practicalities, such as arranging a funeral and referrals for support after leaving hospital (Sutan et al., 2010). Psychologists may be more interested in understanding the ways in which these mothers manifest their grief once back at home; how their grief is expressed over time; and how to determine

when and what type of professional support may be needed. They are interested in assessing whether the mothers need information, group support or therapy (Bennett, Litz, Maguen, & Ehrenreich, 2008).

One significant barrier is the overlap in symptoms between post-traumatic stress disorder, depression, anxiety and grief (Engelhard et al., 2001). This overlap may add to the difficulty for practitioners to correctly diagnose and treat women experiencing an intense, unremitting form of perinatal grief. However, the little research about post-traumatic stress following a perinatal death has found that 12.3% of parents bereaved in the perinatal period experienced chronic post-traumatic stress symptoms for up to two decades, regardless of the type of loss (Christiansen, Elklit, & Olf, 2013). Bereaved mothers who subsequently become pregnant have been found to continue to express depressive symptoms and anxiety during these pregnancies, 8/63 at a clinical level (Turton, Hughes, Evans, & Fainman, 2001). This may impact on their ability to adequately care for that child after they are born, as it has been found that these subsequent children may develop disorganized attachment patterns (Hughes et al., 2002).

3D. BARRIERS TO PROGRESS IN RESEARCH

Some of the barriers to progress in research into both acute and long-term perinatal grief have been:

- Lack of consensus about a definition for and features of perinatal grief
- Small sample sizes

- The use of a mixture of measurement instruments making comparisons between studies or replications of studies difficult to undertake (Toedter, Lasker, & Alhadeff, 1988)
- Lack of consistency in the length of time since loss between participants and its influence on their responses.

While researchers have attempted to identify which variables are most influential in predicting the likely outcome for any individual bereaved parent, lack of consensus has impeded the utility of these findings (Eberhard-Gran, Eskild, Tambs, Opjordsmoen, & Ove Samuelsen, 2001). Studies about perinatal grief have not yet clarified its fit with the criteria for complicated grief, nor the more recent definitions of dysfunctional grief, such as prolonged grief disorder or persistent complex bereavement disorder. This is surprising as some theorists (Rando, 1993; Raphael, 2006; Shear, 2012) have suggested that these parents are susceptible to developing complicated grief because of the nature of their loss. While these barriers have contributed to the paucity of consistent available evidence, there are a sufficient number of studies that some preliminary conclusions can be drawn with regard to basic questions about the experience of perinatal grief. This may then indicate those features of perinatal grief that warrant further research from a psychological perspective.

4. LITERATURE REVIEW FOR PERINATAL GRIEF

4A. INTRODUCTION

Quantitative studies about perinatal grief which had been published since 2000 were reviewed. This timeframe was chosen as the criteria for the experience of unremitting, acute grief which came to be known as 'complicated grief' was published in 2000 (Jacobs, Mazure, & Prigerson, 2000) and in 2001 a major review of perinatal grief had been published (Toedter et al., 2001). This review was conducted to identify the psychopathology that had been previously reported in perinatal grievers as well as to provide an opportunity to evaluate the results of these studies by comparing their findings so as to permit an examination of the common features or ongoing disagreement about these results. For example, the presence of other children born prior to the death of the baby in the family had previously been predicted to have a positive impact on maternal psychopathology (Kirkley-Best & Kellner, 1982). However, other earlier studies had shown that there was no effect (Laurell-Borulf, 1982) or that it had a negative impact (La-Roche et al., 1984). It was anticipated that the review for the present study would identify the latest findings on the psychopathology of mothers bereaved in the perinatal period and the variables which might predict better or worse outcomes for these mothers. The reviewed studies are summarized in Table 4.

4B. METHODS

4b i) Data Sources

The literature sources MEDLINE, PsychoINFO and CINAHL were searched. All relevant articles published between 2000 and 2013 were identified using the primary search terms perinatal grief, perinatal loss, perinatal bereavement, and the secondary terms treatment, intervention and therapy. Citations were collected from published reports for additional suitable studies.

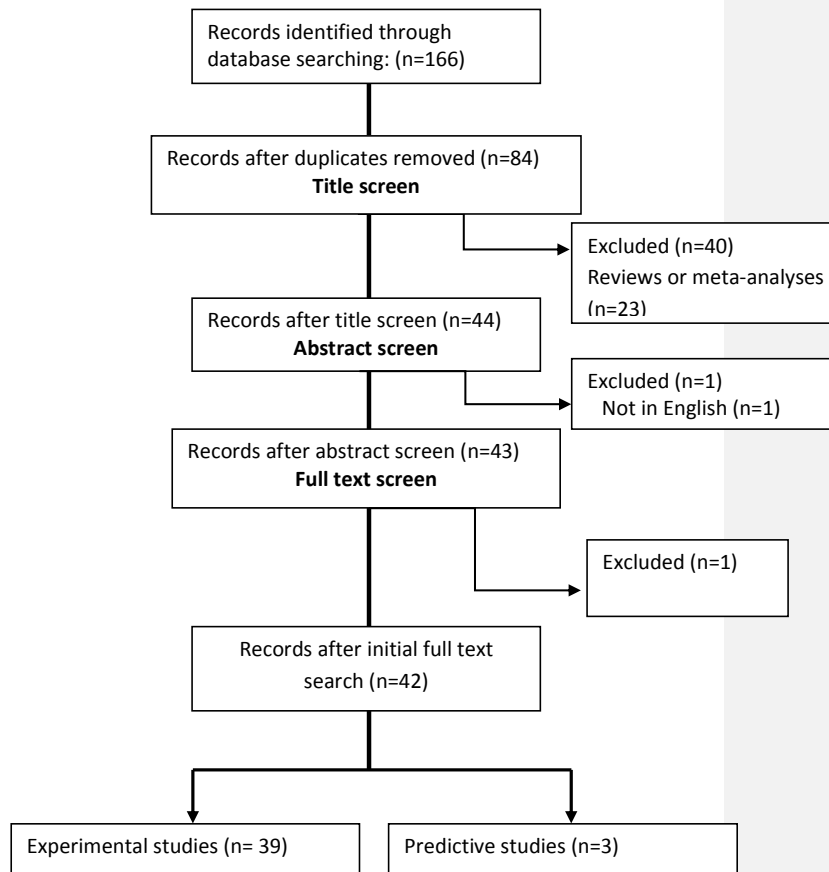
4b ii) Study selection

Inclusion criteria were: Quantitative; peer-reviewed; English; perinatal; singleton birth; published between 2000 and 2013. Studies that focused on multiples pregnancy or only bereaved fathers were excluded.

4b iii) Data Extraction

Full articles for those studies that met the inclusion criteria were collected. Characteristics of the reviewed studies varied. The combined number of citations from the initial search was 166. Once duplicates were removed 84 articles remained, of these, 42 were ineligible because they did not meet inclusion criteria, for example, 23 studies were reviews of topics such as miscarriage only (Brier, 2004), hardiness (Lang et al., 2001), multiples pregnancies (Lee, 2012; P. Swanson, Pearsall-Jones, & Hay, 2002) or meta-analyses, such as of the results for studies using the PGS-33 (Toedter et al., 2001), which left 42 articles to be reviewed.

Figure 1: Study Selection Flow Diagram Perinatal Grief



4C. PSYCHOLOGICAL SYMPTOMOLOGY

4c. i) Diagnosable Disorders

1. **Depression:** Eight of these studies examined depression associated with a perinatal death. In all eight studies there was evidence that depression is associated with perinatal grief. It was also reported in one study that perinatally bereaved mothers experienced depressive symptoms similar to women in a psychiatric outpatient sample (Bennett et al., 2008) and another found 28% experienced depression with 8% expressing both depression and anxiety (Rousset, Brulfert, Sejourne, Goutaudier, & Chabrol, 2011). The factors that were found to be predictive of higher levels of depressive symptoms were: recency of the loss (Barr & Cacciatore, 2008; Bennett et al., 2008; Cowchock, Lasker, Toedter, Skumanich, & Koenig, 2010); prior mental health problems (Mann, McKeown, Bacon, Vesselinov, & Bush, 2008); lower maternal age (Elklit & Bjork Gudmundsdottir, 2006); lack of time mothers spent with the baby (Surkan, Radestad, Cnattingius, Steineck, & Dickman, 2008); use of assisted reproductive technologies (Cheung et al., 2013); subsequent pregnancy (Armstrong, Hutti, & Myers, 2009); shorter length of gestation (Armstrong et al., 2009); recurrent pre-natal losses (Blackmore et al., 2011); presence of other children, lack of social support and use of maladaptive coping style (Engler & Lasker, 2000).
2. **Anxiety:** The results for anxiety were also quite mixed. Elevated symptoms of anxiety were found in participants in 10 studies with

only one indicating that 7% had a diagnosable anxiety disorder (Buchi et al., 2009) but in another study between 20% and 33% were found to have significant level of symptoms (Rousset et al., 2011). There was also particular evidence of increased anxiety during subsequent pregnancies (Armstrong et al., 2009; Barr & Cacciatore, 2008; Blackmore et al., 2011; Conway & Russell, 2000; Tsartsara & Johnson, 2006). The factors which were found to be predictive for heightened anxiety in these mothers were: lack of social support and maladaptive coping (Engler & Lasker, 2000); presence of other children (Bennett et al., 2008) but not the birth of a healthy baby (Blackmore et al., 2011); use of artificial reproductive technologies (Cheung et al., 2013); recency of the loss (Barr & Cacciatore, 2008); and experiencing recurrent losses (Ademyemi et al., 2008; Blackmore et al., 2011; Tsartsara & Johnson, 2006). These results do not provide any clarity about the experience of anxiety for subsequently pregnant bereaved mothers. They may also fail to account for the anxiety that may be experienced by those mothers who have not achieved a subsequent pregnancy as they may be too afraid to try to conceive again. Also the anxiety of those mothers who have been unable to conceive another baby has not been able to be identified in these studies.

3. **PTSD:** Ten studies assessed the post-traumatic symptoms of these parents and found elevated scores but no agreement on case level, prevalence, predictors, co-morbidity or the length of time that symptoms persist. The results for PTSD as a diagnosable disorder

ranged from 34% (Rousset et al., 2011); 4 - 25% (Engelhard et al., 2001); 12.3 (Christiansen et al., 2013); 12.5 (Forray et al., 2009) and 3.3% (Bennett et al., 2008; Christiansen et al., 2013). Heightened symptomology of PTSD was found in 47.5% of participants at 10 days post-loss to 2.6% 2 years post-loss (Armstrong et al., 2009); from 30% immediately afterwards to 18% at 2 years after a termination (Broen, Moum, Bodtker, & Ekeberg, 2004); and from 6% (Cowchock et al., 2010) to 20% during a subsequent pregnancy (Cheung et al., 2013).

The factors that have been found to be predictive of a worse experience of PTSD were: less time since the loss (Elklit & Bjork Gudmundsdottir, 2006); shorter gestational length (Christiansen et al., 2013; Engelhard et al., 2001); not seeing/holding baby (Bennett et al., 2008); termination rather than spontaneous miscarriage (Rousset et al., 2011); recurrent miscarriage (Serrano & Lima, 2006); and subsequent pregnancy with earlier conception (Turton et al., 2001). However, others have found contradictory results, such as that the type of loss is not predictive (Christiansen et al., 2013). While only one study found that the presence of other children was protective (Bennett et al., 2008).

4. **Perinatal Grief:** As mentioned previously the Perinatal Grief Scale-33 (PGS-33) (Potvin et al., 1989) was developed to measure the grief experienced by parents bereaved through a pregnancy-related loss. While 24 of the reviewed studies employed the PGS-33, there was not

consistent reporting of results for this instrument. Researchers found elevated rates with up to 30% of participants expressing a diagnosable disorder (Bennett et al., 2008). There were many factors that were found to be predictive of heightened perinatal grief, they included: recency of the loss (Barr & Cacciatore, 2007; Bennett et al., 2008; Elklit & Bjork Gudmundsdottir, 2006; Lang et al., 2004); post-bereavement infertility (Barr, 2006); personality proneness to shame and guilt especially in men (Barr, 2004); subsequent pregnancy especially for the fathers more than the mothers (Barr, 2006); type of loss (Burgoine et al., 2005); low income (Kanachanapust, Thitadilok, & Singhakan, 2009); loss of a male baby (Elklit & Bjork Gudmundsdottir, 2006); lower maternal age (Mann et al., 2008); lack of hardiness (Lang et al., 2004). However the presence of other children and seeing/holding the baby (Bennett et al., 2008); and emotional focused coping and perceived support (Engler & Lasker, 2000) were found to be protective.

5. **Complicated Grief:** One study which measured complicated grief using the Inventory of Complicated Grief (Prigerson et al, 1995) (ICG), an instrument which was developed to assess maladaptive symptoms of loss such as, preoccupation with thoughts of the deceased, yearning for the deceased, disbelief about the death, being stunned by the death and not being able to accept the death. As they found only 1/91 participants scored in the clinical range, they used results for the PGS-33 subscales to signify “complicated grief” (Bennett et al., 2008). In

spite of the use of the term 'complicated grief' to describe the experience of these parents, there is also a paucity of evidence to support the notion that the elements - underlying the difficulty coping or despair subscales of the PGS-33 are the same as those for complicated grief, as identified by other instruments, such as the ICG-r. The recognised meaning of the term complicated grief has been defined as, "a unidimensional symptom cluster comprised of symptoms of separation distress (i.e. yearning for the deceased, excessive loneliness) and traumatic distress (i.e. feelings of disbelief, a fragmented sense of security and trust) (Latham & Prigerson, 2004, p. 351). However, some features of perinatal grief which are also features of complicated grief, have been identified in some of these bereaved parents including: numbness, disorientation, yearning and despair (Uren & Wastell, 2002). It appears from the lack of comparison studies that further research is warranted into the experience of clinically significant levels of symptoms of complicated grief, as measured by versions of the ICG, in perinatally bereaved parents.

4c. ii) Predictive factors

The reviewed studies assessed a variety of factors to identify the ability of them to predict psychopathology in these parents, including:

- i) **Other children:** The presence of other children was assessed in one study where it was positively correlated with lower levels of symptoms (Bennett et al., 2008);

- ii) **Social support:** Social support was examined in two studies with both finding an important relationship between it and levels of grief. One found lower levels of social support were associated with higher symptom levels (Turton et al., 2001); and the other, that a positive experience of social support was protective for complicated grief and post-traumatic stress but not for depression and anxiety (Bennett et al., 2008);
- iii) **Religious/Spiritual beliefs:** The three studies that investigated the impact of religious/spiritual beliefs on the grief experience of the mother had differing results. They found a positive relationship between religious participation and lower grief scores, which may have been from the sense of support received through participating in religious events after the death of the baby (Mann et al., 2008); greater maternal grief was predicted by higher scores for negative religious coping, which is when having a religious/spiritual belief can intensify the experience of grief (Cowchock et al., 2010); the grief of those who experienced an intense struggle about their religious/spiritual beliefs in the first year after the death of their baby was exacerbated by this struggle; and there was a significant negative correlation between scores for religious/spiritual beliefs and PGS-33 scores (Cowchock et al., 2011). Taken together these results indicated that

religious/spiritual beliefs were not always helpful in coping with the loss.

- iv) **Holding/Seeing the baby:** There were seven studies that included results about the impact holding and/or seeing the deceased baby, with a high level of disagreement between researchers about this practice. Only two of these studies found that seeing and/or holding the baby had a negative impact on bereaved mothers (Turton, Evans, & Hughes, 2009; Turton et al., 2001) but Spanish speaking mothers who had seen/held their baby had higher scores on the active grief subscale of the PGS-33 than those who did not (Capitulo, Ramirez, Grigoroff-Aponte, & Vahey, 2010). Contrary to these results the other studies found that it was those parents whose baby was less than 20 weeks gestation or 500 grams weight who had the most difficulty with this practice (Saflund & Wredling, 2006); that seeing and/or holding the baby was not correlated with negative outcome variables (Bennett et al., 2008); that satisfaction with the amount of time spent with the baby, not just seeing/holding the baby, was a significant variable for depressive symptoms in bereaved mothers, with a higher degree of satisfaction being related to lower levels of distress (Surkan et al., 2008); that the majority of parents had wanted to see and/or hold their babies, did not regret doing so, and

Table 4.
Summary of reviewed studies.

	Authors	Year	Instrument	Subjects	Time period	Aims	Anxiety	Depression	PTSD	Grief	Saw /Held Baby
1.	Adeyemi, Mosaku, Ajenifura, Fatoye, Makinde and Ola	2008	EPDS HADS	n=54 controls n=54	1 month Post loss	Identify variables associated with depressive symptoms	X	X			
2.	Armstrong	2009	IES CES-D STAI MPAQ	N=36 couples	3 rd trimester 3months 8 months	Evaluate parents distress during subsequent pregnancy	X	X	X		
3.	Barr and Cacciatore	2007	PGS-33 DES IJS PFQ-2	N=441	1month & 13 months	Examine envy, jealousy, shame and guilt in relation to maternal, perinatal grief				X	
4.	Barr and Cacciatore	2008	PGS-33 MFDS	N=400		Examine fear of death and maternal, perinatal grief				X	
5.	Barr	2004	PGS-33 TOSCA-2 PFQ-2 GHQ	n=158 n=149	1month & 13 months	Assess guilt , shame and perinatal grief				X	
6.	Barr	2006	PGS-33	N=63 couples	1month & 13 months	Assess perinatal grief in subsequent pregnancy				X	
7.	Barr	2012	PGS-33 PFQ-2 TOSCA-2 IGQ-67	N=63 couples	1month & 13 months	Assess negative self-conscious emotions and perinatal grief				X	
8.	Bennett, Litz, Maguen and Enrenreich	2008	PGS-33	N=91		Identify predictors and mental health outcomes of mothers following a perinatal death	X	X	X	X	X

Authors	Year	Instrument	Subjects	Time period	Aims	Anxiety	Depression	PTSD	Grief	Saw/Held Baby
9. Blackmore,Cote-Arsenault, Tang, Clover, Evans, Golding and O'Connor	2011	EPDS	N= 13133 women	2 nd & 3 rd trimester 2, 8, 21 & 33 months Post birth	Identify predictors for depression and anxiety after pregnancy subsequent to a perinatal death	X	X			
10. Buchi, Morgeli, Schnyder, Jenewein, Glaser, Fauchere, Bucher and Sensky	2009	HADS MTS PRISM PGTI	N=22 couples	2 to 6 years post-loss	Assess concordant/discordant perinatal grief in couples		X	X	X	
11. Burgoine, Van Kirk, Romm, Edelman, Jacobson and Jensen	2004	EPDS PGS-33	N=49 women	12 months post- termination	Compare perinatal grief from medical and surgical terminations			X	X	
12. Broen, Moum, Bodtker and Ekeberg	2013	HTQ RAAS CSQ CSS	N=120 women	10 days, 6 months and 2 years post-loss	Compare trauma of miscarriage with induced abortion			X		
13. Christiansen, Elklit and Olf	2013	HTQ RAAS CSQ CSS	N=634 Men and women	Up to 18 years	Assess PTSD in perinatally bereaved parents			X		
14. Cacciatore, Radsted and Froen	2008	HSC	N=286	Up to or more than 3 years	Assess effect of seeing/holding baby on depression and anxiety in pregnancy subsequent to a perinatal death	X	X			X
15. Capitulo, Ramirez, Grigoroff-Aponte and Vahey	2010	PGS-33	n=50 n=40 controls	Within past year	Validate the Spanish version of PGS-33 and assess symptoms of perinatal grief in Spanish speaking mothers				X	
16. Conway and Russell	2000	PGS-33	n=39 women n= 32 partners	5 to 16 weeks post-loss	Investigate the perinatal grief response of women and their partners after miscarriage					
17. Cheung, Hoi-yan, and Hung-yu,	2013	GHQ-12 IES-r	N=150	Up to 2 years post- loss	Compare perinatal grief from losses after natural and IVF conception			X	X	
18. Cowchock, Lasker, Toedter, Skumanich and Koenig	2010	PGS-33	N=103 women	4-6 weeks 1-2 years	Assess impact of religious beliefs on course and severity of grief			X		

Authors	Year	Instrument	Subjects	Time period	Aims	Anxiety	Depression	PTSD	Grief	Saw /held Baby
19. Cowchock, Ellstad, Meador, Koenig, Hooten and Swamy	2011	PGS-33 IES DDI GAD-7 IR	N=15		Examine religious beliefs to aid coping with perinatal bereavement			X	X	
20. Elklit and Gudmundsdottir	2006	PGS-33 HTQ TSC	N=566 Couples	4-6 weeks 1-2 years	Contrast the grief from perinatal and postnatal losses			X	X	
21. Engelhard, van der Hout and Arntz	2001	PTSS-SR BDI SCID	n=113 women	1 month and 4 months	Examine PTSD after pregnancy loss			X		
22. Engler and Lasker	2000	PGS-33 WOC-R PRQ-85 RSQ	N=75 women	Up to a year post- loss	Assess predictors for perinatal grief		X		X	
23. Forray, Mayes, Magriples and Epperson	2009	CAPS SCID	n=56 women n=20 controls	Not stated	Examine PTSD in pregnancy subsequent to a perinatal death			X		
24. Franche	2001	PGS-33	N=60 Pregnant women	10 to 19 weeks pregnant	Assess predictors of perinatal grief in subsequent pregnancies					X
25. Gaudet	2010	PGS-33	n=96 subsequent pregnant		Assess perinatal grief , anxiety and depression during subsequent pregnancy	X	X			X
26. Hughes, Turton, Hopper and Evans	2002	EPDS BDI PTSD-1	N=125 women	1 year post- loss	Assess depression, anxiety, PTSD of mothers during subsequent pregnancy who had held stillborn baby	X	X			X
27. Kanchanaputit, Thitadilok and Singhaka	2009	PGS-33	N=289 women	1-2 days post-loss	Assess maternal, perinatal grief post-termination					X
28. Lang, Goulet and Amsel	2004	PGS-33 EMSS FACE-II LGHS	n=110 couples	2 months, 6 months and 13	Examine how hardiness, social support and situational appraisal impact on perinatal grief					X

Authors	Year	Instrument	Subjects	Time period	Aims	Anxiety	Depression	PTSD	Grief	Saw/Held Baby
29. Mann, McKeown, Bacon, Vesselinov and Bush	2008	EPDS HADS PBGS DES DUREL	N=374	Up to 12 months	Examine antenatal predictors for perinatal grief		X		X	
30. Nazare, Fonseca and Canavarro	2012	PGS-33	N=31 couples	1 and 6 months	Assess couple relationship following termination of pregnancy				X	
31. Obi, Onah and Okafor	2008	ZSRDS	n=202 Nigerian women	1 year period	Assess depression and coping strategies in Nigerian women who have experienced a miscarriage		X			
32. Rich	2000	PGS-33	n=249 women n=114 men		Examine Impact of post-pregnancy loss services on grief to identify predictors				X	
33. Rousset, Brulfert, Sejourne, Goutandir and Charbol	2011	HADS IES-r MSPSS PDEQ PEL PGS-33	N=86	Hours and 6 months post-loss	Compared PTSD and psychological distress from medical and surgical abortions	X	X	X	X	
34. Saflund and Wredling	2006	WBQ-12	N=22 couples	3 months post-loss	Assess impact of hospital care such as seeing/holding their baby on perinatal grief				X	X
35. Serrano and Lima	2006	PGS-33 IRS IES PQ	N=30 Couples	At least 3 months post-loss	Assess couples intensity of perinatal grief after recurrent miscarriages				X	
36. Surkan, Radestad Cnattignius, Steineck and Dickman	2008	CES-D	N=314	3 years post-loss	Assess PTSD after termination of pregnancy			X		
37. Sutan, Amin, Ariffin, Teng, Kamal and Rusli	2010	EPDS	N=62	From 6 weeks to 12 months post-loss	Evaluate psychosocial impact of perinatal loss in Malaysia		X			
38. Tsartsara and Johnson	2006	MAAS POQ	N=35 n=10 miscarriage	1 st and 3 rd trimesters	Examine impact of miscarriage on pregnancy-specific anxiety and maternal-fetal attachment	X				

Authors	Year	Instrument	Subjects	Time period	Aims	Anxiety	Depression	PTSD	Grief	Saw /held Baby
39. Turton, Hughes, Evans and Fainman	2001	BDI EPDS MAAS PTSD-I SST-1	N=54 stillbirth	3 rd trimester and 1 year post-loss	Assess incidence, correlates and predictors of PTSD in pregnancy subsequent to stillbirth			X		X
40. Turton, Hughes and Evans	2009	SCID PGS-33	N=53 Matched Pairs	6-8 years post-loss	Assess predictors of longer term psychological outcomes of stillbirth	X	X	X	X	X
41. Uren and Wastell	2002	AAS PGS-33 SOC SOS	N=109 women	2 months to 17 years post-loss	Assess attachment and meaning-making in perinatally bereaved mothers				X	
42. Yan, Tang and Chung	2008	PGS-33	N=314 Chinese women	1 week post-loss	Validate alternate three factor model of PGS-33				X	

Note: AAS, Adult Attachment Scale; APBS, Attachment in Perinatal Bereavement scale; BDI, Beck Depression Inventory; CAPS, Clinician Administered PTSD Scale; CES-D, Centre for Epidemiologic Studies – Depression Scale ; CSS, Crisis Support Scale; CSQ, Coping Style Questionnaire; DASS-21, Depression Anxiety and Stress, short version; DDI, Duke Depression Inventory ; DES, Dispositional Envy Scale; DSE, Daily Spiritual Experiences Scale; DUREL, Duke Religion Index; EPDS, Edinburgh Post-natal Depression Scale; EMSS, ENRICH Marital Satisfaction Scale; FACE-II, Family Adaptability and Cohesion Evaluation Scale; GAD-7, Generalized Anxiety Disorder -7; GHQ, General Health Questionnaire; HADS, Hospital Depression and Anxiety Scale; HSC, Hopkins Symptom Checklist; HTQ, Harvard Trauma Questionnaire; ICG, Inventory of Complicated Grief; IES, Impact of Events Scale; IES-r, Impact of Events Scale, revised version ;IGQ-67, Interpersonal Guilt Questionnaire-67; IJS, Interpersonal Jealousy Scale; IR, Hoge Scale for Intrinsic Religiosity; IRS, Intimate Relationships Scale; LGHS, Lang Goulet Hardiness Scale; MAAS, Maternal Antenatal Attachment Scale; MFDS, Multidimensional Fear of Death Scale; M/PAQ, Maternal/Paternal Attitudes Questionnaire; MSPSS, Multidimensional Scale of Perceived Social Support; MTS, Munchner Trauerskala, from the PGS; PBGS, Perinatal Bereavement Grief Scale ; PDEQ, Peritraumatic Dissociative experience Questionnaire; PEL, Peritraumatic Emotions List; PFQ-2, Personal Feelings Questionnaire , version 2; PGS-33, Perinatal Grief Scale, shortened version; POQ, Pregnancy Outcomes Questionnaire; PPQ, Perinatal Post-traumatic Stress Questionnaire modified version; PQ, Partnership Questionnaire; PRQ, Personal Resources Questionnaire 85, Part II; PTGI, Posttraumatic Growth Inventory; PTSD-1, posttraumatic stress interview ; PTSS-SR, Posttraumatic Symptom Scale, self-report version; PRISM, Pictorial Representation of Illness and Self; RAAS, Revised Adult Attachment Scale; RSQ, Relationships Satisfaction Questionnaire; SARS, Subjective Appraisal Rating Scale; SBI, Support Behaviours Inventory; SCID, Structured Clinical Interview for DSM-III R; SOC, Sense of Coherence ; SOS, Spiritual Orientation Scale from McIlwain's SOS (Beliefs); STAI, Spielberger State-Trait Anxiety Inventory; TGI, Texas Grief Inventory; TOSCA-2, Test of Self-Conscious Affect -2; TSC, Trauma Symptom Checklist; WBO, Well Being Questionnaire; WOC-R, Ways of Coping, Revised; ZSRDS, Zung Self-Rating Depression Scale.

had fewer symptoms of anxiety and depression than those who did not (Cacciatore, Radestad, & Froen, 2008).

