Guilt, Shame, and Grief:

An Empirical Study of Perinatal Bereavement

by **Peter Barr**

'Death in the sickroom', Edvard Munch 1893

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Preface

All of the work described in this thesis was carried out personally by the author under the auspices of the Centre for Behavioural Sciences, Department of Medicine, Faculty of Medicine, University of Sydney. None of the work has been submitted previously for the purpose of obtaining any other degree.

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The investigator cannot truthfully maintain his relationship with reality—a relationship without which all his work becomes a well-regulated game—if he does not again and again, whenever it is necessary, gaze beyond the limits into a sphere which is not his sphere of work, yet which he must contemplate with all his power of research in order to do justice to his own task.

Buber, M. (1957). Guilt and guilt feelings. *Psychiatry, 20*, p. 114.

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Abstract

Aim. The aim of the present research was to investigate the relationship of personality guilt- and shame-proneness to grief and psychological dysphoria following bereavement due to stillbirth or death in the newborn period.

Methods. Participating parents completed self-report questionnaire measures of proneness to situational guilt and shame (Test of Self-Conscious Affect-2), chronic guilt and shame (Personal Feelings Questionnaire-2) and interpersonal guilt (Interpersonal Guilt Questionnaire-67), grief (Perinatal Grief Scale-33) and psychological dysphoria (General Health Questionnaire-28) one month ('early', N = 158) and 13 months ('late', N = 149) after a perinatal death.

Results. Women compared with men self-reported more intense grief, anxiety and depression one month after the death, but there were no significant sex differences in grief or psychological dysphoria one year later.

Hierarchical multiple regression analyses showed that composite shame (situational and chronic) explained a small but statistically significant proportion of the variance in early total grief (adjusted R^2 = .09) and anxiety (adjusted R^2 = .07) in women, and early total grief (adjusted R^2 = .19), anxiety (adjusted R^2 = .13) and depression (adjusted R^2 = .10) in men. Composite guilt (situational, chronic and interpersonal) controlled for shame did not make a significant further contribution to the variance in early total grief, anxiety or depression in either sex.

Composite shame explained not only significant but meaningful proportions of the variance in late grief (adjusted R^2 = .27), anxiety (adjusted R^2 = .21) and depression (adjusted R^2 = .27) in women, and late grief (adjusted R^2 = .56), anxiety (adjusted R^2 = .30) and depression (adjusted R^2 = .51) in men. Composite guilt controlled for shame made significant further contributions to the variance

in late grief (ΔR^2 = .21), anxiety (ΔR^2 = .16) and depression (ΔR^2 = .25) in women, and late grief (ΔR^2 = .11) in men. Shame and guilt together explained a substantial proportion of the variance in late grief (adjusted R^2 = .45), anxiety (adjusted R^2 = .33) and depression (adjusted R^2 = .49) in women, and late grief (adjusted R^2 = .64), anxiety (adjusted R^2 = .35) and depression (adjusted R^2 = .56) in men.

Situational shame, chronic guilt and survivor guilt made positive unique contributions to the variance in late grief in women. Chronic shame and survivor guilt made unique contributions to the variance in late grief in men. Situational guilt made a significant unique negatively valenced contribution to the variance in late grief in women.

Early composite shame, but not guilt, predicted late grief, anxiety and depression in men. Early composite shame and/or guilt did not predict late grief, anxiety or depression in women.

Conclusion. Personality proneness to shame was more relevant to late grief, anxiety and depression in men than in women, but survivor guilt was equally important to late grief in both sexes. Chronic guilt and functional situational guilt were pertinent to late grief, anxiety and depression in women, but not in men. Personality shame- and guilt-proneness have important relationships with parental grief after perinatal death that have not hitherto been recognised.

Chapter 1

Prelude

The purpose of the present research was to investigate empirically the relationship between personality proneness to shame and guilt and grief and psychological dysphoria in women and men bereaved by stillbirth or death in the newborn period.

Two factors among the myriad that determine the grief response to bereavement are the nature of the relationship with the person who has died and the personal coping resources of the bereaved. The death of a child is generally regarded as the most painful of all bereavements (Archer, 1999b; Parkes, 1986; Rando, 1986; Raphael, 1983; Sanders, 1989), and there is empiric support for this contention (Burnett, Middleton, Raphael, & Martinek, 1997; Leahy, 1992; Middleton, Raphael, Burnett, & Martinek, 1998; Owen, Fulton, & Markusen, 1982-83; Sanders, 1979-80), though it is not universal (Lehman, Wortman, & Williams, 1987). The death of an infant in the perinatal period is similarly painful for it is untimely, unexpected, often sudden, sometimes unexplained, bewilderingly juxtaposed with birth, negating of an assumptive world view projected toward the future, frequently traumatic and commonly lacking in psychosocial support (Berezin, 1982; Borg & Lasker, 1988; Kirkley-Best & Kellner, 1982; Peppers & Knapp, 1980b; Raphael, 1983).

Although grief is almost inevitable when an infant dies, the intensity and duration of the grief differ from one parent to another according to their perceptions of the loss and the personal coping resources they bring to the situation (Archer, 1999b; Folkman, 2001). Previous research has identified a number of demographic, social, pregnancy-related and infant-related contextual

factors that may modulate parental grief following pregnancy loss. Across diverse studies, several factors have been found to have an adverse effect on the grief of reproductive loss and these include female parent gender, longer duration of the pregnancy, lack of perceived support from health professionals, partners, family and friends, and pre-loss mental health (Lasker & Toedter, 2000). The last mentioned correlation between grief and pre-loss mental health is particularly germane to the present study.

Oddly, scant empirical attention has been given to the role that personality might play in the adaptation or adjustment to bereavement, despite the recognition of the overly dependent clinging 'grief-prone' personality by Parkes (1986; Parkes & Weiss, 1983), Raphael (1983) and Bowlby (1980). These authors located grief-prone people within the schema of attachment theory as proposed by Ainsworth and Bowlby (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969) and deemed them to be individuals with dependent or insecure attachment styles. In reviewing her own empirical research, Sanders reported identifying people with a 'disturbed' reaction to bereavement as individuals who 'reported feelings of inadequacy, inferiority, and insecurity, which seemed of a chronic nature' (Sanders, 1993, p. 260). Personality characteristics of anxiety and emotional instability (Vachon *et al.*, 1982), and neuroticism and perceived lack of personal control (Stroebe, Stroebe, & Domittner, 1988) have been posited as risk factors for bereavement outcome. In a more recent cross-sectional study of predominantly spousal bereavement, Meuser and Marwit (1999) showed that an emotion-oriented coping style was a better predictor of greater grief 'involvement' than long-standing personality traits of neuroticism and extraversion. There is meagre empirical research regarding personality characteristics that might ameliorate grief, though emotional stability (Stroebe *et al.*, 1988; Vachon *et al.*, 1982), perceived personal control (Stroebe *et al.*, 1988), problem-oriented coping style (Meuser & Marwit, 1999),

'hardiness' (Campbell, Swank, & Vincent, 1991), and death acceptance and the belief in a just world (Bonanno *et al.*, 2002) have been associated with attenuated grief.

The few empirical studies that have considered personality characteristics in relation to perinatal grief have shown that neuroticism (Janssen, Cuisinier, de Graauw, & Hoogduin, 1997; Janssen, Cuisinier, Hoogduin, & de Graauw, 1996), lack of ego strength (Zeanah, Danis, Hirshberg, & Dietz, 1995), defensiveness (Hunfeld, Wladimiroff, & Passchier, 1997b; Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; Hunfeld, Wladimiroff, Verhage, & Passchier, 1995; Zeanah *et al.*, 1995), personal inadequacy (Hunfeld *et al.*, 1997b; Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; Hunfeld *et al.*, 1995) and self-criticism (Franche, 2001) generally predict perinatal grief more strongly than demographic, social, pregnancy and infant variables. The personality characteristic of hardiness (a sense of personal control, active orientation to problem solving and the ability to find meaning in adverse life events) has been purported to ameliorate perinatal grief, though the information was narrative rather than quantitative (Lang *et al.*, 2001).

Although grief is more than just emotion as the latter is usually understood (Bonanno, 2001), emotional experience and expression are nevertheless integral to grief. In the midst of their lamentation, parents are wont to express feelings of anxiety, fear, guilt, regret, remorse, anger, resentment, jealousy, envy, rage, failure, abandonment, sorrow and depression (Fritsch, 1988; Simonds & Rothman, 1992). If personality characteristics such as neuroticism, low ego strength and personal inadequacy are strong predictors of grief and emotional states are keenly felt in grief then emotion-based traits or predispositions may well bear important relations with perinatal grief, including the prediction of bereavement outcome.

Contrary to the dictates of the Freudian based 'grief-work' theory (Freud, 1957/1917; Stroebe, 1992), Bonanno *et al.* (Bonanno & Keltner, 1997; Bonanno, Znoj, Siddique, & Horowitz, 1999) have provided evidence for the salutary effect of minimising the experience and expression of negative emotions (sadness and anger) in fostering successful adaptation to conjugal bereavement. Informed by a functionalist view of emotions (Barrett & Campos, 1987), Bonanno *et al.* (Bonanno, 2001; Bonanno & Keltner, 1997; Bonanno *et al.*, 1999) have also shown the beneficial effect of positive emotion (smiling and laughter) on the adjustment to bereavement. These studies suggest that an individual's 'affective style' (Davidson, 1994) might work to mitigate or intensify grief.

The present research was founded on several psychological tenets concerning emotion and personality. First, normal adults manifest a number of affective states along a continuum from acute emotions through chronic moods to emotion traits (Ekman & Davidson, 1994). Second, emotion traits or predispositions are stable, idiosyncratic and recurring emotion-based personality constructs that organise functional or adaptive responses to a variety of cross-situational events or life situations (Davidson, 1994; Ekman, 1994; Frijda, 1994; Goldsmith, 1994; Izard & Buechler, 1980; Izard & Kobak, 1991; Kagan, 1994a, 1994b; Lazarus, 1994; Lazarus, Kanner, & Folkman, 1980; Lewis & Michalson, 1983; Malatesta, 1990; Malatesta & Wilson, 1988; Oatley & Johnson-Laird, 1987; Plutchik, 1980; Watson & Clark, 1994). Frijda, for example, defined emotion-based personality predispositions as 'propensities to appraise events in terms corresponding to particular emotions' (Frijda, 1994, p. 66). Third, shame and guilt are separate but related emotions (Ekman, 1992; Erikson, 1963; Ferguson & Crowley, 1997b; Harder, 1995; Hoblitzelle, 1987; Lewis, 1971; Lynd, 1958; Piers & Singer, 1953; Roseman, Wiest, & Schwartz, 1994; Tangney, 1995a, 1996), rather than general measures of negative affectivity (Watson & Clark, 1992) or a single complex emotion (Harris, 2001; Kaufman, 1989;

Tomkins, 1987). Fourth, shame and guilt are capable of being organised into emotion traits distinct from personality types (Einstein & Lanning, 1998) and, through a process of dysregulation (Fox, 1994; Garber & Dodge, 1991), into emotion-based states of psychopathology (Ekman, 1992; Malatesta, 1990; Malatesta & Wilson, 1988):

> Although each affect has a functionally adaptive purpose some affects become monopolistic; they overtake the personality by altering consciousness in biased ways. This can lead to mild, idiosyncratic distortions that characterize individual differences in personality…or to more acute distortions of the kind that are evident in psychopathology (Malatesta & Wilson, 1988, p. 100).

Finally, although shame and guilt do not have distinguishable facial expressions (Darwin, 1872; Izard, 1971), they are capable of being measured through the medium of self-report questionnaires (Tangney, 1995a, 1996); not withstanding the caution that 'the meaning of an affect understood on the basis of self-report evidence is [not necessarily] similar to, or even identical with, the meaning understood by psychologists who use behavioural observations or physiological data as evidence for inferring similar states' (Kagan, 1994b, p. 12).

The discourse on shame has burgeoned in recent years, particularly in the psychoanalytic literature (Broucek, 1991; Jacoby, 1994; Lansky & Morrison, 1997; Nathanson, 1987b; Wurmser, 1995), but also in psychology (Gilbert & Andrews, 1998; Greenwald & Harder, 1998; Harder & Greenwald, 2000; Kaufman, 1989; Lewis, 1995; Tangney & Dearing, 2002), sociology (Parker, Dalziell, & Wright, 1996; Scheff, 1997a), criminology (Ahmed, Harris, Braithwaite, & Braithwaite, 2001) and theology (Pattison, 2000; Schneider, 1977). Shame, previously referred to as 'the sleeper in psychopathology' (Lewis, 1987a), has supplanted guilt as the dysregulated emotion most often considered by psychologists, psychiatrists and psychoanalysts to be at the core of mental

illness (Andrews, 1995, 1998; Andrews, Qian, & Valentine, 2002; Averill, Diefenbach, Stanley, Breckenridge, & Lusby, 2002; Harder, 1995; Harder & Greenwald, 2000; Kaufman, 1989; Lansky, 1999; Lansky & Morrison, 1997; Lewis, 1987b; Nathanson, 1987a; Tangney, Burggraf, & Wagner, 1995; Tangney & Dearing, 2002). Although there is far from unanimity of opinion concerning guilt's role in the development of mental illness (Bybee & Quiles, 1998; Harder, 1995; Quiles & Bybee, 1997; Tangney *et al.*, 1995), guilt has a long tradition since Freud of causal relevance to psychopathology (Harder, Cutler, & Rockart, 1992), particularly depression where it constitutes a major *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR, 2000) criterion for the diagnosis.

The relationship between personality predispositions to shame and guilt and grief and psychological dysphoria following bereavement has not hitherto been the subject of published empirical study, though in his influential paper, *Mourning and Melancholia*, Freud distinguished 'mourning' (grief) from 'melancholia' (depression) by the presence in the latter of a 'lowering of self-regarding feelings to a degree that finds utterance in self-reproaches and self-revilings' (Freud, 1957/1917, p. 244). H.B. Lewis (Lewis, 1987b) utilised Ainsworth's and Bowlby's attachment theory (Ainsworth *et al.*, 1978; Bowlby, 1969) to formulate her own position on the development of shame proneness in insecurely attached infants. Similarly, ambivalent attachment in the early parent-child relationship is held to be one of the hallmarks of the pathogenic belief system that informs maladaptive interpersonal guilt (O'Connor, 2000; Weiss, 1993). Thus, from an attachment theory perspective of grief (Archer, 1999b; Shaver & Tancredy, 2001), one might presuppose a consequential relationship between proneness to shame and, perhaps, guilt and perinatal grief.

The psychology of pregnancy has generally been gleaned from the purview of psychoanalysts with a psychodynamic orientation (Benedek, 1952, 1970; Bibring, 1959; Bibring, Dwyer, Huntington, & Valenstein, 1961; Deutsch, 1945; Furman, 1996; Leon, 1990; Pines, 1990). Pregnancy 'failure' in this tradition has been conceived of as a narcissistic injury to the woman with deleterious consequences for her sense of self-worth (Furman, 1978; Leon, 1992b). In men, too, pregnancy loss may be perceived as failure resulting in a narcissistic injury (Furman, 1978; Leon, 1992b). Evoking a non-psychodynamic alternative concept, women and men bereaved by pregnancy loss may perceive they have violated societal expectations regarding gender roles in matters of fecundity, nurturance and sexual adequacy, and failure so regarded may affect their psychological well-being. The relationship of shame with narcissism (Broucek, 1991; Gramzow & Tangney, 1992; Kaufman, 1989; Kohut, 1972; Lewis, 1971, 1987c; Mollon, 1984; Morrison, 1983; Morrison & Stolorow, 1997; Wright, O'Leary, & Balkin, 1989; Wurmser, 1987), 'unwanted identity' (Ferguson, Eyre, & Ashbaker, 2000; Lindsay-Hartz, 1984), and 'gender role stress' (Efthim, Kenny, & Mahalik, 2001) presages the possibility of an important relationship between personality proneness to shame and the grief of pregnancy loss in women and men.

The urgent human need to understand an adverse life event and thereby assert some control over it by assigning a plausible if not rational cause begets parents' common belief that they were in some way responsible for the infant's death (Gardner, 1969; Leon, 1992b; Miles & Demi, 1986). 'Neurotic' guilt (Buber, 1957) related to irrationally perceived sins of commission or omission and the associated fear of punishment is a common accompaniment of parental bereavement (Miles & Demi, 1986), including pregnancy loss, where even the Freudian notion of fear of punishment, 'often in the form of some genital injury' (Cullberg, 1971, p. 328), has been proposed. If guilt emotion as a state occurs

commonly in grief, then a personality trait or predisposition toward feeling responsible for the well-being of others or chronic guilt and self-blame for the adversity of others (Frijda, 1993; Harder & Lewis, 1987; O'Connor, Berry, & Weiss, 1999) might be expected to have a positive correlation with parental grief. Similarly, a personality predisposition to survivor guilt grounded in the irrational belief that one is less deserving than others (O'Connor, 2000; O'Connor *et al.*, 1999) might bear a notable relationship with perinatal grief.

The forms of shame and guilt so far mentioned are maladaptive, yet a functionalist view of discrete emotion would posit the existence of adaptive forms of both shame and guilt (Barrett, 1995; Greenberg & Paivio, 1993; Malatesta & Wilson, 1988). Although shame can claim an important adaptive function in the maintenance of the social fabric (Braithwaite, 1996; Greenwald & Harder, 1998; Harder & Greenwald, 2000; Retzinger, 1996; Scheff, 1997b), the self-actualising (Horney, 1950) 'search for identity' (Lynd, 1958) or process of individuation (Jacoby, 1994), shame in psychology and psychiatry has usually been portrayed as a maladaptive emotion with adverse consequences for psychosocial health, particularly if the shame is unacknowledged or 'by-passed' (Gilbert & Andrews, 1998; Lewis, 1971; Lewis, 1995; Macdonald, 1998; Tangney & Dearing, 2002). Lewis (1971) proposed that by-passed shame was a denial mechanism, whereby shame affect was suppressed. Lewis described the experience of by-passed shame and its consequences as follows,

> The person is aware of the cognitive content of shame-connected events, but experiences only a "wince," "blow" or "jolt." In this pattern of by-passed shame, the person's experience proceeds smoothly, except for a peripheral, nonspecific disturbance in awareness, which serves mainly to note the shame potential in the circumstance. The ideation of by-passed shame involves doubt about the self's image from the "other's" viewpoint. There is frequently

> an accompaniment of overt hostility along with the ideation, and sometimes clear retaliatory feeling (Lewis, 1971, p. 197).
>
> …
>
> The content of the doubting ideation is likely to contain the theme of guilt…[with] an insoluble, plaguing dilemma of guilty thoughts which will not solve' (Lewis, 1971, pp. 233-234).

Guilt, nowadays, is mostly thought of as an adaptive emotion that serves to maintain and nurture interpersonal relations through empathic concern for the well-being of others (Baumeister, Stillwell, & Heatherton, 1994; Hoffman, 1982, 1998; Tangney & Dearing, 2002). The interpersonal nature of guilt emotion founded in the reality-based desire not to cause harm to others presupposes that a personality predisposition to adaptive or 'healthy' guilt might favour psychological health over illness (Barrett, 1995; Baumeister *et al.*, 1994; Hoffman, 1998; Tangney, 1995a; Tangney, 1995b). Thus, functional guilt might be expected to bear a negligible or even negative relationship with perinatal grief and psychological dysphoria.

The development of psychometrically validated self-report questionnaires that measure maladaptive shame (Harder & Zalma, 1990; Tangney, Ferguson, Wagner, Crowley, & Gramzow, 1996), adaptive guilt (Tangney, Ferguson *et al.*, 1996), chronic guilt (Harder & Zalma, 1990) and maladaptive interpersonal guilt (O'Connor, Berry, Weiss, Bush, & Sampson, 1997) together with the availability of reliable and valid measures of perinatal grief (Potvin, Lasker, & Toedter, 1989) and psychological dysphoria (Goldberg & Hillier, 1979) afforded the opportunity to study the relationship between personality predispositions to shame and guilt and women's and men's grief and psychological ill-health following bereavement due to stillbirth or neonatal death.

Chapter 2

Perinatal Grief

This chapter comprises a selected review of work published in the scientific literature on parental grief after a stillbirth or neonatal death—'perinatal grief'. The selection process was guided by the dictates of the present research, such that particular attention was given to quantitative studies, studies that measured grief using the *Perinatal Grief Scale* (PGS) (Potvin *et al.*, 1989; Toedter, Lasker, & Alhadeff, 1988), studies that paid heed to predictors of perinatal grief, especially gender and personality traits, and studies that made explicit or implicit reference to guilt or shame. These pragmatic and operational considerations precluded a review of the qualitative research on perinatal grief, thereby risking censure by advocates of individual case studies, such as Bourne and Lewis (1992), the British psychiatrists and psychoanalysts, who espoused the following view in their annotated bibliography:

> Reactions to stillbirth and the factors before and after the event that influence the reaction are so varied and complex that satisfactory quantitative studies are unlikely in the near future. We believe that more useful information will come from intensive individual case studies (Bourne & Lewis, 1992, p. 117).

Perhaps the more commonly held view, and the one that informed the present research, is that 'satisfactory quantitative studies' are not only possible but necessary (Kirkley-Best & Kellner, 1982; Zeanah, 1989), though they do not negate the richness and complementary value of qualitative studies.

The published quantitative studies of perinatal grief can be categorised as having one of three research designs: one-off case series; retrospective studies; and longitudinal studies (Boyle, 1997).

One-off quantitative studies

The reported one-off cross-sectional case-series of perinatal grief soon after the death were not methodologically sophisticated, but they yielded very useful information (Table 2.1) (Benfield, Leib, & Vollman, 1978; Clyman, Green, Rowe, Mikkelsen, & Ataide, 1980; Giles, 1970; Graham, Thompson, Estrada, & Yonekura, 1987; Hunfeld, Mourik, Passchier, & Tibboel, 1996; Johnson & Puddifoot, 1996; Kennell, Slyter, & Klaus, 1970; Lake, Johnson, Murphy, & Knuppel, 1987; Tudehope, Iredell, Rodgers, & Gunn, 1986; Zeanah, Dailey, Rosenblatt, & Saller, 1993; Zeanah *et al.*, 1995). First, they documented the hitherto inadequately recognised fact that most parents grieve after a stillbirth or neonatal death, and that their grief is qualitatively similar to that which occurs after the death of an older child or adult (Giles, 1970; Kennell *et al.*, 1970). Second, they noted the importance and value that most parents attach to seeing, holding and touching their dying or dead baby (Giles, 1970; Graham *et al.*, 1987; Kennell *et al.*, 1970). Third, they underscored the beneficial effect that informative and caring hospital personnel can have on parents' acute grief (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Giles, 1970; Graham *et al.*, 1987; Kennell *et al.*, 1970). Fourth, they alluded to (Clyman *et al.*, 1980) or documented (Lake *et al.*, 1987) the benefits of post-loss supportive counselling in some parents. Fifth, they recorded similarities and differences in the acute grief responses of women and men, particularly noting that women grieve more intensely than men (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Hunfeld *et al.*, 1996; Tudehope *et al.*, 1986; Zeanah *et al.*, 1995). Sixth, they showed that some parent-related demographic, social and pregnancy factors, and some infant-related factors were correlated with acute grief (Benfield *et al.*, 1978; Kennell *et al.*, 1970; Lake *et al.*, 1987; Tudehope *et al.*, 1986; Zeanah *et al.*, 1993; Zeanah *et al.*, 1995), or depression (Graham *et al.*, 1987). Seventh, they commented on (Clyman *et al.*, 1980; Tudehope *et al.*, 1986) or documented

(Zeanah *et al.*, 1995) the importance of personality characteristics in the genesis of acute grief. Finally, they registered the occurrence of guilt in perinatally bereaved parents (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Giles, 1970; Graham *et al.*, 1987; Lake *et al.*, 1987; Tudehope *et al.*, 1986; Zeanah *et al.*, 1993), especially women (Benfield *et al.*, 1978; Clyman *et al.*, 1980). A woman's guilt was usually portrayed as the irrational belief, often an inchoate fear, that in some way she was responsible for her baby's death (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Giles, 1970; Graham *et al.*, 1987). In one study by Zeanah (1993), women who had undergone a late termination of pregnancy for fetal anomaly were no more troubled by guilt feelings than woman who had suffered a spontaneous perinatal loss. Two studies (Giles, 1970; Graham *et al.*, 1987) posited the unsubstantiated and perhaps simplistic belief that an explanation for the cause of death and reassurance about lack of culpability may be sufficient to alleviate parental guilt. In the study by Graham (1987), there was a positive correlation between guilt and depression.

These one-off studies were compromised by their cross-sectional design and the short time period since the loss (Table 2.1). A number of them were further limited by their use of ad hoc measures of grief that were not tested for their psychometric reliability and validity (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Giles, 1970; Kennell *et al.*, 1970; Tudehope *et al.*, 1986), or an established measure of grief, such as the *Grief Experience Inventory* (GEI, Sanders, Mauger, & Strong, 1977), that did not account for the peculiarities of perinatal bereavement (Zeanah, 1989). Additional shortcomings in some of these studies included small numbers of participants, low response rates for eligible participants, and selection bias from convenience samples, such as single hospital neonatal intensive care units or wards, or specialist clinics (Table 2.1). The word *shame* was not mentioned in any of these one-off studies of perinatal bereavement, though Giles noted that some women felt 'they had failed their

husband in not producing a live baby…and were genuinely doubtful whether they ought to try again' (Giles, 1970, p. 209).