- v) **Guilt:** Parents, especially mothers, tend to experience guilt after the death of a baby (Giles, 1970) as they may feel that they are to blame for the death. Three studies explored this concept and found that: it was more significant in explaining late grief (13 months post-loss), rather than early grief (1 and 4 months post-loss) (Barr, 2004, p. 493); personality proneness to problematic social emotions including envy, jealousy, shame and guilt, was positively correlated with maternal grief; but guilt, did not make a unique contributions to the variance in maternal grief over time (Barr & Cacciatore, 2007); and in terms of the relationship between negative self-conscious emotions of chronic shame and situational shame and survivor guilt and omnipotence guilt and grief in these parents, there were differences in guilt for mothers and fathers (Barr, 2012). It appears from these results about the impact of guilt on the grief of the parents that it warrants clarification through further research. It may be that guilt correlates with shame and envy but it is the way it is expressed depending upon the personality of the parent, combined with the circumstances of the death, which influences its impact on the intensity of perinatal grief over time.

vi) **Couples:** Thirteen studies included responses from both bereaved fathers and mothers. It was found that partners had higher scores for anxiety and depression on the PGS-33 than bereaved mothers (Conway & Russell, 2000); that for the fathers', unlike the mothers, active grief was not improved by a subsequent pregnancy (Barr, 2006); the grief of mothers and fathers differed up to 13 months after a perinatal death during a subsequent pregnancy with lower levels of active grief in the pregnant mothers than the fathers but not difficulty coping or despair; and the correlations between grief and self-conscious emotions were greater in the men than the women (Barr, 2012). It was also found that the mothers who had experienced recurrent miscarriages had much higher levels of clinically significant symptoms of perinatal grief than their partners on the PGS-33 (Serrano & Lima, 2006).

With PTSD no difference was found between mothers and fathers at baseline for IES scores, depressive symptoms and anxiety or post-traumatic stress symptom levels (Armstrong et al., 2009). The only effect found for gender was that mothers: expressed more intrusive thoughts than fathers; those experiencing more recent losses had higher scores than fathers; and that an earlier loss, that is when the baby has a lower gestational age, was also associated with greater maternal symptomology (Christiansen et al., 2013).

For concordance/discordance in grief between couples it was found that the enduring high scores for grief and the quality of the couple's communication about their grief influenced their level of concordance; post-traumatic growth; suffering and affective symptoms (Buchi et al., 2009). Couples concordant in their grief were also concordant in post-traumatic growth, suffering, depression and anxiety, while those discordant in grief were also more discordant in anxiety and depression. Also the women in the partnerships with the incongruent grief reactions had significantly higher scores than the other women or the men in both groups. With couples having a termination of pregnancy for fetal anomaly, mothers had more intense grief reactions than their partners (Nazare, Fonseca, & Canavarro, 2012). It was only the mother's perception of the level of marital intimacy within the couple which predicted congruent grief responses.

- vii) **Subsequent Pregnancy:** Four studies examined the impact of a subsequent pregnancy on maternal psychopathology. It was found: that there was an increase in anxiety during the subsequent pregnancies in two studies (Cacciatore, Radestad, & Froen, 2008; Conway & Russell, 2000); a subsequent pregnancy may eventually lead to a decrease in depression and grief (Turton et al., 2001); and high levels of anxiety and

depressive symptoms in a subsequent pregnancy persist even after a successful, subsequent birth (Blackmore et al., 2011).

The findings indicate that women who experienced successful, subsequent pregnancies had lower levels of grief but an increase in anxiety than those who did not.

- viii) **Time Since Loss:** Three studies examined the impact of the duration of time since the loss on the mothers' grief with inconclusive results. Two studies found that grief diminished over time (Barr & Cacciatore, 2007; Lang et al., 2004), although they both only tracked the participants for 13 months after the death of their babies. However, this finding was only partially supported in the third study in which it was found that more time that had passed since the loss was significantly associated with reports of lower symptom levels for three of the dependent variables, complicated grief, post-traumatic stress and anxiety, but not depression (Bennett et al., 2008).

4D. MEASUREMENT INSTRUMENTS

Of the 42 studies identified, five measured depression using either the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) or the Hospital Anxiety and Depression Scale (HADS) (Snaith, 2003). In one study using the HADS within a month of the loss found 48.1% having scores ≥ 8 (Ademyemi et al., 2008) and in another study one year after the birth of a subsequent baby $M = 6.0$ (Hughes et al., 2002). A different

measurement instrument, the Centre for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977) was used in two studies. In one of these it was found that the scores for depressive symptoms differed depending on factors including: seeing/holding the baby; birth order of the baby; number of pregnancies; and lack of a subsequent pregnancy (Surkan, Radestad, Cnattingius, Steineck, & Dickman, 2008). The other study assessed the distress experienced during a subsequent pregnancy (Armstrong et al., 2009).

Another instrument, the Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden, & Sagovsky, 1987), which is regularly used by health professionals in Australia to identify post-natal depression in new mothers, was used in six studies with scores above clinical significance being identified in all six for these bereaved mothers. However, the different foci of these studies failed to provide clear evidence for the utility of this instrument for screening for depression in bereaved mothers. One study found higher levels of severity for bereaved mothers who lacked support from family and friends, with lower levels of severity for those bereaved mothers who had returned to work (Sutan et al., 2010). Another study, which used the data from the Avon Longitudinal Study of Parents and Children in the UK, investigated whether previous perinatal loss predicted depression and anxiety in subsequently pregnant women (Blackmore et al., 2011). Using a score of ≥ 12 as the cut-off to identify those experiencing major depression, they found there was not a significant difference in clinically significant scores for depression and anxiety related to the type of loss, either

miscarriage or stillbirth, but that the symptoms did not resolve completely and persisted even after the birth of a subsequent healthy baby. The other studies which employed this instrument examined a wide variety of experiences including: concordant/ discordant grief in couples (Buchi et al., 2009); distress after medical or surgical terminations (Burgoine et al., 2005); the impact of religious practices on symptoms (Mann et al., 2008); the impact of seeing/holding the baby on the mother during a subsequent pregnancy (Turton et al., 2001). These findings indicate that the distress of these mothers has been identified with this instrument but there is still no delineation of the appropriate clinical range for bereaved mothers.

Research has been undertaken to develop specific instruments to measure PTSD in mothers after childbirth, such as the Perinatal PTSD Questionnaire (PPQ) (DeMier, Hynan, Harris, & Maniello, 1996). However, there does not appear to have been any research into an instrument to measure bereavement-related PTSD in mothers whose babies have died. This lack of specific instruments means that researchers are forced to use general instruments, such as the Harvard Trauma Questionnaire (HTQ) (Christiansen et al., 2013; Elklit & Bjork Gudmundsdottir, 2006). However, the former authors found that the distribution of HTQ scores for bereaved mothers was close to a normal distribution.

There are no reviewed studies that had used the Inventory of Complicated Grief - revised (Boelen, van den Bout, Keijser, & Hoijtink, 2003) to assess the grief of these parents. The original form of this instrument, the Inventory of Complicated Grief (Prigerson et al., 1995) was developed to

assess maladaptive symptoms of loss such as, preoccupation with thoughts of the deceased, yearning for the deceased, disbelief about the death, being stunned by the death and not being able to accept the death. It has been adjusted, modified and rearranged into several different versions. For a brief period it also had a change of title to Inventory of Traumatic Grief to reflect the developments in grief theory that were occurring in the late 1990s and early 2000s. However, after the 9/11 tragedy in USA, traumatic grief was again named complicated grief and the title of the inventory reverted to its earlier form.

5. PREDICTORS

Five studies examined factors considered predictive of worse psychopathology for perinatally bereaved mothers. It was found that perceived support and emotion-focused coping together could predict maternal grief in the year after the death of a baby (N = 75) (Engler & Lasker, 2000). Another study found that more intense emotional reactions in the acute phase and maladaptive coping; lower levels of social support; and previous perinatal losses were associated with higher levels of symptoms, but the presence of other children was associated with lower levels of symptoms on all categories except anxiety (Bennett et al., 2008).

Another group of researchers undertook a prospective cohort study to examine antenatal predictors. They found that depression scores were associated with baseline depression and a history of mental illness. In spite of the use of the term 'complicated grief' to describe the experience of these parents,

there is also a paucity of evidence to support the notion that the symptoms underlying the difficulty coping or despair subscales of the PGS-33 are the same as those for complicated grief, as identified by other instruments, such as the ICG-r. The depression scores were also significantly inversely associated with increasing age, and participation in organised religious practices (Mann et al., 2008). The fourth study identified the different predictors for grief during a subsequent pregnancy depending on gender for bereaved couples and examined marital adjustment; self-criticism; parental age; number of living children; gestational age; number of losses and the gap between the loss and a subsequent pregnancy. (Franche, 2001). They found that for the mothers active grief was significantly associated with high self-criticism and later losses, but that later losses and a longer gap between the loss and a subsequent pregnancy were significantly associated with difficulty coping and despair. They also found that for the fathers, active grief was significantly associated with self-criticism and later losses, while difficulty coping and despair were significantly associated with high self-criticism. A study into the predictors for PTSD in a subsequent pregnancy found that lack of support and shorter time until next pregnancy may be predictive of higher levels of PTS symptomology (Turton et al., 2001). In the long-term follow-up of these mothers it was found that PTSD symptoms persisted in those mothers previously assessed as being at case level. These mothers were also more likely to have experienced a relationship breakdown following the loss (Turton et al., 2009).

6. DISCUSSION

This review of quantitative studies into perinatal grief since 2000 has identified that while there has been renewed interest in understanding the experience of perinatal grief this century, the continued fragmented nature of perinatal grief research had resulted in little progress in improved understanding of the experience of these parents. Various types of psychopathological symptoms were identified including depression, anxiety, and post-traumatic stress. However, the results about the severity of these symptoms and changes in them overtime were inconclusive. It is interesting to note that in a review of perinatal grief research conducted over thirty years ago the psychopathology of these parents was found to be associated with: a lack of acknowledgement of the death; a lack of social support; and the impact of seeing/holding the baby (Kirkley-Best & Kellner, 1982). The influence of these factors continues to be debated and it is unfortunate that this work had also not been effectively built on in the intervening years. Similar results were also noted in another more recent review from a nursing perspective (Wright, 2011), with perinatally bereaved mothers having been shown to experience particular responses, such as yearning for their baby, being unable to accept the death and being stunned by the death immediately after the birth which may be indicators for the development of complicated grief. However, the way in which these symptoms vary between women; at different stages; or for different types of losses remains largely unknown. The impact of potential mediators or moderators, such as the presence of living children, is still not well understood. Research is needed that better

investigates the psychopathological symptoms associated with perinatal grief to improve understanding of the experiences of these women and how it varies over time.

It appears that while most of the instruments used in the reviewed studies did indicate heightened distress in these parents, more co-ordination between researchers about which are the most appropriate instruments to use or the development of valid and reliable instruments particularly for this population could better advance the understanding of perinatal grief. The recommendation that only bereavement specific instruments should be used with this population merits support (Wright, 2011). The author has suggested that consistently using the same instruments with different groups of bereaved parents will increase the likelihood that progress in knowledge and understanding will occur. O'Leary (2005) has also suggested that it is inappropriate to use instruments for measuring depression, anxiety or PTSD with bereaved parents instead of bereavement specific instruments as they will only identify these symptoms of grief rather than the severity of grief. This recommendation could be further reinforced with the use of specific instruments for perinatal grief as suggested by Bennett and colleagues (2008).

The consistent use of specialised perinatal instruments could allow for further analysis of results from differing studies to better identify the when the symptoms of perinatal grief, such as depression, anxiety and post-traumatic stress, becomes debilitating. More consistent evidence is needed about the variations over time, both for those parents who managed to

accommodate this experience as well as those who continue to struggle with its impact on their lives. However, to be able to confidently employ these instruments instead of the more general ones researchers need to compare results on these different instruments to be able to correctly identify how to assess which bereaved parents may need professional assistance depending on which instrument has been used.

Similarly for predictors there seem to be a number of studies that have investigated the duration of time since the loss; subsequent pregnancy; the presence of other children; social support; religious beliefs; guilt; and discordance between couples, with mixed results (Barr, 2004; Barr & Cacciatore, 2007; Engler & Lasker, 2000; Lang et al., 2004; Uren & Wastell, 2002). Assessing these factors in a more systematic way in the future might assist in improving the understanding of which variables might be predictive of an unremitting, intense experience of perinatal grief.

The lack of consistency in results creates uncertainty for the practitioners who are caring for these women. For example, guilt has been investigated in two studies where it has been shown to predict outcomes. However another study indicated that it was not predictive when other factors were considered. Similarly, it is a well replicated finding, in 5/5 studies, that when women become pregnant again, symptoms of depression appear to abate, whereas two of these studies indicate that there could be a simultaneous increase in anxiety. It may also be that the death of a baby during a pregnancy or after birth may also contribute to an increase in the

parent's concern about the health and/or safety of their other children, which may be expressed as increased anxiety on measurement instruments.

The impact of time since loss on the psychopathology experienced by these mothers also needs more consistent and rigorous study to determine whether their grief abates or develops into complicated/prolonged/persistent grief. The period of time since the loss varied from one day up to eighteen years in these studies with most of them being conducted within 13 months of the death which may not be long enough to assess prolonged grief disorder or persistent complex bereavement disorder in these mothers. Only six studies included data from parents that were more than two years post-loss by which time they may have been expected to have lower scores but these studies had not provided a follow-up of bereaved mothers to identify any customary variations in grief at different time points (Barr & Cacciatore, 2008; Broen et al., 2004; Buchi et al., 2009; Christiansen et al., 2013; Surkan et al., 2008; Turton et al., 2009; Uren & Wastell, 2002). This variation in the duration of time since loss has produced conflicting results and disagreements between researchers about its impact on the experience of perinatal grief. The reviewed studies provided no definitive method for determining if a perinatally bereaved parent is experiencing 'normal' or 'abnormal' perinatal grief which might have become complicated/prolonged/persistent. Such gaps in understanding the features of perinatal grief, has left these bereaved parents vulnerable to being misunderstood by their families, friends, colleagues and health practitioners. Closer analysis of the variations in psychopathology depending upon time since the loss by researchers may

assist health practitioners in identifying when it is appropriate to determine that a more complicated/unremitting experience of perinatal grief has occurred in these bereaved parents, so that they can receive appropriate treatment.

It may not be simply the passage of time since the loss but the higher possibility of achieving a successful subsequent pregnancy which may influence the reduction in the level of the depressive features in maternal grief over time (Boyle, Vance, Najman, & Thearle, 1996). However, this may not be the case for those mothers who already had children or those who continue to experience infertility since their loss, whether or not they used assisted reproductive technology. Those mothers who wanted a subsequent pregnancy and were unable to achieve one may continue to express higher symptomology than those mothers who did achieve a subsequent pregnancy or those who chose not to (Barr, 2006).

Recently it has also been suggested that complicated grief may not be a single concept but that there may be various forms of complicated grief (Rando et al., 2012). Perhaps perinatal grief may emerge in the future as one of these variations of complicated grief as some of the criteria for complicated grief, prolonged grief disorder and persistent complex bereavement disorder, such as experiencing similar symptoms to the deceased may be less suitable for this population. Practitioners need more certainty about how to identify which perinatally bereaved parents may be experiencing clinical levels of complicated grief. With the inclusion of Persistent Complex Bereavement Disorder in the DSM-5 (American

Psychiatric Association, 2013), as well as the movement to develop clinical practice guidelines, it is crucial that evidence is used as the basis for symptom management

Of the seven studies that investigated the effect of holding and/or seeing the baby, two indicated that women who held and/or saw their baby were more likely to have negative outcomes (Turton et al., 2009; Turton et al., 2001). However, these results were not supported by the other studies (Barr & Cacciatore, 2008; Bennett et al., 2008; Capitulo, Ramirez, Grigoroff-Aponte, & Vahey, 2010; Saflund & Wredling, 2006; Surkan et al., 2008). While these mixed findings are difficult to interpret, it does suggest that until the results of more focused research are available, caution should be used in recommendations about routine care. A wider view of both the short and longer-term implications of these practices would inform a more comprehensive understanding of perinatal grief.

6A. LIMITATIONS OF RESEARCH

Variations in the focus of studies have emerged from different disciplines including nursing, medicine, social work and psychology with differing designs, samples and methods of recruitment which may have contributed to the diversity of findings. More consistent, focused research might identify particular variations in psychopathology for perinatal grief. Further research may also be needed to identify the variations in the symptoms of grief experienced by different cultural groups.

The PGS-33 has been used extensively to measure perinatal grief (Toedter et al., 2001) and it was intended that it could be modified for other populations for both clinical and research purposes. Terms such as depression, anxiety, or complicated grief, are more commonly used in theories about other experiences of grief, and may be better understood by practitioners than those terms used for the subscales of this instrument, such as active grief, difficulty coping and despair. As some scholars argued that perinatal grief, where the death occurs at the beginning of life, is a unique form of grief with its own particular features which should only be measured with instruments designed for this population (Bennett, Litz, Lee, & Maguen, 2005), this instrument will only be useful if practitioners are able to understand how to meaningfully interpret the scores.

Other instruments used in the reviewed studies, such as Edinburgh Post-natal Depression Scale (Cox et al, 1987), have not yet been proven suitable to measure the psychopathology arising from the death of a baby. The use of this instrument by practitioners working with perinatally bereaved mothers may result in the diagnosis of and treatment for post-natal depression rather than perinatal grief as they may be exhibiting 'masked grief' (Worden, 1982). Also the paucity of research into treatment programs for perinatal grief means that if the bereaved mother were to receive treatment that has been proven useful for post-natal depression, it may not be suitable for perinatal grief. Psychological therapies, such as Cognitive Behaviour Therapy or Interpersonal Psychotherapy have been recommended for treating the mild to moderate symptoms of post-natal depression with

pharmacotherapy being recommended for the more severe cases (Austin et al., 2011). However, while there has not yet been a recommended treatment for perinatal grief, there is some emerging research in support of cognitive behaviour therapy (Bennett, Ehrenreich, Litz, Boisseau, & Barlow, 2012; Kersting, Kroker, Schlicht, Baust, & Wagner, 2011).

Other measures have been developed to provide information about particular grief experiences, such as complicated grief (Capitulo, 2005; Prigerson, Bierhals, Kasl, Reynolds, & et al., 1996) but they have not been commonly used with these bereaved mothers. More research is needed that employs instrument such as the Inventory of Complicated Grief-r with this population to ascertain its utility. With the inclusion of Persistent Complex Bereavement Disorder in DSM-5, as well as the movement to develop clinical practice guidelines, it is crucial that evidence is used as the basis for symptom management.

7. THE PRESENT STUDIES

To address the limitations of previous research about maternal bereavement in the perinatal period in Australia the present study sought to answer several questions. The first question addresses the question of what psychopathology, if any, perinatally bereaved mothers experience in the period of up to five years after the death of their baby. The second question seeks to identify the proportion of mothers bereaved in the perinatal period who experience complicated grief. The third question investigates the utility

of previously identified predictors for indicating which mothers are more likely to experience a complicated form of perinatal grief.

Study 1, which is outlined in **Chapter 2**, bereaved parents who were clients of SIDS and Kids ACT and Hunter were asked to complete a survey which included the Inventory of Complicated Grief - revised (Boelen et al., 2003) to assess the level of complicated grief within this population.

Having identified that complicated grief was present in these mothers there was concern that their symptoms could be mislabelled by their health practitioners who may be unaware of the psychological features of perinatal grief, which could be misidentified as depression, anxiety or post-traumatic stress. In *Study 2*, which is outlined in **Chapter 3**, other women who had accessed bereavement support services through nine SIDS and Kids offices around Australia were approached to complete a range of instruments to measure perinatal grief, depression, anxiety, stress, post-traumatic stress, complicated grief and provide some socio-demographic information. The aim of this study was to understand the experience of these women especially in relation to clinically significant levels of complicated grief and other psychopathologies, such as depression, anxiety, stress and bereavement-related post-traumatic stress.

The discussion in **Chapter 4** not only provides an overview of the outcomes of this research but also explores the strengths and limitations, implications and recommendations that flow from it.

Chapter 2

STUDY 1

1. OVERVIEW AND AIMS

In Australia over 2500 babies die within the perinatal period each year (Li et al., 2012). Researchers have regarded perinatal grief as different to the grief from other losses as death occurs at the beginning of life, is usually sudden, often unexplained and affects both parents simultaneously (Callahan et al., 1983). It has been suggested that these factors may increase the likelihood of complicated grief for these mothers (Rando, 1993; Shear, Boelen, & Neimeyer, 2011; Shear, Simon, et al., 2011) but there have not been sufficient studies that have assessed complicated grief in this population. The Inventory of Complicated Grief – revised (ICG-r) (Boelen et al., 2003), a frequently used measure with other samples (Neimeyer, Hogan, & Laurie, 2008), was used to determine clinically significant levels of complicated grief and to assess the utility of the ICG –r as an instrument for detecting complicated grief in this population. This version of the ICG was chosen as it was the most comprehensive and provided the largest range of domains in which these people may have experienced complications in their grief.

Even though the mechanisms that underlie complicated grief are not fully understood (Mancini, Prati, & Bonanno, 2011), some studies have indicated some factors which may be predictive of more severe and

prolonged grief for parents bereaved in the perinatal period. These factors include: younger maternal age; non-married status; lack of maternal education; lower employment status; less time since loss; other losses; the absence of other children and subsequent pregnancy (Barr & Cacciatore, 2008; Boyle et al., 1996; Engler & Lasker, 2000; Gaudet, 2010; Hughes & Riches, 2003; Janssen, Cuisinier, de Graauw, & Hoogduin, 1997; Lasker & Toedter, 2000; Shreffler, Hill, & Cacciatore, 2012). While there has been much debate about the criteria for complicated grief, including the duration of time after the death after which it may be diagnosed, in other populations of grievers (see Table 2), there has been a lack of studies focusing on the experience of complicated grief for perinatally bereaved mothers.

The aim of *Study1* was to assess:

1. frequency of clinically significant symptoms of complicated grief in mothers who were bereaved in the perinatal period;
2. impact of factors which have previously been identified to predict the risk of complicated grief for these mothers;
3. the ICG-r as an instrument to measure intense, unremitting grief for these mothers.

Based on previous literature it was hypothesised that:

1. Following the results of Bennett et al. (2008) only 1% of mothers who have been bereaved in the perinatal period would experience complicated grief as measured by the ICG-r

2. Previously identified factors including: maternal age, education and employment; type of loss; time since loss; and the absence of other children would predict grief outcomes
3. The ICG-r would be able to measure clinically significant levels of complicated grief in this population

2. METHOD

2A. PARTICIPANTS

Seven hundred and fifty bereaved parents who were clients of SIDS and Kids ACT, Hunter and NSW had been invited by letter or e-mail to complete the ICG-r to determine the level of clinically significant symptoms of complicated grief in this population when participating in a review of these services. SIDS and Kids is a federation of nine independent organisations in Australia which provide bereavement support to families whose baby or child died during pregnancy, birth, infancy and childhood. Data was obtained from a convenience sample of 154 of these bereaved parents, 33 were excluded as they did not meet the inclusion criteria for this study which were mothers who experienced a death in the perinatal period, which was defined as being during pregnancy, birth or within one year of birth, leaving a sample of 121. At the time of completing the survey these mothers were between six months and up to 27 years after the death of their baby.

Participants were excluded as follows:

- death of an older child (n = 23)
- male respondents (n = 10)

Participants completed demographic questions about their age; education; employment; household income; time since loss; other losses; and the presence of other children. A summary of the background and some loss related characteristics of the participants are provided in Table 5. There was insufficient information available to be able to compare the characteristics of responders to non-responders.

2B. PROCEDURE

Participants completed the survey either on-line through Survey Monkey or by a paper copy which was returned by Reply Paid postage and then entered into Survey Monkey by the researcher.

2C. COMPLICATED GRIEF MEASURE

To measure complicated grief in this study the Inventory of Complicated Grief – revised (ICG – r) (Boelen et al., 2003), which is the English form of the Dutch version of the inventory, was used as it was the most comprehensive version of this group of instruments which have between 9 (Prigerson et al., 1995) and 29 (Boelen et al., 2003) items; was expected to provide the greatest chance for identifying domains for complicated grief in this population; and would allow for more comparisons between this group and other groups of grievers. This 29-item inventory was designed to elicit information about the symptoms of complicated grief including yearning and preoccupation with the deceased, rather than normal grief. It has a five point scale where participants rate the frequency of their experience during the past month from 'never' to 'always' on some items and the intensity of their

experience from 'no sense of ___' to 'an overwhelming sense of ___', with scores from one to five on other items. It has a range from 29 to 145 and good psychometric properties with high internal consistency ($\alpha = 0.94$), concurrent validity ($r = .71$) and test-retest reliability from between 9 and 28 days (Boelen et al., 2003).

3. RESULTS

Initially it was planned to only include those mothers whose baby had died after 20 weeks gestation or within a month of birth ($n = 78$). However, preliminary analyses revealed that the clinically significant levels of symptoms for complicated grief were the same in both groups, those mothers who had experienced a stillbirth or neo-natal death ($n = 78$) and those mothers who had experienced a miscarriage or the death of their baby after the first month and up to the first year after their birth ($n = 43$). Therefore, it was decided to use the larger sample for the analysis including miscarriages ($N = 121$). There were not sufficient participants who had experienced other types of losses, however, to test other comparisons. Also following comments from some participants about three items being inappropriate for perinatal grief, items numbered 12. Identification, 15. Hearing the deceased and 16. Seeing the deceased, the hallucinatory items, were not included in the statistical analysis. It seemed to be acceptable to remove these items as they had been removed in a previous study with a different population (Boelen, 2010) and were considered to be weaker indicators of overall complicated grief severity (Boelen & Hoijsink, 2009). In removing these three items the

required score for clinical significance for this study has been adjusted from 90 to 81, with the total possible range being reduced from 29 - 145 to 26 - 130. To achieve results in the clinically significant level of this range, participants needed to score 3 or more per item.

The ICG-r scores were analysed as a continuous variable and the mothers with scores >81 were considered to be experiencing clinically significant levels of complicated grief. The Cronbach's Alpha for this sample ($\alpha = .950$) indicated a high internal consistency between the 26 included items.

3A. PREVALENCE OF COMPLICATED GRIEF

The mean total scores on the ICG-r were $M = 56.04$, $SD = 19.57$ range 26 - 115 with 12.5% ($N = 121$) of mothers having ICG-r scores of >81. The rate when adjusted for time since loss of five years or less (Bennett et al., 2008) was almost identical at 12.2%. Finally the data was analysed to fit the duration criteria for persistent complex bereavement disorder by excluding those who were within one year of their loss ($n = 15$), which resulted in the rate of participants scoring in the clinical range reducing slightly to 11.7%. The two items for which the average score for all participants was more than 3 were: item 5. Yearning and item 26. Impairment, which were consistent with criteria for complicated grief (see Table 2).

Commented [MM1]: Removed the term 'symptoms'

Table 5.
Study 1 Demographic and loss-related characteristics

N = 121	Number	%
Age:	Range: 23 – 52 years	Average: 35.11 years
Marital Status:		
Single	2	1
Married/de Facto	114	92
Separated/divorced	5	7
Nationality:		
Australian -		
- Indigenous	2	1
-Non-Indigenous	111	92
Other	8	7
Education:		
≤ 10 years	14	12
Completed school	13	11
Trade qualification	22	18
University degree	72	59
Employment status:		
Maternity leave/Home duties	48	40
Part-time work	44	36
Full-time work	14	12
Combined family income:		
Up to \$29,999	6	5
Up to \$49,999	12	10
Up to \$74,999	20	16
Over \$75,000	77	64
Time since loss:	Range: 6 m –27 y	Average: 3.6 years
Up to 6 months	0	0
6 – 12 months	14	12
1 – 2 years	22	18
2 – 3 years	32	25
3 – 4 years	12	10
4 – 5 years	18	15
5+ years	22	18

Table 5. (con't)
Study 1 Demographic and loss-related characteristics

	Number	%
Loss type:		
Miscarriage	6	12
Termination	15	14
Stillbirth	59	47
Neo-natal death	19	15
1 month to 1 year	13	11
Over 1 year	9	7
Other babies died:		
No	96	79
Yes, before	14	12
Yes, after	11	9
Living children:		
No	21	17
Yes, younger	31	26
Yes, older	28	23
Yes, both older and younger	41	34

3B. PREDICTORS OF COMPLICATED GRIEF

The relationship between complicated grief and other variables that had been hypothesised as predictors for risk of developing clinically significant symptoms of complicated grief was investigated.

An independent-samples t-test was performed to compare the ICG-r scores for mothers who had or who had not had a previous loss. There was no significant difference in scores for those who had not had a previous loss ($M = 56.95, SD = 18.744$) and those who had ($M = 52.60, SD = 18.826$) $t = 1.25, p = .22$. The size of the differences in the means was small (eta squared = .008) in following the guidelines for interpretation of this value as: .01 is small effect; .06 is a moderate effect; and .14 is a large effect (Cohen, 1988).