The limitations of these studies raise concern about the validity of extrapolating their findings to other populations. Although the useful aspects of these investigations have been refined by more sophisticated longitudinal studies, their influence in informing the care given to perinatally bereaved families has endured (Fox, Pillai, Porter, & Gill, 1997), sometimes in an uncritical manner (Hughes, Turton, Hopper, & Evans, 2002; Leon, 1992a).

Retrospective quantitative studies

There have been a number of retrospective studies of perinatal grief and they have increased the knowledge base for this type of bereavement and influenced clinical practice with respect to the care given to bereaved parents (Table 2.2) (Cordell & Thomas, 1990; Cuisinier, de Kleine, Kollee, Bethlehem, & de Graauw, 1996; Cuisinier, Kuijpers, Hoogduin, de Graauw, & Janssen, 1993; Cullberg, 1971; Dorner & Atwell, 1985; Dyregrov & Matthiesen, 1987a, 1987b; Franche, 2001; Franche & Bulow, 1999; Hughes & Page-Lieberman, 1989; Murray & Callan, 1988; Nicol, Tompkins, Campbell, & Syme, 1986; Peppers & Knapp, 1980a; Rowe *et al.*, 1978; Smith & Borgers, 1988; Wilson, Fenton, Stevens, & Soule, 1982; Wilson, Witzke, Fenton, & Soule, 1985). First, they showed that parental grief after a perinatal death may be prolonged or otherwise complicated (Cullberg, 1971; Dyregrov & Matthiesen, 1987a, 1987b; Nicol *et al.*, 1986; Rowe *et al.*, 1978; Smith & Borgers, 1988). Second, they reiterated the importance of parents having contact with their baby after death, if they so wished (Dorner & Atwell, 1985; Murray & Callan, 1988; Nicol *et al.*, 1986). Third, they stressed that supportive hospital personnel (Cuisinier *et al.*, 1993; Cullberg, 1971; Dorner & Atwell, 1985; Murray & Callan, 1988; Rowe *et al.*, 1978), and concerned family and/or friends (Dyregrov & Matthiesen, 1987a;

Murray & Callan, 1988; Smith & Borgers, 1988; Wilson *et al.*, 1985) could favourably influence parents' adjustment to the loss. Fourth, they showed that women grieve not only more intensely than men, but also for a longer period (Cuisinier *et al.*, 1996; Dyregrov & Matthiesen, 1987a; Franche & Bulow, 1999; Smith & Borgers, 1988; Wilson *et al.*, 1982; Wilson *et al.*, 1985). Fifth, they showed that certain parent-related socio-demographic and pregnancy variables, and infant-related variables predicted grief outcome (Cuisinier *et al.*, 1996; Cuisinier *et al.*, 1993; Dorner & Atwell, 1985; Dyregrov & Matthiesen, 1987a, 1987b; Franche, 2001; Franche & Bulow, 1999; Murray & Callan, 1988; Nicol *et al.*, 1986; Peppers & Knapp, 1980a; Rowe *et al.*, 1978; Smith & Borgers, 1988; Wilson *et al.*, 1982). Sixth, they showed that a subsequent pregnancy was more often associated with an amelioration of grief (Franche, 2001; Franche & Bulow, 1999; Peppers & Knapp, 1980a; Smith & Borgers, 1988), than with an aggravation of it (Rowe *et al.*, 1978). Seventh, two studies commented that personality characteristics were probably important determinants of parental grief (Hughes & Page-Lieberman, 1989; Smith & Borgers, 1988), and one showed that a personality predisposition to self-criticism predicted grief intensity in both women and men (Franche, 2001). Eighth, one study showed there were important relationships between the constructs of attachment and meaning making and perinatal grief (Uren & Wastell, 2002). Finally, guilt and/or shame following the death of a baby were mentioned or inferred in a number of these studies (Cuisinier *et al.*, 1996; Cullberg, 1971; Dorner & Atwell, 1985; Dyregrov & Matthiesen, 1987a, 1987b; Franche & Bulow, 1999; Hughes & Page-Lieberman, 1989; Peppers & Knapp, 1980a; Rowe *et al.*, 1978; Smith & Borgers, 1988; Wilson *et al.*, 1982). Although shame was not mentioned by name, there were implicit references to it in psychoanalytic parlance, such as the loss reviving a 'deep feeling of physical inadequacy long since forgotten' (Cullberg, 1971, p. 328), or the moderating effect of a subsequent pregnancy on the 'narcissistic

injury and despair' (Franche & Bulow, 1999, p. 183). Guilt was usually described as irrational self-reproach or a misplaced sense of responsibility for the death, and it was invariably more common in women than in men (Cullberg, 1971; Dyregrov & Matthiesen, 1987a, 1987b; Rowe *et al.*, 1978; Smith & Borgers, 1988; Wilson *et al.*, 1982). There were also textual references to different types of guilt. Cullberg, for example, described severe intropunitive guilt when he reported that mothers '[felt] they had been punished and that they deserved further punishment, often in the form of some genital injury' (Cullberg, 1971, p. 328), though, in fact, he may have been referring to shame (Bybee, Merisca, & Velasco, 1998). Similarly, Cuisinier described 'grief guilt' (Miles & Demi, 1986), when she quoted a mother as saying, 'I have sometimes felt guilty about my sadness concerning the dead baby [twin] because I still have a living one' (Cuisinier *et al.*, 1996, p. 342).

The retrospective design of these studies, often conducted several years and sometimes several decades after the event, raises concern about their reliability, not least because of possible inaccuracies in long term memory recall (Tourangeau, 2000), and the influence of mood on memory recall (Kihlstrom, Eich, Sandbrand, & Tobias, 2000). The shortcomings previously described for the one-off studies also apply to these retrospective surveys. They include ascertainment bias, such as using volunteers from bereavement support groups (Lasker & Toedter, 2000), small numbers of study participants, shortfalls in eligible enrolments, the use of ad hoc measures of grief (Cullberg, 1971; Dyregrov & Matthiesen, 1987a, 1987b; Peppers & Knapp, 1980a; Rowe *et al.*, 1978), or measures of grief that were not designed for the assessment of perinatal grief, such as the GEI (Hughes & Page-Lieberman, 1989; Smith & Borgers, 1988), and the measurement of psychological symptoms instead of grief (Table 2.2) (Cordell & Thomas, 1990; Dorner & Atwell, 1985; Murray & Callan, 1988; Nicol *et al.*, 1986; Wilson *et al.*, 1982; Wilson *et al.*, 1985).

Longitudinal quantitative studies

A summary of the longitudinal studies of perinatal grief is shown in Table 2.3. Although single reports have been published (Dyregrov & Matthiesen, 1991; Forrest, Standish, & Baum, 1982; Jensen & Zahourek, 1972; Lilford, Stratton, Godsil, & Prasad, 1994; Wolff, Nielson, & Schiller, 1970), the more common practice has been to publish multiple reports relating to a single cohort (Table 2.3) (Boyle, 1997; Boyle, Najman, Vance, & Thearle, 1996; Boyle, Vance, Najman, & Thearle, 1996; Goldbach, Dunn, Toedter, & Lasker, 1991; Hughes *et al.*, 2002; Hughes, Turton, & Evans, 1999; Hunfeld *et al.*, 1997b; Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; Hunfeld *et al.*, 1995; Janssen *et al.*, 1997; Janssen *et al.*, 1996; Lang & Gottlieb, 1993; Lang, Gottlieb, & Amsel, 1996; LaRoche *et al.*, 1984; LaRoche *et al.*, 1982; Lasker & Toedter, 1991; Lasker & Toedter, 1994; Lin & Lasker, 1996; Mekosh-Rosenbaum & Lasker, 1995; Stinson, Lasker, Lohmann, & Toedter, 1992; Thearle, Vance, Najman, Embelton, & et al., 1995; Theut, Pedersen, Zaslow, & Rabinovich, 1988; Theut *et al.*, 1989; Theut, Zaslow, Rabinovich, Bartko, & Morihisa, 1990; Toedter *et al.*, 1988; Toedter, Lasker, & Campbell, 1990; Vance, Boyle, Najman, & Thearle, 1995; Vance, Boyle, Najman, & Thearle, 2002; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995).

The studies by Wolff *et al.* (1970), Jensen and Zahourek (1972), LaRoche *et al.* (1984; 1982), Dyregrov and Matthiesen (1991), and Theut *et al.* (1988; 1989; 1990) were longitudinal medium-term interval examinations of parental grief and/or psychological symptoms over 1–2 years from the time of the death (Table 2.3). Theut *et al.* (1988; 1989; 1990) used the face-valid but psychometrically untested *Perinatal Bereavement Scale* (PBS) to systematically measure parents' self-reported grief after stillbirth or newborn death. The other studies measured parents' adjustment to the loss using unsystematic

grief-oriented psychiatric interviews (LaRoche *et al.*, 1982; Wolff *et al.*, 1970), ad hoc measures of grief (LaRoche *et al.*, 1984), or other psychological dimensions, such as anxiety (Dyregrov & Matthiesen, 1991), depression (Jensen & Zahourek, 1972; LaRoche *et al.*, 1984), stress (Dyregrov & Matthiesen, 1991), and general psychological health (Dyregrov & Matthiesen, 1991) (Table 2.3). These studies also assessed the grief modulating effect of certain predictor variables such as gender, duration of the pregnancy and time since the loss. Jensen and Zahourek (1972) made the unsubstantiated judgement that the decision to have another child was indicative of grief resolution. In considering guilt, Wolff *et al.* (1970) recorded that one-third of women blamed themselves for the death, while LaRoche *et al.* (1984) stated that two-thirds of women recalled 'guilt feelings due to negligence' soon after the loss (LaRoche *et al.*, 1984, p. 15). Theut *et al.* (1988) noted both shame and guilt when they wrote:

> Perinatal loss can be devastating to a woman's view of herself as a woman of reproductive potential. Many women have remarked that they feel their body has failed them. A subsequent pregnancy represents another chance for the woman to experience pregnancy and achieve a successful outcome and so re-establish herself in her reproductive role. Pregnancy is also an opportunity to mitigate her narcissistic loss and to assuage her guilt over the previous loss (Theut *et al.*, 1988, p. 291).

The longitudinal studies by Forrest *et al.* (1982) and Lilford *et al.* (1994) were controlled trials of the value of supportive counselling in the amelioration of anxiety, depression, and grief after perinatal death (Forrest *et al.*, 1982; Lilford *et al.*, 1994). Unfortunately, the unacceptably high attrition rates in these studies (Table 2.3), and the one by Lake *et al.* (1987) (Table 2.1), rendered them unsuitable for meta-analysis, thereby prompting Chambers & Chan (2002) to conclude that 'no information is available from randomised trials to indicate whether there is or is not a benefit from providing specific psychological

support or counselling after perinatal death.' Forrest *et al.* (1982) referred to guilt when they recorded that 'after a few days parents then began desperately seeking an explanation for their baby's death and had begun to express anger and guilt about events in their pregnancy and labour' (Forrest *et al.*, 1982, p. 1478).

Hughes *et al.* (1999) studied anxiety and depression during and after the pregnancy that followed a stillbirth and showed that women who conceived less than 12 months after the loss were more depressed and more anxious during the pregnancy and more depressed one year after the birth than controls. The study findings were unusual, because other empirical studies have more commonly found that a subsequent pregnancy does not adversely affect grief (see below).

The *Perinatal Loss Project* was a longitudinal study of grief following pregnancy loss co-directed by Judith Lasker and Lori Toedter. One hundred and thirty-eight women, and 56 of their husbands or partners, who had experienced a miscarriage (N=63), ectopic pregnancy (N=18), stillbirth (N=39) or neonatal death (N=18) during the years 1984 and 1985 were studied approximately two months, one year and two years after the loss. The participants were recruited from private obstetric practices, hospital clinics, and health and service agencies in the Lehigh Valley area of Pennsylvania, USA. The results of the Perinatal Loss Project have been published in a series of reports between 1988 and 1996 (Table 2.3) (Dunn, Goldbach, Lasker, & Toedter, 1991; Goldbach *et al.*, 1991; Lasker & Toedter, 1991; Lasker & Toedter, 1994; Lin & Lasker, 1996; Mekosh-Rosenbaum & Lasker, 1995; Potvin *et al.*, 1989; Stinson *et al.*, 1992; Toedter *et al.*, 1988; Toedter *et al.*, 1990). First, they developed the Perinatal Grief Scale (PGS) and demonstrated that it was a reliable and valid instrument for the measurement of perinatal grief (Potvin *et al.*, 1989; Toedter *et al.*, 1988). The PGS was factor analysed and the resultant three latent factors were called

Active Grief, *Difficulty Coping*, and *Despair*, in accordance with their theoretical and empirical underpinnings (Potvin *et al.*, 1989; Toedter *et al.*, 1988). Active Grief referred to the expressive features of grief, such as crying and wanting to talk about the baby. Difficulty Coping referred to problems with interpersonal relationships and performing the tasks of everyday living, such as getting angry with friends and experiencing difficulty making decisions. Despair referred to existential anxiety, such as worrying about the future and feeling physically vulnerable, and feelings of guilt and worthlessness. In a recent review, Toedter *et al.* (2001) provided substantial evidence for the reliability and validity of the PGS-33, which is the commonly used short version of the PGS (Potvin *et al.*, 1989). Second, the Perinatal Loss Project examined gender differences in grief and showed that women compared with men self-reported more Overall Grief, Active Grief, Difficulty Coping and Despair two months after the loss (Goldbach *et al.*, 1991). Two years after the loss, women reported more Active Grief than men, but there were no significant between gender differences in Difficulty Coping or Despair (Goldbach *et al.*, 1991). Stinson *et al.* (1992) reported similar gender differences in PGS-33 grief when the analysis was confined to couples, except that women and men reported similar levels of Despair two months after the loss. Third, the Perinatal Loss Project examined predictors of chronic grief and noted, in particular, that pre-loss mental health (depression) forecasted Overall Grief, Active Grief, Difficulty Coping and Despair two years after the loss (Lasker & Toedter, 1991; Toedter *et al.*, 1990). In a recent review of the predictors of PGS-33 grief, Lasker and Toedter (2000) concluded that male gender, older parental age, early pregnancy loss, longer time since the loss, satisfactory mental health, supportive marital and social relationships, and a subsequent pregnancy were the important long-term predictors of lower grief scores. Fourth, the Perinatal Loss Project showed that supportive hospital practices at the time of the loss

were correlated with lower grief over the ensuing two years when the loss was early but not when it was late (Lasker & Toedter, 1994). Fifth, the Perinatal Loss Project showed that marital satisfaction declined over time, but not more so than in a pregnancy control group, and the divorce and separation rates between the loss and control groups were only marginally different (Mekosh-Rosenbaum & Lasker, 1995). Sixth, the Perinatal Loss Project showed that only 41% of parents had a so-called 'normal' pattern of grief with a progressive decrease in grief intensity over time. The other 59% showed different patterns, including 'reversed' grief with an increase in grief intensity over time, 'delayed response' grief with the decrease in grief intensity being delayed beyond one year, and a self-explanatory pattern called 'low-unchanged' grief (Lin & Lasker, 1996). Sixth, the Perinatal Loss Project assessed parents' primary and secondary causal explanations for the death and showed that whereas 'blaming the mother' was the doctor influenced primary causal explanation in 16% of instances, it was the parent informed secondary causal explanation in 25% of instances (Dunn *et al.*, 1991). Importantly, Dunn *et al.* (1991) drew a distinction between behavioural self-blame and characterological self-blame and noted that the former was more common (Janoff-Bulman, 1979). In other words, women were concerned the death was caused by something they may have done (or omitted to do) rather than because there was a basic flaw in their character, competence or adequacy (Weiner, 1986). According to Tangney and Dearing (2002), characterological self-blame can be understood to emanate from internal, global and stable attributions (Abramson, Seligman, & Teasdale, 1978), which is the attributional style favoured by shame-prone individuals (Tangney, Wagner, & Gramzow, 1992). On the other hand, behavioural self-blame signals internal, specific and unstable attributions, which is the theoretically expected attributional style of guilt-prone individuals (Tangney & Dearing, 2002; Tangney, Wagner, & Gramzow, 1992). Dunn *et al.* (1991) offered a functional

explanation for behavioural self-blame in terms of parents attempting to gain a sense of control over the loss and attribute meaning to it, which is similar to the explanation for behavioural self-blame in victims of rape offered by Janoff-Bulman (1979). Apart from self-blame as a causal attribution for the death, there were no textual references to guilt or shame in the published results of the Perinatal Loss Project.

The *Family and Child Health Study* was a longitudinal regional population based study of parental anxiety and depression following a stillbirth (N=99), neonatal death (N=109) or sudden infant death (SIDS, N=52) coordinated by the Department of Child Health, University of Queensland, Australia between 1985 and 1988. The bereaved parents and a matched comparison group were recruited from seven obstetric hospitals (stillbirths and neonatal deaths) that serviced the south-east corner of Queensland and the state health department (SIDS). The participants' self-reported anxiety and depression were measured on four occasions: 2 months, 8 months, 15 months and 30 months after the loss. The results of the Family and Child Health Study have been published in a series of journal articles between 1991 and 2002 (Boyle, Najman *et al.*, 1996; Boyle, Vance *et al.*, 1996; Thearle *et al.*, 1995; Vance, Boyle *et al.*, 1995; Vance *et al.*, 2002; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995), and a monograph (Boyle, 1997) (Table 2.3). The data pertaining to stillbirth and neonatal death showed that bereaved women compared with controls were more anxious for up to 15 months and more depressed for up to 30 months after the death (Boyle, Vance *et al.*, 1996). The bereaved men compared with controls were more anxious and depressed two months after the loss, but thereafter there were no significant differences (Vance, Boyle *et al.*, 1995). Anxiety and depression were more common in women compared with men at all four study intervals (Vance *et al.*, 1993; Vance, Boyle *et al.*, 1995; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995). A composite of psychological distress that included heavy alcohol

consumption as well as anxiety and depression showed that men were as distressed as women and more distressed than controls 30 months following the loss (Vance, Boyle *et al.*, 1995). Guilt and shame were not considered in The Family and Child Health Study publications.

Lang and Gottlieb (1993) studied gender differences in the relationship of different modes of intimacy (Lang & Gottlieb, 1993, p. 241) to grief as measured by the *Bereavement Experience Questionnaire* (BEQ) (Demi & Schroeder, 1987) in 57 couples 1–24 months after a stillbirth, neonatal death or infant death. Lang and Gottlieb (1993) used stepwise multiple regression analysis and showed that low *intellectual intimacy* (e.g., 'My partner helps me clarify my thoughts') in women and low *emotional intimacy* (e.g., 'My partner listens to me when I need someone to talk to') in men predicted more BEQ *guilt*, *meaninglessness*, *morbid fear* and *isolation*. They also showed that more s*exual intimacy* (e.g., 'I am able to tell my partner when I want sexual intercourse') predicted more BEQ *yearning* in women and less BEQ *stigma* in men. Finally, low *recreational intimacy* (e.g., 'I share in few of my partner's interests') predicted more BEQ guilt in men. Lang and Gottlieb made explicit reference to shame in explicating the relationship between sexual intimacy and stigma in men when they wrote that 'fathers may feel tainted or ashamed at not being able to fulfill their role as protector of the family unit, which may result in their feeling less able to be sexually intimate with their wives' (Lang & Gottlieb, 1993, p. 252). In a subsequent study involving 30 of the original 50 couples, Lang *et al.* (1996) evaluated the predictive capacity of the various modes of intimacy at 1–24 months vis-à-vis grief 2–4 years after the death. In women, low social intimacy predicted more BEQ anger, meaninglessness, stigma, morbid fear, and isolation. Low emotional intimacy and low intellectual intimacy predicted more BEQ guilt, anger, yearning, depersonalisation, and morbid fear in women. In men, low social intimacy predicted more BEQ meaninglessness

and stigma. In noting the relationship between social intimacy and stigma in men, Lang and her colleagues commented that 'stigma is the feeling of being ashamed and may be manifested as feelings of being rejected or being avoided because others feel uncomfortable around them' (Lang *et al.*, 1996, p. 53).

The studies by Janssen *et al.* (1997; 1996) and Hunfeld *et al.* (1997b; 1993; 1995) are summarised in Table 2.3 and considered in more detail below where the relationship between personality traits and grief is examined. Although the personality trait of neuroticism was an important predictor of grief, and personal inadequacy was one of the components of neuroticism, Janssen *et al.* (1997; 1996) did not make explicit or implicit reference to either shame or guilt in their publications. Similarly, despite studying personal and social inadequacy and their relationship with grief, Hunfeld *et al.* (1997b; 1993; 1995) did not mention guilt or shame in reporting the results of their quantitative analyses. They did, however, report evidence from audiotape interviews that women commonly expressed feelings of failure following the prenatal diagnosis and birth of an infant with a lethal malformation (Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993).

These longitudinal studies of grief after perinatal bereavement had a number of the shortcomings already described for the one-off and retrospective studies. These limitations included ascertainment bias, such as recruiting participants from single hospitals, childbirth classes, prenatal diagnosis clinics, and advertisements in newspapers and magazines, small numbers of stillbirths and neonatal deaths compared with early pregnancy losses, unknown or low response rates for eligible participants, and high attrition rates over the course of the studies (Table 2.3). Men were often not studied or their inclusion for study was conditional upon the participation of their wives or partners. After inclusion, the men's grief was frequently not considered separately or its examination was incomplete. Although grief was the preferred outcome

measure for most of the studies, it was often measured unsystematically using a psychiatric interview (LaRoche *et al.*, 1982; Wolff *et al.*, 1970), or an ad hoc measure of grief (LaRoche *et al.*, 1984), or a psychometrically untested instrument, such as the BEQ (Demi & Schroeder, 1987), or an instrument designed to measure general grief, such as the *Expanded Texas Grief Inventory* (Zisook, Devaul, & Click, 1982) (Table 2.3). In other studies, psychological dimensions other than grief were used as the outcome measures (Table 2.3), such as anxiety (Boyle, 1997; Boyle, Vance *et al.*, 1996; Dyregrov & Matthiesen, 1991; Forrest *et al.*, 1982; Hughes *et al.*, 2002; Hughes *et al.*, 1999; Thearle *et al.*, 1995; Vance, Boyle *et al.*, 1995; Vance *et al.*, 2002; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995), depression (Boyle, 1997; Boyle, Najman *et al.*, 1996; Boyle, Vance *et al.*, 1996; Forrest *et al.*, 1982; Hughes *et al.*, 2002; Hughes *et al.*, 1999; Jensen & Zahourek, 1972; Thearle *et al.*, 1995; Vance, Boyle *et al.*, 1995; Vance *et al.*, 2002; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995); stress (Dyregrov & Matthiesen, 1991; Hughes *et al.*, 2002); and general psychological health (Dyregrov & Matthiesen, 1991; Forrest *et al.*, 1982; Hunfeld *et al.*, 1997b).

Personality traits

> It would appear that a person's coping resources, both psychological and social, are more important than demographic characteristics, features of the loss itself, or fertility history in influencing the grief outcome (Lasker & Toedter, 2000, p. 365).

There have been four studies that have included an evaluation of the relationship between dimensions of personality and perinatal grief (Franche, 2001; Hunfeld *et al.*, 1997b; Janssen *et al.*, 1997; Zeanah *et al.*, 1995).

Zeanah and his colleagues (1995) studied the relationship of *ego strength* and *defensiveness* to grief and depression in 82 women and 47 men two months

after a stillbirth or neonatal death (Table 2.1). Ego strength (capacity for delayed gratification, lack of impulsivity and emotional balance) and defensiveness (capacity to minimise or dismiss distress) were measured with the Ego Strength Scale, grief was measured with the PGS-33 and a perinatal version of the GEI, and depression was measured with the Beck Depression Inventory (BDI) (Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961). In addition, Zeanah *et al.* (1995) measured marital adjustment, stressful life events, and family and non-family support, and assessed their predictive relationships with grief and depression.

In women, ego strength was negatively correlated with GEI grief, PGS-33 Active Grief, Difficulty Coping and Despair, and BDI depression (Zeanah *et al.*, 1995). Defensiveness was positively correlated with PGS-33 Active Grief, and negatively correlated with GEI grief, PGS-33 Difficulty Coping and Despair, and BDI depression (Zeanah *et al.*, 1995). Stepwise multiple regression analysis showed that ego strength was the only significant predictor of GEI grief, PGS-33 Difficulty Coping and Despair, and the most important predictor of PGS-33 Active Grief and BDI depression in women (Zeanah *et al.*, 1995). Marital adjustment made a significant contribution to the variance in PGS-33 Active Grief, and stressful life events contributed to the variance in BDI depression (Zeanah *et al.*, 1995). Defensiveness did not contribute significantly to the variance in grief or depression in women (Zeanah *et al.*, 1995).