Another independent-samples t-test was undertaken to compare the ICG-r scores for mother who had or did not have any living children. There was a significant difference with higher mean scores for those mothers who had no living children ($M = 66.33, SD = 21.875$) than for those who had living children ($M = 53.86, SD = 17.391$), $t = 2.85; p = .01$. The size of these differences in the means was medium (eta squared = .06).

Calculations to determine whether scores on the ICG-r were related to loss type were not able to be performed as there were insufficient participants in the sub-groups other than stillbirth. For the stillbirth group ($n = 58$) independent-samples t-tests were undertaken. There was no significant difference between those who experienced a stillbirth ($M = 56.93, SD = 19.14$) than those who experienced other losses ($M = 55.21, SD = 18.52$) $t =$

.50; $p = .72$. The size of the differences in the means was small ($\eta^2 = .002$).

4. DISCUSSION

This study examined complicated grief in mothers bereaved in the perinatal period between six months and up to twenty seven years after the death of their baby who had been clients of SIDS and Kids NSW, ACT and Hunter. In line with the first hypothesis it was found that 12.5% of these bereaved mothers experienced clinically significant symptoms of complicated grief as measured by the ICG-r. This was an interesting result as the death of a child has been considered to increase the likelihood of the parents developing complicated grief (Rando, 1993; Raphael, 2006; Shear, 2012), and complicated grief has been found in 10-20% of griever from a range of other losses (Middleton et al., 1996). The results differed little for those more than five years since their loss indicating complicated grief may also be “chronic and unremitting” in this population (Shear, Simon, et al. (2011, p. 110) The cross-sectional nature of this study and number of participants in the convenience sample of clients of grief support services that completed the ICG-r reduces the possibility of identifying all the factors that underlie the relationship between complicated grief and perinatal grief or to generalise the results to all mothers or parents bereaved in the perinatal period.

There may be several explanations for the rate of complicated grief in this sample. Firstly, bereaved mothers who have sought support from SIDS and Kids may have needed more assistance to process their grief and to

contain their symptoms of complicated grief. It may have also been that more mothers who were not functioning well were inclined to complete the survey. Other mothers who may have experienced post-traumatic growth since the death of their baby and thus, no longer expressed intense, unremitting symptomology (Buchi et al., 2009) may have also participated, which resulted in a figure at the lower end of the range for other populations of grievers.

Although contrary to the expectation of hypothesis two, no support was found for most of the variables which have been suggested as predictive for complicated grief, except the absence of living children, there is still a body of evidence supporting them. In this study as 93% of respondents were in a committed relationship, there were insufficient participants who were separated or divorced to provide significant results for any comparison to be made for this variable. Therefore more research is needed with more representative samples.

Increased maternal age has also been considered to be protective for risk of adverse outcomes as younger mothers may have less life experience with a lower capacity to manage distressing experiences such as grief. Although this was not found in this study as there were not enough younger mothers available to participate.

The occupational status of the mothers in this study may indicate an ability to re-engage with their usual activities after the death of their baby, with 36% undertaking part-time work and 12% working full-time. This may not be indicative of the capacity of all bereaved mothers, as it has been found

in one study that three months after the death all mothers had still not returned to work unlike their partners(Saflund & Wredling, 2006).

While there is still debate about the length of time that grief may impact on people's lives, it is generally agreed that the passage of time since the loss leads to the abatement of grief with the expression of acute grief usually remitting within the first year after the death, even in this population (Cuisinier, Janssen, De Graauw, Bakker, & Hoogduin, 1996; Janssen et al., 1997; Turton et al., 2001). However, even when only those mothers who were more than one year from their loss were included, 11.7% still scored in the clinical range on the ICG-r which was much higher than the reported prevalence for persistent complex bereavement disorder of 2.4 to 4.8% (Fujisawa et al., 2010; Kersting et al., 2011) as cited in DSM-5 (American Psychiatric Association, 2013).

Mothers who have experienced other infant losses may also be less able to manage intense grief symptoms or these symptoms may persist chronically as these mothers may have increasing anxiety about ever having a live baby (Vance, Najman, Thearle, Embleton, Foster, et al., 1995). They may also blame themselves for these losses with a sense that their body has failed them (Côté-Arsenault & Mahlangu, 1999). Also, during subsequent pregnancies these mothers are more likely to be anxious as they are more aware of the potential for loss to occur (Côté-Arsenault & Bidlack, 2001; Turton, Hughes, Fonagy, & Fainman, 2004). While some mothers may find the presence of living children assists them in managing their grief (Toedter et al., 1988) for others also having to support the siblings after the death may be

more emotionally distressing (Lannen et al., 2008). However, the presence of other children has been found by some researchers to have had no impact on the grief of the parents (K. Swanson, Connor, Jolley, Pettinato, & Wang, 2007).

Hypothesis three was not proven or disproven as the ICG-r identified 12.5% of these mothers as experiencing clinically significant levels of symptoms of complicated grief which was higher than for Bennett et al. (2008). While the result was consistent with rates of between 10% and 20% in other populations of grievers using this instrument (Middleton et al., 1996), it is still lower than estimated by other instruments, such as the Perinatal Grief Scale – 33 (PGS – 33) (Toedter et al., 2001) which had been designed for this population. It may be that while the ICG-r items are acceptable for assessing clinically significant symptoms of complicated grief in this population, it is not the most suitable instrument as it may not identify the specific features of perinatal grief (see Table 6).

Boelen and Hoijtink (2009, p. 103) have suggested that the way in which the ICG-r is used to determine severity of complicated grief by summing the scores “implies that all items are uniformly informative at all levels of CG severity and the manner in which CG is expressed is equal across subgroups of mourners... (*however*) it is more likely that the strength of individual CG symptoms as indicators of overall CG severity varies among items, across CG severity and across subgroups of mourners”. This may be the case for perinatally bereaved mothers as participants found three items on the ICG-r inappropriate for perinatal grief and published results for this instrument with this population are lacking. It has also been suggested that

while some items, such as “difficulty imagining a fulfilling life without the deceased”, were considered to be weak indicators of the severity of complicated grief with elderly bereaved spouses (the majority of participants in studies about complicated grief), it may be that it would be a stronger indicator in other groups of grievers, such as younger bereaved parents (Boelen & Hoijsink, 2009, p. 102).

The predictive validity of variables associated with clinically significant symptoms of complicated grief in parents bereaved in the perinatal period including: maternal age; maternal education; household income; time since loss; and other losses was not supported (Barr & Cacciatore, 2008; Boyle et al., 1996; Engler & Lasker, 2000; Gaudet, 2010; Hughes & Riches, 2003; Janssen et al., 1997; Lasker & Toedter, 2000; Shreffler et al., 2012). The only variable that indicated a significant difference was the presence of living children. The only other predicted variable that had a positive trend was time since loss, although the results were not significant.

In the study by Bennett and colleagues (2008), while only 1/91 participants expressed a clinically significant level of complicated grief on the ICG, which is another version of this instrument, 30% expressed clinically significant scores on the PGS-33, which may better identify complicated grief in this sample, as the results for the PGS-33 are cumulatively indicative of higher levels of distress. However, it could also be the case that the PGS-33 over identifies clinically significant levels of symptoms in these bereaved mothers.

The PGS-33 seeks information from respondents about: grieving, being frightened, needing professional help, taking medicine for nerves, suicidality, as well as including items to check that respondents are comprehending them such as, 'It feels great to be alive' and 'I feel I have adjusted well to the loss' (which are reverse scored). It was designed to identify more intense or complex experiences of grief through a cumulative increase in scores which could also be used to identify in the early months after the loss those who may develop complicated grief. More research needs to be conducted to compare the ICG-r, or an agreed other version of this instrument, and other more specialised perinatal instruments, such as the PGS-33, to determine which instrument is more acceptable for identifying complicated grief in perinatally bereaved mothers.

4B. LIMITATIONS

There were several limitations of this study: firstly, the cross-sectional design with a non-representative sample of mothers bereaved in the perinatal period as they had been clients of grief support services, were mostly in committed relationships and had high socio-economic capacity. However, similar samples have been used in other studies, for example Bennett (2008) and Christiansen et al. (2013).

Also the length of time since loss was very broad, as it ranged from six months to over 27 years and averaged 3.3 years. This range of time since the loss may have altered the demographic profile as some of these mothers had more time to give birth to subsequent children since the death of their baby.

The other limitation was the lack of pilot testing of the ICG-r to determine the suitability of the instrument for this population.

4C. CONCLUSION

This study found that clinically significant symptoms of complicated grief were reported by up to 12.5% mothers bereaved in the perinatal period as measured by the ICG-r. This result indicated that levels of clinically significant complicated grief in this population was no more common than that documented for other losses, such as spousal death (Ott, Lueger, Kelber, & Prigerson, 2007). However, if the limitation of at least one year since the loss was used to satisfy the duration criteria for persistent complex bereavement disorder, 10.7% of these mothers had scores in the clinical range on the ICG-r which is four times higher than found in other populations of grievers (Fujisawa et al., 2010; Kersting et al., 2011). While many variables have been suggested as increasing the likelihood of complicated grief for a perinatal death, such as marital status; maternal age; maternal education; occupational status; household income; time since loss; other infant losses; and the presence of other children, except for the absence of any living children, the results in this study did not support these predictions. More focused research is needed so that the rates of and risks for developing complicated grief in this population can be better understood.

Chapter 3

STUDY 2

1. OVERVIEW AND AIMS

The results of *Study 1* which indicated that 12.5% of mothers bereaved in the perinatal period experienced complicated grief as measured by the ICG-r, are comparable to results of other losses which range from 10% to 20% (Middleton et al., 1998) but was higher than a study with this population (Bennett et al., 2008). Therefore, it appears that there is a need to compare the results for the ICG-r with those for other instruments measuring perinatal grief and other psychopathology experienced by these mothers, such as bereavement-related post-traumatic stress, anxiety, stress and depression to develop a better understanding of the psychopathological features of perinatal grief.

While several studies have indicated some predictive factors for complicated grief and other psychopathology including: age; marital status; education; occupational status; time since loss; other losses; other children and subsequent pregnancy (Barr & Cacciatore, 2008; Gaudet, 2010; Hughes & Riches, 2003; Janssen et al., 1997; Lasker & Toedter, 2000; Shreffler et al., 2012), these factors, except the presence of living children, were not supported in *Study 1*. *Study 2* has been designed to review these factors with a different group of bereaved mothers with a wider range of instruments to determine whether there is support for them.

1A. AIMS

The aim of *Study 2* was to address four questions. The first question enquired into the use of the ICG-r to measure complicated grief in comparison to other commonly used instruments with this population. The second question sought to confirm the proportion of mothers bereaved in the perinatal period who experience clinically significant symptoms of complicated grief as measured by the ICG-r. The third explored the psychopathology of perinatally bereaved mothers up to five years after the death of their baby. The fourth question sought to review the utility of previously identified predictors for indicating which mothers are more likely to experience clinically significant levels of symptoms of a complicated form of perinatal grief.

From the previous literature it was hypothesised that:

1. The ICG- r would be able to measure symptoms of complicated grief in this population.
2. Rates of clinically significant symptoms of complicated grief, as measured by the ICG-r, would be similar for these bereaved mothers than for other populations of griever
3. Higher levels of clinically significant symptoms of perinatal grief would be associated with higher levels of clinically significant symptoms of complicated grief, depression, anxiety, stress and PTSD
4. Factors predicted to increase the risk of higher levels of clinically significant symptoms of complicated grief would not be supported

2. METHOD

2A. PARTICIPANTS

A different convenience sample of 500 bereaved mothers who had been clients of a bereavement support service from nine locations around Australia during the previous five years were invited by an e-mail or posted letter to complete a survey. This survey included some demographic questions as well as several instruments to assess the perinatal grief, post-traumatic stress, depression, anxiety, stress and complicated grief that these mothers were experiencing.

Data was available from 149 of these bereaved parents. There was insufficient information available from the databases to determine if there were any differences in the characteristics of those bereaved mothers who completed the survey from those who did not. Inclusion criteria for this study were mothers who had experienced a death in the perinatal period, that is, had a baby who died during pregnancy or up to 12 months after birth, during the previous five years, yielding a sample of 146 mothers, as the responses from two men and one mother whose loss had been more than five years earlier, were excluded. At the time of completing the survey these mothers were between four months and up to 5 years after the death of their baby. Table 6 summarises the background and loss-related characteristics of this sample.

2B. PROCEDURE

This study had the approval of the Board of SIDS and Kids NSW and Victoria and the Human Research Ethics Committee of the University of Sydney (Appendix C). A letter of invitation and the survey, which included the measurement instruments, was e-mailed or posted out to the mothers (Appendix C). Participants either completed the on-line version through Lime Survey or returned a paper copy by Reply Paid postage and their responses were entered into Lime Survey by the researcher.

2C. MEASUREMENT INSTRUMENTS FOR PERINATAL GRIEF

2c i) Perinatal Grief Scale – 33(PGS-33)

Perinatal grief was measured by this 33-item instrument on which parents bereaved in the perinatal period rate the grief they have experienced during the previous month. It has good internal consistency (Cronbach's $\alpha = .95$). It also has three subscales of 11 items, Active Grief, Difficulty Coping and Despair which are designed to cumulatively indicate increasing levels of distress. It uses a five-point, Likert-type scale from 'strongly agree' to 'strongly disagree'. All items, except item 11 and item 33, are reversed and are scored from 1 to 5. The scores for the subscales have a range of 11-55 which can be summed for a total score with a range of 33-165. The clinical cut-off for this measure >91 emerged from the meta-analysis of 22 studies with almost 2,500 participants from four countries, as 95% of the time their total scores fell between 78 and 91 (Toedter et al., 2001). In the studies that they reviewed they calculated the subscales and the reported means were:

Active Grief = 34, Difficulty Coping = 30 and Despair = 27. The average subscale Cronbach's α = .92 for Active Grief, .89 for Difficulty Coping and .88 for Despair. The test-retest reliability resulted in correlations for the three factors and the total score which ranged from .59 to .66 with a significance level of $p < .001$ which supported the expectation that grief would decline over time as results $< .70$ are generally considered to be unstable (Toedter et al., 2001). For the sample in this study Cronbach's α = .939.

2D. MEASUREMENT INSTRUMENT FOR COMPLICATED GRIEF

2d i) Inventory of Complicated Grief – revised (ICG-r)

Complicated grief symptoms were assessed in **Study 2** by the same instrument that was used in **Study 1** so that the results from these two groups could be compared directly. It is the 29-item English version of the Dutch instrument which is designed to elicit information about the severity of symptoms of complicated grief including yearning and preoccupation with the deceased. It is rated on a five-point, Likert-type scale from 1 to 5. (A comparison of the items and the themes for the PGS-33 and the ICG-r has been shown in Table 15, Appendix C.) The clinical cut-off score is > 90 with a possible total score ranging from 29 to 145. It has also been shown to have concordance with a diagnostic interview (Holland et al., 2009). As some respondents to **Study 1** had given negative feedback about three items, items 12, 15 and 16, it was decided to also remove them from the questionnaire for **Study 2**. After removing these items the cut-off for clinically significant levels of symptoms in this group was adjusted from >90 to >81 and the range was

reduced from 29 - 145 to 26 - 130. For the sample in the present study Cronbach's $\alpha = .955$.

2E. MEASUREMENT INSTRUMENTS FOR POST-TRAUMATIC STRESS DISORDER

2e. i) Perinatal Post-Traumatic Stress Disorder Questionnaire - Modified (PPQ)

Post-traumatic stress symptoms were assessed by two instruments, firstly the Perinatal Post-traumatic Stress Disorder Questionnaire - Modified (PPQ) (J. Callahan, Borja, & Hynan, 2006) which is a 14-item measure designed to assess post-traumatic stress symptoms associated with the experience of childbirth, not particularly pregnancy loss or stillbirth. It was designed to measure the level of symptoms of distress that the mothers of premature and high-risk infants experienced at one month post-birth. The mothers in this study were asked to rate how they felt at one month after the birth of their baby. It includes items to measure intrusiveness or re-experiencing; avoidance behaviours; and hyperarousal or numbing. Unlike the original scale, the modified version is rated on a five-point, Likert-scale which is scored from 0 to 4. The total possible score ranges from 0 to 56 and the clinical cut off has been set at 19. It has been shown to have good internal consistency with Cronbach's $\alpha = 0.90$ and test-retest reliability $r = .92$. For the sample in the present study Cronbach's $\alpha = .858$.

2e. ii) Impact of Events Scale – revised

This instrument (Weiss & Marmar, 1996) assessed the post-traumatic stress symptoms that these mothers reported during the seven days prior to completing the survey. It includes subscales for avoidance, intrusiveness and hyperarousal related to an identified event, with the death of a baby during pregnancy, birth or up to one year after birth, as the named stressor. This instrument, which used 700 police officers and 300 comparison people to develop the norms, is a 22-item, five-point, Likert-type scale with options from 'not at all' to 'extremely' which are scored from 0 to 4, with total scores ranging from 0 to 88. Total scores of 33 or greater are considered to be an indicator of PTSD, as higher scores generally indicate greater distress which may need further professional evaluation. It has good reliability with the total score Cronbach's $\alpha = .94$. It has been designed to measure the degree of distress rather than the frequency of the symptoms. There are no recommended cut-off scores for clinically significant levels of symptoms for the subscales. The scale scores also have moderate to strong correlations with each other $r = 0.52$ to 0.87 . For the sample in the present study the Cronbach's $\alpha = .945$.

2F. INSTRUMENTS TO MEASURE DEPRESSION, ANXIETY AND STRESS

2f. i) Depression Anxiety and Stress Scale - 21 (DASS-21)

This scale was used to measure symptoms of depression, anxiety and stress (Lovibond & Lovibond, 1995). It is a 21-item scale which was based on the longer 42-item version. The short version has several benefits from the

longer one, such as fewer items, an improved factor structure, and smaller inter-factor correlations (Antony, Bieling, Cox, Enns, & Swinson, 1998; Clara, Cox, & Enns, 2001). The items are scored from 0 to 3 with options from 'Did not apply to me at all' to 'Applied to me very much or most of the time'. Scores on the DASS – 21 are doubled to give a summed total which ranges from 0 to 126. The DASS – D (depression) axis measures features that are considered to be specific to depression, such as, low positive affect. Scores on the DASS – A (anxiety) axis measure features proposed to be unique to anxiety, such as, physical hyper-arousal. Scores on the DASS – S (stress) axis measure features of both anxiety and depression, such as, tension or irritability.

It has been found to be an excellent instrument for measuring the symptoms of depression, anxiety, and stress in both clinical and non-clinical populations. The DASS-S scores have been found to be higher for both anxious and depressed respondents, whereas the DASS-D scores were only found to be elevated in depressed respondents. The reliability of the DASS-21 subscales were considered adequate and found to be: .88 for Depression, .82 for Anxiety, .90 for Stress, and .93 for the summed Total. It has good convergent and discriminant validity when compared with other instruments for depression and anxiety (Rhoades, 2011). For the sample in the present study: DASS Total Cronbach's $\alpha = .948$; DASS-D axis Cronbach's $\alpha = .923$; DASS-A axis Cronbach's $\alpha = .854$; and DASS – S axis Cronbach's $\alpha = .908$. For the purpose of this thesis the cut-off score for the level of clinically significant symptoms was set at >14 for Depression, >10 for Anxiety and >19 for Stress

which is the Moderate range or above in accordance with the recommendations in the manual (Lovibond & Lovibond, 1995).

2f. ii) Edinburgh Post-Natal Depression Scale (EPDS)

This instrument was also used to assess symptoms of depression that the women had experienced during the previous week. It is a 10-item, self-rating scale designed to screen women for depression following childbirth (Cox et al, 1987). It is increasingly being used to also screen for pre-natal morbidity in Australia. Each statement has four response options from 'Yes, quite a lot' to 'No, not at all', which are scored 0 to 3. Higher scores indicate greater depression. Scores are summed to give a result between 0 and 30. Total scores above 13 are considered to indicate depressive illness (Cox, 1987; Matthey, Henshaw, Elliott, & Barnett, 2006). It has good reliability Cronbach's $\alpha = 0.81$ and for the sample in the present study Cronbach's $\alpha = .898$.

2G. STATISTICAL ANALYSIS

Data analyses were performed using IBM Statistics for Windows SPSS Version 21 (IBM Corp, 2012). Descriptive statistics were used to assess levels of perinatal grief, depression, anxiety, stress, post-traumatic stress and complicated grief. T-tests were conducted to examine relationships between the means for those mothers who had clinically significant levels of the perinatal grief, depression, anxiety, stress, post-traumatic stress and complicated grief and those who did not. Multiple regression analyses were conducted with previously identified predictive factors including: maternal age; education; occupational status; type of loss; time since loss; other losses;

and having living children, to identify whether these variables were predictive of risk for developing clinically significant levels of complicated grief in this sample.

3. RESULTS

3A. PARTICIPANT CHARACTERISTICS

The sample of bereaved mothers who completed the survey consisted of 146 participants. The respondents were aged from 18 to 54 years with an average age of 35 years at the time of completing the survey. Of these 8 (5%) were in the 18-24 age group, 62 (43%) in the 25-34, 72 (49%) in the 35-44 and 4

Table 6.
Study 2 sample characteristics

N = 146	Number	%
Age:	Range: 18 – 54 years	Average: 35 years
18-24	8	5
25-34	62	43
35 – 44	72	49
45 -54	4	3
Marital Status:		
Single	4	3
Married/de Facto	141	96
Separated/divorced	1	1
Nationality:		
Australian		
-Indigenous	2	1
-Non -indigenous	118	81
Other	26	18
Education:		
≤ 10 years	2	1
Completed school	36	24
Trade qualification	33	23
University degree	76	52
Employment status:		
Maternity leave/Home duties	58	40
Part-time work	62	42
Full-time work	26	18
Time since loss:		
	Range:	Average:
	6 months – 5+ years	2 years
Up to 6 months	19	13
6 – 12 months	20	14
1 – 2 years	70	48
2 – 3 years	16	11
3 – 4 years	10	7
4 – 5 years	9	6
5+ years	2	1

Table 6. (con't)
Study 2 sample characteristics

	Number	%
Loss type:		
Miscarriage	17	12
Termination	20	14
Stillbirth	69	47
Neo-natal death	24	15
1 month to 1 year	16	11
Other babies died:		
No	100	69
Yes, before	24	16
Yes, after	22	15
Living children:		
No	35	24
Yes, younger	40	27
Yes, older	42	29
Yes, both older and younger	29	20

(3%) over 45. The majority (96%) had partners; were Australian (81%); and were highly qualified, with 52% having a university degree. Forty per cent were not in paid employment, 42% were working part-time and 18% full-time. The majority (46%) had experienced a stillbirth with the others having a miscarriage (12%), termination (14%), neo-natal death (18%) and the death of a baby up to 12 months of age (11%). Sixty nine per cent had not experienced a previous death of a baby; 16% had experienced the loss of a baby before this one; and 15% had also had another loss of a baby since the death of the baby they were referring to in this study. Twenty four per cent did not have other children; 27% only had younger children who were born after the death of their sibling; 29% only had older children who were born before their deceased sibling; and 20% had both younger and older children. This also indicated that 47% had had at least one successful, subsequent pregnancy (see Table 6). The characteristics of this sample were comparable to the participants in other published studies in terms of age, ethnicity, education level, socio-economic status and childlessness (Bennett et al., 2008; Elklit & Bjork Gudmundsdottir, 2006).

The results for the proportion of the respondents who scored in the clinical range on the instruments were: 51% (n = 75) perinatal grief; between 27% (n = 62) DASS-D and 43% (n = 39) EPDS for depression; between 28% (n = 40) IES-r to 79% (n = 115) PPQ for PTSD; 26% (n = 38) stress; 21% (n = 31) anxiety; and 18% (n = 27) complicated grief (see Table 7). These results suggest that when mothers reported clinically significant levels of perinatal

Table 7.
Respondent's results on all instruments

Symptom Measures	Total Scores n = 146		Below Cut-off			Above Cut-off			
	M	SD	M	SD	n	M	SD	n	%
Active Grief	37.4	8.1	28.0	13.0	44	41.6	5.2	102	
			30.0			70.0			
Difficulty Coping	29.5	9.7	20.1	5.0	68	37.1	5.3	78	
			46.6			53.4			
Despair	26.3	9.0	19.3	4.4	77	34.1	5.9	69	
			52.7			47.3			
PGS - 33	93.1	24.8	72.4	13.0	71	112.7	15.4	75	
			48.6			51.4			
ICG - r	63.9	21.4	54.9	14.5	101	92.6	7.8	27	
			69.2			18.5			
PPQ	29.3	11.7	12.9	4.2	29	33.3	9.1	115	
			20.0			80.0			
IES-r	25.0	18.5	15.1	9.1	100	49.3	12.8	40	
			68.5			25.6			
EPDS	11.4	6.2	7.0	3.4	84	17.3	3.4	6	
			57.5			42.5			
DASS - D axis	4.8	5.3	3.7	13.3	101	23.6	8.5	39	
			69.2			27.0			
DASS - A axis	3.1	4.0	2.3	5.9	109	18.8	7.9	31	
			74.7			20.0			
DASS - S axis	6.9	5.2	7.3	5.7	102	26.3	6.7	38	
			69.9			26.0			

grief symptoms, they also had heightened levels of other symptoms, such as depression, anxiety, stress, post-traumatic stress and complicated grief. The mean scores for those who scored below and above the clinical cut-off level on these instruments are shown above (see Table 7).

Independent samples t-tests were conducted to compare the scores on the measurement instruments for the identified predictive variables such as age and time since loss, for those who had clinically significant levels of distress on the PGS-33, DASS-D, DASS-A, DASS-S, EPDS, ICG-r, IES-r and PPQ, and those who did not (see Table 8). The guidelines for interpreting these values are : .01 is a small effect; .06 is a moderate effect and .14 is a large effect size (as proposed by Cohen (1988)). These results indicate that

Table 8.
Impact of Age on the mean scores above and below clinical cut-off

Instrument	Below cut-off		Above cut-off		t	p	Eta	Effect Size
	M	SD	M	SD				
ICG-r	2.39	.79	2.51	.60	.804	.352	.0028	Very small
PGS-33	2.47	.66	2.51	.63	-.376	.71	.00097	Very small
EPDS	2.47	.66	2.50	.61	.297	.79	.0006	Very small
DASS-D	2.41	.82	2.51	.57	-.730	.469	.003	Very small
DASS-A	2.50	.73	2.48	.63	.130	.897	.00011	Very small
DASS-S	2.39	.76	2.52	.60	-1.02	.31	.0142	Very small
IES-r	2.38	.74	2.52	.61	1.24	.22	.001	Very small
PPQ	2.51	.64	2.39	.67	.963	.34	.006	Very small

maternal age did not have an effect on the clinically significant levels of complicated grief, perinatal grief, depression, stress, anxiety or PTSD.

Independent samples t-tests were also conducted to assess the impact of time since loss on the levels of clinically significant symptoms that these mothers had reported (See Table 9). These results indicate that time since loss only had a small effect on the clinically significant levels of symptoms of

Table 9.
Impact of time since loss on mean scores above and below clinical cut-off

Instrument	Below cut-off		Above cut-off		t	p	Eta	Effect Size
	M	SD	M	SD				
ICG-r	2.79	1.76	3.94	1.61	-3.541	.001	.080	Moderate
PGS-33	3.12	1.52	4.27	1.70	-4.289	.000	.110	Moderate
Active Grief	3.32	1.59	4.49	1.69	-4.030	.000	.110	Moderate
Difficulty Coping	3.08	1.43	4.37	1.74	-4.845	.000	.139	Large
Despair	3.13	1.50	4.17	1.73	-3.843	.000	.093	Moderate
EPDS	3.10	1.70	4.11	1.59	-3.688	.000	.086	Moderate
DASS-D	3.23	1.88	3.84	1.61	-1.931	.055	.250	Very large
DASS-A	3.17	1.74	3.81	1.68	-1.858	.065	.023	Small
DASS-S	3.34	1.84	3.80	1.65	1.417	.159	.575	Very large
IES-r	2.88	1.80	3.96	1.57	-3.578	.000	.082	Moderate
PPQ	3.64	1.69	3.81	1.78	-.471	.638	.0015	Small

post-natal PTSD (as this measure related to the impact immediately after the birth) but was significant for symptoms of anxiety, complicated grief, perinatal grief, PTSD, depression and stress.

3B. CORRELATION

The relationships between scores in the clinical range on the ICG-r and the scores for the PGS-33, PPQ, EPDS, IES-r, DASS-D, DASS-A and DASS-S were investigated using Pearson’s product-moment correlation co-efficient.

Preliminary analyses were performed to ensure that there was no violation of the assumptions of normality, linearity and homoscedasticity. There were strong positive correlations between the variables with high scores on one

Table 10.
Correlations and descriptive statistics (N =146)

Variable	ICG-r	PGS-33	PPQ	IES-r	EPDS	DASS-D	DASS-A	DASS-S
1. Complicated Grief (ICG-r)	-							
2. Perinatal Grief (PGS-33)	.81*	-						
3. PTSD –post-natal (PPQ)	.60*	.58*	-					
4. PTSD - general (IES-r)	.75*	.69*	.48*	-				
5. Depression – Post-natal (EPDS)	.69*	.69*	.43*	.76*	-			
6. Depression (DASS-D)	.61*	.61*	.44*	.67*	.73*	-		
7. Anxiety (DASS-A)	.54*	.48*	.51*	.64*	.60*	.63*	-	
8. Stress (DASS-S)	.61*	.58*	.48*	.72*	.71*	.77*	.70*	-

Note: ICG-r, Inventory of Complicated Grief –revised Dutch version; PGS-33, Perinatal Grief Scale, shortened version; PPQ, Perinatal Post-traumatic stress Questionnaire modified version, IES-r, Impact of Events revised version; EPDS, Edinburgh Post-natal Depression Scale; DASS-D, Depression Anxiety and Stress 21 depression axis; DASS-A, Depression Anxiety and Stress 21 anxiety axis; DASS D, Depression Anxiety and Stress 21 stress axis.
*p<.01

variable being associated with high scores on the others. Outcomes have been summarised in Table 10.

3C. PREVALENCE OF POST-TRAUMATIC STRESS SYMPTOMS

Seventy nine per cent of the bereaved mothers scored in the clinical range for the PPQ with a summed total of ≥ 19 , their scores ranged from 2 to 52 with a mean score $M = 29.28$, $SD = 11.706$. However, only 28% scored in the clinical range for the IES-r with a summed total of ≥ 33 , where their scores ranged from 0 to 87 with a mean score $M = 25.76$, $SD = 18.261$. Thirty eight of these mothers (26%) were in the clinical range for both instruments. Only two mothers, both of whom had been bereaved less than six months, scored in the clinical range for the IES-r but not the PPQ. However, as the PPQ was designed to indicate the level of PTSD symptoms at one month post-loss it was understandable that psycho-pathology was identified in up to 86% of the bereaved mothers depending on the time since loss, the type of loss or the presence/absence of other children.

3D. PREVALENCE OF SYMPTOMS OF DEPRESSION

There were two instruments that measured depression the EPDS and the DASS-D axis. Forty three per cent of these mothers scored in the clinical range on the EPDS with a summed total score ≥ 13 . The scores ranged from 1 to 28, with a mean score $M = 11.39$, $SD = 6.161$. However, only 27% scored in the clinical range for depression on the DASS-D axis, with a score ≥ 14 . These scores ranged from 0 to 40 with a mean score $M = 9.46$, $SD = 10.523$.

3E. PREVALENCE OF SYMPTOMS OF ANXIETY

The scores on the DASS –A (anxiety) axis indicated that 21% of mothers expressed significant levels of anxiety. The scores ranged from 0 to 40 with a mean score $M = 5.95$, $SD = 7.966$.

3F. PREVALENCE OF SYMPTOMS OF STRESS

On the DASS – S (stress) axis 26% of these mothers had scores in the clinical range. The scores ranged from 0 to 40 with a mean total score $M = 12.89$, $SD = 10.419$.

3G. PREVALENCE OF COMPLICATED GRIEF

The ICG-r scores were analysed as a continuous variable, eligible mothers (as those whose loss had occurred in the previous 6 months were excluded) with a total ICG-r score of >81 were considered to be in the clinically significant range for symptoms of complicated grief. The mean total scores on the ICG-r was $M = 63.8$, $SD = 21.369$, with a range from 29 to 114 and 18.5% of the eligible mothers had clinically significant levels of symptoms. The two items for which the average score for all participants was more than 3 were: Item 5. Yearning; and Item 25. Changed View of the World.

As the PGS-33 had been designed to measure severe experiences of grief which may be considered to be 'complicated grief', the results on this instrument are worthy of comparison with those on the ICG – r. The results for the PGS – 33 in this study indicated that 51% of these mothers reported a clinically significant level of symptoms of a complicated form of perinatal grief with a total score > 91 , a range from 41 to 151 and a mean $M = 92.98$, SD

= 24.777. The statements on this scale that had a mean score of more than three were: 5. Need to talk about the baby; 6. Grieving for the baby; 7. Feeling frightened; 10. Miss the baby; 12. Finding memories of the baby painful; 13. Getting upset when thinking about the baby; 14 Crying when thinking about the baby; 24 Getting cross at people ; 25 Needing a counsellor; 28. Feeling apart and remote; and 31. Worry about the future.

If the 12 mothers who were within six months of the death of their baby were also excluded from the calculation for those who had clinically significant levels of symptoms on the PGS-33, as occurred for the ICG -r, the proportion would be reduced to 33.1%.

3H. PERSISTENT COMPLEX BEREAVEMENT DISORDER

The results for the levels of clinically significant symptoms for the mothers who were more than 12 months from their loss were of interest with the inclusion of persistent complex bereavement disorder in the DSM-5 (American Psychiatric Association, 2013)(see Table 2). When mothers who were within a year of their loss were also excluded from the calculations it was found that while there continued to be a decrease in distress in those mothers who were more than a year from the loss of their baby, over 10% of respondents still reported symptoms at clinically significant levels on all instruments. The results were: 10.7% complicated grief and 33.1% perinatal grief; with from 21% on DASS-D to 45 % on EPDS for depression; 24% post-traumatic stress; and 21% anxiety and 21% for stress.

3G. PREDICTORS OF COMPLICATED GRIEF

Multiple regression analyses were performed using the ICG-r and PGS-33 scores as the dependent variables to indicate how well the independent variables were able to predict clinically significant levels of complicated grief. The independent variables that were entered into the regression analyses were those variables that had been hypothesised as predictors for risk of clinically significant levels of symptoms of psychopathology and complicated grief, such as time since loss, education, occupational status, other losses or the presence/absence of living children. The results of the analyses of those variables are presented in Table 11 and Table 12.

In the first step Age and Time Since Loss were entered and explained 12.6% of the variance in the total scores on the ICG-r. Time Since Loss was significant. The addition of education, occupational status, other losses and the presence/absence of other children increased prediction to 15.6% of explained variance, which was only an additional 3% of the variance and was not a statistically significant contribution $p = .318$. The results of the ANOVA indicated that the model as a whole was not significant [$F(6, 133), p = 4.091, n.s.$].

Table 11.
Multiple regression analysis for clinically significant symptoms of
Complicated Grief (ICG-r)

	Beta	T	Significance
Age	-.100	-1.196	.234
Time since loss	-.337	-3.649	.000
Occupational status	-.080	-.965	.279
Other losses	.096	1.193	.336
Living Children	.012	-.128	.898
Education	-.127	-1.534	.127
r square	15.6%		

The results for the PGS -33 were similar to those for the ICG-r, after Age and Time Since Loss predicted 8.5% of the variance. The addition of education, occupational status, other losses and the presence/absence of other children increased prediction to 12.5% of the variance explained. This indicated that only an additional 4% of the variance was related to these variables, which was also not a statistically significant contribution $p = .186$. The results of the ANOVA also indicated that the model was not significant [$F(6, 139) p = 3.309, n.s.$]. Thus, the predictive validity of variables associated with psychopathology and perinatal grief in mothers bereaved in the perinatal period including: age; education; occupational status; and other losses; (Engler & Lasker, 2000; Gaudet, 2010; Hughes & Riches, 2003; Lasker & Toedter, 2000; Shreffler et al., 2012) were not supported. Only the duration of time since loss and the presence other children were supported.

Table 12.
Multiple regression analysis for Perinatal Grief (PGS-33)

	Beta	T	Significance
Age	-.077	-.921	.358
Time since loss	-.184	-2.001	.047
Occupational status	-.080	-.965	.279
Other losses	.052	.653	.515
Living Children	.198	-2.099	.038
Education	-.095	-1.149	.253
r square	12.5%		

3H. TIME SINCE LOSS

The shorter the period of time that had passed since the death, the higher the severity of distress that was found on all the instruments. There was a significant effect of time on symptomology which was slightly stronger when the more newly bereaved were included. However, even when those whose loss was less than one year before they completed the survey were excluded, there were still 10.7 % of the remaining mothers who reported clinically significant levels of symptoms on the ICG-r.

The percentage of bereaved mothers who reported clinically significant levels of symptoms on all the instruments employed in this study is shown in Table 13. The results for perinatal grief symptoms ranged from 92% within six months reducing to 22% at five years post-loss. The results

for complicated grief were from 41% after six months to 12% at five years post-loss. The results for depressive symptoms on the EPDS were from 93% within six months to 22% at five years post-loss and they were from 66% within six months to 22% at five years post-loss on the DASS-D axis. As for anxiety on the DASS-A axis, the results were from 34% within six months to 22% at five years post-loss. For stress on the DASS-S axis the results were from 66% within six months to 17% at five years post-loss. The results for post-traumatic stress symptoms on the PPQ were flatter as it was designed for the respondents to recall how distressed they were at the birth/death rather than what they were experiencing at the time they completed the survey, with the results being from 75% within six months to 72% at five years post-loss. The results for post-traumatic stress symptoms on the IES-r were from 66% within six months to 17% at five years post-loss. In general, these results indicate that these bereaved mothers continued to experience high levels of clinically significant symptoms for up to five years after their loss.

Table 13.

Clinically significant levels at different time points

Instrument	Up to 6 months post loss (n = 12)	6 to 12 months post loss (n = 29)	1 to 2 years post loss (n = 38)	2 to 3 years post loss (n = 18)	3 to 4 years post loss (n = 22)	4 to 5 years post loss (n = 18)
Active grief	100	69	76	67	45	44
Difficulty Coping	84	66	61	56	32	17
Despair	84	52	45	50	27	28
PGS-33	92	55	66	50	40	22
ICG-r	n/a	41	21	5	9	12
EPDS	92	52	42	27	32	22
DASS-D	66	26	24	22	9	22
DASS-A	34	24	21	11	9	22
DASS-S	66	21	21	22	27	17
PPQ	75	79	74	72	82	72
IES-r	66	38	24	5	24	17

There was no correlation, only a vague trend, between Age, Education and Time Since Loss which together only made a small contribution to grief scores.

4. DISCUSSION

Results of grief and psychopathology in **Study 2** were higher than in **Study 1** with 18% of the mothers having clinically significant levels of symptoms of complicated grief on the ICG-r. The results on the other instruments that were used in **Study 2** also indicated that these mothers were quite distressed,

especially soon after the death occurred. A significant minority of between 12% and 22% continued to experience unremitting, intense symptoms as measured by the various instruments. The variables that have been predicted in the literature to be indicative of higher levels of distress such as: maternal age; education; occupational status; type of loss; and other losses were not supported. The presence of living children and time since loss were the only predicted variables which were found to have a significant effect on the levels of clinically significant symptoms for these mothers.

The first hypothesis, that the ICG-r would be able to measure complicated grief in this population was supported, although it may be less suitable than the PGS-33. However, the developers of the PGS-33 (Potvin et al., 1989) have stated that the items in this instrument were arranged so that the active grief sub-scale scores were found to be more indicative of acute grief symptoms which are considered to be most severe immediately after the death. The items in the difficulty coping and despair sub-scales were designed to be indicators of higher risk for poor outcomes. It was anticipated that a small sub-group of bereaved parents who experienced an intense, unremitting grief response to their loss would have high scores for difficulty coping and despair and that these scores were the best predictors of longer-term grief. There was also the warning of the possibility that lower scores in the first few months after the death may result from delayed grief so close monitoring would be needed to be maintained until after the first anniversary of the death. However, without a clinical interview to assist in the interpretation of these results it may be the PGS-33 is an overly sensitive

instrument which may falsely identify clinically significant levels of symptoms. It could also be that the ICG-r, which was designed with older, conjugally bereaved women, may not be sensitive enough for the particular experiences of perinatally bereaved mothers and thus, fails to identify those who are struggling to function well.

The second hypothesis that the rates of perinatally bereaved mothers who experienced clinically significant symptoms of complicated grief would be similar to other populations of grievers was supported. The rate of complicated grief has been found in published results to be from 10% to 20% (Middleton et al., 1996) for other populations of grievers and for this study it was found to be 18%, which was towards the upper end of the general range.

However, they are still a group in need of assistance specific to their losses. The purpose of this assistance is to minimise the impact that the death of their child may have on the ability of these mothers to maintain the relationship with their partners (Capitulo et al., 2010) and to bond with and care for other children, as up to 80% do eventually manage to have a living child (Vance, Najman, Thearle, Embleton, Boyle, et al., 1995)

The third hypothesis in this study was also supported as those participants who expressed high levels of clinically significant symptoms for perinatal grief also expressed high levels of distress including depression, anxiety, stress, post-traumatic stress and complicated grief, as measured by the other instruments. Practitioners should have systems in place to routinely monitor the symptoms of these mothers so as to identify and treat those who are experiencing unremitting perinatal grief.

The fourth hypothesis that the variables identified in previously published studies to be predictive of higher levels of clinically significant symptoms in these mothers, which included: maternal age; education; occupational status; and other losses, was not supported. The only previously predicted variables which were supported in this study were the presence of other children and time since loss. The implications of this are that most mothers will manage to cope with their grief, especially with the passage of time and if they have other children. However, those bereaved mothers who struggle with infertility (Barr, 2006) and those who continue to express high levels of distress after at least the first anniversary of the death of their baby should be assessed and, if necessary, treated for complicated/prolonged/persistent perinatal grief.

In comparing the results of the present study to those of the reviewed studies several observations were made, firstly that the experience of perinatal grief has consistently been shown to be very distressing for the mothers; and secondly that the predictive value of the results of the reviewed studies is limited by the inconsistencies in findings. Of those variables that were identified in the reviewed studies and measured in the present study, the results were that the duration of time since the loss was significant in predicting the severity of depression which supported the findings of Barr and Cacciatore (2007) and Lang et al. (2004), but was in contrast to other findings (Bennett et al., 2008). Similarly for anxiety the duration of time since loss was supported in the present study which was in agreement with the findings of (Bennett et al., 2008). These authors also found that PTSD

decreased over time especially with the presence of other children, which was consistent with the cross-sectional findings of the present study. To best assist these bereaved mothers practitioners could assess them soon after the loss and then monitor their progress over time.

4A. LIMITATIONS

The first limitation of this study was the cross-sectional nature of the sample which precluded assessing changes in the symptoms for individual mothers over time. Also as these mothers were clients of a bereavement support service, were highly educated, in committed relationships and self-selected to participate in this study, they may not be representative of all mothers that become bereaved in the perinatal period. Their results need to be considered with caution as they may not be able to be generalised to all these mothers.

Also the present study did not explore all the variables that had been identified by the reviewed studies, including: perceived social support (Lang et al., 2004); hospital practices (Saflund & Wredling, 2006); religiosity (Cowchock et al., 2011); number of pregnancy losses (Blackmore et al., 2011; Serrano & Lima, 2006); emotion-focused coping (Engler & Lasker, 2000); sex of the deceased baby (Elklit & Bjork Gudmundsdottir, 2006); and time between the loss and subsequent pregnancy (Turton et al., 2001). Thus, there was no capacity to add to the body of knowledge about these factors and how they may impact on the grief and psychopathology of these mothers. It may be that future research could identify the features of mothers who do not experience a complicated form of perinatal grief which might assist

practitioners to be able to predict those who may need less support over time.

5. CONCLUSION

In spite of these limitations, which were common to many of the reviewed studies, the present study does add to the knowledge of perinatal loss by providing evidence about the proportion of perinatally bereaved mothers who experience clinically significant levels of symptoms that meet criteria for complicated grief and also, persistent complex bereavement disorder. It also found that these distressed mothers are more likely to not have any living children and although those with more recent losses tend to be more distressed, there is a group of these mothers who continue to struggle with the psychopathological aftermath of the death of their baby for five years after the death, as there is currently no system to assess, monitor or treat their symptoms.

Chapter 4

GENERAL DISCUSSION

1. OVERVIEW

With the emerging interest in better understanding the variations in grief experiences due to the nature of the loss, especially when the grief is of a persistent form, it has been timely to investigate the current experience of perinatal loss in Australia. This study examined the psychopathological symptoms of grief in two groups of mothers bereaved in the perinatal period who were between a few months and up to five years after the death of their baby and who were clients of SIDS and Kids throughout Australia. It was found that at up to 50% expressed clinically significant levels of distress on a variety of instruments which measured perinatal grief, complicated grief, depression, anxiety, stress and bereavement-related PTSD. It was found that those women who reported clinically significant symptoms of complicated grief also had higher levels of other symptoms such as depression, anxiety, stress and bereavement-related post-traumatic stress.

Unfortunately research into perinatal grief is still hampered by many barriers which have particularly included focus on whether differences in the type of loss such as miscarriage (Conway & Russell, 2000), termination (Rousset et al., 2011), stillbirth (Turton et al., 2001), or neo-natal death (Engler & Lasker, 2000) affect the grief experience of the mother. This one factor has led to confusion among researchers and practitioners because of the variations in the way the losses are described in different countries (see

Table 3). However, many published studies included participants who had experienced all these types of losses, as the impact of a loss on the mother may depend on factors other than the gestational or post-birth age of the baby. In this study, although it was initially planned to exclude participants who had experienced a miscarriage (which in Australia is a loss before the 20th gestational week or 400grams weight) the preliminary statistical analysis indicated that there was no difference between the results for the smaller group which excluded these mothers or the larger group which included them. Also selecting the larger group for the analysis allowed for other factors which have been suggested as predictors for risk of persistent grief, such as time since loss, the presence/absence of other children, to be considered as there were sufficient participants in the sub-categories to yield meaningful results. The inclusion of these different losses has also occurred in other studies, such as by Christiansen et al. (2013), so it was not a particular limitation of the present study. The results of the present study support the findings of their study which had also not found any differences in the results from these types of losses. It may be that researchers should now consider that the type of loss is no longer a relevant variable for predicting the likelihood of developing clinically significant levels of psychopathological symptoms or complicated grief for this population. It may be that it is the interaction of time since loss and other variables such as, infertility, which will be found to be important in understanding the impact of perinatal grief on them. Further research is needed to analyse these factors more closely.

The other main barrier to progress in understanding perinatal grief has been that researchers from many different disciplines have only focused on their area of interest, such as midwifery and how to assist mothers to cope in the birthing suite with the birth of dead baby. This midwifery-based research has been aimed at primary interventions to prevent more trauma from occurring during or immediately after the birth/death so as to limit the possibilities of bereaved mothers experiencing persistent psychopathological symptoms in the aftermath of the death of their baby. However, as there have been contradictory findings about recommended practices, such as seeing/holding the baby, midwives may still be unsure about the best way to assist these mothers at the time of the death. Unless the mothers are then referred by the midwives for follow-up and monitoring, no matter what hospital practices they have been involved in, their longer-term response to the event may continue to be undetected and they may not receive treatment, if needed. The findings of the present study indicate that clinically significant levels of symptoms of perinatal grief, depression, anxiety and post-traumatic stress persisted for up to five years in these mothers. As it has been shown that such psychopathology in mothers can have a deleterious impact on their other children and that relationship difficulties are higher in grieving couples (Rando, 1985), there is benefit in assessing and addressing these symptoms as early as possible.

Perinatal grief has been regarded as being different from other forms of grief, such as spousal loss or the death of a parent, and as such has been considered to have different symptoms, course and outcome, as the death of

a baby has been shown to increase the likelihood of experiencing complicated grief (Kersting, 2012). However this was not supported in this study as it was found that up to 18% of the participants experienced clinically significant levels of symptoms of complicated grief as measured by the ICG-r which is within the range for other losses. Therefore, researchers need to further investigate complicated grief in this population so as to better understand the experience of these parents and also provide guidance to clinicians about the specific treatment programs needed for them.

The results of these studies indicated that the distress of these mothers could be identified by their health practitioners using most commonly employed instruments. However, their symptoms could be mislabelled and they could be diagnosed as experiencing grief, post-natal depression, depression, anxiety, stress and/or PTSD depending on the focus of the health practitioner and which instrument, if any, was used for their assessment. So practitioners need to have evidence-based information about the utility of different measurement instruments for appropriately identifying the symptomology of perinatal grief.

It has been suggested that only perinatal specific instruments should be used to assess the distress of these mothers as the very wording of other instruments makes them unsuitable for this population. However, as the ICG-r has been developed to assess symptoms of complicated grief it would be expected to be suitable for assessing this in all populations of grievers. It was found in **Study 2** that 18% of these mothers expressed clinical levels of complicated grief. This result was higher than in **Study 1** with 12.5%, as well

as some of the published rates in other populations using this instrument (Middleton et al., 1998), but lower than estimated by other instruments, such as the Perinatal Grief Scale – 33 (Toedter et al., 2001) for perinatally bereaved mothers. While there are many items in common between these two instruments, the PGS -33 also seeks information from respondents about other topics, such as, being frightened, needing professional help, and taking medicine for nerves, which are not actually features of grief and are thus, not included in the ICG-r. Whereas the ICG-r has been designed to have concordance with the symptoms of and criteria for complicated grief as it was developed by researchers who have endeavoured to refine the definition of complicated grief (Boelen et al., 2003). It could be argued that its origin is a limitation of this instrument, but it can also be asserted that it is a strength as there is now greater agreement about this condition and how to identify it. It may be that it would be more useful to undertake further studies using it with these mothers to have more evidence about the levels of clinically significant symptoms in this population. However, following the emergence of criteria for prolonged grief disorder and persistent complex bereavement disorder a, short screening scale, the Prolonged Grief 13 (PG-13)(Prigerson et al, 2008), has been developed. This instrument may prove to be a more suitable assessment instrument for some abnormal experiences of grief as, while it is a shorter instrument, it is considered to be as rigorous as longer ones. It may also be that the PGS-33 is too sensitive for measuring the symptoms of perinatal grief expressed by these mothers as it was found that they have high levels of other psychopathology which may be contributing to

these higher scores. This may lead to incorrectly identifying levels of clinically significant distress in these mothers unless it is accompanied by a clinical interview. Further research is needed to determine which instrument is best for correctly identifying clinically significant levels of distress in these mothers.

As the EPDS is used to routinely screen mothers of newborns for post-natal depression in Australia it could be that this would be a suitable instrument to screen these bereaved mothers for clinically significant symptoms of psychopathology. However, there is a lack of studies to assess the suitability of the EPDS for measuring perinatal depression after the death of the baby rather than perinatal depression for mothers of live babies. It would appear that further research needs to be undertaken before its usage could be recommended for routine screening with bereaved mothers.

If the grief of these mothers was to be able to be routinely assessed and monitored by their health care professionals, who were aware of the symptoms of perinatal grief and when it has become clinically significant, then they could receive appropriate treatment. As the majority of these mothers go on to conceive another child (Vance, Najman, Thearle, Embleton, Boyle, et al., 1995), and as there is sufficient evidence of the heightened symptomology for these mothers during a subsequent pregnancy, it would seem to be an ideal opportunity to provide follow-up, and treatment, during such pregnancies. As all the measurement instruments that were employed in this study did identify at least the most distressed participants, it would

seem that routine assessment, with both a clinical interview and quantitative instruments, would identify most of these distressed mothers.

2. LIMITATIONS

As already stated this study was limited by the cross-sectional nature of the convenience sample of mothers that participated in it. While *Study 2* did address some of the variables that had previously been identified as increasing the likelihood of these mothers being at risk for experiencing heightened symptomology there were others, such as the hospital practices of seeing/holding the baby which may have been important, that were not addressed in this study. While the instruments that were used in this study have also been used in other studies into the experience of perinatal grief, there may be particular instruments, or newer versions of these instruments, such as the PG-13, that could have been better at identifying distress in these mothers.

3. CLINICAL IMPLICATIONS

This study provides evidence for the presence of clinically significant levels of symptoms of complicated grief and other psychopathology in a small but significant group of mothers who have been bereaved in the perinatal period. Their symptoms are likely to become chronic unless detected and treated and as this maternal distress may have a negative impact on their relationships with their partners and the psychological development of subsequent babies, it is important that the needs of these women are addressed. This was a highly selected sample of very well-educated and economically advantaged

women who had accessed some bereavement support and yet 18% still reported clinically significant levels of complicated grief. It could therefore be expected that other less advantaged bereaved mothers could be experiencing a greater struggle with less assistance. A method of routinely identifying, assessing, monitoring and treating these women needs to be developed. However, as there is a paucity of evidence-based treatments for perinatal grief, especially when it has become prolonged/complicated, the chance that these mothers will receive the specialised assistance that they may need is currently limited.

4. FUTURE

More research needs to be undertaken with other samples, particularly more representative samples, and preferably in a longitudinal form, to confirm the rate of complicated/prolonged/persistent grief experienced by these mothers. The experience of the bereaved fathers also needs to be better assessed and addressed. As the couples experience the loss simultaneously, it seems that there may be an imperative to assess, monitor and treat both parents. However, more research needs to be undertaken to prove the efficacy of couple-based treatment programs to assist both parents to manage their grief together so that they can be more supportive of each other (K. Swanson, Chen, Graham, Wojnar, & Petras, 2009). Further research on other treatment options, such as individual and group programs may also be of benefit as different treatment methods may suit different bereaved parents.

5. CONCLUSIONS

Mothers whose babies died during, pregnancy, birth and up to one year after their birth reported levels of clinically significant symptoms of perinatal grief, complicated grief, depression, anxiety, stress and bereavement-related post-traumatic stress on a range of specialised and general instruments. While these symptoms were highest in the months soon after the death of their baby, many continued to express high levels of symptoms up to five years later. A group of variables that had previously been identified to predict the likelihood of risk for developing psychopathology and complicated grief were examined with only the absence of living children and the passage of time since the loss being consistent predictors for higher levels of clinically significant distress across the two groups of mothers that participated in these studies. While practitioners may want to have clear recommendations about which mothers who have been bereaved in the perinatal period are most likely to need assistance to effectively process their symptoms, it appears that all these mothers should be assessed and monitored over time so that if they express continuing clinically significant symptoms that they can be referred for treatment.