In men, ego strength was negatively correlated with PGS-33 Active Grief, Difficulty Coping and Despair, and BDI depression (Zeanah *et al.*, 1995). Defensiveness was negatively correlated with PGS-33 Difficulty Coping and Despair, and BDI depression (Zeanah *et al.*, 1995). In addition, family support was negatively correlated with GEI grief, PGS-33 Active Grief and Difficulty Coping, and BDI depression, and non-family support was negatively correlated with PGS-33 Difficulty Coping, and BDI depression (Zeanah *et al.*, 1995). A stressful life event other than the bereavement was positively correlated with

PGS-33 Difficulty Coping and Despair, and BDI depression (Zeanah *et al.*, 1995). Stepwise multiple regression analysis showed that family support was the only significant contributor to the variance in GEI grief; ego strength was the only significant contributor to the variance in PGS-33 Active Grief and Despair; and defensiveness was the only significant contributor to the variance in PGS-33 Difficulty Coping in men (Zeanah *et al.*, 1995). Ego strength, family support, and stressful life events each made significant contributions to the variance in BDI depression in men (Zeanah *et al.*, 1995). Zeanah *et al.* concluded from their research that:

> Personality characteristics were the strongest predictors of intensity of grief for both mothers and fathers. The Ego Strength variable, which purports to measure capacity for delayed gratification, lack of impulsivity, and emotional balance, was the best single predictor of grief responses 2 months after the death of a baby (Zeanah *et al.*, 1995, p. 91).

The only strictly prospective longitudinal study of grief following reproductive loss was carried out in the Netherlands by Janssen *et al.* (1997; 1996) from the University of Nijmegen. They studied the 221 of 2140 pregnant women who had enrolled in a prospective study of pregnancy outcome and suffered an early (91%) or late (9%) loss of a singleton pregnancy. Janssen *et al.* examined the relationship of pre-loss psychiatric symptoms measured by the Symptom Checklist-90 (SCL-90, Derogatis, Lipman, & Covi, 1973), and '*neuroticism*' measured by the low self-esteem, social inadequacy, general inadequacy and aggrievedness subscales of the Dutch Personality Questionnaire, which is similar in structure to the Minnesota Multiphasic Personality Inventory (MMPI), to post-loss grief measured by the PGS-33, at 2½, 6, 12 and 18 months after the pregnancy loss. Janssen *et al.* (1997) used repeated measures analysis of variance and showed that pre-loss neuroticism and the duration of the pregnancy explained most of the between-subjects variance in PGS-33 Active

Grief, Difficulty Coping, and Despair. Pre-loss psychiatric symptoms and the absence of living children explained less, but still significant amounts of the variance in grief. Pre-loss psychiatric symptoms had a significant interaction with time since the loss and predicted within-subjects variance in PGS-33 Active Grief, Difficulty Coping, and Despair (Janssen *et al.*, 1997). Janssen and her colleagues concluded that 'a relatively long pre-loss pregnancy, a more neurotic personality, more pre-loss psychiatric symptoms, and the absence of living children appear to be important risk factors for stronger grief responses in women following a pregnancy loss' (Janssen *et al.*, 1997, p. 56).

Hunfeld *et al.* (1997b; 1993; 1995) from Erasmus University, Rotterdam, Netherlands studied the relationship of *social inadequacy* (predisposition to incompetence in social contacts) and *personal inadequacy* (predisposition to low self-esteem, anxiety, insufficiency and depression) measured by the Dutch Personality Questionnaire; and *psychological defences* measured by the Defense Mechanism Inventory (Gleser & Ihilevich, 1969) to grief measured by the PGS-33, stress measured by the Impact of Event Scale (IES, Horowitz, Wilner, & Alvarez, 1979), and general psychological health measured by the General Health Questionnaire-28 (GHQ-28, Goldberg & Hillier, 1979), in 41 women 3 months and 4 years after the birth of an infant with a lethal congenital malformation. The psychological defences of *projection* and *turning aggression against the self* were positively correlated whereas *principalization* (splitting affect from content and repressing the former) was negatively correlated with PGS-33 Difficulty Coping and Despair 3 months after the birth (Hunfeld *et al.*, 1995). Personal inadequacy was positively correlated with PGS-33 Overall Grief at 3 months and predicted the strength of PGS-33 Active Grief, Difficulty Coping and Despair, IES-avoidance, and GHQ-28 scores at 4 years (Hunfeld *et al.*, 1997b).

Franche (2001) studied the relationship between personality predisposition to self-criticism and PGS-33 grief in 60 women and 50 of their husbands, partners or boyfriends during the pregnancy that followed a pregnancy loss 15 months (range 4–48 m) previously. Franche (2001) used stepwise multiple regression analysis and showed that self-criticism predicted PGS-33 Active Grief, Difficulty Coping and Despair in both women and men.

Gender differences

The nature of men's grief following perinatal bereavement has been reported considerably less often than the grief of women, but the same general shortcomings apply to the published empirical studies (Benfield *et al.*, 1978; Boyle, Vance *et al.*, 1996; Clyman *et al.*, 1980; Cordell & Thomas, 1990; Cuisinier *et al.*, 1996; Dorner & Atwell, 1985; Dyregrov & Matthiesen, 1987a, 1987b, 1991; Forrest *et al.*, 1982; Franche, 2001; Franche & Bulow, 1999; Goldbach *et al.*, 1991; Hughes & Page-Lieberman, 1989; Hunfeld *et al.*, 1996; Johnson & Puddifoot, 1996; Johnson & Puddifoot, 1998; Lang & Gottlieb, 1993; Lang *et al.*, 1996; Lasker & Toedter, 1991; Lasker & Toedter, 1994; Mekosh-Rosenbaum & Lasker, 1995; Smith & Borgers, 1988; Stinson *et al.*, 1992; Theut *et al.*, 1988; Theut *et al.*, 1989; Theut *et al.*, 1990; Toedter *et al.*, 1988; Tudehope *et al.*, 1986; Vance, Boyle *et al.*, 1995; Vance *et al.*, 2002; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995; Wilson *et al.*, 1982; Wilson *et al.*, 1985; Zeanah *et al.*, 1995). These deficiencies include the limitations imposed by cross-sectional and retrospective study designs (Tables 2.1 and 2.2), selection bias from ascertainment methods, such as recruiting participants from bereavement support groups (Cordell & Thomas, 1990; Hughes & Page-Lieberman, 1989; Smith & Borgers, 1988; Toedter *et al.*, 2001), shortfalls in eligible enrolees, small cohort sizes, and high follow-up attrition rates (Tables 2.1, 2.2 and 2.3). In addition, the studies frequently used ad hoc measures of

grief, often based on the instrument described by Kennell *et al.* (1970), or general measures of grief such as the GEI (Sanders *et al.*, 1977), or systematic but psychometrically untested measures of perinatal grief, such as the *Perinatal Bereavement Scale* (Theut *et al.*, 1989), and the BEQ (Demi & Schroeder, 1987; Lang *et al.*, 1996).

The special difficulties that have attended the study of perinatal grief in men include lower participation rates for men compared with women (Tables 2.1, 2.2 and 2.3) (Dorner & Atwell, 1985; Dyregrov & Matthiesen, 1987a; Forrest *et al.*, 1982; Franche & Bulow, 1999; Kennell *et al.*, 1970; Murray & Callan, 1988; Smith & Borgers, 1988; Toedter *et al.*, 2001; Vance *et al.*, 2002; Vance *et al.*, 1991; Zeanah *et al.*, 1995), men's enrolment being conditional on the participation of their wives or partners (Forrest *et al.*, 1982; Franche & Bulow, 1999; Kennell *et al.*, 1970; Lasker & Toedter, 1991; Zeanah *et al.*, 1995), higher follow-up attrition rates for men compared with women (Lin & Lasker, 1996), and the use of grief measures, including the PGS (Toedter *et al.*, 1988), that pertain more to the experience of women than of men. Importantly, 'normal' grief was usually aligned with an intuitive 'feminine' model rather than an instrumental 'masculine' one (Martin & Doka, 2000), and this favours, perhaps unfairly, emotional expressivity over restraint (Bonanno & Kaltman, 1999; Brody, Muderrisoglu, & Nakash-Eisikovits, 2002). These criticisms not withstanding, there have been empirical studies of perinatal grief in men and the results are summarised below.

The majority of studies that have measured self-reported grief or other psychological dimensions, such as anxiety, depression, stress or general psychological health, after a perinatal death have shown that men grieve less strongly than women, particularly in the period soon after the death (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Cuisinier *et al.*, 1996; Dyregrov & Matthiesen, 1987a; Goldbach *et al.*, 1991; Hunfeld *et al.*, 1996; Lang & Gottlieb, 1993; Lang

et al., 1996; Lasker & Toedter, 1991; Smith & Borgers, 1988; Stinson *et al.*, 1992; Toedter *et al.*, 2001; Tudehope *et al.*, 1986; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995; Wilson *et al.*, 1982; Zeanah *et al.*, 1995). Indeed, 'absent' grief (Benfield *et al.*, 1978; Kennell *et al.*, 1970), and 'low-unchanged' grief (Lin & Lasker, 1996) have been reported more often in men than in women. On the other hand, there have been reports in which there were no significant gender differences in grief (Hunfeld *et al.*, 1996) and others in which grief was significantly higher in approximately one-quarter of men compared with their spouses or partners (Stinson *et al.*, 1992; Zeanah *et al.*, 1995). The reported gender differences in grief usually lessened over time, such that by one year there were few statistically significant differences between women and men (Goldbach *et al.*, 1991; Lasker & Toedter, 1991; Stinson *et al.*, 1992; Theut *et al.*, 1989; Theut *et al.*, 1990; Toedter *et al.*, 1988; Wilson *et al.*, 1985). Nevertheless, there have been reports of men reporting significantly less intense grief than women more than one year from the bereavement (Cuisinier *et al.*, 1996; Dyregrov & Matthiesen, 1991; Lang *et al.*, 1996; Lasker & Toedter, 1991).

Apart from the intensity of grief, there have been other reported differences between men and women suffering perinatal bereavement. Importantly, heavy alcohol consumption following bereavement has been reported to be more common in men compared with women (Tudehope *et al.*, 1986; Vance, Boyle *et al.*, 1995; Vance *et al.*, 2002). In another study, men reported more anxiety and depression than controls eight months after a stillbirth, but not after a neonatal death or SIDS, whereas the type of death was not relevant to the grief of women (Vance, Najman *et al.*, 1995). In a study by Theut *et al.* that related grief to a subsequent pregnancy, men reported less grief than women during the pregnancy and shortly after the birth, but equivalent levels of grief 16 months after the birth (Theut *et al.*, 1989; Theut *et al.*, 1990). In another study, however,

the pregnancy after a previous loss was associated with a lessening of grief in women, but unchanged grief in men (Franche & Bulow, 1999).

Men report less guilt, self-blame and self-criticism than women after a perinatal death (Benfield *et al.*, 1978; Clyman *et al.*, 1980; Dyregrov & Matthiesen, 1987a; Franche, 2001; Smith & Borgers, 1988; Wilson *et al.*, 1985). These observed gender differences in grief-related guilt need to be interpreted with caution, because guilt was not defined and shame was not considered. In particular, the studies did not draw a distinction between characterological self-blame, which is a shame-relevant phenomenon, and behavioural self-blame, which is a guilt-relevant phenomenon (Dunn *et al.*, 1991; Janoff-Bulman, 1979; Tangney & Dearing, 2002; Weiner, 1986). In considering shame, men compared with women have reported higher scores on the stigma subscale of the BEQ (Lang & Gottlieb, 1993).

In one quasi-controlled study of the efficacy of counselling after a perinatal death, men demonstrated no apparent benefit on measures of anxiety, depression and general psychological health, whereas counselled women showed better general psychological health than unsupported women (Forrest *et al.*, 1982). In another study, there was an unsubstantiated claim that men, who had been recruited from support groups, benefited from group membership and counselling (Cordell & Thomas, 1990).

The relationship between various modes of intimacy and grief (BEQ) has been found to be different in men compared with women 1–2 years after a perinatal death (Lang & Gottlieb, 1993). In men, less emotional intimacy was associated with more BEQ guilt, meaninglessness, morbid fear, and isolation, whereas less intellectual intimacy was associated with more of these BEQ grief variables in women. In addition, less recreational intimacy, social intimacy and sexual intimacy was correlated with more BEQ guilt, depersonalisation and stigma,

respectively, in men. The relationship of intimacy to BEQ grief was also different between men and women 2–4 years after the loss (Lang *et al.*, 1996). In men, sexual intimacy was negatively correlated with BEQ morbid fear and isolation, and social intimacy was negatively related to BEQ meaninglessness and stigma. In women, on the other hand, social intimacy, emotional intimacy and intellectual intimacy were negatively correlated with five or more of the eight BEQ subscales of grief, whereas sexual intimacy was not related to any of the BEQ subscales. Specifically concerning guilt and shame, emotional intimacy and intellectual intimacy were negatively related to BEQ guilt in women, but none of the measures of intimacy was related to guilt in men. Social intimacy was negatively correlated with BEQ stigma in both men and women.

Zeanah *et al.* (1995) reported a significant negative relationship between personality ego strength and PGS-33 and GEI grief in both men and women. Franche *et al.* (2001) studied the relationship between self-criticism and PGS-33 grief during the pregnancy that followed a miscarriage, stillbirth or neonatal death. Using stepwise multiple regression analysis, Franche *et al.* (2001) showed that self-criticism predicted PGS-33 Active Grief, Difficulty Coping and Despair in both men and women. In men, duration of the pregnancy predicted PGS-33 Active Grief, and marital adjustment predicted PGS-33 Despair. In women, duration of the pregnancy predicted PGS-33 Active Grief, Difficulty Coping and Despair, and the interval between the loss and the present pregnancy predicted PGS-33 Difficulty Coping and Despair.

Several studies of reproductive loss have confined their examination to men's responses (Cordell & Thomas, 1990; Hughes & Page-Lieberman, 1989; Johnson & Puddifoot, 1996; Johnson & Puddifoot, 1998; Puddifoot & Johnson, 1999). Hughes *et al.* (1989) showed that perinatally bereaved men recruited from support groups had lower GEI subscale scores than norms for parental

bereavement, except for denial and death anxiety. Longer time since the loss was related to less denial and more guilt and depersonalisation in these men (Table 2.2). Cordell *et al.* (1990) showed that men's level of adjustment to a perinatal death or SIDS was positively correlated with their level of education, history of a previous death in the family, the physician's preparedness to anticipate problems in the pregnancy, a supportive family and friends, attending a parent support group, and seeing a therapist (Table 2.2). These two studies of grief conducted in men and reported by women implicated male gender roles and social stereotypes in explaining the apparently constrained expression of 'normal' grief in men (Cordell & Thomas, 1990; Hughes & Page-Lieberman, 1989). Finally, Johnson *et al.* (1996) showed that men's grief within eight weeks of their partners' miscarriage was similar to that reported by Goldbach *et al.* (1991) for women following a comparable loss. Notably, men who saw an ultrasound scan of the fetus had significantly higher grief scores than men who did not see a scan (Johnson & Puddifoot, 1996).

Predictors of grief other than personality and gender

The modulating effect of contextual variables on grief and/or psychological symptoms, other than the aforementioned personality traits and gender has been considered in many of the empirical studies of perinatal bereavement, including those that have used the PGS-33 (Lasker & Toedter, 2000). These modifying factors have been categorised as parent-related demographic, social, psychological, and pregnancy variables, and infant-related variables (Boyle, 1997).

Demographic variables

In general, parental age has not been correlated with grief and/or psychological symptoms (Benfield *et al.*, 1978; Boyle, 1997; Cullberg, 1971; Franche, 2001;

Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; LaRoche *et al.*, 1984; LaRoche *et al.*, 1982; Lasker & Toedter, 1991; Nicol *et al.*, 1986; Peppers & Knapp, 1980a; Rowe *et al.*, 1978; Tudehope *et al.*, 1986; Zeanah *et al.*, 1995), though both positive (Janssen *et al.*, 1997), and negative (Lin & Lasker, 1996; Toedter *et al.*, 1988; Zeanah *et al.*, 1993) correlations between parental age and grief have been reported.

Socio-economic status (SES) has not usually been correlated with grief and/or psychopathology (Boyle, 1997; Cullberg, 1971; Forrest *et al.*, 1982; Janssen *et al.*, 1997; LaRoche *et al.*, 1984; Lasker & Toedter, 1991; Nicol *et al.*, 1986; Peppers & Knapp, 1980a; Rowe *et al.*, 1978; Zeanah *et al.*, 1995), but there have been reports of a significant negative correlation between SES and grief in women (Toedter *et al.*, 1988; Zeanah *et al.*, 1995).

The educational level attained by the parent has not in the main been correlated with grief and/or psychological symptoms (Boyle, 1997; Janssen *et al.*, 1997; LaRoche *et al.*, 1984; Lasker & Toedter, 1991; Peppers & Knapp, 1980a; Zeanah *et al.*, 1995), though significant negative correlations between education level and grief have been reported (Cordell & Thomas, 1990; Lasker & Toedter, 1991; Lin & Lasker, 1996).

Religious affiliation and church attendance have not been correlated with grief and/or psychological symptoms (Boyle, 1997; Janssen *et al.*, 1997; Lasker & Toedter, 1991; Murray & Callan, 1988; Nicol *et al.*, 1986; Peppers & Knapp, 1980a; Toedter *et al.*, 1988), except on one possible occasion (Thearle *et al.*, 1995).

Social variables

A number of studies have shown a negative relationship between social support and grief and/or psychological symptoms (Boyle, 1997; Cordell & Thomas,

1990; Cuisinier *et al.*, 1993; Cullberg, 1971; Forrest *et al.*, 1982; Janssen *et al.*, 1997; Lake *et al.*, 1987; LaRoche *et al.*, 1984; Lasker & Toedter, 1991; Nicol *et al.*, 1986; Tudehope *et al.*, 1986). In one study by Zeanah (1995), there was a negative correlation between social support and grief in men but not women, whereas in another study by Wilson (1985) the gender relationship between social support and grief was reversed. Lin *et al.* (1996) showed no significant correlation between the level of social support and different patterns of grief.

Few studies have examined the relationship between marital status and grief and/or psychological symptoms. In one report, there was a positive correlation between single status and grief (Graham *et al.*, 1987), whereas in two others there was no apparent relationship between marital status and grief and/or psychopathology (Boyle, 1997; Peppers & Knapp, 1980a).

Psychological variables

Women's pre-loss physical health was negatively correlated with grief in one study (Lasker & Toedter, 1991; Toedter *et al.*, 1990), but unrelated to grief in another study (Janssen *et al.*, 1997).

Pre-loss mental health has almost always been correlated with grief and/or psychological symptoms (Cuisinier *et al.*, 1996; Cuisinier *et al.*, 1993; Hunfeld *et al.*, 1995; Janssen *et al.*, 1997; LaRoche *et al.*, 1982; Lasker & Toedter, 1991; Toedter *et al.*, 1988; Toedter *et al.*, 1990), though there has been one reported exception (Forrest *et al.*, 1982).

A major life event during the index pregnancy has been correlated with grief and/or psychological symptoms (Cuisinier *et al.*, 1993; Hunfeld *et al.*, 1995; Lake *et al.*, 1987; Nicol *et al.*, 1986; Zeanah *et al.*, 1993; Zeanah *et al.*, 1995), except in one study (LaRoche *et al.*, 1984).

Almost without exception, marital dissatisfaction or maladjustment has been positively correlated with grief and/or psychological symptoms (Boyle, 1997; Cuisinier *et al.*, 1993; Forrest *et al.*, 1982; Janssen *et al.*, 1997; Lang & Gottlieb, 1993; Lang *et al.*, 1996; LaRoche *et al.*, 1984; Lasker & Toedter, 1991; Mekosh-Rosenbaum & Lasker, 1995; Nicol *et al.*, 1986; Toedter *et al.*, 1988). In two studies, there was a positive correlation between marital maladjustment and grief and/or psychological symptoms in women, but not in men (Wilson *et al.*, 1985; Zeanah *et al.*, 1995). Marital adjustment and psychological symptoms were not related in one study (Murray & Callan, 1988).

In one study, couples bereaved by pregnancy loss were somewhat more likely to divorce or separate within two years of the loss than control non-loss couples (5.9% vs. 3.7%) (Mekosh-Rosenbaum & Lasker, 1995). In another study, the separation rate for perinatally bereaved couples was 8.3% compared with 4% for controls (Boyle, 1997).

Pregnancy variables

A history of 'difficulty conceiving', 'infertility' or 'fertility problems' has not been correlated with grief and/or psychopathology (Forrest *et al.*, 1982; Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; Janssen *et al.*, 1997; Lasker & Toedter, 1991; Toedter *et al.*, 1988). A planned, pleasurable or ambivalent attitude toward the pregnancy was not associated with grief and/or psychological symptoms in some studies (Benfield *et al.*, 1978; Graham *et al.*, 1987; Janssen *et al.*, 1997; Jensen & Zahourek, 1972), but in others positive feelings about the pregnancy or the loss of a planned pregnancy was associated with more grief (Kennell *et al.*, 1970; LaRoche *et al.*, 1982; Lasker & Toedter, 1991).

Although previous pregnancy loss has sometimes been correlated with grief (Kennell *et al.*, 1970; Peppers & Knapp, 1980a), the more common finding has

been a negligible relationship between prior reproductive loss and grief and/or psychological symptoms (Benfield *et al.*, 1978; Boyle, 1997; Cullberg, 1971; Forrest *et al.*, 1982; Franche, 2001; Janssen *et al.*, 1996; Jensen & Zahourek, 1972; Johnson & Puddifoot, 1996; LaRoche *et al.*, 1984; LaRoche *et al.*, 1982; Lasker & Toedter, 1991; Nicol *et al.*, 1986; Smith & Borgers, 1988; Toedter *et al.*, 1988; Zeanah *et al.*, 1995).

The presence of living children has been correlated with less grief and/or psychological symptoms (Boyle, 1997; Graham *et al.*, 1987; Janssen *et al.*, 1997; Lasker & Toedter, 1991; Lin & Lasker, 1996; Toedter *et al.*, 1988) and more grief (LaRoche *et al.*, 1984), but most often there has been no significant relationship between the presence of living children and grief and/or psychopathology (Cullberg, 1971; Dyregrov & Matthiesen, 1991; Forrest *et al.*, 1982; Franche, 2001; Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; Johnson & Puddifoot, 1996; Kennell *et al.*, 1970; LaRoche *et al.*, 1982; Nicol *et al.*, 1986; Peppers & Knapp, 1980a; Toedter *et al.*, 1988; Tudehope *et al.*, 1986). In one study, the presence of living children was correlated with less grief in women, but was unrelated to grief in men (Zeanah *et al.*, 1995).

Cross-sectional studies have shown either a negative correlation between time since the loss and grief and/or psychological symptoms (Benfield *et al.*, 1978; Cuisinier *et al.*, 1996; Cuisinier *et al.*, 1993; Hughes *et al.*, 1999; Murray & Callan, 1988; Wilson *et al.*, 1985), or no significant relationship between these two variables (Nicol *et al.*, 1986; Rowe *et al.*, 1978; Smith & Borgers, 1988). In one study confined to men, there was, in fact, a positive correlation between time since the loss and grief (Hughes & Page-Lieberman, 1989). Almost all of the longitudinal studies have shown a negative correlation between time since the loss and grief and/or psychological symptoms (Boyle, 1997; Janssen *et al.*, 1997; Lang *et al.*, 1996; Lasker & Toedter, 1991; Stinson *et al.*, 1992; Theut *et al.*, 1990; Vance, Najman *et al.*, 1995). One study, however, showed that grief

intensity increased over time in 13% of parents, often in conjunction with a further reproductive loss (Lin & Lasker, 1996).

A subsequent pregnancy has been positively correlated with grief and/or psychopathology (Hughes *et al.*, 1999; Rowe *et al.*, 1978), negatively correlated with grief and/or psychopathology (Lin & Lasker, 1996; Murray & Callan, 1988; Peppers & Knapp, 1980a; Theut *et al.*, 1988), and unrelated to grief and/or psychopathology (Boyle, 1997; Dyregrov & Matthiesen, 1987b, 1991; LaRoche *et al.*, 1984; Smith & Borgers, 1988; Wolff *et al.*, 1970). Franche (2001; 1999) showed that a subsequent pregnancy was associated with less grief in women, but unrelated to grief in men.

Infant variables

The type of loss has been related to grief and/or psychological symptoms. Late pregnancy loss due to stillbirth or neonatal death has usually been associated with more grief than early pregnancy loss due to miscarriage or ectopic pregnancy (Cuisinier *et al.*, 1993; Goldbach *et al.*, 1991), though this association has not been invariable (Peppers & Knapp, 1980a; Smith & Borgers, 1988). Studies of late pregnancy loss have usually reported no significant differences in grief and/or psychopathology following a stillbirth compared with a neonatal death (Boyle, 1997; Boyle, Vance *et al.*, 1996; Forrest *et al.*, 1982; Nicol *et al.*, 1986; Rowe *et al.*, 1978; Wilson *et al.*, 1985; Zeanah *et al.*, 1995). There have been studies, however, that reported more psychological symptoms following stillbirth compared with neonatal death in 'parents' (Murray & Callan, 1988), and in men (Vance *et al.*, 1991).

The duration of the pregnancy prior to the loss has been positively correlated with grief and/or psychological symptoms when the spectrum of loss ranged from miscarriage to neonatal death (Janssen *et al.*, 1997; Janssen *et al.*, 1996; Johnson & Puddifoot, 1996; Lasker & Toedter, 1991; Theut *et al.*, 1989; Theut *et*

al., 1990; Toedter *et al.*, 1988). The length of gestation has not been correlated with grief or psychopathology when the analysis was restricted to stillbirths and neonatal deaths (Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993; Zeanah *et al.*, 1995), except for one study (Cullberg, 1971).

Empirical studies have not generally shown a significant difference in the grief and/or psychological symptoms that attends the death of a singleton compared with that of a twin (Boyle, 1997; Cuisinier *et al.*, 1996; Nicol *et al.*, 1986; Peppers & Knapp, 1980a; Wilson *et al.*, 1982; Wilson *et al.*, 1985). In one study, however, the death of a twin was associated with more grief than the death of a singleton (Rowe *et al.*, 1978).

Infant gender (LaRoche *et al.*, 1982; Peppers & Knapp, 1980a; Zeanah *et al.*, 1995) and the age at neonatal death (Benfield *et al.*, 1978; Kennell *et al.*, 1970; LaRoche *et al.*, 1984; Peppers & Knapp, 1980a; Rowe *et al.*, 1978; Tudehope *et al.*, 1986) have not been correlated with grief.

The pathological cause of perinatal death has not been correlated with grief (Rowe *et al.*, 1978; Tudehope *et al.*, 1986; Zeanah *et al.*, 1993), except for one study that showed death from a lethal malformation was followed by a more prolonged period of psychiatric symptoms (Cullberg, 1971).

There is a manifestly complex relationship between seeing, holding and touching the dead infant and subsequent grief and/or psychological symptoms. In two studies, touching or not touching the infant was unrelated to grief (Kennell *et al.*, 1970; LaRoche *et al.*, 1982). In one study, seeing and holding the infant was associated with less grief (Graham *et al.*, 1987), and in another not seeing and not touching the infant was associated with more grief (LaRoche *et al.*, 1984). In one study, seeing the infant was related to more grief (Hunfeld, Wladimiroff, Passchier, Venema-Van Uden *et al.*, 1993), whereas in another seeing but not holding the infant was related to more psychopathology

than if the infant was seen and held (Nicol *et al.*, 1986). Finally, in one study seeing and holding the stillborn infant was associated with more psychological symptoms, including post-traumatic stress, than if the infant was not seen and held (Hughes *et al.*, 2002).

The parents' level of satisfaction with hospital care was negatively correlated with grief and/or psychological symptoms in three studies (Cullberg, 1971; Lasker & Toedter, 1994; Murray & Callan, 1988), and unrelated to grief in two other studies (LaRoche *et al.*, 1984; Tudehope *et al.*, 1986).

Summary of perinatal grief

In their recent review of the literature regarding predictors of grief using the PGS-33, Lasker and Toedter concluded that 'lower grief scores are consistently related to male gender, older age, shorter pregnancy, passage of more time since the loss, mental health, good marital relationship and social support, and a subsequent pregnancy' (Lasker & Toedter, 2000, p. 365). The literature review presented in this chapter included not only studies that measured grief with the PGS-33, but also studies that used different measures of grief, as well as measures of psychopathology. Although mental health, marital satisfaction, social support, duration of the pregnancy and time since the loss were clearly important predictors of the intensity and duration of perinatal grief, personality characteristics such as ego strength, neuroticism, personal inadequacy and self-criticism were possibly more important determinants of grief and/or psychological symptoms than the foregoing variables.

'Guilt' is a reportedly common parental experience after a perinatal death, particularly in women, who frequently blame themselves for the baby's death. However, self-blame should only be considered synonymous with guilt when it refers to behavioural self-blame (Tangney & Dearing, 2002). Only Dunn (1991)

has made clear the distinction between behavioural self-blame and the more shame-relevant characterological self-blame in his perinatal bereavement research. Unfortunately, unless the role of the self's behaviour versus that of the global self is made explicit, one can only speculate about the relative contributions of guilt and shame to the feeling of responsibility for a baby's death.

Tangney's observation that 'historically, the clinical, social, and developmental literatures have often not made a clear distinction between shame and guilt. Most often, the term "guilt" is used as a catch-all phrase to refer to the phenomenological aspects of both emotions' (Tangney, 1995b, p. 115) seems equally applicable to the bereavement literature. The words *shame* and *ashamed* rarely appear in relation to perinatal grief and reference to shame-related phenomena such as 'failure', 'inadequacy', and 'narcissistic injury' is uncommon. The only published data concerning shame and grief concerns modes of intimacy and BEQ stigma in men following miscarriage, stillbirth and infant death (Lang & Gottlieb, 1993; Lang *et al.*, 1996).

The relationship of personality predispositions to guilt and shame with grief and/or psychological symptoms following general bereavement has not been reported, except for one study published as a dissertation abstract (Gould, 1999).

Tables

Table 2.1 One-off cross-sectional quantitative studies of early perinatal grief

Author (Year)	Enrolment rate	Number (Sex)	Source	Type of loss	Time since loss	Outcome measure
Giles (1970)	NK	40 (W)	Hospital	SB/NND	Several days	G [a]
Kennell (1970)	95%	18 (W)	Hospital	NND	11 wk (3–22)	G [a]
Benfield (1978)	16%	50 (C)	Hospital	NND	40 d (11–97)	G [a]
Clyman (1980)	32%	35/26 (W/M)	Hospital	NND	2–4 m	G [a]
Tudehope (1986)	58%	67 (C)	Hospital	NND	8 wk	G [a]
Graham (1987)	NK	28 (W)	Hospital	SB/NND	≤ 4 wk	D
Lake (1987)	43%	34 (W)	Hospital	SB/NND	6 m	G [b]
Zeanah (1993)	64%	23 (W)	Hospital	SB/NND	2 m	G [c], D
Zeanah (1995)	40%	82/47 (W/M)	Hospital	SB/NND	2 m	G [c], D
Hunfeld (1996)	NK	13 (C)	Hospital	NND/ID	6 m	G [c]
Johnson (1996)	53%	126 (M)	Hospitals	MC	≤ 8 wk	G [c]

Note: C = couples, D = depression, G = grief, G [a] = ad hoc measure of grief, G [b] = Grief Experience Inventory, G [c] = Perinatal Grief Scale-33. ID = infant death, M = men, MC = miscarriage, NK = not known, NND = neonatal death, SB = stillbirth, W = women. Unless otherwise specified, time since loss data are mean (range).

Table 2.2 Retrospective quantitative studies of perinatal grief

Author (Year)	Enrolment rate	Number (Sex)	Source	Type of loss	Time since loss	Outcome measure
Cullberg (1971)	90%	56 (W)	Hospital	PND	1–2 y	Mental reactions
Rowe (1978)	44%	26 (W)	Hospital	SB/NND	15.5 m (10–22)	G [a]
Peppers (1980a)	NK	65 (W)	NK	MC/SB/ NND	8.1 y (0.5–36)	G [a]
Wilson (1982)	80%	16 (C)	Hospital	NND	14–15 m (6–24)	D
Wilson (1985)	61%	58 (C)	Hospital	NND	25 m (6–60)	D
Dorner (1985)	73%	15/10 (W/M)	Hospital	NND	2–7 y	Malaise
Nicol (1986)	50%	110 (W)	NK	SB/NND	6–36 m	General Health
Dyregrov (1987a; 1987b)	55%	62/55 (W/M)	Hospital	SB/NND/ SIDS	27 m (12–48)	G [a], IES, A, S, GHQ
Murray (1988)	52%	37/33 (W/M)	Support groups	SB/NND	2 y	D, Self-esteem, Well-being
Smith (1988)	44%	115/61 (W/M)	Support groups	MC/SB/ NND/ID	20 m (< 6–84)	G [b]
Hughes (1989)	NK	51 (M)	Support groups	SB/NND	0.5–2 y	G [b]
Cordell (1990)	NK	23 (M)	Support groups	PND/SIDS	17 m (4–39)	Adjustment
Cuisinier (1993)	69%	143 (W)	Hospital	MC/SB	≤ 3 y	G [c]
Cuisinier (1996)	67%	37/35 (W/M)	Hospitals	NND	0.5–3.5 y	G [c]
Franche (1999)	60% /86% (W/M)	50/42 (W/M)	Hospital	MC/SB/ NND	13 m (4–36) 6 m (2–29)	G [c], A, D
Franche (2001)	82%/68% (W/M)	60/50 (W/M)	Hospital	MC/SB/ NND	15 m (4–48)	G [c]
Uren (2002)	NK	108(W)	Support groups	SB/NND	2–207 m	G [c]

Note: A = anxiety, C = couples, D = depression, G = grief, G [a] = ad hoc measure of grief, G [b] = Grief Experience Inventory, G [c] = Perinatal Grief Scale-33, GHQ = General Health Questionnaire, ID = infant death, IES = Impact of Event Scale, M = men, MC = miscarriage, NK = not known, NND = neonatal death, PND = perinatal death, S = somatisation, SB = stillbirth, SIDS = Sudden Infant Death Syndrome, W = women. Unless otherwise specified, time since loss data are mean (range).

Table 2.3 Longitudinal quantitative studies of perinatal grief

Author (Year)	Enrolment / Completed study	Number (Sex)	Source	Type of loss	Study length	Outcome measure
Wolff (1970)	NK/80%	50 (W)	Hospital	SB/NND	1–3 y	G [a]
Jensen (1972)	NK/40%	25 (W)	Hospital	SB/NND	1 y	D
LaRoche (1984; 1982)	NK/55%	31 (W)	Hospital	SB/NND	1–2 y	G [a b], D
Forrest (1982)	NK/60% (W) NK/NK (M)	50/26 (W/M)	Hospital	SB/NND	14 m	A, D, GHQ
Goldbach (1991), Lasker (1991; 1994), Mekosh-Rosenbaum (1995), Lin (1996), Stinson (1992), Toedter (1988; 1990)	85%/71%	138/56 (W/M)	Private obstetric practices, Hospital clinics, Health agencies	MC/EP/SB/ NND	2 y	G [c]
Theut (1988; 1989; 1990)	NK/100%	25 (C)	Newspapers, medical clinics, childbirth classes	MC/SB/ NND	16 m	G [d]
Dyregrov (1991)	51-50%/ 37-32%	37/33 (W/M)	Hospital, University Clinic	NND/ SIDS	13 m	IES, A, S, GHQ
Lang (1993; 1996)	49%/54%	57 (C)	Hospitals	MC/NND/ ID	4 y	G [e]
Hunfeld (1997b; 1993; 1995)	84%/67%	46 (W)	Prenatal diagnosis clinic	SB/NND	4 y	G [c], IES, N, GHQ
Lilford (1994)	57%/55%	72 (W)	Prenatal diagnosis clinic	TOP/SB/ NND	16–20 m	G [f], A, D
Boyle (1997; 1996; 1996), Thearle (1995), Vance (1995; 2002; 1991; 1995)	64%/72%	259/210 (W/M)	Hospitals, Health Department	SB/NND/ SIDS	30 m	A, D
Janssen (1997; 1996)	97%/94%	227 (W)	Advertisement family magazine	MC/SB/ NND	18 m	G [c], A, D, S
Hughes (1999)	62%/88%	60 (W)	Hospitals	MC/SB	12 m	A, D
Hughes (2002)	86%/85%	65 (W)	Hospitals	SB	12 m	A, D, PTSD

Note: A = anxiety, C = couples, D = Depression, G = grief, GHQ = General Health Questionnaire, Grief [a] = psychiatric interview, Grief [b] = ad hoc measure, Grief [c] = Perinatal Grief Scale-33, Grief [d] = Perinatal Bereavement Scale, Grief [e] = Bereavement Experience Questionnaire, Grief [f] = Expanded Texas Inventory of Grief, IES = Impact of Event Scale, M = men, MC = miscarriage, N = neuroticism, NK = not known, NND = neonatal death, PTSD = Post traumatic stress disorder, S = somatisation., SB = stillbirth, SIDS = Sudden Infant Death Syndrome, TOP = late termination of pregnancy, W = women.

Chapter 3

Guilt and Shame

This chapter consists of a literature review of the following: guilt and shame as personality predispositions or traits; self-report measurement of guilt and shame by the instruments used in the present study: the *Test of Self-Conscious Affect* (TOSCA, Tangney & Dearing, 2002), the *Personal Feelings Questionnaire-2* (PFQ-2, Harder & Zalma, 1990), and the *Interpersonal Guilt Questionnaire-67* (IGQ-67, O'Connor, Berry, Weiss, Bush, & Sampson, 1998); and the relationship of guilt- and shame-proneness to interpersonal functioning and psychopathology.

The empirical study of guilt- and shame-proneness as personality predispositions and their individual relationships with interpersonal functioning and psychopathology is predicated on the understanding that guilt and shame are distinct, albeit closely related, emotions and emotion-based personality traits, and that individual predispositions to guilt and shame can be measured with reliability and validity. The psychometric properties of the TOSCA-2, PFQ-2 and IGQ-67 are presented in Chapter 5—*Psychometrics*.

Emotions, moods and traits

Theory and research suggest that adults can manifest a number of affective states along a continuum from acute emotions through chronic moods to emotion traits and emotional disorders (Ekman & Davidson, 1994). Although there is no universally agreed upon definition of acute emotion, the doyens of emotion theory and research include at least some of the following features: short duration, prototypical antecedent event, cognitive appraisal, somatic

expression, particularly in the face and posture, physiological responses, subjective experience, and action or action tendencies occurring in an interpersonal context and serving the collective purpose of promoting the well-being of the individual in a sociocultural and/or psychoevolutionary context (Davidson, 1994; Ekman, 1992, 1994; Frijda, 1994; Goldsmith, 1994; Gross, 1999; Kagan, 1994a, 1994b; Keltner & Gross, 1999; Lazarus, 1994; Lewis & Michalson, 1983; Oatley & Johnson-Laird, 1987; Roseman *et al.*, 1994; Watson & Clark, 1994).

As implied, a chronic mood is usually distinguished from an acute emotion by its longer duration and the common lack of a discernible antecedent event (Ekman, 1992, 1994; Goldsmith, 1994; Kagan, 1994a, 1994b; Keltner & Gross, 1999; Lazarus, 1994; Lewis & Michalson, 1983; Watson & Clark, 1994), though these definitional differences are not necessary requirements for categorisation. For example, Davidson (1994) believes that functionality rather than duration distinguishes acute emotions from chronic moods and that emotions function to modulate action, whereas moods function to bias cognition. Similarly, moods may not have overt object relationships or be elicited by discrete events, but they may, nevertheless, have an 'object', such as the world-at-large (Frijda, 1994), and the 'event' may be an existential concern (Lazarus, 1994).

Emotion traits or predispositions are by various wordings stable or enduring, unique or idiosyncratic, frequent or recurring, emotion-based personality constructs that organise functional or adaptive responses to a variety of different elicitors, cross-situational events, or life situations (Barrett & Campos, 1987; Davidson, 1994; Ekman, 1994; Frijda, 1994; Goldsmith, 1994; Izard & Buechler, 1980; Izard & Kobak, 1991; Kagan, 1994a, 1994b; Lazarus, 1994; Lazarus *et al.*, 1980; Lewis & Michalson, 1983; Malatesta & Wilson, 1988; Oatley & Johnson-Laird, 1987; Plutchik, 1980; Watson & Clark, 1994).

Guilt and shame as emotions

The recognition that guilt and shame are distinct ephemeral states, moods and personality predispositions with individual relevance to psychopathology has generally been attributed to the pioneering and meticulous work of Helen Block Lewis (1971), though before her notable others had been mindful of important differences between guilt and shame (e.g., Erikson, 1963; Lynd, 1958; Piers & Singer, 1953). There is now a substantial body of information gleaned from case studies (Lewis, 1971; Lindsay-Hartz, 1984; Lindsay-Hartz, de Rivera, & Mascolo, 1995), participant ratings (Ferguson, 1991; Roseman *et al.*, 1994; Tangney, Miller, Flicker, & Barlow, 1996; Wallbott & Scherer, 1995; Wicker, Payne, & Morgan, 1983), narrative analysis (Kubany & Watson, 2003; Tangney, 1992, 1993), counterfactual thinking (Niedenthal, Tangney, & Gavanski, 1994; Tangney & Dearing, 2002), 'conceptual encounter' (Lindsay-Hartz *et al.*, 1995) and factor analysis (Fontaine, Luyten, De Boeck, & Corveleyn, 2001; Harder & Zalma, 1990) that attests to the separateness of guilt and shame.

Tangney (1995b) and others (e.g., Barrett & Campos, 1987; Ferguson & Stegge, 1995; Gilbert, Pehl, & Allan, 1994; Lindsay-Hartz *et al.*, 1995; Lynd, 1958; Malatesta & Wilson, 1988; Roseman *et al.*, 1994; Weiner, 1986) have proposed schemas for understanding the similarities and differences in the affective, cognitive and behavioural characteristics of guilt and shame. A representative précis of these similarities and differences is shown in Table 3.1 (Tangney, 1995b, p. 116). Guilt and shame are alike in that they are both negatively valenced (aversive), self-conscious (self referential), and moral (prosocial) emotions evoked by similar transgressions, wrongdoings or failures occurring within an interpersonal context (Table 3.1). According to Helen Block Lewis (1971; 1987b) and promulgated by Tangney (e.g., Tangney & Dearing, 2002) and Michael Lewis (Lewis, 1995), the quintessential difference between guilt and

shame is the focus of the self in the genesis of these emotions (Table 3.1). In guilt, the individual finds fault with his or her behaviour, whereas in shame the individual's global or entire self is perceived as faulty. Unlike guilt, shame also involves a painful and disorganising 'splitting' of the self into 'observing' and 'observed' aspects (Table 3.1), pithily expressed by M. Lewis as 'the eye of the other in me who beholds my transgression' (Lewis, 1995, p. 92).

There are other important differences between guilt and shame, particularly concerning the phenomenological experience and the action tendencies (Table 3.1). The guilt feeling individual feels agitated, regretful and remorseful and seeks to apologise, confess or take other reparative action, so as to alleviate the dysphoria and maintain the integrity of the social bond. The shame feeling individual, on the other hand, feels dejected, small, exposed, helpless and powerless and seeks to hide, escape, disappear or, sometimes, angrily retaliate, thereby seeking to maintain the integrity of the self. These phenomenological and motivational characteristics of guilt and shame signal differences in how individuals perceive the authorship and controllability of aversive events. According to attribution theory (Weiner, 1986), negative events that are cognitively explained by internal, global and stable attributions are associated with shame, whereas negative events explained by internal, specific and unstable attributions are associated with guilt (Tangney & Dearing, 2002). Simply put, the individual feeling guilt acknowledges responsibility for his or her behaviour and attributes it to a lack of effort, whereas the individual feeling shame avoids responsibility for behaviour and attributes it to an uncontrollable lack of ability (Weiner, 1986).

Guilt and shame as personality traits

The origins of proneness to guilt and shame

In the opinion of developmental psychologists, guilt and shame play pivotal roles in the development of personality (e.g., Barrett, 1995; Barrett, 1998; Barrett & Campos, 1987; Ferguson & Stegge, 1995; Lewis, 1995; Malatesta & Wilson, 1988; Zahn-Waxler & Kochanska, 1990; Zahn-Waxler & Robinson, 1995). Malatesta and Wilson (1988), Barrett (1995) and Ferguson and Stegge (1995) have considered the early origins of both guilt and shame. Michael Lewis (1995) has mostly confined his enquiry to the origins of shame. Zahn-Waxler and Kochanska (1990) have studied the origins of guilt, but without necessarily being careful to distinguish between guilt and shame (Tangney & Dearing, 2002).

Malatesta and Wilson (1988) have argued that recurring experiences with primary caregivers in early childhood act in concert with other factors, such as temperament, to foster the development of personality constructs 'loosely' organised around discrete emotions, which then function as traits or dispositions and predispose individuals to structure their *being-in-the-world* in idiosyncratic ways. Furthermore, Malatesta and Wilson (1988) have proposed that emotion traits can become inflexible or 'rigid' aspects of personality and cause emotion-specific psychopathology. In this context, Malatesta and Wilson have suggested that a 'surfeit' of guilt may result in a 'guilt-ridden' type of depression with a cognitive reference akin to 'something bad will happen and there is no escape. I have done something for which I will (should) be punished' (Malatesta & Wilson, 1988, p. 101). On the other hand, a 'surfeit' of shame may result in pathological shyness [shame variant] and a cognitive reference of 'I am extremely fragile and others may easily hurt me; I am inferior to others' (Malatesta & Wilson, 1988, p. 101).

In their 'functionalist approach' to emotional development, Barrett and Campos (1987) have also evoked the importance of both self and other in their analysis of the appraisal or 'appreciation' process that makes an event emotionally significant. The self-relevant guilt appraisal is considered to be 'I have done something contrary to my standards' while the other-relevant guilt appraisal is 'someone has been injured by my act' (Barrett & Campos, 1987, p. 564). The self-relevant shame appraisal is considered to be 'I am bad' and the other-relevant shame appraisal is 'someone/everyone notices how bad I am' (Barrett & Campos, 1987, p. 564).

According to Barrett and Campos (1987), the socializing other can be persuasively influential in modulating how events are appraised, particularly if inductions are given repeatedly over time by a valued caregiver, usually a parent. Barrett has assigned guilt a predominantly adaptive prosocial function and believes that 'frequent guilt experiences should increase the child's awareness of his or her power to control his or her behavior, and of the pleasure derived from helping others, and of the discomfort derived from hurting others' (Barrett, 1995, p. 48). However, Barrett has also suggested that 'guilt experiences that are *extremely* frequent (especially if reparations are often ineffective) should lead to a sense of self as "evil"—as responsible primarily for bad events' (Barrett, 1995, p. 58). In a later publication, Barrett commented that guilt may become a maladaptive feature of personality 'when it is too pervasive, intense, or stable, [or] when it occurs under inappropriate circumstances' (Barrett, 1998, p. 88). Barrett and Campos (1987) have suggested that infrequent shame experiences in the context of a healthy child-caregiver relationship can be adaptive by highlighting aspects of the self that are socially unacceptable, thereby enabling a change in the self so as to avoid further aversive shame experiences. Frequent shame experiences, however, are likely to be maladaptive and lead the child to view the self as 'incompetent and/or bad, and to become a

shame-prone (and potentially, a depression prone) individual' (Barrett, 1995, p. 48).

Michael Lewis (1995) has used an amalgam of empirical research and clinical observation to formulate a schema for the development of shame-proneness in children. Lewis refers to shame as a self-conscious *evaluative* emotion that requires the child to have developed objective self-awareness, and thereby the propensity to experience *exposed* emotions, such as embarrassment, and to have internalised standards, goals and rules regarding socially sanctioned behaviour. If the child with objective self-awareness and internalised standards experiences failure or violates a standard, goal or rule and makes an internal and global attribution to explain the failure then he or she experiences shame. Thus, M. Lewis (1995) shares with H. B. Lewis (1971) and Tangney (1995) the belief that individuals are shame-prone to the degree they make internal, global and stable attributions for transgression or failure. According to M. Lewis (1995), individual differences in explaining negative events by making shame-relevant internal and global attributions may be owing to several factors, perhaps operating in concert. First, the child may be constitutionally 'field dependent' and orient the phenomenological self according to the dictates of the external world and, therefore, be shame-prone (Lewis, 1971). Second, the child may have a 'difficult' (irritable and somatic) temperament and consequently be more shame-prone than a child not so temperamentally disposed (Lewis, 1995). Third, the child may model his or her own attributional style after the internal and global attributional style of a parent, such as a depressed mother, and, thereby, be shame-prone. Fourth, the child may be disciplined by parents and teachers who use shame inducing techniques in their attempts to 'socialise' the child. The coercive use of disgust, teasing, sarcasm, humiliation and withdrawal of love all favour the child 'learning' to be shame-prone by making internal and global attributions for negative life events.

Tangney and her colleagues have also reported that shame-prone children indicate their parents favour 'person [not behaviour] focused disciplinary messages, express disgust, tease, communicate conditional approval, and use love withdrawal techniques' (Tangney & Dearing, 2002, p. 152). In contrast to M. Lewis (1995) and Tangney (2002), Ferguson and Stegge (1995) have shown that shame-proneness in children is not predicted by stringent parental discipline (induction, power assertion and withdrawal of love), but more by the absence of discipline. Moreover, Ferguson & Stegge (1995) have shown that children are shame-prone to the degree their parents fail to respond positively with warmth and affection to their 'good' behaviour.