Chapter 5

REFERENCES

- Ademyemi, A., Mosaku, K., Ajenifuja, O., Fatoye, F., Makinde, N., & Ola, B. (2008). Depressive symptoms in a sample of women following perinatal loss. *Journal of the National Medical Association, 100*(12), 1463-1468.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5 text rev ed.). Washington, DC.
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression anxiety stress scales in clinical groups and a community sample. *Psychological Assessment, 10*, 176–181.
- Armstrong, D. S., Hutti, M. H., & Myers, J. (2009). The Influence of Prior Perinatal Loss on Parents' Psychological Distress After the Birth of a Subsequent Healthy Infant. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 38*(6), 654-666. doi: <http://10.1111/j.1552-6909.2009.01069.x>
- Austin, M.-P., Hight, N., & the Guidelines Expert Advisory Committee. (2011). Clinical Practice Guidelines for depression and related disorders - anxiety, bipolar disorder and puerperal psychosis - in the perinatal period. A guideline for primary care health professionals. Melbourne: beyondblue: the national depression initiative.
- Australian Bureau of Statistics. (2012). *Australian Social Trends, Data Cube - Families and Communities*. (Cat no. 4102.0). Canberra.
- Barr, P. (2004). Guilt- and shame-proneness and the grief of perinatal bereavement. *Psychology and Psychotherapy: Theory, Research and Practice, 77*(4), 493-510.
- Barr, P. (2006). Relations between grief and subsequent pregnancy status 13 months after perinatal bereavement. *Perinatal Medicine, 34*, 207-211.
- Barr, P. (2012). Negative self-conscious emotion and grief: An actor–partner analysis in couples bereaved by stillbirth or neonatal death. *Psychology and Psychotherapy: Theory, Research and Practice, 85*(3), 310-326. doi: 10.1111/j.2044-8341.2011.02034.x
- Barr, P., & Cacciatore, J. (2007). Problematic emotions and maternal grief. *Omega: Journal of Death and Dying, 56*(4), 331-348. doi: <http://dx.doi.org/10.2190/OM.56.4.b>

- Barr, P., & Cacciato, J. (2008). Personal fear of death and grief in bereaved mothers. *Death Studies, 32*(5), 445-460. doi: <http://dx.doi.org/10.1080/07481180801974752>
- Barry, L., Kasl, S., & Prigerson, H. (2002). Psychiatric disorders among bereaved persons: The role of perceived circumstances of death and preparedness for death. *The American Journal of Geriatric Psychiatry, 10*(4), 447-457.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Arch. Gen. Psychiatry, 4*(6), 561-571.
- Bennett, S., Ehrenreich, J., Litz, B. T., Boisseau, C. L., & Barlow, D. (2012). Development and preliminary evaluation of a cognitive-behavioral intervention for perinatal grief. *Cognitive and Behavioral Practice, 19*(1), 161-173.
- Bennett, S., Litz, B. T., Lee, B. S., & Maguen, S. (2005). The Scope and Impact of Perinatal Loss: Current Status and Future Directions. *Professional Psychology: Research and Practice, 36*(2), 180-187.
- Bennett, S., Litz, B. T., Maguen, S., & Ehrenreich, J. (2008). An exploratory study of the psychological impact and clinical care of perinatal loss. *Loss and Trauma, 13*(6), 485-510.
- Blackmore, E., Cote-Arsenault, D., Tang, W., Glover, V., Evans, J., Golding, J., & O'Connor, T. (2011). Previous prenatal loss as a predictor of perinatal depression and anxiety. *The British Journal of Psychiatry, 198*(5), 373-378. doi: <http://10.1192/bjp.bp.110.083105>
- Boelen, P. A., & Hoijtink, H. (2009). An item response theory analysis of a measure of complicated grief. *Death Studies, 33*(2), 101-129.
- Boelen, P. A., van den Bout, J., Keijser, J. D., & Hoijtink, H. (2003). Reliability and validity of the Dutch version of the Inventory of Traumatic Grief (ITG). *Death Studies, 27*(3), 227-247.
- Bonanno, G. A., & Kaltman, S. (1999). Toward an integrated perspective on bereavement. *Psychological Bulletin, 125*(6), 760-776.
- Bonanno, G. A., & Kaltman, S. (2001). The varieties of grief experience. *Clinical Psychology Review, 21*(5), 705-734. doi: <http://dx.doi.org/10.1016/S0272-7358%2800%2900062-3>

- Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., . . . Nesse, R. M. (2002). Resilience to loss and chronic grief: A prospective study from preloss to 18-months postloss. *Journal of Personality and Social Psychology, 83*(5), 1150-1164. doi: <http://dx.doi.org/10.1037/0022-3514.83.5.1150>
- Bowlby, J. (1980). *Attachment and loss: Loss, sadness and depression* (Vol. 3). New York: Basic Books.
- Boyle, F. M., Vance, J. C., Najman, J. M., & Thearle, M. (1996). The mental health impact of stillbirth, neonatal death or sids: Prevalence and patterns of distress among mothers. *Social Science & Medicine, 43*(8), 1273-1282. doi: <http://dx.doi.org/10.1016/0277-9536%2896%2900039-1>
- Brady, K., Killeen, T., Brewerton, T., & Lucerini, S. (2000). Comorbidity of psychiatric disorders and posttraumatic stress disorder. *J Clin Psychiatry, 61*(Suppl 7), 22-32.
- Brier, N. (2004). Anxiety After Miscarriage: A Review of the Empirical Literature and Implications for Clinical Practice. *Birth: Issues in Perinatal Care, 31*(2), 138-142.
- Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2004). Psychological impact on women of miscarriage versus induced abortion: A 2 year follow-up study. *Psychosomatic Medicine, 66*, 265-271. doi: <http://10.1097/01.psy.0000118028.32507.9d>
- Bryant, R. A. (2013). Is pathological grief lasting more than 12 months grief or depression? *Current Opinion in Psychiatry, 26*(1), 41-46. doi: <http://10.1097/YCO.0b013e32835b2ca2>
- Buchi, S., Morgeli, H., Schnyder, U., Jenewein, J., Glaser, A., Fauchere, J.-C., . . . Sensky, T. (2009). Shared or discordant grief in couples 2-6 years after the death of their premature baby: Effects on suffering and posttraumatic growth. *Psychosomatics: Journal of Consultation Liaison Psychiatry, 50*(2), 123-130. doi: <http://dx.doi.org/10.1176/appi.psy.50.2.123>
- Burgoine, G. A., Van Kirk, S., Romm, J., Edelman, A., Jacobson, S.-L., & Jensen, J. T. (2005). Comparison of perinatal grief after dilation and evacuation or labor induction in second trimester terminations for fetal anomalies. *American Journal of Obstetrics and Gynecology, 192*, 1928-1932.
- Cacciatore, J., Radestad, I., & Froen, F. (2008). Effects of contact with stillborn babies on maternal anxiety and depression. *Birth: Issues in Perinatal Care, 35*(4), 313-320.

- Callahan, Brasted, & Granados. (1983). Fetal loss and sudden infant death: Grieving and adjustment in families. In E. J. Callahan & K. A. McCluskey (Eds.), *Life span developmental psychology: Non-normative life events* (pp. 145-166). New York, NY: Academic Press.
- Callahan, J., & Borja, S. (2008). Psychological outcomes and measurement of maternal posttraumatic stress disorder during the perinatal period. *J Perinat Neonat Nurs*, 22(1), 49-59.
- Callahan, J., Borja, S., & Hynan, M. (2006). Modification of the Perinatal PTSD Questionnaire to enhance clinical utility. *Journal of Perinatology*, 26(9), 533-539. doi: <http://dx.doi.org/10.1038/si.jp.7211562>
- Capitulo, K. L. (2005). Evidence for healing interventions with perinatal bereavement. *MCN: The American Journal of Maternal/Child Nursing*, 30(6), 389-396. doi: <http://dx.doi.org/10.1097/00005721-200511000-00007>
- Capitulo, K. L., Ramirez, M., Grigoroff-Aponte, B., & Vahey, D. C. (2010). Psychometric Testing of the New Spanish Short Version of the Perinatal Grief Scale to Measure Perinatal Grief in Spanish-Speaking Parents. *Hispanic Health Care International*, 8(3), 125-135. doi: <http://10.1891/1540-4153.8.3.125>
- Cheung, S.-y., Hoi-yan, C., & Hung-yu, N. (2013). Stress and anxiety-depression levels following first trimester miscarriage: a comparison between women who conceived naturally and following assisted reproduction. *British Journal of Obstetrics and Gynaecology*.
- Christiansen, D. M., Elklit, A., & Olf, M. (2013). Parents bereaved by infant death: PTSD symptoms up to 18 years after the loss. *General Hospital Psychiatry*.
- Clara, I. P., Cox, B. J., & Enns, M. W. (2001). Confirmatory factor analysis of the Depression anxiety Stress Scales in depressed and anxious patients. *Journal of Psychopathology and Behavioral Assessment*, 23, 61-67.
- Cleary-Goldman, J., Malone, F., Vidaver, J., Ball, R. Y., Nyberg, D., Comstock, C., . . . D'Alton, M. (2005). Impact of maternal age on obstetric outcome. *Obstet Gynecol*, 5(Part 1), 983-990.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillsdale, New Jersey: Erlbaum.

- Conway, K., & Russell, G. (2000). Couples' grief and experience of support in the aftermath of miscarriage. *British Journal of Medical Psychology*, 73(4), 531-545. doi: <http://dx.doi.org/10.1348/000711200160714>
- Côté-Arsenault, D., & Bidlack, D. (2001). Women's emotions and concerns during pregnancy following perinatal loss. *MCN: The American Journal of Maternal/Child Nursing*, 26(3), 128-134.
- Côté-Arsenault, D., & Mahlangu, N. (1999). Impact of perinatal loss on the subsequent pregnancy and self: Women's experiences. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 28, 274-282.
- Cowchock, F., Ellestad, S., Meador, K., Koenig, H., Hooten, E., & Swamy, G. (2011). Religiosity is an important part of coping with grief in pregnancy after a traumatic second trimester loss. *Journal of Religion and Health*, 50(4), 901-910. doi: <http://dx.doi.org/10.1007/s10943-011-9528-y>
- Cowchock, F., Lasker, J., Toedter, L., Skumanich, S., & Koenig, H. (2010). Religious beliefs affect grieving after pregnancy loss. *Journal of Religion and Health*, 49(4), 485-497. doi: <http://dx.doi.org/10.1007/s10943-009-9277-3>
- Cox, J. L., Holden, J.M., and Sagovsky, R. (1987). Detection of post-natal depression: development of the 10-item Edinburgh Post-natal Depression Scale. *British Journal of Psychiatry*, 150, 782-786.
- Cuisinier, M., Janssen, H., De Graauw, C., Bakker, S., & Hoogduin, C. (1996). Pregnancy following miscarriage: course of grief and some determining factors. *Journal of Psychosomatic Obstetrics & Gynecology*, 17, 168-174.
- Doka, K. J. (2002). *Disenfranchised grief: New directions, challenges and strategies for practice*. Champaign, Ill: Research Press.
- Eberhard-Gran, M., Eskild, A., Tambs, K., Opjordsmoen, S., & Ove Samuelsen, S. (2001). Review of validation studies of the Edinburgh Postnatal Depression Scale. *Acta Psychiatrica Scandinavica*, 104(4), 243-249. doi: 10.1111/j.1600-0447.2001.00187.x
- Elklit, A., & Bjork Gudmundsdottir, D. (2006). Assessment of guidelines for good psychosocial practice for parents who have lost an infant through perinatal or postnatal death. *Nordic Psychology*, 58(4), 315-330. doi: <http://dx.doi.org/10.1027/1901-2276.58.4.315>

- Engelhard, I. M., van den Hout, M. A., & Arntz, A. (2001). Posttraumatic stress disorder after pregnancy loss. *General Hospital Psychiatry, 23*(2), 62-66.
- Engler, A. J., & Lasker, J. N. (2000). Predictors of maternal grief in the year after a newborn death. *Illness, Crisis, & Loss, 8*(3), 227-243.
- Forray, A., Mayes, L., Magriples, U., & Epperson, C. N. (2009). Prevalence of post-traumatic stress disorder in pregnant women with prior pregnancy complications. *Maternal-Fetal and Neonatal Medicine, 22*(6), 522-527.
- Franche, R.-L. (2001). Psychologic and obstetric predictors of couples' grief during pregnancy after miscarriage or perinatal death. *Obstetrics & Gynecology, 97*(4), 597-602.
- Fujisawa, D., Miyashita, M., Nakajima, S., Ito, M., Kato, M., & Kim, Y. (2010). Prevalence and determinants of complicated grief in general population. *Journal of Affective Disorders, 127*(1-3), 352-358. doi: <http://dx.doi.org/10.1016/j.jad.2010.06.008>
- García-Enguádanos, J., Calle, M., Valero, J., Luna, S., & Domínguez-Rojas, V. (2002). Risk factors in miscarriage: a review. *Eur J Obstet Gynecol Reprod Biol., 102*(2), 111-119.
- Gaudet, C. (2010). Pregnancy after perinatal loss: Association of grief, anxiety and attachment. *Journal of Reproductive and Infant Psychology, 28*(3), 240-251. doi: <http://dx.doi.org/10.1080/02646830903487342>
- Giles, P. F. H. (1970). Reactions of women to perinatal death. *ANZ Journal of Obstetrics and Gynaecology, 10*, 207-210.
- Harper, M., O'Connor, R. E., & O'Carroll, R. C. (2011). Increased mortality in parents bereaved in the first year of their child's life. *BMJ Supportive & Palliative Care*. doi: 10.1136/bmjspcare-2011-000025
- Holland, J. M., Neimeyer, R. A., Boelen, P. A., & Prigerson, H. G. (2009). The underlying structure of grief: A taxometric investigation of prolonged and normal reactions to loss. *Journal of Psychopathology and Behavioral Assessment, 31*(3), 190-201. doi: <http://dx.doi.org/10.1007/s10862-008-9113-1>
- Horowitz, M. (2005). Meditating on complicated grief disorder as a diagnosis. *Omega: Journal of Death and Dying, 52*(1), 87-89.

- Horowitz, M., Siegel, H., & Bonanno, G. A. (1997). Diagnostic criteria for complicated grief disorder. *The American Journal of Psychiatry*, *154*(7), 904-910.
- Hughes, P., & Riches, S. (2003). Psychological aspects of perinatal loss. *Current Opinion in Obstetrics and Gynaecology*, *15*, 107-111.
- Hughes, P., Turton, P., Hopper, E., & Evans, C. (2002). Assessment of guidelines for good practice in psychosocial care of mothers after stillbirth. *The Lancet*, *360*(9327), 114-118.
- IBM Corp. (2012). IBM SPSS Statistics for Windows Version 21.0. from IBM Corp
- Jacobs, S., Mazure, C., & Prigerson, H. (2000). Diagnostic criteria for traumatic grief. *Death Studies*, *24*(3), 185-199.
- Janssen, H. J., Cuisinier, M. C., de Graauw, K. P., & Hoogduin, K. A. (1997). A prospective study of risk factors predicting grief intensity following pregnancy loss. *Archives of General Psychiatry*, *54*(1), 56-61.
- Kaltman, S., & Bonanno, G. A. (2003). Trauma and bereavement: Examining the impact of sudden and violent deaths. *Journal of Anxiety Disorders*, *17*(2), 131-147.
- Kanachanapisit, S., Thitadilok, W., & Singhakan, S. (2009). The prevalence of post-abortion grief and contributing factors. *Thai Journal of Obstetrics and Gynaecology*, *17*, 219-229.
- Kersting, A. (2012). Peripartum depression and grief after pregnancy loss. Special problem areas in obstetrics. *Der Nervenarzt*, *83*(11), 1434-+. doi: <http://10.1007/s00115-012-3663-x>
- Kersting, A., Kroker, Schlicht, Baust, & Wagner. (2011). Efficacy of cognitive behavioral internet-based therapy in parents after the loss of a child during pregnancy: pilot data from a randomized controlled trial. *Archives of Women's Mental Health*, *14*(6), 465-477. doi: 10.1007/s00737-011-0240-4
- Kessler, R., Davis, C., & Kendler, K. (1997). Childhood adversity and adult psychiatric disorder in the US national comorbidity survey. *Psych Med.*, *27*, 1101-1119.
- Kirkley-Best, E., & Kellner, K. R. (1982). The forgotten grief: A review of the psychology of stillbirth. *American Journal of Orthopsychiatry*, *52*(3), 420-429.

- La-Roche, C., Lalinec-Michaud, M., Engelsmann, F., Fuller, N., Copp, M., McQuade-Soldatos, L., & Azima, R. (1984). Grief reactions to perinatal death - a follow-up study. *Canadian Journal of Psychiatry*, 29, 14-19.
- Lang, A., Goulet, C., Aita, M., Giguere, V., Lamarre, H., & Perreault, E. (2001). Weathering the storm of perinatal bereavement via hardiness. *Death Studies*, 25(6), 497-512.
- Lang, A., Goulet, C., & Amsel, R. (2004). Explanatory model of health in bereaved parents post-fetal/infant death. *International Journal of Nursing Studies*, 41(8), 869-880. doi: <http://dx.doi.org/10.1016/j.ijnurstu.2004.03.013>
- Lannen, P. K., Wolfe, J., Prigerson, H., Onelov, E., & Kreicberg, U. C. (2008). Unresolved grief in a national sample of bereaved parents: Impaired mental and physical health 4 to 9 years later. *Journal of Clinical Oncology*, 26(36), 5870-5896.
- Lasker, J. N., & Toedter, L. J. (1991). Acute versus chronic grief: The case of pregnancy loss. *American Journal of Orthopsychiatry*, 61(4), 510-522. doi: <http://dx.doi.org/10.1037/h0079288>
- Lasker, J. N., & Toedter, L. J. (2000). Predicting Outcomes after Pregnancy Loss: Results from Studies Using the Perinatal Grief Scale. *Illness, Crisis, & Loss*, 8(4), 350-372.
- Latham, A. E., & Prigerson, H. G. (2004). Suicidality and Bereavement: Complicated Grief as Psychiatric Disorder Presenting Greatest Risk for Suicidality. *Suicide and Life-Threatening Behavior*, 34(4), 350-362.
- Lathrop, A. (2005). *A Concept Analysis of Perinatal Grief*. <http://hdl.handle.net/10755/148988>
- Laurell-Borulf, Y. (1982). Long-term adjustment after an emotional crisis: A follow-up of women with a perinatally dead infant. *Krislosning-Langtidsperspektin*, 157-167.
- Lee, K. E. (2012). Critical review of the literature: Parental grief after the loss of a multiple. *Journal of Neonatal Nursing*, 18(6), 226-231. doi: <http://dx.doi.org/10.1016/j.inn.2011.12.002>
- Li, Z., Zeki, R., & Hilder, L. (2012) Australia's mothers and babies 2010. *Perinatal statistics series no. 27* (Cat. no. PER 57 ed.). Canberra: AIHW.

- Lichtenthal, W. G., Cruess, D. G., & Prigerson, H. G. (2004). A case for establishing complicated grief as a distinct mental disorder in DSM-V. *Clinical Psychology Review, 24*(6), 637-662.
- Lindeman, E. (1944). Symptomology and management of acute grief. *American Journal of Psychiatry, 101*, 141-148.
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Sydney, Australia: Psychology Foundation of Australia.
- Mancini, A. D., Prati, G., & Bonanno, G. A. (2011). Do Shattered Worldviews Lead to Complicated Grief? Prospective and Longitudinal Analyses. *Journal of Social and Clinical Psychology, 30*(2), 184-215. doi: 10.1521/jscp.2011.30.2.184
- Mann, J. R., McKeown, R. E., Bacon, J., Vesselinov, R., & Bush, F. (2008). Predicting depressive symptoms and grief after pregnancy loss. *Journal of Psychosomatic Obstetrics & Gynecology, 29*(4), 274-279.
- Matthey, S., Henshaw, C., Elliott, S., & Barnett, B. (2006). Variability in use of cut-off scores and formats on the Edinburgh Postnatal Depression Scale – implications for clinical and research practice. *Archives of Women's Mental Health, 9*(6), 309-315. doi: 10.1007/s00737-006-0152-x
- Middleton, W., Burnett, P., Raphael, B., & Martinek, N. (1996). The bereavement response: A cluster analysis. *British Journal of Psychiatry, 169*(2), 167-171. doi: <http://dx.doi.org/10.1192/bjp.169.2.167>
- Middleton, W., Raphael, B., Burnett, P., & Martinek, N. (1998). A longitudinal study comparing bereavement phenomena in recently bereaved spouses, adult children and parents. *Australian and New Zealand Journal of Psychiatry, 32*(2), 235-241.
- Nazare, B., Fonseca, A., & Canavarro, M. C. (2012). Grief following termination of pregnancy for fetal abnormality: Does marital intimacy foster short-term couple congruence? *Journal of Reproductive and Infant Psychology, 30*(2), 168-179.
- Neimeyer, R. A., Hogan, N., & Laurie, A. (2008). The measurement of grief: psychometric considerations in the assessment of reactions to bereavement. In M. Stroebe, Hansson, R. O., Schut, H. & Stroebe, W. (Ed.), *Handbook of Bereavement Research: 21st Century Perspectives*. Washington, DC: American Psychological Association.

- Neimeyer, R. A., & Jordan, J. R. (2001). Disenfranchisement as empathic failure. In K. Doka (Ed.), *Disenfranchised grief*. San Francisco: Jossey Bass.
- Neria, Y., & Litz, B. T. (2004). Bereavement By Traumatic Means: The Complex Synergy of Trauma and Grief. *Journal of Loss & Trauma*, 9(1), 73-87. doi: <http://dx.doi.org/10.1080/15325020490890660>
- Nikcevic, A. V., Kuczmierczyk, A. R., Tunkel, S. A., & Nicolaidis, K. H. (2000). Distress after miscarriage: Relation to the knowledge of the cause of pregnancy loss and coping style. *Journal of Reproductive and Infant Psychology*, 18(4), 339-343. doi: 10.1080/713683047
- O'Connor, M.-F., Wellisch, D. K., Stanton, A. L., Olmstead, R., & Irwin, M. R. (2012). Diurnal cortisol in Complicated and Non-Complicated grief: Slope differences across the day. *Psychoneuroendocrinology*, 37(5), 725-728.
- O'Leary, J. (2005). The trauma of ultrasound during a pregnancy following perinatal loss. *Journal of Loss and Trauma: International Perspectives on Stress & Coping*, 10(2), 183-204. doi: <http://10.1080/15325020590908876>
- Ott, C. H., Lueger, R. J., Kelber, S. T., & Prigerson, H. G. (2007). Spousal bereavement in older adults: Common, resilient, and chronic grief with defining characteristics. *Journal of Nervous and Mental Disease*, 195(4), 332-341.
- Parkes, C. M. (2002). Grief: Lessons from the past, visions for the future. *Death Studies*, 26(5), 367-385.
- Parkes, C. M., & Weiss, R. (1983). *Recovery from Bereavement*. New York: Basic books.
- Potvin, L., Lasker, J., & Toedter, L. (1989). Measuring grief: A short version of the Perinatal Grief Scale. *Journal of Psychopathology and Behavioral Assessment*, 11(1), 29-45. doi: <http://dx.doi.org/10.1007/BF00962697>
- Prigerson, H., Bierhals, A., Kasl, S., Reynolds, C. F., III, & et al. (1996). Complicated grief as a disorder distinct from bereavement-related depression and anxiety: A replication study. *The American Journal of Psychiatry*, 153(11), 1484-1486.
- Prigerson, H., Bierhals, A., Kasl, S., Reynolds, C. F., III, & et al. (1997). Traumatic grief as a risk factor for mental and physical morbidity. *The American Journal of Psychiatry*, 154(5), 616-623.

- Prigerson, H., Horowitz, M., Jacobs, S., Parkes, C. M., Aslan, M., Goodkin, K., . . . Maciejewski, P. (2009). Prolonged grief disorder: Psychometric validation of criteria proposed for *DSM-V* and *ICD-11*. *PloS Med*, *6*(8). doi: <http://10.1371/journal.pmed.1000121>
- Prigerson, H., & Jacobs, S. (2001). Traumatic grief as a distinct disorder: A rationale, consensus criteria, and a preliminary empirical test *Handbook of bereavement research: Consequences, coping, and care* (pp. 613-645). Washington, DC: American Psychological Association; US.
- Prigerson, H., Maciejewski, P., Reynolds, C. F., III, Bierhals, A., Newsom, J., Fasiczka, A., . . . Miller, M. (1995). Inventory of Complicated Grief: A scale to measure maladaptive symptoms of loss. *Psychiatry Research*, *59*(1-2), 65-79.
- Prigerson, H., Shear, K., Frank, E., Beery, L., Silberman, R., Prigerson, J., & Reynolds, C. F., III. (1997). Traumatic grief: a case of loss-induced trauma. *Am J Psychiatry*, *154*(7), 1003-1009.
- Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*, 385-401.
- Rando, T. (1985). Bereaved parents: particular difficulties, unique factors, and treatment issues. *Social Work*, *30*, 20.
- Rando, T. (1993). *Treatment of complicated mourning*. Champaign, Ill: Research Press.
- Rando, T., Doka, K., Fleming, S., Franco, M. H., Lobb, E. A., Parkes, C. M., & Steele, R. (2012). A call to the field: Complicated grief in the DSM-5. *Omega: Journal of Death and Dying*, *65*(4), 251-255.
- Raphael, B. (2006). Grieving the death of a child. *BMJ*, *332*(7542), 620-621. doi: <http://10.1136/bmj.332.7542.620>
- Raphael, B., Martinek, N., & Wooding, S. (2004). Assessing Traumatic Bereavement *Assessing psychological trauma and PTSD* (2nd ed., pp. 492-510). New York, NY: Guilford Press; US.
- Rhoades, E. (2011). Literature Reviews. *The Volta Review*, *111*(3), 353-368.

- Rousset, C., Brulfert, C., Sejourne, N., Goutaudier, N., & Chabrol, H. (2011). Posttraumatic stress disorder and psychological distress following medical and surgical abortion. *Journal of Reproductive and Infant Psychology*, 29(5), 506-517. doi: <http://dx.doi.org/10.1080/02646838.2012.654489>
- Saflund, K., & Wredling, R. (2006). Differences within couples' experience of their hospital care and well-being three months after experiencing a stillbirth. *Acta Obstetrica et Gynecologica*, 85, 1193-1199.
- Serrano, F., & Lima, M. L. (2006). Recurrent miscarriage: Psychological and relational consequences for couples. *Psychology and Psychotherapy: Theory, Research and Practice*, 79(4), 585-594. doi: <http://dx.doi.org/10.1348/147608306X96992>
- Shear, K. (2012). Grief and mourning gone awry: pathway and course of complicated grief. *Dialogues in clinical neuroscience*, 14(2), 119-128.
- Shear, K., Boelen, P., & Neimeyer, R. (2011). Treating complicated grief converging approaches *Grief and bereavement in contemporary society: Bridging research and practice* (pp. 139-162). New York, NY: Routledge/Taylor & Francis Group; US.
- Shear, K., Simon, N., Wall, M., Zisook, S., Neimeyer, R., Duan, N., . . . Keshaviah, A. (2011). Complicated grief and related bereavement issues for DSM-5. *Depression and Anxiety*, 28(2), 103-117. doi: <http://dx.doi.org/10.1002/da.20780>
- Shreffler, K. M., Hill, P. W., & Cacciatore, J. (2012). Exploring the increased odds of divorce following miscarriage or stillbirth. *Journal of Divorce & Remarriage*, 53(2), 91-107. doi: <http://dx.doi.org/10.1080/10502556.2012.651963>
- Silverman, G., Jacobs, S., Kasl, S., Shear, M., Maciejewski, P., Noaghiul, F., & Prigerson, H. (2000). Quality of life impairments associated with diagnostic criteria for traumatic grief. *Psychological Medicine*, 30(4), 857-862.
- Simon, N., Shear, K., Thompson, E. H., Zalta, A. K., Perlman, C., Reynolds, C. F., III, . . . Silowash, R. (2007). The prevalence and correlates of psychiatric comorbidity in individuals with complicated grief. *Comprehensive Psychiatry*, 48(5), 395-399.
- Snaith, R. P. (2003). The Hospital Anxiety and Depression Scale. *Health and Quality of Life Outcomes*, 1(29).

- Stroebe, M. S., Hansson, R. O., Schut, H., Stroebe, W., & Van den Blink, E. (2008). Handbook of bereavement research and practice: Advances in theory and intervention *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. xiv, 658). Washington, DC: American Psychological Association; US.
- Surkan, P. J., Radestad, I., Cnattingius, S., Steineck, G., & Dickman, P. W. (2008). Events after stillbirth in relation to maternal depressive symptoms: A brief report. *Birth: Issues in Perinatal Care*, *35*(2), 153-157.
- Sutan, R., Amin, R. M., Ariffin, K. B., Teng, T. Z., Kamal, M. F., & Rusli, R. Z. (2010). Psychosocial impact of mothers with perinatal loss and its contributing factors: an insight. *Zhejiang University- SCIENCE B (Biomedicine & Biotechnology)*, *11*, 209-217.
- Swanson, K., Chen, H.-T., Graham, J., Wojnar, D., & Petras, A. (2009). Resolution of depression and grief during the first year after miscarriage: A randomized controlled clinical trial of couples-focused interventions. *Journal of Women's Health*, *18*(8), 1245-1257.
- Swanson, K., Connor, S., Jolley, S., Pettinato, M., & Wang, T.-J. (2007). Contexts and Evolution of Women's Responses to Miscarriage during the First Year after Loss. *Research in Nursing & Health*, *30*(1), 2-16.
- Swanson, P., Pearsall-Jones, J., & Hay, D. (2002). How Mothers Cope with the Death of a Twin or Higher Multiple. *Twin Research*, *5*(3), 156-164.
- Toedter, L. J., Lasker, J. N., & Alhadeff, J. M. (1988). The Perinatal Grief Scale: Development and initial validation. *American Journal of Orthopsychiatry*, *58*(3), 435-449.
- Toedter, L. J., Lasker, J. N., & Janssen, H. J. (2001). International comparison of studies using the Perinatal Grief Scale: A decade of research on pregnancy loss. *Death Studies*, *25*(3), 205-228.
- Tsartsara, E., & Johnson, M. P. (2006). The impact of miscarriage on women's pregnancy-specific anxiety and feeling of maternal-fetal attachment during the course of a subsequent pregnancy: An exploratory follow-up study. *Journal of Psychosomatic Obstetrics & Gynecology*, *27*(3), 173-182. doi: <https://10.1080/0167480600646198>

- Turton, P., Evans, C., & Hughes, P. (2009). Long-term psychosocial sequelae of stillbirth: Phase II of a nested case-control cohort study. *Archives of Women's Mental Health, 12*(1), 35-41.
- Turton, P., Hughes, P., Evans, C., & Fainman, D. (2001). Incidence, correlates and predictors of post-traumatic stress disorder in the pregnancy after stillbirth. *The British Journal of Psychiatry, 178*, 556-560.
- Turton, P., Hughes, P., Fonagy, P., & Fainman, D. (2004). An investigation into the possible overlap between PTSD and unresolved responses following stillbirth: An absence of linkage with only unresolved status predicting infant disorganization. *Attachment & Human Development, 6*(3), 241-253.
- Uren, T. H., & Wastell, C. A. (2002). Attachment and meaning-making in perinatal bereavement. *Death Studies, 26*(4), 279-308.
- Vance, J. C., Najman, J. M., Thearle, M. J., Embleton, G., Boyle, F. M., & Lutvey, C. (1995). *Long-term outcome of SIDS families: a longitudinal study including comparisons with other forms of infant loss*.
: Scandinavian University Press.
- Vance, J. C., Najman, J. M., Thearle, M. J., Embleton, G., Foster, W. J., & Boyle, F. M. (1995). Psychological changes in parents eight months after the loss of an infant from stillbirth, neonatal death, or Sudden infant death syndrome - A longitudinal study. *Pediatrics, 96*(5), 933-938.
- Weiss, D. S., & Marmar, C. R. (1996). The Impact of Event Scale - Revised. In J. W. T. M. Keane (Ed.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York: Guilford.
- Worden, J. (1982). *Grief counselling and grief therapy*. London: Tavistock.
- Worden, J. (2009). *Grief counselling and grief therapy: A handbook for the mental health practitioner* (4th ed.). New York, NY: Springer Publishing Co.
- Wright, P. M. (2011). Barriers to a comprehensive understanding of pregnancy loss. *Journal of Loss and Trauma, 16*(1), 1-12.
- Yan, C. W. E. (2008). Development and 6-month validation of a typology of Chinese women experiencing miscarriage based on pregnancy, personality, and cultural

factors. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 69(1-B), 705.