Zahn-Waxler and Robinson (1995) have focused their attention on the origins of empathy-based guilt, defined by Hoffman as an 'intensely unpleasant feeling of disesteem for oneself that results from empathic feeling for someone in distress combined with awareness of being the cause of that distress' (Hoffman, 1998, p. 91). Zahn-Waxler and Robinson (1995) have shown that toddlers and young children express concern and enact prosocial and reparative behaviours in response to someone else's distress, whether they caused the distress or were simply a bystander, and were more likely to do so if their parents were warm and affectionate people. The omnipotent and egocentric propensities of toddlers together with their 'fuzzy' distinction between self and other render them liable to feel responsible for other people's distress, whether they caused it or not (Covell & Abramovitch, 1987; Graham, Doubleday, & Guarino, 1984). Although Zahn-Waxler *et al.* (Zahn-Waxler, Cole, & Caplovitz Barrett, 1991; Zahn-Waxler & Kochanska, 1990; Zahn-Waxler & Robinson, 1995) have proposed that empathy-based guilt is generally adaptive, they also acknowledge that the conjunction of child temperament, inept parenting, family dynamics, parental personality traits and psychopathology, particularly maternal depression, can make overarching concern for others and perceived responsibility for their

distress the precursors of psychopathology. It should be noted, however, that Zahn-Waxler and her colleagues did not explicitly distinguish between guilt and shame and nor did they elucidate the nature of the internal attributions that children make in considering themselves responsible for negative events (Stipeck & DeCotis, 1988).

Empathy-based guilt in adults

The developmental psychologists referred to in the preceding section placed guilt squarely in the interpersonal world—*mitwelt*—rather than consigning it to the individual's psyche—*umwelt*—and attributing it to such phenomena as fear of castration (Piers & Singer, 1953) or retroflected aggression (Freud, 1961). The interpersonal theory of guilt in adults with its purposeful function of maintaining or repairing close, important and intimate relationships has been championed by Baumeister and his collaborators (Baumeister, 1998; Baumeister *et al.*, 1994; Baumeister, Stillwell, & Heatherton, 1995; Leith & Baumeister, 1998). According to Baumeister *et al.* (1994), guilt is the empathic distress and anxiety about exclusion that results from the unintended, accidental or voluntary infliction of harm, loss, or distress on a valued and respected other. Baumeister *et al.* have also proposed that guilt can occur without an antecedent transgression, but in response to empathically perceived personal inequity, and give the example of survivor guilt, where 'one feels guilty about inequities in one's favour in comparison with significant others' (Baumeister *et al.*, 1994, p. 252).

Although Baumeister *et al.* emphasised that guilt is 'something that happens between people rather than just inside them' (Baumeister *et al.*, 1994, p. 243), they have not discounted the existence of an unconscious, irrational and malevolent intrapsychic phenomenon that might compel an adult to 'act as if

guilt depends heavily on intrapsychic factors such as self-appraisal, controllable decisions, and malicious intent' (Baumeister *et al.*, 1994, p. 261).

Empathy-based guilt gone awry

The origins of empathy-based guilt or positive inequity guilt gone awry and the relationship of different forms of this dysfunctional interpersonal guilt to psychopathology have been the subject of study by post-Freudian psychoanalysts, notably members of the *San Francisco Psychotherapy Research Group* under the auspices of Joseph Weiss and Harold Sampson (Bush, 1989; Friedman, 1985; Modell, 1965, 1971; O'Connor, 2000; O'Connor *et al.*, 1999; O'Connor *et al.*, 1997; O'Connor *et al.*, 1998; O'Connor, Berry, Weiss, Schweitzer, & Sevier, 2000; Weiss, 1993; Weiss & Sampson, 1986). These clinicians and researchers believe that (unconscious) guilt derives from people's (irrational) fear of harming relationally significant others in the pursuit of important personal goals, rather than the classical Freudian view of guilt as stemming from the fear of punishment by the introjected 'castrating oedipal parent' because of harboured hostile or incestuous wishes (Bush, 1989). As mentioned previously, young children's tenuous cognitive understanding of causal links, egocentricity and sense of omnipotence render them liable to assume responsibility for other peoples' woes and accept blame for their own misfortunes regardless of their true causation. This developmental stage in children may be hyperbolised by the exhortations of dysfunctional family members to whom children must nevertheless turn for love and protection. Thus, in order to secure the relationship with their parents, children may repress desirable goals, such as those subsumed under the rubric of individuation.

In his reconceptualisation of classical Freudian guilt, Friedman defined the cognitive content of guilt as 'the appraisal, conscious or unconscious, of one's

plans, thoughts, actions, etc. (sic) as damaging, through commission or omission, to someone for whom one feels responsible' (Friedman, 1985, p. 529). According to Friedman (1985), empathic distress is the affective component of guilt, whereas the motivational component is to avoid the action tendency or make reparation. Thus, Friedman's understanding of guilt is closely aligned with the views espoused above by protagonists of the empathy-based prosocial nature of guilt (e.g., Baumeister *et al.*, 1994; Hoffman, 1998; Tangney, 1995b; Zahn-Waxler & Robinson, 1995). In addition, Friedman referred specifically to survivor guilt, which he defined as the 'guilt that arises when one believes that one could have helped but failed to help a loved one' (Friedman, 1985, pp. 531-532). Ordinarily, Friedman's version of survivor guilt might be considered to result from a 'sin of omission', but it could equally well be a form of positive inequity guilt (Baumeister *et al.*, 1994).

Modell has made special reference to separation guilt, which he described as 'the belief that one does not have the right to a life' (Modell, 1965, p. 328), because the attainment of a separate existence would be detrimental to the parent—there being, as it were, only so much 'life' to go around. Modell (1965) assigned the development of this unconscious guilt to the pre-oedipal period when self and other are incompletely differentiated. According to Modell (1965), the degree to which this primary unconscious guilt remains operative in later life depends on the development of secondary conscious guilt, which is a function of the superego. Although he suggested that unconscious separation guilt is present to a greater or lesser extent in most people, Modell argued that separation guilt, at its worst, 'pervades the entire personality structure' (Modell, 1965, p. 329). In addition, Modell (1971) described a form of survivor guilt more subtle than that reported in holocaust survivors by Niederland (1981), but similar to the positive inequity guilt described by Baumeister (1994). Modell considered that survivor guilt also had a pre-oedipal origin and was conceived

of an unfavourable balance in the distribution of available good, such that 'if fate has dealt harshly with other members of the family, the survivor may experience guilt, as he has obtained more of his share of the "good"' (Modell, 1971, p. 340).

Lynn O'Connor, who is a member of the San Francisco Psychotherapy Research Group and consequently alert to the work of Friedman (1985) and Modell (1965; 1971), has, together with her colleagues, elucidated four types of interpersonal guilt based on the pathogenic belief that the pursuit of self-realisation will cause harm to relationally significant others (O'Connor, 2000; O'Connor *et al.*, 1999; O'Connor *et al.*, 1997; O'Connor *et al.*, 1998; O'Connor *et al.*, 2000). O'Connor *et al.* have defined *survivor guilt* as the 'guilt derived from the belief that one is harming others by surpassing them, being better off, being successful or happy'; *omnipotence guilt* as the 'guilt derived from the belief that one [is] responsible for the well-being of others, and that one has the power to make others successful and happy'; *separation guilt* as the 'guilt derived from the belief that one is disloyal and harming loved one(s) by leaving or being different'; and *self-hate guilt* as 'a severe negative evaluation of the self, usually in compliance with harsh or rejecting parents' (O'Connor *et al.*, 1999, p. 190).

Measurement of guilt and shame traits and their relationship to psychopathology

> Many have criticized the use of self-report instruments on the grounds that such reports are prone to social desirability and other demand characteristics…Moreover, self-reports of emotionality are fraught with additional difficulties. When asked to indicate the extent to which one is feeling particular emotions, one must, at least: (1) define for oneself how one feels when experiencing those emotions; (2) be sensitive to such feeling states; (3) be sensitive to the distinction between these and other feeling

> states; and (4) be able to quantify the extent to which these feeling states are present. Each of these variables is likely to differ widely across individuals, producing untold perturbations in the validity of such measures of feeling…Yet, how else does one determine how a person *feels*? (Barrett & Campos, 1987, pp. 556-557).

Test of Self-Conscious Affect-2

Informed predominantly by the work of Lewis (1971) and Lindsay-Hartz (1984), June Price Tangney and her colleagues developed a scenario-based self-report paper-and-pencil questionnaire measure of guilt and shame *likelihood* called the Self-Conscious Affect and Attribution Inventory (SCAAI), which they later reworked and renamed the Test of Self-Conscious Affect (TOSCA) (e.g., Tangney & Dearing, 2002). Utilising the SCAAI and/or TOSCA, Tangney *et al.* have undertaken a number of empirical studies of the relationship between personality predispositions to guilt and shame and interpersonal functioning. In summary, Tangney (1990; 1991; 1995b) showed that shame-proneness was positively correlated with externalisation of blame and self-oriented personal distress, whereas proneness to guilt controlled for shame was negatively or negligibly correlated with externalisation of blame and positively correlated with other-oriented empathy. In subsequent studies, Tangney *et al.* (Tangney, 1995b; Tangney, Wagner, Fletcher, & Gramzow, 1992; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996) showed that shame-proneness was not only correlated with externalisation of blame but also with trait-anger and hostility. Tangney and her colleagues concluded from their research that externalisation of blame, trait-anger, and hostility were defensive responses to aversive shame experience, much like the 'humiliated fury' described by Lewis (1971; 1987b) and the 'shame-rage spiral' elucidated by Scheff and Retzinger (Retzinger, 1997; Scheff, 1987). In contrast, SCAAI/TOSCA guilt controlled for

the variance due to shame was not positively correlated with trait-anger or hostility. The apparently benign nature of guilt vis-à-vis interpersonal functioning was interpreted by Tangney *et al.* as being consistent with the empathic origin of guilt and the perpetrator's acceptance of responsibility for transgression (Tangney, 1995b; Tangney, Wagner, Fletcher *et al.*, 1992; Tangney, Wagner *et al.*, 1996).

Tangney and her coworkers have also used the SCAAI and/or TOSCA to explore relationships between guilt- and shame-proneness and symptoms of psychopathology (Tangney *et al.*, 1995; Tangney, Wagner, & Gramzow, 1992). They found that shame was positively correlated with all nine dimensions of the Symptom Checklist-90 (SCL-90, Derogatis *et al.*, 1973): somatisation, obsessive-compulsive, psychoticism, paranoid ideation, hostility-anger, interpersonal sensitivity, anxiety, phobic anxiety and depression, as well as with depression and anxiety assessed by other measures (Tangney *et al.*, 1995; Tangney, Wagner, & Gramzow, 1992). On the other hand, guilt controlled for shame was not correlated with any of the aforementioned psychological symptom clusters (Tangney *et al.*, 1995; Tangney, Wagner, & Gramzow, 1992).

The association of SCAAI/TOSCA Shame with psychological symptoms noted in the preceding paragraph mirrors the importance that clinicians have afforded shame in their theoretical, but unempirical, considerations of the genesis and perpetuation of psychiatric illness, including depression, bipolar illness, anxiety, schizophrenia, narcissism, eating disorders and spousal abuse (Hoblitzelle, 1987; Kaufman, 1989; Kohut, 1972; Lansky & Morrison, 1997; Lewis, 1971, 1979b, 1987b, 1987c; Morrison, 1983; Morrison, 1987; Nathanson, 1987b; Wurmser, 1995). For example, Kaufman (1989) has used the innovative and influential, but complex and abstruse, *affect-theory* of Silvan Tomkins (1963) to formulate six classes of syndromes in which he considers shame to be the core or *organising affect*: (1) compulsive syndromes, subsuming addictive

disorders, sexual abuse and physical abuse; (2) schizoid, depressive and paranoid disorders; (3) phobic syndromes, such as agoraphobia (4) sexual dysfunction syndromes, such as impotence; (5) splitting syndromes, including multiple personality, and borderline and narcissistic personality disorders; and (6) sociopathic and psychopathic syndromes (Kaufman, 1989, pp. 110-151). Although acknowledging the considerable importance of shame in the development and continuance of psychopathology, psychoanalysts, including those with a Kohutian bent (Kohut, 1971), have been less certain of shame's seminal influence in disorders of the self (Lichtenberg, 1999).

The benign nature of SCAAI/TOSCA Guilt in relation to psychopathology alluded to above was perhaps not unexpected (Ferguson & Crowley, 1997b; Luyten, Fontaine, & Corveleyn, 2002). The SCAAI/TOSCA guilt eliciting scenarios are common everyday, albeit hypothetical, transgressions and the guilt responses are empathic, prosocial, reparative and enabled. Guilt constructed in this way is considered to be functional and, therefore, unlikely to be associated with psychopathology (Ferguson & Crowley, 1997b; Luyten *et al.*, 2002). It should be noted, however, that real-world guilt may not be so forgiving: transgressions may be more sinister, reparative behaviour may be thwarted by circumstances (such as death), the injured other may have an antipathetic response to reconciliation, or the individual's guilt may no longer be hinged to and bounded by here-and-now transgressions. The dysregulatory presence of these complicating circumstances may lead to the chronic, ruminative and self-reviling guilt that seems to be associated with psychopathology (e.g., Bybee & Quiles, 1998; Ferguson & Stegge, 1998; Jones & Kugler, 1993; Lewis, 1971; Tangney & Dearing, 2002).

Personal Feelings Questionnaire-2

David Harder and his colleagues were also guided by the influential work of Helen Block Lewis (1971) in their development of the Personal Feelings Questionnaire (PFQ, Harder & Lewis, 1987), which is an adjective-based self-report paper-and-pencil questionnaire measure of guilt and shame *frequency* without reference to a specific eliciting event. Harder *et al.* have used the extended PFQ (PFQ-2, Harder & Greenwald, 1999; Harder & Zalma, 1990) to elucidate the relationship between proneness to guilt and proneness to shame and selected dimensions of psychopathology (depression, self-derogation, social anxiety, shyness, public and private self-consciousness, narcissism, social desirability and locus of control) and the Five-Factor Model of personality. They showed that shame-proneness had significant positive zero-order correlations with psychopathology (depression, self-derogation, social anxiety, shyness and public self-consciousness) and neuroticism (Harder, 1995; Harder *et al.*, 1992; Harder & Greenwald, 1999). Guilt-proneness showed a similar pattern of zero-order correlations, but guilt controlled for the variance due to shame was constrained to positive correlations with depression, and private and public self-consciousness (Harder, 1995; Harder *et al.*, 1992). Harder *et al.* (1995; 1992) have also studied the correlation of proneness to shame, measured by the Adapted Shame and Guilt Scale (ASGS, Hoblitzelle, 1987), and proneness to PFQ-2 Guilt with the psychological symptoms that comprise the subscales of the revised version of the SCL-90 (SCL-90-R). They showed that both ASGS Shame and PFQ-2 Guilt had significant positive zero-order correlations with depression, somatisation, obsessive-compulsive, interpersonal sensitivity, psychoticism, phobic anxiety and paranoid ideation. PFQ-2 Guilt partialled for shame showed smaller but significant correlations with somatisation, interpersonal sensitivity, anxiety, hostility-anger and psychoticism (Harder, 1995; Harder *et al.*, 1992). Thus, unlike TOSCA-2 Guilt,

PFQ-2 Guilt has been significantly correlated with maladaptive dimensions of personality and symptoms of psychopathology.

Adaptive versus maladaptive guilt

In explicating their proposition that guilt is adaptive when it is 'predispositional' and maladaptive when it is 'chronic', Bybee and Quiles (1998) studied the relationship of predispositional guilt (feeling guilt in a circumscribed context) and chronic guilt (feeling guilt in the absence of a specific context) to psychological symptoms. Bybee & Quiles (1998) showed that predispositional (e.g., TOSCA) guilt controlled for shame was not correlated with the subscales of the SCL-90-R or with depression by another measure, but had a significant negative correlation with hostility. On the other hand, chronic (e.g., PFQ-2) guilt controlled for shame showed significant positive correlations with five of the nine subscales of the revised SCL-90-R (obsessive-compulsive, interpersonal sensitivity, depression, anxiety and psychoticism), and with hostility (Bybee & Quiles, 1998).

These data provide support for the view that TOSCA predispositional guilt is functional, whereas PFQ-2 chronic guilt is dysfunctional and associated with psychopathology (e.g., Freud, 1957/1917; Freud, 1961; Harder, 1995; Harder *et al.*, 1992; Harder & Lewis, 1987; Jones & Kugler, 1993; Lewis, 1971, 1979a; Prosen, Clark, Harrow, & Fawcett, 1983). As mentioned previously, chronic guilt may be a fixed or rigid personality trait originating in childhood (Barrett, 1998; Malatesta & Wilson, 1988; Zahn-Waxler & Robinson, 1995), or it may be occasioned by the immutable circumstances surrounding a guilt eliciting event or by the failure of attempts to reconcile a wrongdoing (Bybee & Quiles, 1998; Tangney & Dearing, 2002).

Interpersonal Guilt Questionnaire-67

Lynn O'Connor and her colleagues (1997) developed the Interpersonal Guilt Questionnaire (IGQ), which is a self-report pencil-and-paper questionnaire measure of four types of dysfunctional interpersonal guilt founded on the pathogenic belief that one can cause harm to others by pursuing normal developmental goals. In other words, these are forms of empathy-based guilt or positive inequity guilt gone awry. Using the 67-item version of the IGQ (IGQ-67), O'Connor *et al.* (1999) showed that Survivor Guilt and Self-Hate Guilt, both partialled for (TOSCA) shame, were positively correlated with all nine dimensions of the Brief Symptom Inventory (BSI), which is an abridged version of the SCL-90 (Derogatis & Melisaratos, 1983), and with depression and low self-esteem assessed by other measures. O'Connor *et al.* (1999) also showed that Separation Guilt partialled for shame was positively correlated with somatisation, interpersonal sensitivity, phobic anxiety, paranoid ideation and psychoticism, whereas Omnipotence Guilt partialled for shame was constrained to a positive correlation with depression.

Caveats about the measurement of guilt and shame traits

Apart from the notion that the TOSCA measures predispositional guilt and shame and the PFQ-2 measures chronic guilt and shame (Andrews, 1998; Bybee & Quiles, 1998), there is another potentially important difference between the two measures. The TOSCA measures the *likelihood* of guilt and shame, whereas the PFQ-2 measures the *frequency* of guilt and shame. According to Diener *et al.* (1985), the frequency of emotion experience may be more relevant to personality structure than the intensity of experience.

Measurement of guilt

There are other potentially important considerations regarding the TOSCA and the PFQ-2 measures of guilt-proneness. First, there is the worry that TOSCA Guilt may be a measure of moral standards rather than guilt affect. Kugler and Jones (1992), for example, concluded from their factor analytic research that because the TOSCA contains 'morality-relevant scenarios…[it] would appear to measure moral standards rather than the affective experience of guilt', whereas the PFQ that uses 'feeling words without reference to specific behaviors would appear to represent the construct of affective guilt' (Kugler & Jones, 1992, p. 323). Although Tangney has conceded that moral evaluation is a necessary concomitant of a guilt response, she has argued that the avoidance of morally contentious issues in the scenarios and the non-cognitive phenomenological nature of the responses constrain the TOSCA to measure affective guilt (Tangney, 1996). Second, there is the concern that the everyday nature of the TOSCA Guilt scenarios may limit the sensitivity of the measure in clinical populations. In acknowledging this misgiving, Tangney has written that the scenarios exclude 'less common, more idiosyncratic and more serious events…that are irrelevant to most respondents, but which may dominate a specific individual's emotional life at a particular time' (Tangney & Dearing, 2002, p. 42). Third, there is the possibility that TOSCA Guilt may lack ecological validity. Do people respond in real life as they propose they would in an equivalent hypothetical situation? Tangney has argued for the ecological validity of the TOSCA by emphasising that the scenarios and responses were generated by laypeople, not by researchers (e.g., Tangney & Dearing, 2002). Fourth, Ferguson and Stegge have raised the possibility that TOSCA Guilt may be a measure of empathy rather than guilt, because individuals 'can imagine that someone who hurt a victim in this way *would* feel guilty but *not* because they themselves truly would feel guilty' (Ferguson & Stegge, 1998, p. 49). Fifth,

Tangney has argued repeatedly that PFQ-2 Guilt may not be a valid measure of guilt (Tangney, 1990; Tangney, 1995a; Tangney, 1995b; Tangney, 1996; Tangney *et al.*, 1995). She contends that individuals find it difficult to distinguish between guilt and shame in the abstract (Lindsay-Hartz, 1984) and tend to fuse co-occurring guilt and shame and refer to the resultant hybrid as 'guilt' (Lewis, 1971). In addition, Tangney has maintained that when participants are asked to rate the frequency of a guilt item without a specific context they are presented with a shame-relevant task involving global assessment (Tangney, 1990; Tangney, 1995a; Tangney, 1995b; Tangney, 1996; Tangney *et al.*, 1995). If Tangney is correct, then PFQ-2 Guilt may be a measure of general negative affectivity (Watson & Clark, 1992) or an undisclosed measure of shame rather than a measure of guilt. Finally, Harder has also worried about the discriminant validity of his PFQ-2 Guilt measure, commenting that the 'correlation pattern [for guilt] is uncomfortably similar to what would be expected of a valid shame measure' (Harder, 1995, p. 380).

Notwithstanding these foregoing concerns about validity, several lines of evidence favour the conclusion that PFQ-2 Guilt is a true measure of guilt. First, exploratory factor analysis using orthogonal rotation has shown that PFQ-2 Guilt and Shame items have mostly separate latent factor loadings (Harder & Zalma, 1990). Second, PFQ-2 Guilt partialled for shame has shown significant positive correlations with dimensions of psychopathology (see above). Third, PFQ-2 Guilt and Guilt Inventory Guilt (GI, Kugler & Jones, 1992), which is an extant measure of guilt that explicitly distinguishes between guilt and shame, have shown similar correlations with psychological symptoms. Fourth, PFQ-2 Guilt has been shown not to correlate with moral standards (Kugler & Jones, 1992). Fifth, a confirmatory factor analysis of various measures of guilt by Ferguson and Crowley (1997b) showed that PFQ-2 Guilt and GI Guilt were valid indicators of a latent construct of guilt, whereas TOSCA Guilt was not so

empirically disposed. Finally, Harder (1995) has speculated that the lack of a specific context in the PFQ-2 Guilt format may facilitate access to unconscious guilt, which is presumed to be the source of chronic conscious guilt. Thus, the available evidence suggests that PFQ-2 Guilt is a valid measure of chronic guilt and therefore rightfully correlated with psychological symptoms and psychiatric illness (e.g., Baumeister *et al.*, 1994; Bybee & Quiles, 1998; Freud, 1957/1917, 1961; Harder, 1995; Harder *et al.*, 1992; Kugler & Jones, 1992; Lewis, 1971, 1979a; Prosen *et al.*, 1983; Quiles & Bybee, 1997).

The structure of the IGQ-67 has attracted very little scrutiny in the literature compared with the careful examination given to the TOSCA and PFQ-2. Although the IGQ-67 purports to measure dysfunctional interpersonal guilt, the items were constructed without the aforementioned differences between guilt and shame explicitly in mind (O'Connor *et al.*, 1997). In particular, a number of the Self-Hate Guilt items either reflect shame-relevant internal, global and stable attributions for failure or transgression, or indicate a negative cognitive evaluation of the self, such as low self-esteem (O'Connor *et al.*, 1997). The possibility that IGQ-67 guilt may be confounded with shame has been acknowledged by O'Connor *et al.*, who compensated for this possibility by controlling for shame in their correlational study of interpersonal guilt and psychopathology (O'Connor *et al.*, 1999).

Measurement of shame

Although measures of shame may be more psychometrically 'robust' than measures of guilt (Ferguson & Crowley, 1997b), the measurement of shame has not been without criticism, notably by Bernice Andrews (1998). First, Andrews (1998) has expressed concern about the ecological validity of TOSCA Shame, because of the hypothetical nature of the responses to the scenarios. Second, Andrews (1998) has argued that TOSCA Shame exacts shame about behaviour,

but not about other elicitors, such as personal attributes. In addition, neither TOSCA Shame nor PFQ-2 Shame specifically identify shame associated with 'unwanted identity' (Ferguson *et al.*, 2000; Lindsay-Hartz, 1984), 'gender role stress' (Efthim *et al.*, 2001), 'stigma' (Lewis, 1998) or 'domains of shame' such as conformity and social status (Greenwald & Harder, 1998). Third, Andrews (1998) has noted that TOSCA Shame codes mainly for characterological self-blame (Janoff-Bulman, 1979). Although characterological self-blame is an important concomitant of shame (e.g., Hoblitzelle, 1987; Lewis, 1987b; Tangney & Dearing, 2002; Weiner, 1986), it is neither a necessary nor a sufficient condition for shame affect (Andrews, 1998). Fourth, TOSCA Shame may be confounded with self-esteem (Luyten *et al.*, 2002), in the much the same way that TOSCA Guilt may be confounded with moral standards. Andrews (1998) has argued that because TOSCA Shame is weighted toward characterological self-blame it may not reliably distinguish between shame affect and low self-esteem. In a somewhat unconvincing defence of TOSCA Shame, but unwitting affirmation of Andrews' foregoing concern, Tangney (1996) has argued that 'self-esteem is essentially a self-evaluative construct. Shame is an emotion—an affective state. The corresponding trait or disposition is shame-proneness—a tendency to experience the emotion shame (as opposed to, say, guilt) in response to specific negative events' (Tangney, 1996, p. 745). In the same vein, Lewis wrote that 'shame is the affective-cognitive state of low self-esteem' (Lewis, 1987b, p. 39). In its favour, PFQ-2 Shame does not have a bias toward characterological self-blame, because it concentrates more on the phenomenological experience of shame. Finally, Andrews (1998) has claimed that the global self referent nature of PFQ-2 Shame makes it mood susceptible and therefore less reliable as a measure of personality proneness to shame (Andrews, 1998).