Chapter 6

APPENDICES

APPENDIX A:
GLOSSARY OF TERMS

Glossary of Terms

Bereavement

the situation of having lost someone significant through death

Complicated grief

a symptom cluster comprised of symptoms of separation distress, such as yearning for the deceased, and traumatic distress, such as feelings of disbelief, with a fragmented sense of security and trust.

Grief

the affective reaction to the loss of a loved one and it incorporates a range of cognitive, psychological, behavioral, social and physical manifestations.

Mourning

the public expression of grief within the beliefs and practices of a particular society or culture.

Normal grief

the emotional reaction to bereavement, within the expected social norms of a culture/society, depending on the circumstances of the death and the implications of the death for the bereaved person.

Perinatal period

in Australia is the period of time from conception of a baby through pregnancy and birth and up until 12 months after the birth.

Perinatal grief

is a form of grief experienced by parents after the death of baby during the perinatal period.

Persistent complex bereavement disorder

is a cluster of persistently heightened grief symptoms which are distinct from bereavement-related depressive and anxiety symptoms and have a particular physiological expression which are experienced by griever as significant difficulties in adjusting/adapting to the loss for more than 12 months after the loss.

APPENDIX B

Study 1

- Invitation letter
- Participant Information Statement
- Consent Form
- Demographic Information Sheet
- Measurement Instrument



April 2009

Dear

Recently SIDS and Kids ACT, Hunter and NSW have been collaborating to provide a more comprehensive service for families bereaved by the death of a baby or child during pregnancy, birth, infancy or childhood. As part of this process the ACT and NSW offices were also successful in tendering for grants to undertake evaluations of their Bereavement Support Services to gain a better understanding of what services are useful for bereaved families; how they might be able to be improved and what other services could be offered. The Hunter office also agreed to participate in this evaluation process so that any gaps or overlaps in service could be identified.

For this evaluation we are asking those of you who have used the Bereavement Support services of SIDS and Kids ACT, Hunter or NSW to assist us by completing a survey and, if you wish, by being interviewed about your experiences.

So as to make this process as informative and comprehensive as possible it would be appreciated if everyone who has used the Bereavement Support services, such as counselling, telephone support, peer support, Internet Forum or support groups, were to participate in the evaluation. Please have your say, no matter how long since you have used the Bereavement Support services or whether you had a positive or negative experience.

The survey can either be completed on-line or on paper:

- **On-line:** please open the SIDS and Kids NSW webpage, click on the Bereavement Support link, then scroll down the Bereavement Support page until you locate the Bereavement Support Evaluation Survey section, follow the instructions to click on the link which will take you to the survey.
- **E-mail:** please e-mail Margaret at survey@sidsandkidsnsw.org and she can send the link to you.
- **Paper copy:** please fill in the **Consent Form** and return it to us in the **Reply Paid** envelope and we will post a copy to you.

If you have any questions, comments or complaints about this evaluation process please contact Margaret McSpedden, who is overseeing this project on behalf of the three offices, on 9818 8400 or survey@sidsandkidsnsw.org. Or, if you prefer, contact the CEO of ACT, Karen Faichney on 6287 4255; the CEO of Hunter, Sue-Ellen Robertson on 4969 3171 or the General Manager of NSW, Ros Richardson 9818 8400.

Thank you for your support.

Karen Faichney

Sue-Ellen Robertson

Ros Richardson

Invitation to participate in an evaluation of the Bereavement Support Services of SIDS and Kids ACT, HUNTER and NSW

This letter is to explain to you about a study that is being undertaken to evaluate the Bereavement Support services of SIDS and Kids ACT, Hunter and NSW. Recently SIDS and Kids personnel from ACT, Hunter and NSW have been working collaboratively to further the core services of the organisation. The SIDS and Kids ACT, Hunter and NSW's collective vision is to support families who experience the death of their baby or child during pregnancy, birth, infancy or childhood through the provision of bereavement support, education, advocacy and the promotion of research.

Purpose of the Study

All organisations need to review their services from time to time to gauge whether they are meeting the needs of the people they serve. SIDS and Kids is no different and it is many years since as comprehensive a survey has been undertaken of any of the three offices. There is also a need for our organisations to demonstrate to government regulators that SIDS and Kids ACT, Hunter and NSW provide a quality services in line with the highest levels of care expected of such organisations. Additionally, there has been an ongoing debate about complicated grief and who suffers from it, so this study will give SIDS and Kids ACT, Hunter and NSW an opportunity to assess the level of complicated grief experienced by the bereaved families that access our services so as to be better able to meet their needs in the future.

Who is conducting the study? SIDS and Kids NSW successfully tendered for a grant from the *Infrastructure Grants Program of the Mental Health Co-ordinating Council of the NSW Department of Health* and SIDS and Kids ACT succeeded in their application for a grant from the *ACT Department of Disability, Housing and Community Services* so that they could also be included in this process.

What does participation in the study involve?

Participation in this study requires you to complete confidential questionnaires, which includes questions about you yourself, the death of your baby or child, your mental health, an *Inventory of Complicated Grief*, and if applicable, your experience as a Parent/Peer Supporter and the training you have undertaken with SIDS and Kids. This should take about 30 minutes on average to complete.

It is also expected that more in-depth interviews will be conducted with bereaved parents who volunteer to participate in these interviews. Please indicate on the attached *Consent Form* if you are willing to have a face-to-face interview about your experience.

Participation in this study is entirely voluntary and will be at no cost to you.

What will the researchers do with your responses?

The responses will be analysed to assess the level of satisfaction among the bereaved parents who use our services; the level of complicated grief experienced by bereaved parents and how this may impact of the provision of bereavement support services; and take into consideration any comments or suggestions that participants might have about how the Bereavement Support services of SIDS and Kids ACT, Hunter and NSW could be improved or enhanced.

How will your privacy be protected?

When you fill out the questionnaires and consent to the information about you being collected, your privacy will be protected in the following ways:

- No identifying information will be collected with the survey
- Only the Consent form will have your name on it
- All questionnaires will be coded with a unique number not your name and will be stored in locked files and cabinets

- No information that could be used to identify your family will be included in any report on the results of the study

Will you find out the results of the research?

The results will be released later in 2009 and all participants will be able to access the information.

Future research using your information

After we have finished this particular study we will keep the information for an indefinite period.

More questions or a complaint about the study

If you have further questions or would like to make a complaint about the study please call the General Manager of SIDS and Kids NSW, Ros Richardson, on 9818-8400; the CEO of SIDS and Kids ACT, Karen Faichney on 6287-4255; or the CEO of SIDS and Kids Hunter Sue-Ellen Robertson on 4969-3171.

What if you do/do not want to participate in the study?

Participation in the study is entirely voluntary. If you would like to discuss your participation with our researcher ring Margaret McSpedden on 9818-8400 or e-mail her on survey@sidsandkidsnsw.org.

If you choose to participate, your contribution will provide important information to help identify risk factors for complicated grief for bereaved parents. If you would like to participate you need to fill in the **Consent Form** as soon as possible and return it to the office in the Reply Paid envelope so that we can send the questionnaire for you to complete and return in another Reply Paid envelope. Alternatively, if you prefer, you can also complete the questionnaire on-line through a link on the Bereavement Support page on the SIDS and Kids NSW website or by providing your e-mail address.

If you prefer not to participate please tick the **NO** on the consent form and return it in the Reply Paid envelope provided. If you do not return the form we may try to contact you again to see if you are interested in participating. At that time you can ask any questions and then decide if you want to participate or not.

Can you withdraw from the study once it has started?

You may withdraw from the study at any time. Just contact Margaret McSpedden on 9818-8400 or e-mail her at survey@sidsandkidsnsw.org and she will remove any data.

Care for participants

SIDS and Kids ACT, Hunter and NSW are aware that participating in such a study may be distressing for the participants and we request that if you become distressed when completing the questionnaires that you call the 24 hour Support lines: **NSW 1800 651 186, ACT 1899 138 300 or Hunter 4969-3171** to talk with one of the counsellors or trained parent supporters about this.

Information

If, after reading this invitation, you would like more information about the survey, please telephone 9818-8400 or e-mail Margaret McSpedden at survey@sidsandkidsnsw.org as she has been employed to undertake this study.

Title First Surname

Address

Suburb State Postcode

Yes

I am willing to participate in the *SIDS and Kids Bereavement Support Services* evaluation

Please complete the following to participate in this evaluation:

1. Read through the information sheet
2. Complete the section below
3. Read and sign the consent form
4. Circle Yes or No if you are prepared to be interviewed about your experience of SIDS and Kids Bereavement Support services
5. Return this form and the questionnaire in the Reply Paid envelope supplied

Signature:

Date:

Interview: Yes No

Business hours contact to arrange the interview:

No

Thanks I do not want to participate in the *SIDS and Kids Bereavement Support Services* evaluation.

Please fill out your details below so that we do not contact you again:

Signature:

Date:

For more information about this evaluation project please contact Margaret McSpedden
(02) 9818-8400 or survey@sidsandkidsnsw.org

THANK YOU FOR YOUR PARTICIPATION

April 2009

Dear

Recently SIDS and Kids ACT, Hunter and NSW have been collaborating to provide a more comprehensive service for families bereaved by the death of a baby or child during pregnancy, birth, infancy or childhood. As part of this process the ACT and NSW offices were also successful in tendering for grants to undertake evaluations of their Bereavement Support Services to gain a better understanding of what services are useful for bereaved families; how they might be able to be improved and what other services could be offered. The Hunter office also agreed to participate in this evaluation process so that any gaps or overlaps in service could be identified.

For this evaluation we are asking those of you who have used the Bereavement Support services of SIDS and Kids ACT, Hunter or NSW to assist us by completing a survey and, if you wish, by being interviewed about your experiences.

So as to make this process as informative and comprehensive as possible it would be appreciated if everyone who has used the Bereavement Support services, such as counselling, telephone support, peer support, Internet Forum or support groups, were to participate in the evaluation. Please have your say, no matter how long since you have used the Bereavement Support services or whether you had a positive or negative experience.

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If you have any questions, comments or complaints about this evaluation process please contact Margaret McSpedden, who is overseeing this project on behalf of the three offices, on 9818 8400 or survey@sidsandkidsnsw.org. Or, if you prefer, contact the CEO of ACT, Karen Faichney on 6287 4255; the CEO of Hunter, Sue-Ellen Robertson on 4969 3171 or the General Manager of NSW, Ros Richardson 9818 8400.

Thank you for your support.

Karen Faichney

Sue-Ellen Robertson

Ros Richardson



Bereavement Support Survey

1. Gender

- Male
- Female

2. How old are you?

3. What is your current marital status?

- Never been married
- De facto
- Married
- Separated
- Divorced
- Widowed

4. Location:

- Sydney metro
- Hunter
- ACT
- Regional NSW , eg Central Coast, Wollongong

Rural NSW

5. Post Code:

6. Nationality

Australian - Aboriginal or Torres Strait Islander

Australian -

Other

7. Languages spoken at home:

Aboriginal or Torres Strait Islander language

English

Other

8. Religion:

Yes

No

9. If yes, which religious denomination?

Protestant

Catholic

Jewish

Muslim

Buddhist

10. Highest level of education achieved

Did not complete high school

- School Certificate (or equivalent)
- Higher School Certificate (or equivalent)
- TAFE qualification
- Bachelor degree
- Post-graduate degree

11. Employment Status

- | | |
|---|------------------------------------|
| <input type="checkbox"/> Employment Status Unemployed | <input type="checkbox"/> EMPLOYED |
| <input type="checkbox"/> Social Security recipient | <input type="checkbox"/> Casual |
| <input type="checkbox"/> Home duties | <input type="checkbox"/> Part-time |
| <input type="checkbox"/> Maternity leave | <input type="checkbox"/> Full-time |

12. What is your combined estimated household gross annual income?

- Social Security Benefits only
- Up to \$29999
- \$30000 to \$49999
- \$50000 to \$74999
- \$75000 or more

13. When did your baby/child die?

Date: / /
Month Day Year

14. Type of Loss:

- Miscarriage - up to 20 weeks gestation
- Termination
- Stillbirth - 20 to 25 weeks gestation
- Stillbirth - 25-35 weeks gestation
- Stillbirth - Full-term pre-labour
- Stillbirth - Full-term during labour
- Neo-natal death - up to 1 month after their birth
- Sudden Infant Death (up to one year of age) SIDS
- Sudden Infant Death(up to one year of age)Other-eg accident
- Sudden Unexpected Death of a Child(over one year of age)SUDC
- Sudden Unexpected Death of a Child - Other- eg accident
- Congenital illness
- Other

15. Did you have other babies or children that also died?

- No
- Yes, before this baby/child
- Yes, after this baby/child

16. Do you have any living children?

17. If yes, how many other children do you have?

- No
- Yes, older than the baby/child that died
- Yes, younger than the baby/child that died
- Yes, both younger and older than the baby/child that died

Inventory of Complicated Grief - revised (Dutch Version)

PLEASE circle the answer that best describes how you feel right now.

Never=less than once a month

Rarely=once a month or more, less than once a week

Sometimes=once a week or more, less than once a day

Often=once every day

Always=several times every day

1. The death of ____ feels overwhelming or devastating
2. I think about ____ so much that it can be hard for me to do the things I normally do
3. Memories of ____ upset me
4. I feel I have trouble accepting the death
5. I feel myself longing and yearning for ____
6. I feel drawn to places and things associated with ____
7. I can't help feeling angry about ____'s death
8. I feel disbelief over ____'s death
9. I feel stunned, dazed or shocked over ____'s death
10. Ever since ____ died it is hard for me to trust people
11. Ever since ____ died I feel I have lost the ability to care about other people or I feel distant from people I care about
12. I have pain in the same area of my body, some of the same symptoms, or have assumed some of the behaviours or characteristics of ____
13. I go out of my way to avoid reminders that ____ is gone
14. I feel life is empty or meaningless without ____
15. I hear the voice of ____ speak to me
16. I see ____ stand before me
17. I feel like I have become numb since the death of ____
18. I feel it is unfair that I should live when ____ has died
19. I am bitter over ____'s death
20. I feel envious of others who have not lost someone close
21. I feel like the future holds no meaning or purpose without ____
24. I feel that a part of myself died along with the deceased
25. I feel that the death has changed my view of the world
26. I have lost my sense of security, safety or control since the death of ____
27. I believe my grief has resulted in significant impairment in my social, occupational or other areas of functioning
28. I have felt on edge, jumpy or easily startled since the death
29. Since the death of ____, my sleep has been bad

Boelen, P. A., van den Bout, J., Keijsers, J. D., & Hoijtink, H. (2003). Reliability and validity of the Dutch version of the Inventory of Traumatic Grief (ITG). *Death Studies, 27*(3), 227-247.

APPENDIX C

Ethics Approval letter

Participant Information Statement

Consent Form

Consent Form E-mail

Demographic Information Sheet

Measurement Instruments



RESEARCH INTEGRITY

Human Research Ethics Committee

Web: <http://sydney.edu.au/ethics/>

Email: ro.humanethics@sydney.edu.au

Address for all correspondence:

Level 6, Jane Foss Russell Building - G02
The University of Sydney NSW 2006
AUSTRALIA

Ref: [SA/KFG]

22 September 2011

Dr Barbara Mullan
Coordinator of Master of Applied Psychology (Health Psychology)
School of Psychology
Faculty of Science
Brennan MacCallum Building – A18
The University of Sydney
Email: barbara.mullan@sydney.edu.au

Dear Dr Mullan

I am pleased to inform you that the Human Research Ethics Committee (HREC) approved your protocol entitled “**National Perinatal Grief Initiative: Developing a Better Understanding of Perinatal Grief**” at its meeting held on **20 September 2011**.

Details of the approval are as follows:

Protocol No.: 09-2011 / 14156

Approval Period: September 2011 – September 2012

Annual Report Due: 30 September 2012

**Authorised Personnel: Dr Barbara Mullan
A/Prof Elizabeth Lobb
Prof Louise Sharpe
Mrs Margaret McSpedden**

Documents Approved: Recruitment letter/email to prospective participants (version 1)

Participant Information Statement (version 1, 25/07/2011)

Participant Consent Form (version 1, 25/07/2011)

Interview Questions (version 1)

Demographic Information (version 1)

Measurement Instruments:

- Depression Anxiety and Stress Scale – 21**
- Edinburgh Post-natal Depression Scale**
- Impact of Events Scale**

- Inventory of Complicated Grief – Revised**
- Perinatal Grief Scale – 33**
- Perinatal Post-traumatic Stress Disorder Questionnaire – Modified**

The HREC is a fully constituted Ethics Committee in accordance with the National Statement on Ethical Conduct in Research Involving Humans-March 2007 under Section 5.1.29.

The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Research Involving Humans. Page 2 of 2

A report on this research must be submitted every 12 months to the Human Research Ethics Committee from the final approval period or on completion of the project, whichever occurs first. Failure to submit reports will result in withdrawal of ethics approval for the project. Please download the Annual Report/Completion Report Form from the Human Ethics website at: http://sydney.edu.au/research_support/ethics/human/forms.

The HREC approval is valid for four (4) years from the Approval Period stated in this letter and is conditional upon submission of Annual Reports. If your project is not completed by four (4) years from the approval period, you will have to submit a Modification Form requesting an extension. Please refer to the guideline on extension of ethics approval which is available on the website at:
http://sydney.edu.au/research_support/ethics/human/extension.

Chief Investigator / Supervisor's responsibilities to ensure that:

1. All serious and unexpected adverse events should be reported to the HREC within 72 hours.
2. All unforeseen events that might affect continued ethical acceptability of the project should be reported to the HREC as soon as possible.
3. You must retain copies of all signed Consent Forms and provide these to the HREC on request.
4. It is your responsibility to provide a copy of this letter to any internal/external granting agencies if requested.
5. All research participants are to be provided with a Participant Information Statement and Consent Form, unless otherwise agreed by the Committee. The following statement must appear on the bottom of the Participant Information Statement: Any person with concerns or complaints about the conduct of a research study can contact the Manager, Human Ethics, University of Sydney on +61 2 8627 8176 (Telephone); + 61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).
6. Any changes to the protocol including changes to research personnel must be approved by the HREC by submitting a Modification Form before the research project can proceed. Please refer to the website at http://sydney.edu.au/research_support/ethics/human/forms to download a copy of the Modification Form.
7. A Completion Report should be provided to the Human Research Ethics Committee at the completion of the Project.

Please do not hesitate to contact Research Integrity (Human Ethics) should you require further information or clarification.

Yours sincerely

Dr Stephen Assinder

Chair

Human Research Ethics Committee

cc: Margaret McSpedden

mmcs2650@uni.sydney.edu.au



Human Ethics Office

E-mail: ro.humanethics@sydney.edu.au

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NATIONAL PERINATAL GRIEF INITIATIVE

PARTICIPANT INFORMATION STATEMENT

(1) What is the study about?

You are invited to participate in a study about the **Perinatal Grief** experienced by mothers who have had a baby die during pregnancy, birth or in the year after the birth who have accessed the bereavement support services of SIDS and Kids.

(2) Who is carrying out the study?

The study is being conducted by Margaret McSpedden, who is an employee of SIDS and Kids NSW, and will form the basis for the degree of Master of Science at The University of Sydney under the supervision of Dr Barbara Mullan, Co-ordinator of Master of Applied Psychology (Health Psychology), Professor Liz Lobb and Professor Louise Sharpe, Senior NHMRC Research Fellow, Director of Clinical Research, Professor of Clinical Psychology.

(3) What does the study involve?

- This is a two-phase study. In Phase I information will be collected from mothers who have experienced a perinatal bereavement. You are being invited to participate in this study by completing the survey/questionnaires to provide information about a range of symptoms, thoughts or experiences that you may have had since the death of your baby.
- The survey/questionnaire can be completed electronically or on paper. If you have access to a computer you can locate the link for the electronic form on the SIDS and Kids website. Click on the *Bereavement Support* page and scroll down until you see the

section about this study, then click on the link which will take you to the survey page.

- If you require a paper copy of the survey/questionnaire please contact Margaret McSpedden on 02 9818 8400 to arrange for it to be sent to you.
- At the bottom of the survey you will be invited to leave your name and contact details if you are interested in being involved in Phase II of the study, which will involve an interview.
- In Phase II, if you have agreed to be interviewed about your experience of perinatal grief, you may be contacted by Margaret McSpedden to arrange an appointment for either a face-to-face or telephone interview which will be recorded on an audio recording device. The audio tapes will be transcribed so that thematic information can be extracted.
- It is possible that you may become emotionally distressed when completing the survey/questionnaire or the interview. If you do become distressed you can call the 24 hour Bereavement Support Line 1800 651 186 to talk with a counselor or trained parent supporter. If you prefer, you can call your local SIDS and Kids office during business hours to talk with your bereavement counselor. If you do feel distressed and wish to stop answering questions at any time, you are free to do so.

(4) How much time will the study take?

- It is expected that it will take approximately one hour to complete the survey/questionnaires. However, you are able to pause at any time and complete the questionnaires when you are ready.
- If you volunteer and you are selected to be interviewed it is expected that the interview will take from one to two hours depending on how much detail you express about your experience during the interview.

(5) Can I withdraw from the study?

- Being in this study is completely voluntary - you are not under any obligation to consent and - if you do consent - you can withdraw at any time without affecting your relationship with The University of Sydney or SIDS and Kids.

Submitting a completed questionnaire/survey is an indication of your consent to participate in the study. You can withdraw at any time prior to submitting your completed questionnaire/survey. Once you have submitted your questionnaire/survey anonymously, your responses cannot be withdrawn.

- If you arrange an appointment to be interviewed, you can stop the interview at any time if you do not wish to continue. In this instance the information provided will not be included in the study and the audio recording will be erased, unless you indicate that you are happy for the already completed parts of the interview to be included.

(6) Will anyone else know the results?

- All aspects of the study, including results, will be strictly confidential and only the researchers will have access to information on participants.
- A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

(7) Will the study benefit me?

- There is no financial benefit paid to you for participating in the study. Although taking part in this study is unlikely to benefit you directly, understanding your experiences better may benefit other bereaved mothers in the future.
- Some bereaved mothers who have participated in similar studies have expressed some sense of personal satisfaction from their participation. However, we cannot and do not guarantee or promise that you will receive any benefits from the study

(8) Can I tell other people about the study?

Yes, you can talk about the study with your family and friends.

(9) What if I require further information about the study or my involvement in it?

When you have read this information, *Margaret McSpedden* will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact *Dr Barbara Mullan*, on 02 9351 6811 or barbara.mullan@sydney.edu.au.

(10) What if I have a complaint or any concerns?

Any person with concerns or complaints about the conduct of a research study can contact The Manager, Human Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email)

This information sheet is for you to keep.



Human Ethics Office
E-mail:
ro.humanethics@sydney.edu.au

ABN 15 211 513 464

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NATIONAL PERINATAL GRIEF INITIATIVE
PARTICIPANT CONSENT FORM

I,[PRINT NAME], give consent to my participation in the research project

NATIONAL PERINATAL GRIEF INITIATIVE

In giving my consent I acknowledge that:

1. The procedures required for the project and the time involved have been explained to me, including any inconvenience, risk, discomfort or side effect, and their implications, and any questions I have about the project have been answered to my satisfaction.
2. I have read the Participant Information Statement and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.
3. I understand that being in this study is completely voluntary – I am not under any obligation to consent.

4. I understand that my involvement is strictly confidential. I understand that any research data gathered from the results of the study may be published however no information about me will be used in any way that is identifiable.
5. I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher(s) or the University of Sydney or SIDS and Kids now or in the future.
6. I understand that I can stop completing the survey/questionnaires at any time if I do not wish to continue. The incomplete survey/questionnaires will be deleted and the information provided will not be included in the study unless I want it to be included. However, once I have submitted the completed survey/questionnaire it will not be able to be withdrawn from the study.

I understand that I do not have to volunteer to be interviewed but if I do and I am selected for an interview by the researchers I can stop my participation in the interview at any time if I do not wish to continue and the audio tape will be erased and the information I have provided will not be included in the study unless I want it to be included.

7. I consent to:
- | | | | | |
|----------------------|-----|--------------------------|----|--------------------------|
| • Interview | YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
| • Audio-recording | YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
| • Receiving Feedback | YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |

If you answered YES to the "Interview" question, please provide your telephone number to arrange an appointment:

If you answered YES to the "Receiving Feedback" question, please provide your details i.e. mailing address, email address.

Feedback Option

Address: _____

Email: _____

.....
Signature

.....
Please PRINT name

.....

Date
Consent E-mail

<<Date>>

<<address>>

Dear<<name>>

This survey is being sent out to clients of SIDS and Kids offices around Australia who have had a baby die in the perinatal period (which is during pregnancy, birth and up to one year after birth), during the last five years, as part of a study into Perinatal Grief.

This study is in two parts: Phase I is when responses to this survey will be collected from bereaved mothers. In Phase II some of those bereaved mothers, who have agreed to be contacted, will also be interviewed about their experience of Perinatal Grief. It is anticipated that from this information a comprehensive theoretical model and eventually, an intervention program, will be developed for Perinatal Grief.

Participation in this study is confidential. Each participant will be assigned a number and no identifying information will be included in reports about this study. If you are prepared to be interviewed about your experience of Perinatal Grief please indicate this on the Consent Form.

You can change your mind at any time about participating in this study and this will not affect the support that you receive from SIDS and Kids bereavement counsellors or your relationship with the researcher or the University of Sydney. Any incomplete survey/questionnaires will be deleted and incomplete interviews will be erased and the information will not be used in the study.

This study is being undertaken by Margaret McSpedden who is an employee of SIDS and Kids NSW. She is undertaking a post-graduate, research degree at the *University of Sydney* and is being supervised by Dr Barbara Mullan, Professor Liz Lobb and Professor Louise Sharpe.

There are nine sections in this survey which includes a section for demographic information and eight questionnaires about perinatal grief, depression, complicated grief, post-traumatic stress disorder and the impact of the death of your baby on your life. It may take an hour to complete all sections. There is some duplication in the questions in these sections, please answer all of the

questions as completely as possible. You can pause the survey at any time and return later to finish your answers. Please try to complete a whole section before pausing.

If you would like to discuss any aspect of this study please contact Margaret on (02) 8585 8701 or margaretm@sidsandkidsnsw.org.

You may become emotionally distressed when participating in this study. If this occurs and you would like some support, please ring the 24 Hour Bereavement Support Line **1800 651 186** to talk with a trained parent supporter or bereavement counsellor. If you prefer, you can call the counsellor that you have previously consulted at your local SIDS and Kids office.