Covariance of guilt and shame

The fact that guilt and shame share properties in common (Table 3.1) is one reason why empirical studies have consistently shown that the two emotions covary (Harder, 1995; O'Connor *et al.*, 1999; Tangney, Wagner, & Gramzow, 1992). In other words, individuals who are prone to shame also tend to be prone to guilt and, of course, vice versa. For this reason, the partialling procedure has been used in statistical analyses involving bivariate correlations and hierarchical multiple regressions (Ferguson & Crowley, 1997a; Ferguson & Stegge, 1998; Harder, 1995; Tangney, 1990). Controlling for the variance due to either guilt or shame allows for an assessment of the relationship between shame-free guilt or guilt-free shame and psychological symptoms (Bybee & Quiles, 1998; Harder, 1995; O'Connor *et al.*, 1999; Tangney *et al.*, 1995). The partialling procedure has the added benefit of uncovering possibly important correlations between shame or guilt and the dependent variable under investigation when the bivariate correlations are of opposite valence and cancel each other out (Tangney, 1996). On the other hand, there are important drawbacks to using partial correlation analyses. First, the partialling procedure may remove valid variance owing to guilt (or, less likely, shame), thereby failing to reveal an important correlation between guilt (or shame) and the psychological variable under investigation (Ferguson & Crowley, 1997a; Ferguson & Stegge, 1998; Harder, 1995; Tangney, Wagner, & Gramzow, 1992). Second, the partialling process may give undue weight to the independent variable (usually shame) that has the stronger bivariate correlation with the dependent psychological variable being studied (Ferguson & Stegge, 1998).

Ferguson and Crowley (1997b) have offered another explanation for why guilt and shame may covary. They undertook a multitrait-multimethod analysis (Campbell & Fiske, 1959) of the TOSCA-2, PFQ-2 and GI and concluded that 'the existence of a strong method effect (particularly in the assessment of guilt)

is clearly observable. In most cases, the variance associated with the method used is substantially greater than, and often overwhelms, the variance associated with the trait' (Ferguson & Crowley, 1997b, p. 434). In addition, the presence of method error is a cogent explanation for the observation that within-method correlations between guilt and shame are often stronger than between-method correlations of extant measures of either guilt or shame (Harder, 1995; Tangney, Wagner, & Gramzow, 1992).

This section on the measurement of guilt and shame is concluded with Andrews' (1998) succinct overall criticism of empirical studies of proneness to guilt and shame and psychopathology:

> In general, there has been increasing disillusion over the widespread use of cross-sectional questionnaire studies with student samples to investigate cognitive, personality, and other psychosocial factors in disorders such as depression…Particular objections raised involve the use of non-clinical student samples and dimensional measures of psychopathology to investigate clinical phenomena, the inadequacy of cross-sectional designs to distinguish factors as antecedents, concomitants, or consequences of the disorder under investigation, and the lack of consideration of social context. These objections are all relevant to questions regarding associations between questionnaire measures of shame [and guilt] and psychopathology (Andrews, 1998, p. 50).

Summary of guilt and shame

The tenor of the present chapter may be summarised as follows. First, although guilt and shame are both negative, self-conscious and moral emotions, they, nevertheless, have separate and distinct feeling, cognitive and behavioural concomitants. Second, guilt and shame can be organised into emotion-based personality traits that can be either functional or dysfunctional. Guilt- and

shame-proneness are inherently functional, because being self referential and prosocial they are embedded in a social nexus of 'belongingness' (Maslow, 1954). Guilt and shame become dysfunctional when they no longer occur between people but within them, thereby alienating individuals from their social milieu and locating them, instead, in a web of intrapersonal conflict. Third, the origin of dysfunctional guilt or shame is probably multifactorial, but perturbations in the socialising and disciplinary practices of caregivers and teachers charged with raising and caring for children are perhaps more important determinants of dysfunctional proneness to guilt or shame than heredity, life circumstances or social values. Fourth, shame-proneness is engendered by internal, global and stable causal attributions for perceived transgression or failure, whereas internal, specific and unstable attributions are more characteristic of guilt-proneness. Shame-proneness by virtue of these attributional qualities is more likely than guilt to be associated with psychopathology (Abramson *et al.*, 1978; Tangney & Dearing, 2002). Nevertheless, guilt that individuals are unable or unwilling to relinquish may become chronic and thereby beget psychopathology. Finally, the self-report measurement of shame seems to be reasonably robust, whereas the measurement of guilt is more problematic. The problem with measuring guilt and interpreting correlations with indices of psychopathology can be partially resolved by distinguishing between situational or predispositional guilt (TOSCA-2) and chronic guilt (PFQ-2 and IGQ-67). Unfortunately, the covariance of chronic guilt and shame causes problems in elucidating their individual relationships with psychological symptoms and this conundrum can not necessarily be resolved by controlling for the variance due to the confounding emotion in statistical analyses.

Table

Table 3.1 Shame and guilt similarities and differences

Features shared by shame and guilt

- Both fall into the class of "moral emotions"
- Both are "self-conscious," self referential emotions
- Both are negatively valenced emotions
- Both involve internal attributions of one sort or another
- Both are typically experienced in interpersonal contexts
- The negative events that give rise to shame and guilt are highly similar (frequently involving moral failures or transgressions)

Key dimensions on which shame and guilt differ

Dimension	Shame	Guilt
Focus of evaluation	Global self ("*I* did that horrible thing")	Specific behavior ("I *did* that horrible *thing*")
Degree of distress	Generally more painful than guilt	Generally less painful than shame
Phenomenological experience	Shrinking, feeling small, feeling worthless, powerless	Tension, remorse, regret
Operation of self	Self "split" into observing and observed "selves"	Unified self intact
Impact on self	Self impaired by global devaluation	Self unimpaired by global devaluation
Concern *vis-à-vis* others	Concerned with others' evaluation of self	Concerned with one's effect on others
Counterfactual processes	Mentally undoing some aspect of the self	Mentally undoing some aspect of behavior
Motivational features	Desire to hide or escape, or desire to strike back	Desire to confess, apologize, or repair

Table reproduced from Tangney (Tangney, 1995b, p. 116) with permission of the publisher (Guilford Press, Appendix E1).

Chapter 4

Methods

Participants

The six hospitals in Sydney that provide both obstetric and neonatal intensive care services were approached and four agreed to participate in the cohort study (Last, 1995). The study protocol was approved by each of these hospital's ethics and scientific committees. Designated people at the participating hospitals were contacted weekly for the purpose of obtaining the names and contact information of parents who had experienced a stillbirth (≥ 20 completed weeks gestation) or neonatal death (≤ 28 completed days from birth) during the preceding 1–2 weeks (NPSU, 2003).

Eligibility for enrolment in the study required that the parent be literate in English and live in the Sydney metropolitan area. One hospital did not permit the inclusion of parents who had had a late termination of pregnancy for fetal anomaly, because they were being considered for a separate institutional study.

Two to three weeks after the death, each eligible parent was mailed an introductory letter from the particular hospital's Department of Obstetrics (stillbirths) or Neonatology (neonatal deaths) (see example, Appendix A1), together with an explanatory letter regarding the nature of the study (see example, Appendix A2) and a participant's information sheet (see example, Appendix A3). The parents from three hospitals were contacted by telephone approximately one week after the letters were mailed and asked about their preparedness to participate in the study. One hospital did not permit telephone

contact with eligible parents until after they had expressed their willingness to be contacted by return mail.

Semi-structured interviews

Face-to-face semi-structured interviews were conducted one month and 13 months after the death. Parents were usually interviewed in their homes and couples were seen together. The small number of parents who had moved and were living outside metropolitan Sydney 13 months after the death were interviewed by telephone. The questionnaires were posted to these parents and they returned them by mail after completion. The parents were assured of the anonymous and confidential nature of the study and written informed consent was obtained from each parent (see example, Appendix A4). In appreciation for their participation in the study, each parent was given a copy of the book *'Stillbirth and Newborn Death. Death and Life are the same mysteries'* (Barr & de Wilde, 1987).

At the one-month interview, the parents were asked to provide a narrative of their pregnancy loss. Specific information was requested, if necessary, at appropriate times during the narrative or afterwards so as to obtain information concerning the parent's ethnicity, religious denomination, level of education, occupational status, marital status, previous reproductive losses of the mother (terminations of pregnancy, miscarriages, stillbirths and neonatal deaths), the presence of living children in the family home, duration of the pregnancy, and the gender of the infant(s) who died.

Ethnicity was defined according to the parent's birthplace and coded as English-Australian (born in Australia, New Zealand, United Kingdom, Ireland, or North America), Asian-Australian (born in Asia), European-Australian (born

in Europe, not including the United Kingdom) or Other-Australian (birthplace other than the aforementioned).

The parent's religious denomination was recorded as Protestant, Catholic, Other, or Nil/Agnostic. There was no inferred relationship between religious denomination and religiosity.

The parent's highest level of education was coded according to the following order: (1) attended high school, (2) completed the School Certificate (Year 10), (3) completed either the Higher School Certificate (Year 12) or a diploma in Technical and Further Education (TAFE), or (4) completed a University Degree.

The parent's occupational status was classified according to the major groupings described in the *Australian Standard Classification of Occupations* (ASCO, 1997): (1) Managers and Administrators, (2) Professionals, (3) Associate Professionals, (4) Tradespersons and Related Workers, (5) Advanced Clerical and Service Workers, (6) Intermediate Clerical, Sales and Service Workers, (7) Intermediate Production and Transport Workers, (8) Elementary Clerical, Sales and Service Workers, or (9) Labourers and Related Workers. The system did not allow for the classification of housepersons, unemployed people and full-time students.

The underlying cause of perinatal death was deduced from the parent's narrative and a category assigned in a manner similar to that described by Keeling *et al.* (1989): (1) lethal malformation, (2) unexplained antepartum death, (3) intrapartum asphyxia resulting in stillbirth, or neonatal death from hypoxic-ischaemic encephalopathy, (4) extreme prematurity resulting in peripartum death or neonatal death from a complication of prematurity, and (5) a specific disorder other than the aforementioned.

Information was also obtained concerning whether or not the participants held and/or saw their dead infant, received memorabilia, such as hand and foot

prints and photographs, baptised or blessed the infant, consented to an autopsy, and attended the infant's funeral.

At the 13-month interview, further information was obtained about the following: (1) interim adverse major life events: the death of a first-degree relative, separation or divorce, serious illness, or unemployment; (2) subsequent pregnancies; and (3) professional psychological counselling and/or participation in a self-help bereavement support group.

Paper-and-pencil questionnaires

Six self-report paper-and-pencil questionnaires were used and they were presented in the following order. First, the Perinatal Grief Scale-33 (PGS-33)—*'Present thoughts and feelings about your loss'*—was used to measure grief (Appendix B1) (Potvin *et al.*, 1989). Second, the Test of Self-Conscious Affect-2 (TOSCA-2)—*'Reactions to encounters in day-to-day life'*—was used to measure situational guilt- and shame-proneness (Appendix B2) (Tangney & Dearing, 2002; Tangney, Ferguson *et al.*, 1996). Third, the Personal Feelings Questionnaire-2 (PFQ-2)—*'Personal Feelings'*—was used to measure chronic guilt- and shame-proneness (Appendix B3) (Harder & Zalma, 1990). The order in which the TOSCA-2 and PFQ-2 questionnaires were presented vis-à-vis each other was randomised. Fourth, the Interpersonal Guilt Questionnaire-67 (IGQ-67)—*'Emotions and life experiences'*—was used to measure chronic interpersonal guilt-proneness (Appendix B4) (O'Connor *et al.*, 1998). The IGQ-67 was introduced into the study protocol after the first data collection period had commenced and consequently only 115 of the 158 study participants answered the IGQ-67 one month after perinatal death. Fifth, the Golombok Rust Inventory of Marital State (GRIMS)—*'Feelings about your relationship with your partner'*—was used to measure relationship satisfaction in married or cohabiting couples (Appendix B5) (Rust, Bennum, Crowe, &

Golombok, 1988). Sixth, the General Health Questionnaire-28 (GHQ-28)—*'General health questionnaire'*—was used to measure general psychological health and specific symptom clusters called Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression (Appendix B6) (Goldberg & Hillier, 1979).

The parents completed the six study questionnaires immediately after the semi-structured interview at both one month and 13 months. The confidential and anonymous nature of the study was restated and the parents were encouraged to respond transparently to the questionnaire items. The PGS-33, GRIMS and GHQ-28 were state measures and the parents were asked to complete them using the preceding 1–2 weeks as their temporal reference. The TOSCA-2, PFQ-2 and IGQ-67 were trait measures and the parents were asked to answer these questionnaires without a specified temporal reference. The parents were invited to ask for clarification of questionnaire items they did not understand and requested not to confer with each other while answering the questionnaires.

The interview and completion of the questionnaires took 2–4 hours at one month and 1–3 hours at 13 months. The parents were contacted by telephone several days after the data collection periods to thank them for their participation in the study, obtain responses to any omitted questionnaire items, enquire after their well-being, and arrange for further psychological support services, if requested.

Perinatal Grief Scale-33

The *Perinatal Grief Scale-33* (PGS-33) is a self-report paper-and-pencil questionnaire that was developed specifically for the measurement of grief after pregnancy loss (Appendix B1) (Potvin *et al.*, 1989). The original PGS developed by Toedter *et al.* (1988) consisted of 84 items representing 21 dimensions of

grief gleaned from the Expanded Texas Grief Inventory (Zisook *et al.*, 1982), the six-item neonatal grief scale used by Kennell *et al.* (1970), and facets of grief considered to be unique to pregnancy loss (Borg & Lasker, 1988; Kirkley-Best & Kellner, 1982). Exploratory factor analysis of the PGS identified three latent factors that were named *Active Grief*, *Difficulty Coping* and *Despair*, as befitted their item content (see below) (Toedter *et al.*, 1988). The discriminant validity of the PGS was established by confirming hypothesised correlations with previously demonstrated predictors of grief following reproductive loss, such as gestation, pre-loss mental health, and marital satisfaction, and with the SCL-90 (Derogatis *et al.*, 1973) dimensions of psychopathology (Toedter *et al.*, 1988).

The 33-item version of the PGS (PGS-33) was developed from the original 84-item scale by deleting items with low interitem and item-total correlations (Potvin *et al.*, 1989). The PGS-33 was factor analysed and the original three subscales were retained with each subscale now consisting of 11 items (Appendix B1). The Active Grief subscale was so named because it contained items such as, 'I feel a need to talk about the baby', 'I very much miss the baby' and 'I cry when I think about the baby'. The Difficulty Coping subscale contained items that reflected social withdrawal, difficulty with normal activities and depression, such as, 'I feel somewhat apart and remote, even among friends', 'I find it difficult to make decisions since the baby died' and 'I have considered suicide since the loss'. The Despair subscale contained items that reflected feelings of helplessness and hopelessness, such as, 'I feel worthless since he/she died', 'I try to laugh, but nothing seems funny anymore' and 'I blame myself for the baby's death'. Two factors—Active Grief and Despair—were clearly distinct, whereas the third factor—Difficulty Coping—shared loadings with Despair and was considered to be an intermediary factor linking Active Grief with Despair along a gradient of increasing symptom severity (Potvin *et al.*, 1989). The questionnaire items are presented as

statements to which the participant is asked to respond on a 5-point Likert scale ranging from 1 ‘Strongly agree’ to 5 ‘Strongly disagree’ with a neutral midpoint. Thirty-one of the 33 items are negatively valenced and their scores are reversed before aggregating the item scores to obtain total and subscale scores, wherein higher scores reflect more intense grief.

The internal reliability coefficients, factor structure and discriminant validity of the PGS-33 have been found to be satisfactory (Hunfeld, Wladimiroff, Passchier, Venema-van Uden *et al.*, 1993; Lasker & Toedter, 2000; Potvin *et al.*, 1989; Toedter *et al.*, 2001). These data together with the psychometric results from the present study are set forth in Chapter 5—*Psychometrics*.

Test of Self-Conscious Affect-2

The *Test of Self-Conscious Affect-2* (TOSCA-2) is a layperson generated scenario-based self-report paper-and-pencil questionnaire that presents participants with 16 hypothetical everyday life situations of which 11 are negatively valenced and 5 are positively valenced. The participants are provided with possible emotion-related feeling, cognitive or behavioural responses and asked the *likelihood* they would respond in particular ways using a 5-point Likert scale ranging from 1 ‘Not likely’ to 5 ‘Very likely’ (Appendix B2) (Tangney & Dearing, 2002; Tangney, Ferguson *et al.*, 1996). All 16 scenarios contain items pertaining to shame, guilt and ruminative guilt, while some also appraise pride (*alpha pride* about the self and *beta pride* about behaviour) and personality defences called externalisation and detachment. Only the results from the shame and guilt scales were used in the present study. The item responses were summed to give total scores for situational shame-, guilt- and ruminative guilt-proneness. The operationalisation of shame and guilt in the TOSCA-2 was informed particularly by the theory and research of Lewis (1971) and Lindsay-Hartz (1984). Shame was determined to be an

aversive immobilising feeling of anxious inadequacy or failure resulting from a negative evaluation of the entire self and motivating the desire to hide (Tangney & Dearing, 2002). Guilt was determined to be an aversive feeling of anxious regret or remorse consequent upon a negative evaluation of a specific behaviour of the self with a resultant press toward apology and reparation (Tangney & Dearing, 2002). For example, the TOSCA-2 scenario, 'You make a mistake at work and find out a co-worker is blamed for the error' has a shame-relevant response, 'You would keep quiet and avoid the co-worker', a guilt-relevant response, 'You would feel unhappy and eager to correct the situation', and a ruminative guilt-relevant response, 'You would feel troubled and preoccupied with what happened but unable to correct the situation'. Likewise, the scenario, 'You are driving down the road, and you hit a small animal' has a shame response, 'You would think: "I'm terrible"', a guilt response, 'You'd feel bad you hadn't been more alert driving down the road', and a ruminative guilt response, 'You'd have trouble getting the image of the animal out of your mind'.

The reported internal consistency, test-retest reliability and predicted correlations with psychological symptoms have generally attested to the reliability and validity of the TOSCA-2 Shame and Guilt scales (Tangney *et al.*, 1995; Tangney & Dearing, 2002; Tangney, Wagner, Fletcher *et al.*, 1992; Tangney, Wagner, & Gramzow, 1992). The TOSCA-2 Ruminative Guilt scale, on the other hand, has demonstrated doubtful discriminant validity (Tangney & Dearing, 2002). These data and the psychometric properties of the TOSCA-2 ascertained from the present study are presented in Chapter 5—*Psychometrics*.

Personal Feelings Questionnaire-2

The *Personal Feelings Questionnaire-2* (PFQ-2) is a self-report paper-and-pencil word or phrase checklist questionnaire that contains ten shame-related items, six guilt-related items and six other-emotion filler items (Appendix B3) (Harder

& Zalma, 1990). The shame-relevant and guilt-relevant words or phrases were derived from theoretical considerations of their respective affective, cognitive and phenomenological characteristics (Harder & Lewis, 1987; Lewis, 1971). The shame items include embarrassment, feeling ridiculous and feeling humiliated, whereas those pertaining to guilt include mild guilt, remorse, and regret. Respondents are presented with an emotion word or phrase and asked how *frequently* they experience the feeling using a 5-point Likert scale that ranges from 0 'Never experience' to 4 'Continuously or almost continuously experience'. The individual shame and guilt responses are summed to give total scores for chronic guilt- and shame-proneness.

The internal consistency, test-retest reliability, and factor structure of the PFQ-2 have been evaluated and attest to the reliability and construct validity of the scales (Harder & Zalma, 1990). The convergent and discriminant validity of the shame and guilt scales have been investigated by performing zero-order and partial correlation analyses with other measures of trait shame and guilt and with personality constructs theoretically predicted to correlate with proneness to shame and/or guilt (Harder *et al.*, 1992; Harder, Rockart, & Cutler, 1993; Harder & Zalma, 1990). These analyses indicated that the validity of the PFQ-2 shame and guilt scales was generally satisfactory, though some of the correlations with psychopathology and personality constructs were different in strength and/or direction from the theoretical predictions and worryingly similar to one another (Harder, 1995). The published data concerning the psychometric properties of the PFQ-2 and the results from the present study are presented in Chapter 5—*Psychometrics*.

Interpersonal Guilt Questionnaire-67

The *Interpersonal Guilt Questionnaire-67* (IGQ-67) is a self-report paper-and-pencil questionnaire developed by 'senior clinicians' and designed

to measure proneness to different types of interpersonal guilt emanating from anxiety about harming others in the pursuit or attainment of positive personal goals (Appendix B4) (O'Connor *et al.*, 1997). First, the perceived harm may be related to the process of individuation—*Separation Guilt* (15 items), which is captured by items such as, 'It makes me uncomfortable to have critical thoughts about my parents', 'I feel that bad things may happen to my family if I do not stay in close contact with them' and 'I am very reluctant to express an opinion that is different from the opinions held by family or friends.' Second, the harm may be irrationally ascribed to a person's good fortune occurring at the expense of an other's misfortune—*Survivor Guilt* (22 items), which is identified by items such as, 'I conceal or minimize my successes', 'I am uncomfortable talking about my achievements in social situations' and 'I tend to get somewhat depressed after important accomplishments'. Third, the fear may result from a misplaced belief regarding personal responsibility for the misfortune of others—*Omnipotence Guilt* (14 items), which is accessed by items such as, 'I worry a lot about the people I love even when they seem to be fine', 'If my child, spouse or close friends have a problem, I am very tempted to try to solve it for them' and 'If something goes wrong in the family I tend to ask myself how could I have prevented it'. Fourth, a general lack of deservedness or personal worth may lead to *Self-Hate Guilt* (16 items), which is expressed in items such as, 'I do not deserve other people's respect or admiration', 'If something bad happens to me I feel I must have deserved it' and 'If someone blames me for a mishap I assume they are right'. Participants are asked to respond to each IGQ-67 item on a 5-point Likert scale ranging from 1 'Very untrue of me or strongly disagree' to 5 'Very true of me or strongly agree' with a neutral midpoint. Thirteen of the 67 items are positively valenced and their scores are reversed, so that higher scores equate with more intense guilt. The items related to each category of guilt are

summed to give total scores for IGQ-67 Separation Guilt, Survivor Guilt, Omnipotence Guilt and Self-Hate Guilt.

A number of the items in the IGQ-67 Self-Hate Guilt scale signify global, internal and stable attributions about the self and may, therefore, be considered more indicative of shame (or low self-esteem) than of guilt (Lewis, 1971; Tangney & Dearing, 2002; Weiner, 1986). For example, the Self-Hate Guilt items, I do not deserve other people's respect or admiration' and 'I deserve to be rejected by people' are more akin to shame than guilt. In addition, Self-Hate Guilt is only indirectly related to the fear of harming others. Thus, IGQ-67 Self-Hate Guilt may not be a discerning measure of interpersonal guilt (O'Connor *et al.*, 1997).

The IGQ-67 subscales have been examined for their internal reliability, convergent validity with other measures of guilt, and discriminant validity with measures of general psychopathology, depression and self-esteem. The results of these studies indicate the satisfactory reliability and validity of the different scales. The published data pertaining to the psychometric properties of the IGQ-67 and the results from the present study are presented in Chapter 5—*Psychometrics*.

Golombok Rust Inventory of Marital State

The *Golombok Rust Inventory of Marital State* (GRIMS) is a 28-item one-dimensional paper-and-pencil self-report questionnaire measurement of marital satisfaction, not including the sexual relationship (Appendix B5) (Rust *et al.*, 1988; Rust, Bennun, Crowe, & Golombok, 1990; Rust, Bennun, Crowe, & Golombok, 1986; Rust & Golombok, 1999). The inventory was psychometrically constructed from a bank of items reflecting marital therapists' and their clients' beliefs about the ingredients of a satisfactory marital relationship, such as trust and respect, communication, warmth and affection, conflict resolution,

dependence-independence and shared interests. The manner in which the items were developed assured the inventory's content validity and gender neutrality. A mixture of positively and negatively valenced statements and agreement-disagreement statements minimised the likelihood that acquiescence and social desirability would materially influence responses. The participants are asked to respond to each item on a 4-point Likert scale ranging from 0 'Strongly disagree' to 3 'Strongly agree' with no neutral midpoint. The positively valenced items are reverse scored and the individual item scores are summed to give a total raw score with higher scores indicating more dissatisfaction with the relationship. The raw score can be transformed into nine categories ranging from 'Very good' to 'Very severe problems', but only the raw score was used in the present study.

The published psychometric properties of the GRIMS and the results from the present study are recorded in Chapter 5—*Psychometrics*.

General Health Questionnaire-28

The *General Health Questionnaire-28* (GHQ-28) is the scaled version of the GHQ-60 (Goldberg & Hillier, 1979). The GHQ-28 is a self-report paper-and-pencil questionnaire that has been used widely to measure psychological health in non-psychiatric settings (Appendix B6) (Goldberg & Williams, 1988; Goldberg *et al.*, 1997; Goldberg & Hillier, 1979). The GHQ-28 was developed from an exploratory factor analysis of the GHQ-60 and the resultant four 7-item subscales were called *Somatic Symptoms*, *Anxiety and Insomnia*, *Social Dysfunction* and *Severe Depression*. The names given to these subscales do not infer specific psychiatric diagnoses, such as anxiety or depression, but rather they represent recognisable clusters of symptoms existing in the 'hinterland between psychological sickness and health' (Goldberg & Williams, 1988, p. 2). The items reflect recent state deviations from what the

participant regards as normal or usual, or the emergence of new and distressing symptoms. The GHQ-28 is not a measure of chronic psychological ill health and nor is it a measure of personality traits.

In the present research, the GHQ-28 was used to measure the severity of multidimensional psychological dysphoria after perinatal bereavement and not as a screening test for the prevalence or presence of a psychiatric disorder (Goldberg & Williams, 1988). Each item was scored using a 4-point Likert system (0–1–2–3) and the individual item scores were summed to give GHQ-28 total and individual subscale scores (Goldberg & Williams, 1988; Goldberg *et al.*, 1997). The published psychometric properties of the GHQ-28 and the results from the present study are set out in Chapter 5—*Psychometrics*.

Statistics

The importance of discerning gender differences in shame, guilt, grief and psychological dysphoria and the nature of their gender specific interrelationships was given precedence over the statistical advantage of combining the sexes to obtain a larger sample size (Lutwak & Ferrari, 1996; Stroebe, 1998). Nevertheless, the sample sizes were sufficient for multiple regression analyses according to the minimum of 5–10 per variable suggested by Norman and Streiner (Norman & Streiner, 2000). Sometimes, however, the sample sizes were smaller than the minimum recommended by other authors (e.g., Tabachnick & Fidell, 2001).

The effect size (eta^2) was calculated when an independent samples t-test showed there was a significant difference between the means of two groups. The effect size was catergorised as small when it was .01–.05, moderate when it was .06–.13, and large when it was ≥ .14 (Cohen, 1988).

The strength of a bivariate or partial correlation was recorded as *small* when the r value was .20–.29, *moderate* when the r value was .30–.49, and *large* when the r value was .50–1.0. This partitioning of the strength of correlation coefficients followed Cohen (1988), except that correlations of .10–.19 were not included in the small category for clarity of presentation. The p values for the bivariate and partial correlations are recorded in the tables, but they are not referred to in the text, because the statistical significance of r is strongly influenced by sample size (Pallant, 2001). A p value of $< .05$ was considered to be statistically significant for all computations, whereas a p value $\geq .05$ was regarded as not significant (NS).

Guilt and shame covaried and therefore partial correlation analyses were carried out. Partialling out or statistically removing the variance due to the confounding emotion allowed for an evaluation of the correlation of 'pure' guilt or 'pure' shame with grief or psychological dysphoria (Ferguson & Crowley, 1997b; Harder, 1995; Tangney, 1990; Tangney, 1996).

In order to establish whether or not a between gender difference in correlation coefficients was statistically significant, each r value was first converted to a z value and then the observed z value (z_{obs}) was calculated according to the following equation (Pallant, 2001):

$$z_{obs} = \frac{z1 - z2}{\sqrt{\frac{1}{N1-3} + \frac{1}{N2-3}}}$$

A difference in the correlation coefficients was not statistically significant if the z_{obs} fell between –1.96 and +1.96.

A series of hierarchical multiple regression analyses was conducted to explore the relationship between shame and guilt (independent variables) and grief or psychological dysphoria (dependent variable). TOSCA-2 Shame and PFQ-2

Shame were entered at Step 1 and TOSCA-2 Guilt, PFQ-2 Guilt, IGQ-67 Survivor Guilt, Separation Guilt and Omnipotence Guilt were entered at Step 2, thereby controlling guilt for shame. In this way, it was possible to evaluate the contribution that 'pure' or 'shame-free' guilt made to the variance in grief or psychological dysphoria (Ferguson & Stegge, 1998; O'Connor *et al.*, 1999; Tangney & Dearing, 2002). TOSCA-2 Ruminative Guilt and IGQ-67 Self-Hate Guilt were not included in these analyses because their correlation with one and/or other shame variable was greater than .70 (Tabachnick & Fidell, 2001). In addition, the results of the exploratory factor analysis (see, Chapter 5—*Psychometrics*) and the negligible shame partialled correlations between TOSCA-2 Ruminative Guilt and grief and psychological dysphoria (see, Chapter 6—*Results*) indicated the TOSCA-2 Ruminative Guilt scale had doubtful discriminant validity (see also, Tangney & Dearing, 2002). Similarly, IGQ-67 Self-Hate Guilt was considered to be a personality orientation to negative self-evaluation, albeit stemming from early shame and guilt experiences, rather than a predisposition to guilt emotion (O'Connor *et al.*, 1999; O'Connor *et al.*, 1997).

The variables to be entered into the multiple regressions were investigated for multivariate multicollinearity, which was considered serious if the Tolerance value was less than .20 and the Variance-Inflation Factor value was greater than 4 (Tabachnick & Fidell, 2001). Multivariate outliers, identified by a Mahalanobis distance greater than the χ^2 value for $p < .001$, were omitted (Tabachnick & Fidell, 2001). The assumptions regarding normality, linearity and homoscedasticity were not violated and multicollinearity was not substantial enough to preclude multiple regression analysis (Tabachnick & Fidell, 2001).

The results of the hierarchical multiple regressions were interpreted in a standard manner. First, a multiple R value significantly different from zero

(F ratio $p < .05$) at Step 1 indicated that shame explained a significant proportion of the total variance in the dependent grief or psychological dysphoria variable under investigation. The corresponding R^2 (or adjusted R^2) value reflected the percentage of the proportion of the variance explained by shame. The individual βs and t-values indicated whether TOSCA-2 Shame and/or PFQ-2 Shame made significant unique contributions to the total variance in the dependent variable and the squared part correlation (sr^2) reflected the percentage of each contribution. Second, a significant ΔR^2 (*F* change $p < .05$) from Step 1 to Step 2 indicted that guilt made a significant additional contribution to the total variance in the dependent grief or psychological dysphoria variable being evaluated. The individual βs and t-values showed whether TOSCA-2 Guilt, PFQ-2 Guilt, Survivor Guilt, Separation Guilt and/or Omnipotence Guilt made significant unique contributions to the total variance in the dependent variable and the sr^2 reflected the percentage of each contribution. Third, a multiple R value significantly different from zero at Step 2 indicated that shame and guilt together explained a significant proportion of the total variance in the dependent variable and the R^2 (or adjusted R^2) value reflected the percentage of the total variance explained by shame and guilt.

The 13 month grief and psychological dysphoria variables were significantly correlated with their one month counterparts and, therefore, a second series of hierarchical multiple regressions was conducted in which the one month counterpart of the dependent variable at 13 months was entered as an independent variable at Step 1. The shame variables were entered at Step 2 and the guilt variables were entered at Step 3. In this way, the relationship between shame and guilt and the dependent variable at 13 months was controlled for the effect of the counterpart dependent variable at one month.

In order to assess whether guilt- and/or shame-proneness at one month predicted grief and/or psychological dysphoria at 13 months, a third series of hierarchical multiple regressions was performed in which grief or psychological dysphoria at 13 months was regressed on shame and guilt at one month. The multiple R values, individual βs and t-values, ΔR^2, R^2, adjusted R^2 and sr^2 values in the second and third series of hierarchical multiple regressions were interpreted as described above.

All statistical computations were carried out using SPSS for Windows (SPSS, 1998).

The prime purpose of the present research was to study individual and sex differences in the relationship of personality proneness to guilt and shame to grief and psychological symptoms following perinatal bereavement, and therefore a control population was not considered necessary or relevant (Stroebe, Stroebe, & Schut, 2003).

Chapter 5

Psychometrics

This chapter reports the psychometric properties of the questionnaires used in the present research and where possible compares them with results published in the literature. The reliability and validity of the questionnaires were investigated by computing some or all of the following: descriptive statistics, inter-item and item-total correlations, internal consistency reliability (Cronbach's alpha coefficient), test-retest reliability, bivariate correlations within and between methods, and exploratory factor analysis (EFA). The external validity of the grief and guilt and shame questionnaires has been evidenced in the foregoing explications of perinatal grief (Chapter 2) and guilt and shame (Chapter 3).

EFA was performed using the principal components analysis extraction method and factors were rotated orthogonally using the Varimax method (Kline, 1994). The minimum subject to item ratio for an EFA was set at 3:1 (Norman & Streiner, 2000). Except for the EFA of the TOSCA-2 (see below), the critical value (CV) for a significant factor loading was determined from the formula given by Norman and Streiner (2000), where *N* equals the sample size:

$$CV = \frac{5.152}{\sqrt{N-2}}$$

At least 100 participants was considered necessary for the assessment of a questionnaire's reliability and validity (Kline, 2000), and, therefore, separate analyses were not conducted for women and men.

In order to facilitate the clarity of data presentation, the one month and 13 months intervals after perinatal death are referred to below as Time 1 and Time 2, respectively.

Perinatal Grief Scale-33

Descriptive statistics for the PGS-33 individual items one month (Time 1) and 13 months (Time 2) after perinatal death are shown in Appendix C1. Descriptive statistics for PGS-33 Total Grief, Active Grief, Difficulty Coping and Despair are shown in Table 5.1. The mean (SD) values were similar to those reported from the Perinatal Loss Project by Lasker and Toedter and their colleagues (Goldbach *et al.*, 1991; Stinson *et al.*, 1992; Toedter *et al.*, 2001), though the one month Active Grief mean score in women and men combined was more than 1SD higher than the two month score reported by Toedter *et al.* (2001) (Table 5.1).

PGS-33 item correlation matrices and mean inter-item correlations for Total Grief, Active Grief, Difficulty Coping and Despair are shown in Appendix C2. The item-total correlations for Total Grief are shown in Appendix C3, and the item-total correlations for Active Grief, Difficulty Coping and Despair are shown in Appendix C4. The mean (range) item-total correlations at Time 1 were Total Grief .53 (.35–.72), Active Grief .56 (.43–.66), Difficulty Coping .54 (.38–.71) and Despair .55 (.35–.76). The mean (range) item-total correlations at Time 2 were Total Grief .62 (.36–.83), Active Grief .60 (.44–.74), Difficulty Coping .63 (.39–.81) and Despair .64 (.44–.79).

The internal reliability coefficients (Cronbach's alpha coefficients) for Total Grief, Active Grief, Difficulty Coping and Despair were .94, .86, .85 and .85, respectively, at Time 1, and .96, .88, .90 and .90, respectively, at Time 2. Toedter *et al.* (2001) reported Cronbach's alphas for early Total Grief, Active

Grief, Difficulty Coping and Despair from different studies and the ranges were .92–.96, .88–.93, .70–.97 and .83–.91, respectively.

The bivariate correlations between Total Grief, Active Grief, Difficulty Coping and Despair are shown in Table 5.2. The inter-subscale correlations at Time 1 were strong (r = .66–.74), but not as strong as the subscale-total correlations (r = .87–.90). Similarly, the inter-subscale correlations at Time 2 were strong (r = .77–.85), though not as strong as the subscale-total correlations (r = .92–.94).

EFA of the PGS-33 at Time 1 (subject to item ratio 4.8:1) yielded eight factors with eigenvalues greater than one. The Screeplot endorsed a three-factor solution and this was preferred, so that the results could be compared with a previous EFA of the PGS-33 by Potvin *et al.* (1989). EFA specifying the extraction of three factors yielded factors that explained 33.5%, 7.6% and 5.2% of the variance. The three-factor solution was subjected to an orthogonal (Varimax) rotation and the significant factor loadings (CV = .41) are shown in Table 5.3. The three-factor solution explained 46.3% of the variance: Factor 1 ('Despair') explained 18.0%, Factor 2 ('Active Grief') explained 14.2% and Factor 3 ('Difficulty Coping') explained 14.1%. The three-factor solution reported by Potvin *et al.* (1989) explained 49.8% of the variance. In the present study, 29 of the 33 items loaded on a single factor, one item had a dual factor loading, and three items did not have significant factor loadings. Eight of the 11 Active Grief items loaded exclusively on Factor 2, one item, *I feel so lonely since he/she died*, loaded on Factor 2 and Factor 3, and two items, *I am frightened* and *Time passes so slowly since the baby died*, loaded on Factor 1, but not on Factor 2. Eight of the 11 Difficulty Coping items loaded exclusively on Factor 3, two items, *I have considered suicide since the loss* and *I have let people down since the baby died*, loaded on Factor 1, but not on Factor 3, and one item, *I feel I have adjusted well to the loss*, did not have a significant factor loading. Nine of the 11 Despair items loaded exclusively on Factor 1, and two

items, *I worry about what my future will be like* and *Being a bereaved parent means being a 'Second-Class Citizen'*, did not have significant factor loadings.

EFA confirmed the latent three-factor structure of the PGS-33 one month after stillbirth or neonatal death. The results of the EFA were encouragingly similar to those reported by Potvin *et al.* (1989) 6–8 weeks after pregnancy loss from ectopic pregnancy, miscarriage, stillbirth and neonatal death (Table 5.3).

A second EFA of the PGS-33 was performed at Time 2 (subject to item ratio 4.5:1). A three-factor extraction was forced and the factors explained 43.9%, 6.2% and 4.4% of the variance. The three-factor solution was orthogonally rotated and the significant factor loadings (CV = .42) are shown in Table 5.4. The three-factor solution explained 54.5% of the variance: Factor 1 explained 28.3%, Factor 2 explained 15.7% and Factor 3 explained 10.5%. A simple factor structure was not achieved. The 11 Active Grief items loaded across the three factors, including five items that loaded on Factor 1, and five items had dual factor loadings. Ten of the 11 Difficulty Coping items loaded on Factor 1, and three items had dual factor loadings. Nine of the 11 Despair items loaded on Factor 1 and three items had dual factor loadings.

The factor structure of the PGS-33 beyond the early period from reproductive loss has not been previously published. In the present study, EFA did not support a three-factor structure for the PGS-33 at Time 2. Consequently, only the PGS-33 Total Grief score was used for data analysis 13 months after perinatal death.

General Health Questionnaire-28

Descriptive statistics for the GHQ-28 individual items at Time 1 and Time 2 are shown in Appendix C5. Descriptive statistics for GHQ-28 Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe

Depression are shown in Table 5.5. The GHQ-28 has been used in one previous study of perinatal death (Hunfeld, Wladimiroff, & Passchier, 1997a), but a different scoring system was employed, thereby precluding a meaningful comparison with the present study.

GHQ-28 item correlation matrices and mean inter-item correlations for Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression are shown in Appendix C6. The item-total correlations for Total Dysphoria are shown in Appendix C7, and the item-total correlations for Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression are shown in Appendix C8. The mean (range) item-total correlations at Time 1 were Total Dysphoria .57 (.40–.71), Somatic Symptoms .57 (.40–.66), Anxiety and Insomnia .61 (.54–.66), Social Dysfunction .64 (.49–.73) and Severe Depression .69 (.58–.77). The mean (range) item-total correlations at Time 2 were Total Dysphoria .61 (.25–.74), Somatic Symptoms .65 (.55–.73), Anxiety and Insomnia .68 (.60–.73), Social Dysfunction .53 (.26–.68) and Severe Depression .79 (.64–.87).

The Cronbach's alphas for Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression were .94, .82, .85, .86 and .89, respectively, at Time 1, and .95, .87, .88, .80 and .93, respectively, at Time 2.

The bivariate correlations between Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression are shown in Table 5.6. The inter-subscale correlations at Time 1 were strong (r = .53–.69), but not as strong as the subscale-total correlations (r = .79–.88). The inter-subscale correlations at Time 2 were also strong (r = .54–.71), but, again, not as strong as the subscale-total correlations (r = .81–.92).

EFA of the GHQ-28 at Time 1 (subject to item ratio 5.6:1) yielded five factors with eigenvalues greater than one. The Screeplot endorsed a four-factor solution and this was used, thereby maintaining the conventional format of the GHQ-28. EFA specifying the extraction of four factors yielded factors that explained 38.3%, 7.9%, 7.4% and 5.0% of the variance. The four-factor solution was orthogonally rotated and the significant factor loadings (CV = .41) are shown in Table 5.7. The four-factor solution explained 58.6% of the variance: Factor 1 ('Social Dysfunction') explained 18.4%, Factor 2 ('Severe Depression') explained 15.4%, Factor 3 ('Somatic Symptoms') explained 12.8% and Factor 4 ('Anxiety and Insomnia') explained 12.0%. EFA of the GHQ-28 by Goldberg and Hillier (1979) yielded a four-factor solution that accounted for 59% of the variance. In the present study, 21 of the 28 items loaded exclusively on one factor, whereas seven items had dual factor loadings (Table 5.7). The seven Somatic Symptoms items loaded on Factor 3, but two items, *been feeling perfectly well and in good health?* and *been feeling run down and out of sorts?*, also loaded on Factor 1. The seven Anxiety and Insomnia items loaded on Factor 4, but three items also loaded on a second factor: *felt constantly under strain?* loaded on Factor 3, *been getting scared or panicky for no good reason?* loaded on Factor 2, and *found everything getting on top of you?'* loaded on Factor 1. The seven Social Dysfunction items loaded exclusively on Factor 1. The seven Severe Depression items loaded on Factor 2, but two items, *'been thinking of yourself as a worthless person?* and *felt that life is entirely hopeless?,* also loaded on Factor 4.

EFA confirmed the latent four-factor structure of the GHQ-28 one month after perinatal death. The GHQ-28 mean factor loadings at Time 1 were similar to the loadings reported by Goldberg and Hillier (1979) (Table 5.8).

A second EFA of the GHQ-28 was performed at Time 2 (subject to item ratio 5.3:1). A four-factor solution was specified and the factors explained 43.1%,

8.7%, 5.7% and 4.4% of the variance. The four-factor solution was orthogonally rotated and the significant factor loadings (CV = .42) are shown in Table 5.9. The four-factor solution explained 61.9% of the variance: Factor 1 explained 20.8%, Factor 2 explained 17.2%, Factor 3 explained 14.3% and Factor 4 explained 9.6%. Eighteen of the 28 items loaded exclusively on one factor, whereas 10 items had dual factor loadings. The seven Somatic Symptoms items loaded on Factor 2, but three items had dual factor loadings: *been feeling perfectly well and in good health?* and *been feeling run down and out of sorts?* also loaded on Factor 3, and *been having hot or cold spells?* also loaded on Factor 4. The seven Anxiety and Insomnia items loaded across the four factors and four items had dual factor loadings. The seven Social Dysfunction items loaded on Factor 3 and Factor 4, and two items had dual factor loadings. The seven Severe Depression items loaded on Factor 1, but one item, *found at times you couldn't do anything because your nerves were too bad?*, also loaded on Factor 3.

EFA of the GHQ-28 13 months after perinatal death identified Somatic Symptoms and Severe Depression as separate constructs, but Social Dysfunction and, particularly, Anxiety and Insomnia were more of a mishmash.

Personal Feelings Questionnaire-2

Descriptive statistics for the PFQ-2 individual guilt and shame items at Time 1 and Time 2 are shown in Appendix C9. Descriptive statistics for PFQ-2 Guilt and Shame are shown in Table 5.10. The mean values for women and men were not significantly different. The scores were similar to those reported by Harder and Zalma (1990) in an undergraduate student sample, but somewhat lower than those reported by Averill *et al.* (2002) in a psychiatric inpatient sample (Table 5.10). Nevertheless, the mean values for PFQ-2 Guilt and Shame in the

present study were within 1SD of those reported by Harder and Zalma (1990) and Averill *et al.* (2002).

The order in which the PFQ-2 was presented to the study participants vis-à-vis the TOSCA-2 influenced the PFQ-2 Shame and Guilt results. The Shame score at Time 1 when the PFQ-2 followed the TOSCA-2 (M = 15.21, SD = 4.85) was significantly higher than the Shame score when the PFQ-2 preceded the TOSCA-2 (M = 13.67, SD = 4.85; t (156) = -1.99, p = .048, eta^2 = .02). Similarly, the Guilt score at Time 2 when the PFQ-2 followed the TOSCA-2 (M = 10.16, SD = 2.96) was significantly higher than the Guilt score when the PFQ-2 preceded the TOSCA-2 (M = 8.83, SD = 4.10; t (147) = -2.10 p = .038, eta^2 = .03). These findings suggested the possibility of a small magnitude mood effect in the self-reporting of PFQ-2 Guilt and Shame.

PFQ-2 Guilt and Shame item correlation matrices and mean inter-item correlations are shown in Appendix C10. The item-total correlations for PFQ-2 Guilt and Shame are shown in Appendix C11. The mean (range) item-total correlations for PFQ-2 Guilt and Shame were .51 (.34–.60) and .44 (.24–.67), respectively, at Time 1, and .51 (.31–.66) and .53 (.39–.69), respectively, at Time 2.

The Cronbach's alphas for PFQ-2 Guilt and Shame were .76 and .77, respectively, at Time 1, and .76 and .83, respectively, at Time 2. Harder and Zalma (1990) reported Cronbach's alphas for PFQ-2 Guilt and Shame of .72 and .78, respectively.

The 12-month test-retest reliability coefficients for PFQ-2 Guilt and Shame were .63 and .56, respectively. Harder and Zalma (1990) reported 2-week test-retest reliability coefficients for PFQ-2 Guilt and Shame of .85 and .91, respectively.

EFA of PFQ-2 Guilt and Shame at Time 1 (subject to item ratio 9.9:1) produced four factors with eigenvalues greater than one. The Screeplot endorsed a

two-factor solution and this was chosen for its parsimony and for comparison with a previous EFA of the PFQ-2 by Harder and Zalma (1990). EFA specifying the extraction of two factors yielded factors that explained 31.5% and 9.8% of the variance. The two-factor solution was orthogonally rotated and the significant factor loadings (CV = .41) are shown in Table 5.11. The two factors explained 41.3% of the variance: Factor 1 ('Guilt') explained 21.0% and Factor 2 ('Shame') explained 20.3%. The two-factor solution reported by Harder and Zalma (1990) explained 40.4% of the variance. In the present study, the six guilt items loaded exclusively on Factor 1. Seven of the 10 shame items loaded exclusively on Factor 2, one shame item, *Embarrassment,* loaded equally on Factor 1 and Factor 2, one shame item, *Self-consciousness*, loaded exclusively on Factor 1, and one shame item, *Feeling helpless, paralysed,* did not have a significant factor loading.

In general, the PFQ-2 Guilt and Shame items loaded as theoretically expected, but there were some anomalies. In particular, the present study confirmed the finding by Harder and Zalma (1990) that individuals do not regard *Self-Consciousness* as an unambiguous manifestation of shame (Table 5.11).

A second EFA of PFQ-2 Guilt and Shame was performed at Time 2 (subject to item ratio 9.3:1). EFA specifying the extraction of two factors yielded factors that explained 37.2% and 9.1% of the variance. The two-factor solution was orthogonally rotated and the significant factor loadings (CV = .42) are shown in Table 5.11. The two factors explained 46.3% of the variance: Factor 1 ('Guilt') explained 23.5% and Factor 2 ('Shame') explained 22.8%. Four of the six guilt items loaded exclusively on Factor 1. One guilt item, *Feeling you deserve criticism for what you did*, loaded unexpectedly on Factor 2, and one guilt item, *Worry about hurting or injuring someone,* did not have a significant factor loading. Seven of the 10 shame items loaded on Factor 2, but one of these items, *Feeling humiliated*, also loaded, albeit less strongly, on Factor 1. Three shame

items: *Feeling helpless, paralysed*; *Feeling disgusting to others;* and *Self-consciousness* loaded contrary to expectation on Factor 1. Harder and Zalma (1990) found that *Feeling humiliated* and *Self-consciousness* loaded unexpectedly on the guilt factor.

Although the PFQ-2 Guilt and Shame items loaded mostly according to theoretical expectations, there were some disturbing anomalies. *Self-Consciousness, Feeling helpless, paralysed* and *Feeling disgusting to others* loaded on the latent guilt factor, whereas *Feeling you deserve criticism for what you did* loaded unexpectedly on the shame factor. Harder and Zalma (1990) showed that recasting the PFQ-2 on the basis of exploratory factor analysis loadings did not improve its construct validity and so they chose to retain the original format.