Thank you for your participation.

Demographic Information

1. **Gender:** Female Male
2. **Age:** 18-24
25-34
35-44
45-54
55+
3. **Current relationship status:**
Never married
De facto
Married
Separated
Divorced
Widowed
Other:
4. **Postcode:**
5. **Nationality:**
Aboriginal or Torres Strait Islander
Australian
Other:
6. **Highest level of education attained:**
Did not complete high school
Completed Year 10
Completed Year 12
TAFE course
Undergraduate university degree
Post-graduate university degree
7. **Employment status:**
Unemployed
Home Duties
Maternity Leave
Employed – full-time
Employed - part-time
Employed – casual
8. **How long ago did your baby die?**
Up to 6 months
6 – 12 months
1- 2 years
2- 3 years
3- 4 years
4- 5 years

5- Years or more

9. **What type of loss did you experience?**
Miscarriage – up to 20 weeks gestation
Termination
Stillbirth
Neo-natal death up to 28 days after birth
Death of a baby up to one year of age – SIDS
Death of a baby up to one year of age – Accident
Death of a baby up to one year of age – Illness
10. **Have you experienced that death of other babies or children?**
No
Yes – before this baby
Yes – after this baby
11. **Do you have any living children?**
No
Yes – younger than this baby
Yes – older than this baby
Yes – older and younger than this baby
12. **If yes, how many living children do you have?**
1
2
3
4
5 or more

Thank you for completing the demographic section of this survey.

Depression Anxiety and Stress Scale – 21

Please read each statement and choose a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of time

3 = Applied to me very much, or most of the time

- | | |
|--|---------|
| 1. I found it hard to wind down | 0 1 2 3 |
| 2. I was aware of dryness of my mouth | 0 1 2 3 |
| 3. I couldn't seem to experience any positive feeling at all | 0 1 2 3 |
| 4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion) | 0 1 2 3 |
| 5. I found it difficult to work up the initiative to do things | 0 1 2 3 |
| 6. I tended to over-react to situations | 0 1 2 3 |
| 7. I experienced trembling (eg, in the hands) | 0 1 2 3 |
| 8. I felt that I was using a lot of nervous energy | 0 1 2 3 |
| 9. I was worried about situations in which I might panic and make | 0 1 2 3 |
| 10. I felt that I had nothing to look forward to | 0 1 2 3 |
| 11. I found myself getting agitated | 0 1 2 3 |
| 12. I found it difficult to relax | 0 1 2 3 |
| 13. I felt down-hearted and blue | 0 1 2 3 |
| 14. I was intolerant of anything that kept me from getting on with what I was doing | 0 1 2 3 |
| 15. I felt I was close to panic | 0 1 2 3 |
| 16. I was unable to become enthusiastic about anything | 0 1 2 3 |
| 17. I felt I wasn't worth much as a person | 0 1 2 3 |
| 18. I felt that I was rather touchy | 0 1 2 3 |
| 19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat) | 0 1 2 3 |
| 20. I felt scared without any good reason | 0 1 2 3 |
| 21. I felt that life was meaningless | 0 1 2 3 |

Lovibond, S.H. & Lovibond, P.F. (1995). Manual for the Depression, Anxiety and Stress Scales. (2nd. Ed) Sydney: Psychology Foundation

Edinburgh Post-natal Depression Scale

Please choose the answer that comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

Here is an example:

I have felt happy:

- Yes, all the time
- X Yes, most of the time
- No, not very often
- No, not at all

In the past seven days:

1. I have been able to laugh and see the funny side of things
As much as I always could
Not quite as much now
Definitely not so much now
Not at all
2. I have looked forward with enjoyment to things
As much as I ever did
Rather less than I used to
Definitely less than I used to
Hardly at all
3. I have blamed myself unnecessarily when things went wrong
Yes, most of the time
Yes, some of the time
Not very often
No, never
4. I have been anxious or worried for no good reason
No, not at all
Hardly ever
Yes, sometimes
Yes, very often
5. I have felt scared or panicky for no very good reason
Yes, quite often
Yes, sometimes
No, not much
No, not at all
6. Things have been getting on top of me
Yes, most of the time
Yes, sometimes
No, most of the time I have coped quite well
No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
Yes, most of the time
Yes, some of the time
Not very often
No, not at all
8. I have felt sad or miserable
Yes, most of the time
Yes, some of the time
Not very often
No, not at all
9. I have been so unhappy that I have been crying
Yes, most of the time
Yes, quite often
Only occasionally
No, never
10. The thought of harming myself has occurred to me
Yes, quite often
Sometimes
Hardly ever
Never

Cox, J.L., Holden, J.M. and Sagovsky, R. 1987. Detection of post-natal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786.

Inventory of Complicated Grief - revised (Dutch Version)

PLEASE circle the answer that best describes how you feel right now.

Never=less than once a month

Rarely=once a month or more, less than once a week

Sometimes=once a week or more, less than once a day

Often=once every day

Always=several times every day

1. The death of ____ feels overwhelming or devastating
2. I think about ____ so much that it can be hard for me to do the things I normally do
3. Memories of ____ upset me
4. I feel I have trouble accepting the death
5. I feel myself longing and yearning for ____
6. I feel drawn to places and things associated with ____
7. I can't help feeling angry about ____'s death
8. I feel disbelief over ____'s death
9. I feel stunned, dazed or shocked over ____'s death
10. Ever since ____ died it is hard for me to trust people
11. Ever since ____ died I feel I have lost the ability to care about other people or I feel distant from people I care about
12. I have pain in the same area of my body, some of the same symptoms, or have assumed some of the behaviours or characteristics of ____
13. I go out of my way to avoid reminders that ____ is gone
14. I feel life is empty or meaningless without ____
15. I hear the voice of ____ speak to me
16. I see ____ stand before me
17. I feel like I have become numb since the death of ____
18. I feel it is unfair that I should live when ____ has died
19. I am bitter over ____'s death
20. I feel envious of others who have not lost someone close
21. I feel like the future holds no meaning or purpose without ____
24. I feel that a part of myself died along with the deceased
25. I feel that the death has changed my view of the world
26. I have lost my sense of security, safety or control since the death of ____
27. I believe my grief has resulted in significant impairment in my social, occupational or other areas of functioning
28. I have felt on edge, jumpy or easily startled since the death
29. Since the death of ____, my sleep has been bad

Boelen, P. A., van den Bout, J., Keijser, J. D., & Hoijtink, H. (2003). Reliability and validity of the Dutch version of the Inventory of Traumatic Grief (ITG). *Death Studies, 27*(3), 227-247.

Impact of Events Scale - revised

Below is a list of difficulties some people have after stressful life events. Please read each item and then indicate how distressing each difficulty has been for you DURING THE PAST SEVEN DAYS with respect to the death of your baby. How much were you distressed or bothered by these difficulties?

0 = not at all 1 = A little bit 2 = Moderately 3 = Quite a bit 4 = Extremely

1. Any reminder brought back feelings about it	0	1	2	3	4
2. I had trouble staying asleep	0	1	2	3	4
3. Other things kept making me think about it	0	1	2	3	4
4. I felt irritable and angry	0	1	2	3	4
5. I avoided letting myself get upset when I thought about it or was reminded of it	0	1	2	3	4
6. I thought about it when I didn't mean to	0	1	2	3	4
7. I felt as if it hadn't happened or wasn't real	0	1	2	3	4
8. I stayed away from reminders about it	0	1	2	3	4
9. Pictures about it popped into my mind	0	1	2	3	4
10. I was jumpy and easily startled	0	1	2	3	4
11. I tried not to think about it	0	1	2	3	4
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them	0	1	2	3	4
13. My feelings about it were kind of numb	0	1	2	3	4
14. I found myself feeling or acting like I was back at that time	0	1	2	3	4
15. I had trouble falling asleep	0	1	2	3	4
16. I had waves of strong feelings about it	0	1	2	3	4
17. I tried to remove it from my memory	0	1	2	3	4
18. I had trouble concentrating	0	1	2	3	4
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea or a pounding heart	0	1	2	3	4
20. I had dreams about it	0	1	2	3	4
21. I felt watchful and on-guard	0	1	2	3	4
22. I tried not to talk about it	0	1	2	3	4

Weiss, D. S., & Marmar, C. R. (1996). The Impact of Event Scale - Revised. In J. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York: Guilford

Perinatal Grief Scale – 33

Each of the items is a statement of thoughts and feelings that some people have concerning a loss such as yours. There are no right or wrong responses to these statements. For each item, circle the response that best indicated the extent to which you agree or disagree with it at the present time.

If you are not certain, use the “neither” category. Please try to use this category only when you truly have no opinion.

0 = Strongly Agree

1 = Agree

2 = Neither agree nor disagree

3 = Disagree

4 = Strongly Disagree

1.	I feel depressed	0	1	2	3	4
2.	I feel empty inside	0	1	2	3	4
3.	I feel the need to talk about the baby	0	1	2	3	4
4.	I am grieving for the baby	0	1	2	3	4
5.	I am frightened	0	1	2	3	4
6.	I very much miss the baby	0	1	2	3	4
7.	It is painful to recall memories of the loss	0	1	2	3	4
8.	I get upset when I think about the baby	0	1	2	3	4
9.	I cry when I think about the him/her	0	1	2	3	4
10.	Time passes so slowly since the baby died	0	1	2	3	4
11.	I feel so lonely since he/she died	0	1	2	3	4
12.	I find it hard to get along with certain people	0	1	2	3	4
13.	I can't keep up with my usual activities	0	1	2	3	4
14.	I have considered suicide since the loss	0	1	2	3	4
15.	I feel I have adjusted well to the loss	0	1	2	3	4
16.	I have let people down since the baby died	0	1	2	3	4
17.	I get cross at my friends and relatives more than I should	0	1	2	3	4
18.	Sometimes I feel like I need a professional counsellor to help me get my life together	0	1	2	3	4
19.	I feel as though I am just existing and not really living since he/she died	0	1	2	3	4
20.	I feel somewhat apart and remote even among friends	0	1	2	3	4
21.	I find it difficult to make decisions since the baby died	0	1	2	3	4
22.	It feels great to be alive	0	1	2	3	4
23.	I take medicine for my nerves	0	1	2	3	4
24.	I feel guilty when I think about the baby	0	1	2	3	4
25.	I feel physically ill when I think about the baby	0	1	2	3	4
26.	I fell unprotected in a dangerous world since he/she died	0	1	2	3	4
27.	I try to laugh but nothing seems funny anymore	0	1	2	3	4
28.	The best part of me died with the baby	0	1	2	3	4
29.	I blame myself for the baby's death	0	1	2	3	4
30.	I feel worthless since he/she died	0	1	2	3	4
31.	It is safer not to love	0	1	2	3	4
32.	I worry about what my future will be	0	1	2	3	4
33.	Being a bereaved parent means being a second-class citizen	0	1	2	3	4

Potvin I, Lasker J.N. & Toedter L.J., (1989). Measuring grief: a short version of the Perinatal Grief Scale, *Journal of Psychopathology and Behavioral Assessment*, 11 (1), 29-45

Perinatal Post-traumatic Stress Disorder Questionnaire – Modified

Please choose the answer that best reflects how you have felt using the following responses:

0 = not at all

1 = once or twice

2 = sometimes

3 = often but less than 1 month

4 = often for more than 1 month

- | | | | | | | |
|-----|---|---|---|---|---|---|
| 1. | Did you have bad dreams of your baby's death? | 0 | 1 | 2 | 3 | 4 |
| 2. | Did you have upsetting memories of your baby's death? | 0 | 1 | 2 | 3 | 4 |
| 3. | Did you have any sudden feelings as though your baby's death was happening again? | 0 | 1 | 2 | 3 | 4 |
| 4. | Did you try to avoid thinking about child death? | 0 | 1 | 2 | 3 | 4 |
| 5. | Did you avoid doing things that might bring up feelings you had about child death (e.g. not watching a TV show about SIDS)? | 0 | 1 | 2 | 3 | 4 |
| 6. | Were you unable to remember parts of your baby's death? | 0 | 1 | 2 | 3 | 4 |
| 7. | Did you lose interest in doing things you usually do (e.g. did you lose interest in your work or family)? | 0 | 1 | 2 | 3 | 4 |
| 8. | Did you feel alone and removed from other people (e.g. did you feel like no one understood you)? | 0 | 1 | 2 | 3 | 4 |
| 9. | Did it become more difficult for you to feel tenderness or love with others? | 0 | 1 | 2 | 3 | 4 |
| 10. | Did you have unusual difficulty falling asleep or staying asleep? | 0 | 1 | 2 | 3 | 4 |
| 11. | Were you more irritable or angry with others than usual? | 0 | 1 | 2 | 3 | 4 |
| 12. | Did you have greater difficulties concentrating than before your baby died? | 0 | 1 | 2 | 3 | 4 |
| 13. | Did you feel more jumpy (e.g. did you feel more sensitive to noise, or more easily startled)? | 0 | 1 | 2 | 3 | 4 |
| 14. | Did you feel more guilt about the death than you felt you should have felt? | 0 | 1 | 2 | 3 | 4 |

Callahan, J.L., Borja, S.E. and Hynan, M.T., (2006). Modification of the Perinatal PTSD Questionnaire to enhance clinical utility, *Journal of Perinatology*, 26, 533-539.

Table 15.
Comparison of themes and items on ICG-r and PGS-33

Similar Themes	Inventory of Complicated Grief – revised	Perinatal Grief Scale - 33
Overwhelmed	1. The death of ___ feels overwhelming or devastating	14. I have considered suicide since the loss
Impaired activities	2. I think about ___ so much that it can be hard for me to do the things I normally do	13. I can't keep up with my usual activities
Memories	3. Memories of ___ upset me	7. It is painful to recall memories of the loss
Cannot accept it	4. I feel I have trouble accepting the death	24. I feel guilty when I think about the baby
Yearning	5. I feel myself longing and yearning for ___	6. I very much miss the baby
Drawn to places	6. I feel drawn to places and things associated with ___	3. I feel the need to talk about the baby
Disbelief	8. I feel disbelief over ___'s death	8. I get upset when I think about the baby
Stunned	9. I feel stunned , dazed or shocked over ___'s death	1. I feel depressed
Loss of trust	10. Ever since ___ died it is hard for me to trust people	12. I find it hard to get along with certain people
Isolation	11. Ever since ___ died I feel I have lost the ability to care about other people or I feel distant from people I care about	11. I feel so lonely since he/she died
Life empty	14. I feel life is empty or meaningless without ___	2. I feel empty inside
Numb	17. I feel like I have become numb since the death of ___	19. I feel as though I am just existing and not really living
Bitter	19. I am bitter over ___'s death	4. I am grieving for the baby
Envious	20. I feel envious of others who have not lost someone close	20. I feel somewhat apart and remote even among friends
Future	21. I feel like the future holds no meaning or purpose without ___	32. I worry about what my future will be
Part of me died	24. I feel that a part of myself died along with the deceased	28. The best part of me died with the baby
Changed world view	25. I feel that the death has changed my view of the world	26. I feel unprotected in a dangerous world since he/she died
Loss of security	26. I have lost my sense of security, safety or control since the death	5. I am frightened
Impairment	27. I believe my grief has resulted in significant impairment in my social, occupational or other areas of functioning	13. I can't keep up with my usual activities
Frightened	28. I have felt on edge, jumpy or easily startled since the death	26. I feel unprotected in a dangerous world since he/she died

Different Themes	Inventory of Complicated Grief - revised	Perinatal Grief Scale - 33
Pain like deceased	12. I have pain in the same areas of my body, some of the same symptoms, or have assumed some of the behaviours or characteristics of ____	
Avoidance	13. I go out of my way to avoid reminders that ____ is gone	
Hear their voice	15. I hear the voice of ____ speak to me	
See them	16. I see ____ stand before me	
Unfair death	18. I feel that it is unfair that I should live when this person died	
Bad sleep	29. Since the death of ____, my sleep has been bad	
Time passing		10. Time passes so slowly since the baby died
Adjusted well		15. I feel I have adjusted well to the loss
Let people down		16. I have let people down since the baby died
Need counsellor		18. Sometimes I feel like I need a professional counsellor to help me get my life together
Decisions		21. I find it difficult to make decisions since the baby died
Great to be alive		22. It feels great to be alive
Take medicine		23. I take medicine for my nerves
Physically ill		25. I feel physically ill when I think about the baby
Try to laugh		27. I try to laugh but nothing seems funny anymore
Blame self		29. I blame myself for the baby's death
Worthless		30. I feel worthless since he/she died
Safer not to love		31. It is safer not to love
Second class citizen		33. Being a bereaved parent means being a second-class citizen

APPENDIX D

STATISTICAL ANALYSES

Study 1

Study 2

Statistical Analysis Study 1

Frequencies

Bereaved mothers at least six months after the death of their baby:

Statistics

> 81 on ICG

N	Valid	105
	Missing	0

> 81 on ICG

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	105	87.5	87.5	87.5
1.00	15	12.5	12.5	100.0
Total	120	100.0	100.0	

Bereaved mothers at least 12 months after the death of their baby:

Statistics

> 81 on ICG

N	Valid	105
	Missing	0

> 81 on ICG

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	93	88.6	88.6	88.6
1.00	12	11.4	11.4	100.0
Total	105	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AGE	121	3	55	35.11	6.717	-.403	.220	4.098	.437
EDUCATION	121	2	4	3.38	.829	-.814	.220	-1.053	.437
EMPLOYMENT	121	0	3	1.74	.739	.215	.220	-.705	.437
INCOME	121	0	5	4.27	1.225	-1.867	.220	2.988	.437
LOSSTYPE	121	1	6	2.83	.749	-.429	.220	3.484	.437
TIMESINCELOSS	121	0	7	4.47	1.684	.056	.220	-.913	.437
OTHERLOSSES	1	.00	.00	.0000	.	.	.	.	.
LIVINGCHILDREN	1	2.00	2.00	2.0000	.	.	.	.	.
Valid N (listwise)	1								

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ICGrTOT	120	26	115	56.61	19.570	.694	.221	-.088	.438
Valid N (listwise)	120								

Correlations

		ICGrTOT	AGE	EDUCATION	INCOME	TIMESINCELOSS
ICGrTOT	Pearson Correlation	1	-.075	-.087	-.024	-.105
	Sig. (2-tailed)		.417	.347	.792	.252
	N	120	120	120	120	120
AGE	Pearson Correlation	-.075	1	.168	-.088	.105
	Sig. (2-tailed)	.417		.066	.339	.250
	N	120	121	121	121	121
EDUCATION	Pearson Correlation	-.087	.168	1	.127	.092
	Sig. (2-tailed)	.347	.066		.166	.318
	N	120	121	121	121	121
INCOME	Pearson Correlation	-.024	-.088	.127	1	.220*
	Sig. (2-tailed)	.792	.339	.166		.015
	N	120	121	121	121	121
TIMESINCELOSS	Pearson Correlation	-.105	.105	.092	.220*	1
	Sig. (2-tailed)	.252	.250	.318	.015	
	N	120	121	121	121	121

*. Correlation is significant at the 0.05 level (2-tailed).

Group Statistics

	stillbirthnot	N	Mean	Std. Deviation	Std. Error Mean
+81	.00	62	55.21	18.523	2.352
	1.00	58	56.93	19.143	2.514

Independent Samples Test

		Levene's Test for Equality of Variances		Test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
*81	Equal variances assumed	.016	.899	-.501	118	.618	-1.721	3.439	-8.531	5.089
	Equal variances not assumed			-.500	116.829	.618	-1.721	3.443	-8.540	5.097

Statistical Analysis Study 2:

Frequencies:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PPQTOT =/+19	144	2	54	29.23	11.680
EPDSTOT =/+13	144	0	28	11.40	6.148
IES-rTOT +32	140	0	87	24.85	18.569
DASS-D +13	140	0	40	9.29	10.466
DASS-S +19	140	0	40	12.61	10.408
DASS-A +9	140	0	40	5.86	7.971
DASSTOT+42	140	0	116	27.89	25.806
ICG-rTOT +81	140	26	123	64.43	21.764
Valid N (listwise)	140				

PGS -33: Total

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Above clinical cut-off on PGS-33	146	.00	1.00	.5137	.50153
Valid N (listwise)	146				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PGS-33TOT+91	146	41	151	93.12	24.747
Valid N (listwise)	146				

Above clinical cut-off on PG

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	71	48.6	48.6	48.6
1.00	75	51.4	51.4	100.0
Total	146	100.0	100.0	

Case Processing Summary

		N	%
Cases	Valid	145	99.3
	Excluded ^a	1	.7
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

PGS – 33: Active Grief

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Active Grief +34	146	13	55	37.42	8.089
Valid N (listwise)	146				

PGS – 33: Difficulty Coping

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Difficulty Coping +30	146	12	52	29.45	9.658
Valid N (listwise)	146				

PGS – 33: Despair

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Despair +27	146	11	48	26.29	9.010
PGS-33TOT+91	146	41	151	93.12	24.747
Valid N (listwise)	146				

TimeSinceLoss

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	12	8.2	8.2	8.2
2	29	19.9	19.9	28.1
3	38	26.0	26.0	54.1
4	18	12.3	12.3	66.4
5	22	15.1	15.1	81.5
6	18	12.3	12.3	93.8
7	9	6.2	6.2	100.0
Total	146	100.0	100.0	

Results for bereaved mothers at least 12 months after the death of their baby:

Statistics

		Above clinical cut-off on PG	> 81 on CRG
N	Valid	105	105
	Missing	0	0

Above clinical cut-off on PG

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	57	54.3	54.3	54.3
	1.00	48	45.7	45.7	100.0
Total		105	100.0	100.0	

> 81 on CRG

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	90	85.7	85.7	85.7
	1.00	15	14.3	14.3	100.0
Total		105	100.0	100.0	

Reliability: ICG-r**Case Processing Summary**

		N	%
Cases	Valid	137	93.8
	Excluded ^a	9	6.2
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.955	26

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
63.87	456.615	21.369	26

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
> 81 on CRG	140	.00	1.00	.2500	.43457
LivingChild	146	0	4	1.47	1.084
Valid N (listwise)	140				

Reliability: DASS-21**Case Processing Summary**

		N	%
Cases	Valid	140	95.9
	Excluded ^a	6	4.1
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.948	21

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
14.31	166.577	12.906	21

Reliability:

DASS-D:

Case Processing Summary

		N	%
Cases	Valid	140	95.9
	Excluded ^a	6	4.1
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.921	7

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
4.77	27.645	5.258	7

DASS- A:

Case Processing Summary

		N	%
Cases	Valid	140	95.9
	Excluded ^a	6	4.1
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.853	7

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
3.06	16.270	4.034	7

DASS- S:

Case Processing Summary

		N	%
Cases	Valid	140	95.9
	Excluded ^a	6	4.1
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.905	7

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
6.49	26.842	5.181	7

PGS-33:

Reliability Statistics

Cronbach's Alpha	N of Items
.939	33

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
92.98	613.882	24.777	33

PGS-33: Active Grief

PGS-33: Difficulty Coping

PGS-33: Despair

PPQ:

Case Processing Summary

		N	%
Cases	Valid	143	97.9
	Excluded ^a	3	2.1
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.858	14

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
29.28	137.020	11.706	14

EPDS:

Case Processing Summary

		N	%
Cases	Valid	144	98.6
	Excluded ^a	2	1.4
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.900	10

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
11.39	37.960	6.161	10

IES-r:

Case Processing Summary

		N	%
Cases	Valid	139	95.2
	Excluded ^a	7	4.8
	Total	146	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.945	22

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.02	342.485	18.506	22

t-tests:

Group Statistics

		N	Mean	Std. Deviation	Std. Error Mean
Age	>= 92	75	2.47	.664	.077
	< 92	71	2.51	.630	.075

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	.270	.604	-.376	144	.707	-.040	.107	-.252	.172
	Equal variances not assumed			-.377	144.000	.707	-.040	.107	-.252	.171

Group Statistics

		N	Mean	Std. Deviation	Std. Error Mean
Age	>= 19	115	2.51	.640	.060
	< 19	31	2.39	.667	.120

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	.078	.781	.963	144	.337	.126	.131	-.132	.384
	Equal variances not assumed			.941	45.996	.352	.126	.134	-.144	.395

Group Statistics

		N	Mean	Std. Deviation	Std. Error Mean
EPDSTOT					
Age	>= 13	62	2.47	.695	.088
	< 13	84	2.50	.611	.067

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	1.288	.258	-.297	144	.767	-.032	.108	-.247	.182
	Equal variances not assumed			-.292	121.470	.771	-.032	.111	-.251	.187

Group Statistics

		N	Mean	Std. Deviation	Std. Error Mean
IESTOT					
Age	>= 33	40	2.38	.740	.117
	< 33	105	2.52	.606	.059

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	2.131	.147	-1.241	143	.217	-.149	.120	-.386	.088
	Equal variances not assumed			-1.135	59.984	.261	-.149	.131	-.411	.114

Group Statistics

		N	Mean	Std. Deviation	Std. Error Mean
Depression					
Age	>= 14	39	2.41	.818	.131
	< 14	107	2.51	.572	.055

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	10.398	.002	-.858	144	.392	-.104	.121	-.343	.135
	Equal variances not assumed			-.730	52.173	.469	-.104	.142	-.389	.182

Group Statistics

	Anxiety	N	Mean	Std. Deviation	Std. Error Mean
Age	>= 10	30	2.50	.731	.133
	< 10	116	2.48	.625	.058

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	1.292	.258	.130	144	.897	.017	.133	-.245	.280
	Equal variances not assumed			.118	40.645	.906	.017	.146	-.277	.311

Group Statistics

	Stress	N	Mean	Std. Deviation	Std. Error Mean
Age	>= 19	38	2.39	.755	.122
	< 19	108	2.52	.603	.058

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	3.165	.077	-1.016	144	.311	-.124	.122	-.365	.117
	Equal variances not assumed			-.913	54.559	.365	-.124	.136	-.395	.148

Group Statistics

	CGRTOT	N	Mean	Std. Deviation	Std. Error Mean
Age	>= 82	33	2.39	.788	.137
	< 82	113	2.51	.599	.056

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Age	Equal variances assumed	4.926	.028	-.933	144	.352	-.119	.128	-.372	.133
	Equal variances not assumed			-.804	43.366	.425	-.119	.148	-.418	.180

Group Statistics

		CGRTOT	N	Mean	Std. Deviation	Std. Error Mean
Education	>= 82		33	3.21	.857	.149
	< 82		113	3.23	.886	.083

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Education	Equal variances assumed	.118	.732	-.103	144	.918	-.018	.174	-.362	.326
	Equal variances not assumed			-.105	53.615	.917	-.018	.171	-.361	.325

Group Statistics

		CGRTOT	N	Mean	Std. Deviation	Std. Error Mean
TimeSinceLoss	>= 82		33	2.79	1.763	.307
	< 82		113	3.94	1.605	.151

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TimeSinceLoss	Equal variances assumed	.006	.941	-3.541	144	.001	-1.150	.325	-1.792	-.508
	Equal variances not assumed			-3.362	48.546	.002	-1.150	.342	-1.838	-.463

Group Statistics

		PGSTOT91	N	Mean	Std. Deviation	Std. Error Mean
TimeSinceLoss	>= 92		75	3.12	1.524	.176
	< 92		71	4.27	1.698	.202

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TimeSinceLoss	Equal variances assumed	4.599	.034	-4.301	144	.000	-1.148	.267	-1.675	-.620
	Equal variances not assumed			-4.289	140.290	.000	-1.148	.268	-1.677	-.619

Group Statistics

	DifficultyCoping	N	Mean	Std. Deviation	Std. Error Mean
TimeSinceLoss	>= 30	78	3.08	1.430	.162
	< 30	68	4.37	1.744	.212

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
TimeSinceLoss	Equal variances assumed	5.943	.016	-3.843	144	.000	-1.038	.270	-1.573	-.504
	Equal variances not assumed			-3.873	143.850	.000	-1.038	.268	-1.568	-.508

Group Statistics

	Despair	N	Mean	Std. Deviation	Std. Error Mean
TimeSinceLoss	>= 27	69	3.13	1.504	.181
	< 27	77	4.17	1.735	.198

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
TimeSinceLoss	Equal variances assumed	5.943	.016	-3.843	144	.000	-1.038	.270	-1.573	-.504
	Equal variances not assumed			-3.873	143.850	.000	-1.038	.268	-1.568	-.508

Crosstabs:

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Above clinical cut-off on PGS-33 * > 81 on CRG	140	95.9%	6	4.1%	146	100.0%

Above clinical cut-off on PGS-33 * > 81 on CRG Crosstabulation

			> 81 on CRG		Total
			.00	1.00	
Above clinical cut-off on PGS-33	.00	Count	66	2	68
		Expected Count	51.0	17.0	68.0
		% within Above clinical cut-off on PGS-33	97.1%	2.9%	100.0%
		% within > 81 on CRG	62.9%	5.7%	48.6%
		% of Total	47.1%	1.4%	48.6%
	1.00	Count	39	33	72
		Expected Count	54.0	18.0	72.0
		% within Above clinical cut-off on PGS-33	54.2%	45.8%	100.0%
		% within > 81 on CRG	37.1%	94.3%	51.4%
		% of Total	27.9%	23.6%	51.4%
Total		Count	105	35	140
		Expected Count	105.0	35.0	140.0
		% within Above clinical cut-off on PGS-33	75.0%	25.0%	100.0%
		% within > 81 on CRG	100.0%	100.0%	100.0%
		% of Total	75.0%	25.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	34.314 ^a	1	.000		
Continuity Correction ^b	32.064	1	.000		
Likelihood Ratio	40.095	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	34.069	1	.000		
N of Valid Cases	140				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.00.

b. Computed only for a 2x2 table

Above clinical cut-off on PGS-33 * LossType Crosstabulation

		LossType					Total	
		1	2	3	4	6		
Above clinical cut-off on PGS-33	.00	Count	9	12	34	7	9	71
		Expected Count	8.3	9.7	32.6	7.8	12.6	71.0
		% within Above clinical cut-off on PGS-33	12.7%	16.9%	47.9%	9.9%	12.7%	100.0%
		% within LossType	52.9%	60.0%	50.7%	43.8%	34.6%	48.6%
	% of Total	6.2%	8.2%	23.3%	4.8%	6.2%	48.6%	
1.00	Count	8	8	33	9	17	75	
	Expected Count	8.7	10.3	34.4	8.2	13.4	75.0	
	% within Above clinical cut-off on PGS-33	10.7%	10.7%	44.0%	12.0%	22.7%	100.0%	
	% within LossType	47.1%	40.0%	49.3%	56.3%	65.4%	51.4%	
	% of Total	5.5%	5.5%	22.6%	6.2%	11.6%	51.4%	
Total	Count	17	20	67	16	26	146	
	Expected Count	17.0	20.0	67.0	16.0	26.0	146.0	
	% within Above clinical cut-off on PGS-33	11.6%	13.7%	45.9%	11.0%	17.8%	100.0%	
	% within LossType	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	11.6%	13.7%	45.9%	11.0%	17.8%	100.0%	

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
> 81 on CRG * LossType	140	95.9%	6	4.1%	146	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.478 ^a	4	.481
Likelihood Ratio	3.522	4	.475
Linear-by-Linear Association	2.902	1	.088
N of Valid Cases	146		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.78.

> 81 on CRG * LossType Crosstabulation

		LossType					Total	
		1	2	3	4	6		
> 81 on CRG	.00	Count	13	15	52	7	18	105
		Expected Count	12.0	15.0	47.3	11.3	19.5	105.0
		% within > 81 on CRG	12.4%	14.3%	49.5%	6.7%	17.1%	100.0%
		% within LossType	81.3%	75.0%	82.5%	46.7%	69.2%	75.0%
		% of Total	9.3%	10.7%	37.1%	5.0%	12.9%	75.0%
1.00		Count	3	5	11	8	8	35
		Expected Count	4.0	5.0	15.8	3.8	6.5	35.0
		% within > 81 on CRG	8.6%	14.3%	31.4%	22.9%	22.9%	100.0%
		% within LossType	18.8%	25.0%	17.5%	53.3%	30.8%	25.0%
		% of Total	2.1%	3.6%	7.9%	5.7%	5.7%	25.0%
Total		Count	16	20	63	15	26	140
		Expected Count	16.0	20.0	63.0	15.0	26.0	140.0
		% within > 81 on CRG	11.4%	14.3%	45.0%	10.7%	18.6%	100.0%
		% within LossType	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	11.4%	14.3%	45.0%	10.7%	18.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.127 ^a	4	.058
Likelihood Ratio	8.342	4	.080
Linear-by-Linear Association	1.906	1	.167
N of Valid Cases	140		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.75.

t-tests:

Group Statistics

	Above clinical cut-off on PGS-33	N	Mean	Std. Deviation	Std. Error Mean
Age	.00	71	2.51	.630	.075
	1.00	75	2.47	.664	.077
Active Grief +34	.00	71	31.35	5.919	.702
	1.00	75	43.17	5.119	.591
Difficulty Coping +30	.00	71	21.73	6.160	.731
	1.00	75	36.76	5.966	.689
PPQTOT =/+19	.00	71	23.08	9.623	1.142
	1.00	73	35.21	10.368	1.214
EPDSTOT =/+13	.00	71	7.87	4.494	.533
	1.00	73	14.82	5.594	.655
ICG-rTOT +81	.00	68	48.99	13.305	1.613
	1.00	72	79.01	17.780	2.095
DASS-S +19	.00	68	7.84	8.018	.972
	1.00	72	17.13	10.437	1.230
DASS-A +9	.00	68	2.87	5.232	.634
	1.00	72	8.68	9.050	1.067
DASS-D +13	.00	68	4.91	7.077	.858
	1.00	72	13.42	11.470	1.352
IES-rTOT +32	.00	68	14.21	10.354	1.256
	1.00	72	34.90	19.049	2.245
HYPERAROUSAL	.00	68	4.56	4.605	.558
	1.00	72	10.68	7.106	.838
INTRUSION	.00	68	2.78	2.967	.360
	1.00	72	10.76	7.357	.867
AVOIDANCE	.00	68	6.76	4.770	.578
	1.00	72	13.32	7.043	.830

Independent Samples Test

		Levene's Test for Equality of Variances		t-Test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Age	Equal variances assumed	.270	.604	-.376	144	.707	.040	1.07	-.172	.252
	Equal variances not assumed			.377	144.000	.707	.040	1.07	-.171	.252
Active Grief +34	Equal variances assumed	.990	.321	-12.928	144	.000	-11.821	.914	-13.629	-10.014
	Equal variances not assumed			-12.877	138.524	.000	-11.821	.918	-13.636	-10.006
Difficulty Coping +30	Equal variances assumed	.131	.718	-14.974	144	.000	-15.028	1.004	-17.011	-13.044
	Equal variances not assumed			-14.961	142.915	.000	-15.028	1.004	-17.013	-13.042
PPQTOT =+19	Equal variances assumed	.942	.333	-7.266	142	.000	-12.121	1.668	-15.418	-8.823
	Equal variances not assumed			-7.274	141.692	.000	-12.121	1.666	-15.415	-8.827
EPDSTOT =+13	Equal variances assumed	2.024	.157	-8.204	142	.000	-6.949	.847	-8.623	-5.274
	Equal variances not assumed			-8.229	137.151	.000	-6.949	.844	-8.618	-5.279
ICG-ITOT +81	Equal variances assumed	6.878	.010	-11.263	138	.000	-30.029	2.666	-35.300	-24.757
	Equal variances not assumed			-11.355	131.257	.000	-30.029	2.645	-35.260	-24.797
DASS-S +19	Equal variances assumed	7.561	.007	-5.879	138	.000	-9.287	1.580	-12.410	-6.163
	Equal variances not assumed			-5.923	132.592	.000	-9.287	1.568	-12.388	-6.185
DASS-A +9	Equal variances assumed	24.009	.000	-4.617	138	.000	-5.813	1.259	-8.302	-3.324
	Equal variances not assumed			-4.684	114.888	.000	-5.813	1.241	-8.271	-3.355
DASS-D +13	Equal variances assumed	20.309	.000	-5.243	138	.000	-8.505	1.622	-11.712	-5.298
	Equal variances not assumed			-5.312	119.239	.000	-8.505	1.601	-11.675	-5.334
IES-ITOT +32	Equal variances assumed	24.915	.000	-7.921	138	.000	-20.697	2.613	-25.863	-15.530
	Equal variances not assumed			-8.046	110.872	.000	-20.697	2.572	-25.794	-15.600
HYPERAROUSAL	Equal variances assumed	18.183	.000	-6.010	138	.000	-6.122	1.019	-8.136	-4.108
	Equal variances not assumed			-6.082	122.506	.000	-6.122	1.007	-8.114	-4.129
INTRUSION	Equal variances assumed	65.509	.000	-8.331	138	.000	-7.984	.958	-9.879	-6.089
	Equal variances not assumed			-8.506	94.582	.000	-7.984	.939	-9.848	-6.121
AVOIDANCE	Equal variances assumed	10.261	.002	-6.410	138	.000	-6.555	1.023	-8.577	-4.533
	Equal variances not assumed			-6.479	125.372	.000	-6.555	1.012	-8.557	-4.553

Group Statistics

	> 81 on CRG	N	Mean	Std. Deviation	Std. Error Mean
Age	.00	105	2.54	.589	.057
	1.00	35	2.37	.770	.130
Active Grief +34	.00	105	35.25	7.176	.700
	1.00	35	44.14	7.146	1.208
Difficulty Coping +30	.00	105	26.35	8.514	.831
	1.00	35	38.77	6.835	1.155
PPQTOT =/+19	.00	105	26.28	10.874	1.061
	1.00	35	38.20	9.267	1.566
EPDSTOT =/+13	.00	105	9.14	4.914	.480
	1.00	35	18.00	4.270	.722
ICG-rTOT +81	.00	105	54.50	13.988	1.365
	1.00	35	94.20	11.021	1.863
DASS-S +19	.00	105	9.51	8.631	.842
	1.00	35	21.91	9.811	1.658
DASS-A +9	.00	105	3.75	5.921	.578
	1.00	35	12.17	9.889	1.672
DASS-D +13	.00	105	5.94	7.670	.748
	1.00	35	19.31	11.396	1.926
IES-rTOT +32	.00	105	18.02	13.113	1.280
	1.00	35	45.34	17.528	2.963
HYPERAROUSAL	.00	105	5.70	5.031	.491
	1.00	35	13.74	7.640	1.291
INTRUSION	.00	105	4.19	4.919	.480
	1.00	35	14.97	5.675	.959
AVOIDANCE	.00	105	7.97	5.427	.530
	1.00	35	16.63	6.682	1.130

Independent Samples Test

		Levene's Test for Equality of Variances		t-Test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Age	Equal variances assumed	4.239	.041	1.376	138	.171	.171	125	-.075	.418
	Equal variances not assumed			1.205	47.942	.234	.171	142	-.115	.458
Active Grief +34	Equal variances assumed	.638	.426	-6.357	138	.000	-8.895	1.399	-11.662	-6.129
	Equal variances not assumed			-6.371	58.536	.000	-8.895	1.396	-11.690	-6.101
Difficulty Coping +30	Equal variances assumed	6.734	.010	-7.824	138	.000	-12.419	1.587	-15.557	-9.281
	Equal variances not assumed			-8.727	71.973	.000	-12.419	1.423	-15.256	-9.582
PPQTOT =+19	Equal variances assumed	.360	.550	-5.818	138	.000	-11.924	2.050	-15.976	-7.871
	Equal variances not assumed			-6.302	67.710	.000	-11.924	1.892	-15.699	-8.148
EPDSTOT =+13	Equal variances assumed	2.109	.149	-9.527	138	.000	-8.857	.930	-10.695	-7.019
	Equal variances not assumed			-10.221	66.404	.000	-8.857	.867	-10.587	-7.127
ICG-ITOT +81	Equal variances assumed	5.305	.023	-15.271	138	.000	-39.695	2.599	-44.835	-34.555
	Equal variances not assumed			-17.188	73.398	.000	-39.695	2.309	-44.298	-35.093
DASS-S +19	Equal variances assumed	1.230	.269	-7.109	138	.000	-12.400	1.744	-15.849	-8.951
	Equal variances not assumed			-6.667	52.661	.000	-12.400	1.860	-16.131	-8.669
DASS-A +9	Equal variances assumed	17.268	.000	-6.069	138	.000	-8.419	1.387	-11.162	-5.676
	Equal variances not assumed			-4.760	42.412	.000	-8.419	1.769	-11.987	-4.851
DASS-D +13	Equal variances assumed	18.408	.000	-7.842	138	.000	-13.371	1.705	-16.743	-10.000
	Equal variances not assumed			-6.470	44.709	.000	-13.371	2.067	-17.534	-9.208
IES-ITOT +32	Equal variances assumed	5.209	.024	-9.771	138	.000	-27.324	2.797	-32.853	-21.794
	Equal variances not assumed			-8.466	47.332	.000	-27.324	3.227	-33.815	-20.832
HYPERAROUSAL	Equal variances assumed	13.697	.000	-7.128	138	.000	-8.048	1.129	-10.280	-5.815
	Equal variances not assumed			-5.825	44.236	.000	-8.048	1.382	-10.832	-5.264
INTRUSION	Equal variances assumed	2.844	.094	-10.798	138	.000	-10.781	.998	-12.755	-8.807
	Equal variances not assumed			-10.051	52.093	.000	-10.781	1.073	-12.933	-8.629
AVOIDANCE	Equal variances assumed	3.976	.048	-7.698	138	.000	-8.657	1.125	-10.881	-6.434
	Equal variances not assumed			-6.940	49.807	.000	-8.657	1.248	-11.163	-6.151

Correlations:

		Correlations																
		PQ-33TOT+91	ICG+TOT+81	Active Graf +34	Difficulty Coping +30	Despair +27	PPOTOT +19	EPDSTOT +13	AVOIDANCE	DASSTOT+2	DASS-S +19	DASS-A +9	DASS-D +13	ES+TOT +32	HIPERAROUSAL	INTRUSION		
PQ-33TOT+91	Pearson Correlation	1	.815	.915	.827	.933	.581	.885	.588	.819	.582	.475	.606	.689	.621	.653		
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	144	144	140	140	140	140	140	140	140	140		
ICG+TOT +81	Pearson Correlation	.810 ^{**}	1	.751 ^{**}	.749	.755 ^{**}	.600	.687 ^{**}	.679 ^{**}	.657 ^{**}	.611 ^{**}	.543 ^{**}	.612 ^{**}	.749 ^{**}	.620 ^{**}	.724 ^{**}		
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
Active Graf +34	Pearson Correlation	.915 ^{**}	.751 ^{**}	1	.766 ^{**}	.799 ^{**}	.497 ^{**}	.620 ^{**}	.603 ^{**}	.537 ^{**}	.522 ^{**}	.439 ^{**}	.488 ^{**}	.648 ^{**}	.544 ^{**}	.593 ^{**}		
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	144	144	140	140	140	140	140	140	140	140		
Difficulty Coping +30	Pearson Correlation	.827 ^{**}	.749 ^{**}	.766 ^{**}	1	.791 ^{**}	.560 ^{**}	.682 ^{**}	.536 ^{**}	.609 ^{**}	.589 ^{**}	.437 ^{**}	.604 ^{**}	.659 ^{**}	.595 ^{**}	.655 ^{**}		
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	144	144	140	140	140	140	140	140	140	140		
Despair +27	Pearson Correlation	.933 ^{**}	.755 ^{**}	.799 ^{**}	.791 ^{**}	1	.562 ^{**}	.688 ^{**}	.509 ^{**}	.573 ^{**}	.509 ^{**}	.451 ^{**}	.583 ^{**}	.609 ^{**}	.581 ^{**}	.564 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	144	144	140	140	140	140	140	140	140	140		
PPOTOT +19	Pearson Correlation	.581 ^{**}	.600 ^{**}	.497 ^{**}	.560 ^{**}	.562 ^{**}	1	.431 ^{**}	.423 ^{**}	.531 ^{**}	.482 ^{**}	.512 ^{**}	.439 ^{**}	.484 ^{**}	.418 ^{**}	.480 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000		
	N	144	140	144	144	144	144	144	140	140	140	140	140	140	140	140		
EPDSTOT +13	Pearson Correlation	.885 ^{**}	.887 ^{**}	.887 ^{**}	.887 ^{**}	.887 ^{**}	.431 ^{**}	1	.664 ^{**}	.753 ^{**}	.705 ^{**}	.596 ^{**}	.727 ^{**}	.763 ^{**}	.654 ^{**}	.746 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000		
	N	144	140	144	144	144	144	144	140	140	140	140	140	140	140	140		
AVOIDANCE	Pearson Correlation	.588 ^{**}	.679 ^{**}	.603 ^{**}	.536 ^{**}	.509 ^{**}	.423 ^{**}	.423 ^{**}	1	.657 ^{**}	.649 ^{**}	.574 ^{**}	.559 ^{**}	.913 ^{**}	.837 ^{**}	.827 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
DASSTOT+2	Pearson Correlation	.819 ^{**}	.857 ^{**}	.537 ^{**}	.609 ^{**}	.573 ^{**}	.531 ^{**}	.753 ^{**}	.657 ^{**}	1	.925 ^{**}	.843 ^{**}	.907 ^{**}	.753 ^{**}	.883 ^{**}	.893 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
DASS-S +19	Pearson Correlation	.582 ^{**}	.611 ^{**}	.522 ^{**}	.589 ^{**}	.595 ^{**}	.482 ^{**}	.795 ^{**}	.649 ^{**}	.925 ^{**}	1	.698 ^{**}	.770 ^{**}	.719 ^{**}	.641 ^{**}	.657 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
DASS-A +9	Pearson Correlation	.475 ^{**}	.543 ^{**}	.439 ^{**}	.437 ^{**}	.451 ^{**}	.512 ^{**}	.596 ^{**}	.574 ^{**}	.843 ^{**}	.698 ^{**}	1	.633 ^{**}	.644 ^{**}	.565 ^{**}	.604 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
DASS-D +13	Pearson Correlation	.606 ^{**}	.612 ^{**}	.488 ^{**}	.604 ^{**}	.583 ^{**}	.439 ^{**}	.727 ^{**}	.559 ^{**}	.907 ^{**}	.770 ^{**}	.633 ^{**}	1	.670 ^{**}	.635 ^{**}	.613 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
ES+TOT +32	Pearson Correlation	.689 ^{**}	.749 ^{**}	.648 ^{**}	.659 ^{**}	.629 ^{**}	.484 ^{**}	.763 ^{**}	.913 ^{**}	.753 ^{**}	.719 ^{**}	.644 ^{**}	.670 ^{**}	1	.861 ^{**}	.827 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
HIPERAROUSAL	Pearson Correlation	.621 ^{**}	.620 ^{**}	.544 ^{**}	.595 ^{**}	.581 ^{**}	.418 ^{**}	.654 ^{**}	.637 ^{**}	.683 ^{**}	.641 ^{**}	.565 ^{**}	.635 ^{**}	.861 ^{**}	1	.701 ^{**}		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.000		
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
INTRUSION	Pearson Correlation	.653 ^{**}	.724 ^{**}	.593 ^{**}	.655 ^{**}	.564 ^{**}	.480 ^{**}	.746 ^{**}	.827 ^{**}	.893 ^{**}	.853 ^{**}	.664 ^{**}	.613 ^{**}	.827 ^{**}	.791 ^{**}	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			
	N	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		

** Correlation is significant at the 0.01 level (2-tailed).

Regression ICG-r:

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	TimeSinceLoss, Age ^b		Enter
2	PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42 ^b		Enter

a. Dependent Variable: ICG-rTOT +81

b. All requested variables entered.

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Otherlossornot	.083 ^b	1.033	.304	.088	.989
	Livingchildornot	.023 ^b	.252	.801	.022	.759
	Employedornot	-.088 ^b	-1.086	.279	-.093	.981
	Degreeornot	-.129 ^b	-1.590	.114	-.135	.952

a. Dependent Variable: ICG-rTOT +81

b. Predictors in the Model: (Constant), Age, TimeSinceLoss >= 3 (FILTER)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	85.376	7.085		12.051	.000	71.367	99.386
	TimeSinceLoss >= 3 (FILTER)	-15.010	3.926	-.311	-3.823	.000	-22.773	-7.247
	Age	-4.084	2.741	-.121	-1.490	.139	-9.504	1.337
2	(Constant)	88.496	7.654		11.562	.000	73.357	103.634
	TimeSinceLoss >= 3 (FILTER)	-16.244	4.452	-.337	-3.649	.000	-25.048	-7.439
	Age	-3.369	2.817	-.100	-1.196	.234	-8.941	2.203
	Otherlossornot	4.482	3.756	.096	1.193	.235	-2.947	11.911
	Livingchildornot	-.623	4.855	-.012	-.128	.898	-10.226	8.981
	Employedornot	-3.564	3.694	-.080	-.965	.336	-10.870	3.742
	Degreeornot	-5.513	3.593	-.127	-1.534	.127	-12.621	1.594

a. Dependent Variable: ICG-rTOT +81

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8267.549	2	4133.774	9.837	.000 ^b
	Residual	57572.737	137	420.239		
	Total	65840.286	139			
2	Regression	10258.546	6	1709.758	4.091	.001 ^c
	Residual	55581.739	133	417.908		
	Total	65840.286	139			

a. Dependent Variable: ICG-rTOT +81

b. Predictors: (Constant), Age, TimeSinceLoss >= 3 (FILTER)

c. Predictors: (Constant), Age, TimeSinceLoss >= 3 (FILTER), Otherlossornot, Employedornot, Degreeornot, Livingchildornot

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	85.376	7.085		12.051	.000	71.367	99.386
	TimeSinceLoss >= 3 (FILTER)	-15.010	3.926	-.311	-3.823	.000	-22.773	-7.247
	Age	-4.084	2.741	-.121	-1.490	.139	-9.504	1.337
2	(Constant)	88.496	7.654		11.562	.000	73.357	103.634
	TimeSinceLoss >= 3 (FILTER)	-16.244	4.452	-.337	-3.649	.000	-25.048	-7.439
	Age	-3.369	2.817	-.100	-1.196	.234	-8.941	2.203
	Otherlossornot	4.482	3.756	.096	1.193	.235	-2.947	11.911
	Livingchildornot	-.623	4.855	-.012	-.128	.898	-10.226	8.981
	Employedornot	-3.564	3.694	-.080	-.965	.336	-10.870	3.742
	Degreeornot	-5.513	3.593	-.127	-1.534	.127	-12.621	1.594

a. Dependent Variable: ICG-rTOT +81

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8992.107	2	4496.053	10.835	.000 ^b
	Residual	56848.179	137	414.950		
	Total	65840.286	139			
2	Regression	44356.582	9	4928.509	29.823	.000 ^c
	Residual	21483.703	130	165.259		
	Total	65840.286	139			

a. Dependent Variable: ICG-rTOT +81

b. Predictors: (Constant), TimeSinceLoss, Age

c. Predictors: (Constant), TimeSinceLoss, Age, PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42

PGS-33:

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	TimeSinceLoss, Age ^b		Enter
2	PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42 ^b		Enter

a. Dependent Variable: Above clinical cut-off on PGS-33

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.347 ^a	.120	.107	.47382	.120	9.368	2	137	.000
2	.690 ^b	.476	.439	.37551	.355	12.589	7	130	.000

a. Predictors: (Constant), TimeSinceLoss, Age

b. Predictors: (Constant), TimeSinceLoss, Age, PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.206	2	2.103	9.368	.000 ^b
	Residual	30.757	137	.225		
	Total	34.963	139			
2	Regression	16.632	9	1.848	13.106	.000 ^c
	Residual	18.331	130	.141		
	Total	34.963	139			

a. Dependent Variable: Above clinical cut-off on PGS-33

b. Predictors: (Constant), TimeSinceLoss, Age

c. Predictors: (Constant), TimeSinceLoss, Age, PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.744	.165		4.521	.000
	Age	.066	.066	.085	1.002	.318
	TimeSinceLoss	-.107	.025	-.364	-4.311	.000
2	(Constant)	-.319	.177		-1.803	.074
	Age	.081	.053	.104	1.528	.129
	TimeSinceLoss	-.051	.022	-.175	-2.389	.018
	PPQTOT =/+19	.015	.003	.361	4.683	.000
	IES-rTOT +32	.007	.003	.247	2.165	.032
	DASSTOT+42	-.005	.018	-.239	-.255	.799
	DASS-S +19	.005	.019	.105	.268	.789
	DASS-D +13	.001	.019	.015	.039	.969
	DASS-A +9	-.005	.019	-.073	-.238	.812
	EPDSTOT =/+13	.025	.009	.309	2.708	.008

a. Dependent Variable: Above clinical cut-off on PGS-33

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	PPQTOT =/+19	.494 ^b	7.198	.000	.525	.993
	IES-rTOT +32	.517 ^b	6.925	.000	.511	.859
	DASSTOT+42	.397 ^b	5.282	.000	.413	.950
	DASS-S +19	.389 ^b	5.128	.000	.403	.940
	DASS-D +13	.357 ^b	4.685	.000	.373	.960
	DASS-A +9	.313 ^b	4.048	.000	.328	.967
	EPDSTOT =/+13	.512 ^b	6.876	.000	.508	.866

a. Dependent Variable: Above clinical cut-off on PGS-33

b. Predictors in the Model: (Constant), TimeSinceLoss, Age

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.370 ^a	.137	.124	20.370	.137	10.835	2	137	.000
2	.821 ^b	.674	.651	12.855	.537	30.571	7	130	.000

a. Predictors: (Constant), TimeSinceLoss, Age

b. Predictors: (Constant), TimeSinceLoss, Age, PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Above clinical cut-off on PGS-33 * LossType	146	100.0%	0	0.0%	146	100.0%

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	86.380	7.077		12.205	.000
	Age	-2.398	2.822	-.071	-.850	.397
	TimeSinceLoss	-4.347	1.069	-.341	-4.068	.000
2	(Constant)	36.526	6.055		6.033	.000
	Age	-1.192	1.815	-.035	-.657	.512
	TimeSinceLoss	-1.447	.738	-.113	-1.963	.052
	PPQTOT =/+19	.584	.113	.313	5.151	.000
	IES-rTOT +32	.457	.106	.389	4.319	.000
	DASSTOT+42	.061	.624	.073	.098	.922
	DASS-S +19	-.121	.647	-.058	-.187	.852
	DASS-D +13	.168	.656	.081	.256	.798
	DASS-A +9	-.182	.660	-.067	-.275	.784
	EPDSTOT =/+13	.623	.319	.176	1.956	.053

a. Dependent Variable: ICG-rTOT +81

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	PPQTOT =/+19	.575 ^b	9.123	.000	.616	.993
	IES-rTOT +32	.710 ^b	11.704	.000	.708	.859
	DASSTOT+42	.605 ^b	9.584	.000	.635	.950
	DASS-S +19	.554 ^b	8.267	.000	.578	.940
	DASS-D +13	.561 ^b	8.548	.000	.591	.960
	DASS-A +9	.497 ^b	7.207	.000	.526	.967
	EPDSTOT =/+13	.640 ^b	9.734	.000	.641	.866

a. Dependent Variable: ICG-rTOT +81

b. Predictors in the Model: (Constant), TimeSinceLoss, Age

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	TimeSinceLoss, Age ^b		Enter
2	PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42 ^b		Enter

a. Dependent Variable: PGS-33TOT+91

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.406 ^a	.165	.153	22.778	.165	13.535	2	137	.000
2	.804 ^b	.646	.622	15.215	.481	25.291	7	130	.000

a. Predictors: (Constant), TimeSinceLoss, Age

b. Predictors: (Constant), TimeSinceLoss, Age, PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14044.210	2	7022.105	13.535	.000 ^b
	Residual	71078.451	137	518.821		
	Total	85122.661	139			
2	Regression	55028.162	9	6114.240	26.412	.000 ^c
	Residual	30094.499	130	231.496		
	Total	85122.661	139			

a. Dependent Variable: PGS-33TOT+91

b. Predictors: (Constant), TimeSinceLoss, Age

c. Predictors: (Constant), TimeSinceLoss, Age, PPQTOT =/+19, DASS-D +13, DASS-A +9, IES-rTOT +32, EPDSTOT =/+13, DASS-S +19, DASSTOT+42

Excluded Variables^a

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	
1	PPQTOT =/+19	.552 ^b	8.787	.000	.602	.993
	IES-rTOT +32	.627 ^b	9.601	.000	.636	.859
	DASSTOT+42	.556 ^b	8.600	.000	.594	.950
	DASS-S +19	.513 ^b	7.574	.000	.545	.940
	DASS-D +13	.547 ^b	8.434	.000	.586	.960
	DASS-A +9	.417 ^b	5.862	.000	.449	.967
	EPDSTOT =/+13	.620 ^b	9.494	.000	.631	.866

a. Dependent Variable: PGS-33TOT+91

b. Predictors in the Model: (Constant), TimeSinceLoss, Age