Test of Self-Conscious Affect-2

Descriptive statistics for the TOSCA-2 individual items at Time 1 and Time 2 are shown in Appendix C12. Descriptive statistics for TOSCA-2 Shame, Guilt and Ruminative Guilt are shown in Table 5.12. Women compared with men had significantly higher mean values for Shame, Guilt and Ruminative Guilt and the effect sizes were moderate. The TOSCA-2 Shame and Guilt scores were similar to those reported for TOSCA-3 Shame and Guilt by Tangney and Dearing (2002) (Table 5.12), who also found that women reported higher TOSCA Shame and Guilt scores than men. The TOSCA-2 and TOSCA-3 are identical, except for the omission of Ruminative Guilt from the latter (Tangney & Dearing, 2002). There are no published descriptive statistics for TOSCA-2 Ruminative Guilt.

TOSCA-2 Shame, Guilt and Ruminative Guilt item correlation matrices and mean inter-item correlations are shown in Appendix C13. The item-total correlations for TOSCA-2 Shame, Guilt and Ruminative Guilt are shown in

Appendix C14. The mean (range) item-total correlations for TOSCA-2 Shame, Guilt and Ruminative Guilt were .33 (.02–.56), .35 (.12–.52) and .45 (.24–.59), respectively, at Time 1, and .41 (.15–.57), .34 (.18–.50) and .45 (.14–.60), respectively, at Time 2.

The Cronbach's alphas for TOSCA-2 Shame, Guilt and Ruminative Guilt were .74, .73 and .83, respectively, at Time 1, and .81, .74 and .84, respectively, at Time 2. Tangney and Dearing (2002) reported Cronbach's alphas for TOSCA-3 Shame and Guilt from separate studies and the ranges were .76–.88 and .70–.83, respectively. There are no published data regarding the internal consistency of TOSCA-2 Ruminative Guilt.

The 12-month test-retest reliability coefficients for TOSCA-2 Shame, Guilt and Ruminative Guilt were .67, .58, and .69, respectively. Tangney *et al.* (1992) reported 3–5 week test-retest reliability coefficients for the original TOSCA Guilt and Shame of .85 and .74, respectively (Tangney, Wagner, Fletcher *et al.*, 1992). Tangney and Dearing (2002) reported 2-year test-retest reliability coefficients for TOSCA (version not stated) Shame and Guilt of .65 and .49, respectively, for 'mothers', and .71 and .53, respectively, for 'fathers'. There are no published data regarding the test-retest reliability of TOSCA-2 Ruminative Guilt.

The scenario-based format of the TOSCA may impose an appreciable limit on the value of EFA (Luyten *et al.*, 2002; Tangney, 1996). Nevertheless, the TOSCA-2 was factor analysed to help assess whether TOSCA-2 Shame, Guilt and Ruminative Guilt were separate constructs. In order to facilitate this process the CV for a significant factor loading was reduced to .30 (Kline, 1994). Although EFA of the TOSCA-2 (subject to item ratio 3.3:1) at Time 1 yielded 15 factors with eigenvalues greater than one, a three-factor extraction was forced to address the foregoing concern. The three-factor solution explained 19.0%, 6.4%

and 4.4% of the variance. The three factors were orthogonally rotated and the significant factor loadings (CV = .30) are shown in Table 5.13. The three factors explained only 29.8% of the variance: Factor 1 explained 12.8%, Factor 2 explained 9.3% and Factor 3 explained 7.6%. The factor structure was complex (Table 5.13). The 16 Shame items loaded as follows: six exclusively on Factor 1, three exclusively on Factor 2, two on both Factor 1 and Factor 2, three (negatively) on Factor 3, and two failed to load on a factor. The 16 Guilt items loaded as follows: six exclusively on Factor 3, three exclusively on Factor 1, one exclusively on Factor 2, four on both Factor 1 and Factor 3, one on Factor 3 and Factor 2 and one failed to load on a factor. The 16 Ruminative Guilt items loaded as follows: eight exclusively on Factor 1, four exclusively on Factor 2, and four on Factor 1 and Factor 2.

EFA restricted to TOSCA-2 Shame and Ruminative Guilt and specifying the extraction of two factors yielded a solution that explained 28.4% of the variance. The two factors were orthogonally rotated and the significant factor loadings (CV = .30) are shown in Table 5.14. Six Shame items loaded exclusively on Factor 1, six loaded exclusively Factor 2, three loaded on both factors and one failed to load on a factor. Nine Ruminative Guilt items loaded exclusively on Factor 1, two loaded exclusively on Factor 2 and five loaded on both factors. EFA did not suggest that TOSCA-2 Shame and Ruminative Guilt were separate constructs.

EFA restricted to TOSCA-2 Shame and Guilt and specifying the extraction of two factors yielded a solution that explained 25.7% of the variance. The two factors were orthogonally rotated and the significant factor loadings (CV = .30) are shown in Table 5.15. Eleven of the 16 TOSCA-2 Shame items loaded exclusively on Factor 1 (‘Shame’), two loaded exclusively (negatively) on Factor 2 (‘Guilt’), two loaded on both factors and one did not have a significant factor loading. Eight of the 16 TOSCA-2 Guilt items loaded exclusively on Factor 2,

four loaded exclusively on Factor 1, two had dual factor loadings and two did not have a significant factor loading. Thus, EFA suggested that TOSCA-2 Shame and Guilt were separate constructs. Luyten *et al.* (2002) reached a similar conclusion from their EFA of TOSCA Shame and Guilt.

The following evidence was taken to indicate the doubtful validity of TOSCA-2 Ruminative Guilt. First, there was a strong bivariate correlation between TOSCA-2 Ruminative Guilt and Shame (r = .73, Table 5.17). Second, although limited in efficacy, EFA showed that TOSCA-2 Ruminative Guilt and Shame did not have orthogonal factor loadings. Third, TOSCA-2 Ruminative Guilt and Shame showed similar zero-order correlations with grief and psychological dysphoria (see Chapter 6—*Results*). Finally, the zero-order correlations of TOSCA-2 Ruminative Guilt and Shame with grief and psychological dysphoria were almost completely nullified when one construct was partialled for the other (see Chapter 6—*Results*). Tangney and Dearing (2002) were so concerned about the validity of TOSCA-2 Ruminative Guilt that they removed it from the TOSCA-3.

Interpersonal Guilt Questionnaire-67

Descriptive statistics for the IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt individual items at Time 1 and Time 2 are shown in Appendix C15, Appendix C18, Appendix C21 and Appendix C24, respectively. Descriptive statistics for IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt are shown in Table 5.16. The mean values were within 1 SD of those reported by O'Connor *et al.* (1997). In the present study, women reported significantly higher Survivor Guilt scores than men, whereas O'Connor *et al.* (1997) found that women reported significantly higher Omnipotence Guilt scores than men.

IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt item correlation matrices and mean inter-item correlations are shown in Appendix C16, Appendix C19, Appendix C22 and Appendix C25, respectively. The mean (range) item-total correlations at Time 1 were Survivor Guilt .29 (.03–.49), Separation Guilt .40 (.08–.60), Omnipotence Guilt .34 (.03–.55) and Self-Hate Guilt .52 (.34–.68). The mean (range) item-total correlations at Time 2 were Survivor Guilt .34 (.02–.51), Separation Guilt .42 (.16–.67), Omnipotence Guilt .39 (.20–.59) and Self-Hate Guilt .56 (.38–.73).

The Cronbach's alphas for IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt were .74, .78, .72 and .88, respectively, at Time 1, and .79, .80, .77 and .88, respectively, at Time 2. O'Connor *et al.* (1999) reported Cronbach's alphas for IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt from separate studies and the ranges were .82–.85, .82–.83, .74–.83 and .84–.87, respectively.

The 12-month test-retest reliability coefficients for IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt were .71, .73, .56 and .76, respectively. The test-retest reliability of the IGQ-67 has not been previously published.

The IGQ-67 was not factor analysed because the maximum subject to item ratio was too small (< 3:1).

Guilt and shame bivariate correlations

The bivariate correlation matrices for the measures of guilt and shame at Time 1 and Time 2 are shown in Table 5.17. In order to minimise befuddlement and report results for the larger sample size vis-à-vis the IGQ-67, only the correlations pertaining to TOSCA-2 Guilt and Shame, PFQ-2 Guilt and Shame,

and IGQ-67 Survivor Guilt, Separation Guilt and Omnipotence Guilt at Time 2 are considered below.

TOSCA-2 Guilt and Shame

Although TOSCA-2 Guilt was moderately correlated with IGQ-67 Survivor Guilt (r = .49) and IGQ-67 Omnipotence Guilt (r = .31), it was more strongly correlated with TOSCA-2 Shame (r = .54) than with any extant measure of guilt. TOSCA-2 Shame was moderately correlated with PFQ-2 Shame (r = .46), but the correlation was not as strong as the correlation with TOSCA-2 Guilt (r = .54).

PFQ-2 Guilt and Shame

PFQ-2 Guilt was moderately correlated with IGQ-67 Survivor Guilt (r = .45) and IGQ-67 Omnipotence Guilt (r = .39), but it was more strongly correlated with PFQ-2 Shame (r = .70) than with any extant measure of guilt. PFQ-2 Shame was moderately correlated with TOSCA-2 Shame (r = .46), but the correlation with PFQ-2 Guilt (r = .70) was considerably stronger.

IGQ-67 Survivor Guilt, Separation Guilt and Omnipotence Guilt

IGQ-67 Survivor Guilt showed a strong correlation with IGQ-67 Omnipotence Guilt (r = .58) and moderate correlations with TOSCA-2 Guilt (r = .49) and PFQ-2 Guilt (r = .45). IGQ-67 Survivor Guilt was more strongly correlated with TOSCA-2 Shame (r = .58) and PFQ-2 Shame (r = .47) than with each method's extant measure of guilt.

IGQ-67 Separation Guilt had a strong correlation with IGQ-67 Omnipotence Guilt (r = .62), a moderate correlation with IGQ-67 Survivor Guilt (r = .42), and a small correlation with TOSCA-2 Guilt (r = .13) and PFQ-2 Guilt (r = .20). IGQ-67 Separation Guilt was more strongly correlated with TOSCA-2 Shame

(r = .25) and PFQ-2 Shame (r = .32) than with each method's extant measure of guilt.

IGQ-67 Omnipotence Guilt had a strong correlation with IGQ-67 Survivor Guilt (r = .58) and Separation Guilt (r = .62) and a moderate correlation with TOSCA-2 Guilt (r = .31) and PFQ-2 Guilt (r = .39). IGQ-67 Omnipotence Guilt was more strongly correlated with TOSCA-2 Shame (r = .38) and PFQ-2 Shame (r = .41) than with each method's extant measure of guilt.

Guilt and shame partial correlations

The fact that guilt and shame covaried ratified the use of partial correlations in studying the relationship of guilt- and shame-proneness to grief and psychological dysphoria. The foregoing explication of guilt and shame bivariate correlations informed the following partialling procedure: TOSCA-2 Shame was partialled for TOSCA-2 Guilt and vice versa; PFQ-2 Shame was partialled for PFQ Guilt and vice versa; and IGQ-67 Survivor Guilt, Separation Guilt and Omnipotence Guilt were partialled for TOSCA-2 Shame.

It should be noted, however, that the within-method correlation between TOSCA-2 Guilt and Shame and between PFQ-2 Guilt and Shame was stronger than the between-method correlation with extant measures of the corresponding emotion. Thus, although guilt and shame covaried, there was also a substantial amount of method variance (Ferguson & Crowley, 1997b).

Golombok Rust Inventory of Marital State

Descriptive statistics for the GRIMS individual items at Time 1 and Time 2 are shown in Appendix C27. The GRIMS mean (SD) scores were 22.2 (10.40) and 23.4 (11.49) at Time 1 and Time 2, respectively, for women, and 23.3 (10.27) and 24.4 (10.82) at Time 1 and Time 2, respectively, for men. The mean scores

for the GRIMS were within 1SD of the values reported by Rust *et al.* (1990) for women (M = 28.4, SD 9.03) and men (M = 27.2, SD = 10.02) in a representative sample of the general population in England, though the present study's participants were a little less dissatisfied with their relationship than their English counterparts.

The GRIMS item correlation matrices and mean inter-item correlations are shown in Appendix C28. The mean (range) item-total correlations were .47 (.21–.64) at Time 1, and .50 (.12-.72) at Time 2.

The Cronbach's alphas for the GRIMS were .89 and .91 at Time 1 and Time 2, respectively. Rust *et al.* (1990) reported Cronbach's alpha of .89 and .85 for women and men, respectively. The 12-month test-retest reliability of the GRIMS was .80.

Summary of psychometrics

The descriptive statistics, internal consistency reliabilities, test-retest reliabilities and factor structures attested to the psychometric adequacy of the questionnaires used in the study. However, there were several findings that had a bearing on subsequent data analysis and interpretation. First, exploratory factor analysis of the PGS-33 at Time 2 did not substantiate the presence of three latent factors. Consequently, only PGS-33 Total Grief was used in the data analysis 13 months after perinatal death. Second, exploratory factor analysis of the GHQ-28 at Time 2 suggested that Anxiety and Insomnia, and Social Dysfunction were not clearly distinguishable symptom clusters, thereby prompting caution in the interpretation of the relationship between guilt and shame and these psychological dimensions 13 months after perinatal death. Third, exploratory factor analysis of the PFQ-2 indicated that participants were mostly able to distinguish between guilt and shame as abstract concepts, but

theoretical expectations were not always fulfilled. Fourth, emotional mood may have had a small effect on the PFQ-2 Shame and Guilt scores. Fifth, TOSCA-2 Ruminative Guilt had doubtful discriminant validity vis-à-vis TOSCA-2 Shame. Tangney and Dearing (2002) have suggested that TOSCA-2 Ruminative Guilt is not a measure of ruminative guilt, if, indeed, such a construct exists separate from shame. Sixth, the moderate to strong bivariate correlation between shame and guilt attested to the difficulty in separating these emotional predispositions and ratified the use of the partialling procedure to statistically control for the variance due to the confounding emotion in correlation analyses, including hierarchical multiple regressions. Finally, within-method and between-method differences in correlations between guilt and shame indicated the presence of substantial method variance, thereby highlighting the need to use several different measures of guilt and shame when exploring the relationship of guilt- and shame-proneness to grief and psychopathology.

Tables

Table 5.1. PGS-33 descriptive statistics

	Women			Men			Women & Men		
	Mean	SD	CI	Mean	SD	CI	Mean	SD	CI
					Time 1				
Total Grief	95.4 (86.0)	21.00 (18.36)	99.9 (95.2)	82.7 (82.7)	20.73 (14.33)	87.5 (92.2)	89.6 (84.3)	21.75 (16.26)	93.0 (90.5)
Active Grief	40.6	7.39	42.1	35.4	8.50	37.4	38.2 (32.1)	8.30 (4.90)	39.5 (34.0)
Difficulty Coping	29.9	8.72	31.7	26.3	7.48	28.1	28.3 (26.5)	8.34 (6.75)	29.6 (29.1)
Despair	25.0	7.96	26.7	20.9	7.06	22.6	23.1 (23.7)	7.80 (7.27)	24.3 (26.5)
					Time 2				
Total Grief	76.7 (73.7)	24.02	82.0	71.9 (69.4)	24.57	77.8	74.5 (78.5)	24.31	78.4
Active Grief	31.9 (30.8)	8.43	33.8	29.5 (26.0)	9.25	31.8	30.8 (32.2)	8.87	32.2
Difficulty Coping	24.4 (22.8)	9.56	26.5	22.9 (21.9)	8.20	24.9	23.7 (23.6)	8.96	25.2
Despair	20.3 (20.1)	8.09	22.1	19.5 (21.4)	8.51	21.5	19.9 (22.6)	8.27	21.3

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1 N = 158 (Women = 86, Men = 72). Time 2 N = 149 (Women = 80, Men = 69). CI = Upper bound 95% confidence interval for mean. Time 1 data in parentheses are from Toedter *et al.* (2001). Time 2 data in parentheses are from Goldbach *et al.* (1991) and Stinson *et al.* (1992). PGS-33 = Perinatal Grief Scale-33.

Table 5.2. PGS-33 correlations

	Active Grief	Difficulty Coping	Despair	Total Grief
Active Grief	—	.78***	.77***	.92***
Difficulty Coping	.67***	—	.85***	.94***
Despair	.66***	.74***	—	.93***
Total Grief	.87***	.90***	.89***	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. PGS-33 = Perinatal Grief Scale-33.

***p < .001 (2-tailed).

Table 5.3. PGS-33 factor analysis at Time 1

	Factor 1	Factor 2	Factor 3
Active Grief			
I feel depressed		.52 (.66)	
I feel empty inside		.58 (.63)	
I feel a need to talk about the baby		.56 (.63)	
I am grieving for the baby		.73 (.82)	
I am frightened	.46	(.46)	(.58)
I very much miss the baby		.66 (.76)	
It is painful to recall memories of the loss		.63 (.60)	
I get upset when I think about the baby		.76 (.72)	
I cry when I think about him/her		.69 (.75)	
Time passes so slowly since the baby died	.42 (.45)	(.50)	
I feel so lonely since he/she died	(.47)	.43 (.59)	.48
Difficulty Coping			
I find it hard to get along with certain people			.67 (.44)
I can't keep up with my normal activities			.51 (.55)
I have considered suicide since the loss	.48 (.55)		
I feel I have adjusted well to the loss			
I have let people down since the baby died	.68 (.51)		
I get cross at my friends and relatives more than I should			.47 (.48)
Sometimes I feel like I need a professional counselor to help me get my life back together again			.62 (.64)
I feel as though I'm just existing and not really living since he/she died	(.56)		.61
I feel somewhat apart and remote, even among friends		(.47)	.73 (.52)
I find it difficult to make decisions since the baby died	(.54)		.62 (.47)
It feels great to be alive	(.63)		.56
Despair			
I take medicine for my nerves	.43 (.48)		
I feel guilty when I think about the baby	.65 (.47)		
I feel physically ill when I think about the baby	.57 (.54)		
I feel unprotected in a dangerous world since he/she died	.58 (.47)		
I try to laugh, but nothing seems funny anymore	.59 (.71)		
The best part of me died with the baby	.63 (.74)		
I feel worthless since he/she died	.81 (.52)		
I blame myself for the baby's death	.73 (.73)		
It's safer not to love	.58 (.51)		
I worry about what my future will be like			(.54)
Being a bereaved parent means being a "Second-Class Citizen"	(.48)		
% of the variance explained	18.0	14.2	14.1

Note: Time 1 = one month after perinatal death. Only significant factor loadings (CV = .41) are shown. Data in parentheses are from Potvin *et al.* (1989). PGS-33 = Perinatal Grief Scale-33.

Table 5.4. PGS-33 factor analysis at Time 2

	Factor 1	Factor 2	Factor 3
Active Grief			
I feel depressed	.54	.49	
I feel empty inside	.59	.44	
I feel a need to talk about the baby			.76
I am grieving for the baby			.73
I am frightened	.59		
I very much miss the baby			.67
It is painful to recall memories of the loss		.65	
I get upset when I think about the baby		.68	.47
I cry when I think about him/her		.63	.50
Time passes so slowly since the baby died	.62		
I feel so lonely since he/she died	.61	.42	
Difficulty Coping			
I find it hard to get along with certain people	.57		
I can't keep up with my normal activities	.67		
I have considered suicide since the loss	.47		
I feel I have adjusted well to the loss		.45	
I have let people down since the baby died	.64		
I get cross at my friends and relatives more than I should	.54		.49
Sometimes I feel like I need a professional counselor to help me get my life back together again	.67		.42
I feel as though I'm just existing and not really living since he/she died	.70	.44	
I feel somewhat apart and remote, even among friends	.68		
I find it difficult to make decisions since the baby died	.66		
It feels great to be alive	.49		
Despair			
I take medicine for my nerves	.59		
I feel guilty when I think about the baby		.60	
I feel physically ill when I think about the baby	.48	.63	
I feel unprotected in a dangerous world since he/she died	.57		
I try to laugh, but nothing seems funny anymore	.72		
The best part of me died with the baby	.59	.49	
I feel worthless since he/she died	.67	.48	
I blame myself for the baby's death		.61	
It's safer not to love	.58		
I worry about what my future will be like	.63		
Being a bereaved parent means being a "Second-Class Citizen"	.58		
% of the variance explained	28.3	15.7	10.5

Note: Time 2 = 13 months after perinatal death. Only significant factor loadings (CV = .42) are shown. PGS-33 = Perinatal Grief Scale-33.

Table 5.5. GHQ-28 descriptive statistics

	Women			Men			Women & Men		
	Mean	SD	CI	Mean	SD	CI	Mean	SD	CI
					Time 1				
Total Dysphoria	32.8	16.30	36.2	27.0	12.95	30.0	30.1	15.10	32.5
Somatic Symptoms	7.6	4.64	8.5	7.5	4.14	8.4	7.5	4.41	8.2
Anxiety & Insomnia	10.0	5.21	11.1	8.0	4.53	9.1	9.1	4.99	9.9
Social Dysfunction	10.9	4.18	11.8	8.7	3.54	9.5	9.9	4.04	10.5
Severe Depression	4.3	5.17	5.4	2.8	3.98	3.7	3.6	4.71	4.4
					Time 2				
Total Dysphoria	20.5	14.43	23.7	20.7	12.55	23.7	20.6	13.55	22.8
Somatic Symptoms	5.1	4.41	6.1	6.0	4.10	7.0	5.5	4.27	6.2
Anxiety & Insomnia	6.5	5.00	7.6	6.1	4.12	7.1	6.3	4.61	7.1
Social Dysfunction	6.8	3.31	7.5	6.5	2.93	7.2	6.7	3.13	7.2
Severe Depression	2.0	3.88	2.9	2.1	3.73	3.0	2.0	3.80	2.6

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1 N = 158 (Women = 86, Men = 72). Time 2 N = 149 (Women = 80, Men = 69). CI = Upper bound 95% confidence interval for mean. The items were scored on a Likert scale (0-1-2-3). GHQ-28 = General Health Questionnaire-28.

Table 5.6. GHQ-28 correlations

	Somatic Symptoms	Anxiety & Insomnia	Social Dysfunction	Severe Depression	Total Dysphoria
Somatic Symptoms	—	.71***	.59***	.54***	.85***
Anxiety & Insomnia	.59***	—	.67***	.70***	.92***
Social Dysfunction	.53***	.60***	—	.60***	.81***
Severe Depression	.50***	.69***	.60***	—	.83***
Total Dysphoria	.79***	.88***	.81***	.85***	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. GHQ-28 = General Health Questionnaire-28.

*** $p < .001$ (2-tailed).

Table 5.7. GHQ-28 factor analysis at Time 1

	Factor 1	Factor 2	Factor 3	Factor 4
Somatic Symptoms				
been feeling perfectly well and in good health?	.51		.56	
been feeling in need of a good tonic?			.51	
been feeling run down and out of sorts?	.56		.59	
felt that you are ill?			.68	
been getting any pains in your head?			.78	
been getting a feeling of tightness or pressure in your head?			.77	
been having hot or cold spells?			.42	
Anxiety & Insomnia				
lost much sleep over worry?				.72
had difficulty staying asleep once you are off?				.84
felt constantly under strain?			.46	.53
been getting edgy and bad-tempered?				.44
been getting scared or panicky for no good reason?		.42		.48
found everything getting on top of you?	.56			.46
been feeling nervous and strung-up all the time?				.43
Social Dysfunction				
been managing to keep yourself busy and occupied?	.52			
been taking longer over the things you do?	.71			
felt on the whole you were doing things well?	.76			
been satisfied with the way you've carried out your task?	.61			
felt that you are playing a useful part in things?	.70			
felt capable of making decisions about things?	.73			
been able to enjoy your normal day-to-day activities?	.69			
Severe Depression				
been thinking of yourself as a worthless person?		.52		.46
felt that life is entirely hopeless?		.58		.45
felt that life isn't worth living?		.75		
thought of the possibility that you might do away with yourself?		.85		
found at times you couldn't do anything because your nerves were too bad?		.45		
found yourself wishing you were dead and away from it all?		.77		
found that the idea of taking your own life kept coming into your mind?		.81		
% of the variance explained	18.4	15.4	12.8	12.0

Note: Time 1 = one month after perinatal death. Only significant factor loadings (CV = .41) are shown. GHQ-28 = General Health Questionnaire-28.

Table 5.8. GHQ-28 factor loadings

		Factor A	Factor B	Factor C	Factor D
A	Somatic Symptoms	.62 (.55)	.12 (.19)	.25 (.26)	.12 (.10)
B	Anxiety & Insomnia	.24 (.25)	.56 (.59)	.28 (.26)	.23 (.21)
C	Social Dysfunction	.10 (.11)	.15 (.19)	.67 (.59)	.21 (.13)
D	Severe Depression	.16 (.13)	.26 (.28)	.23 (.17)	.68 (.67)

Note: Data are exploratory factor analysis mean factor loadings. Data in parentheses are from Goldberg and Hillier (1979). GHQ-28 = General Health Questionnaire-28.

Table 5.9. GHQ-28 factor analysis at Time 2

	Factor 1	Factor 2	Factor 3	Factor 4
Somatic Symptoms				
been feeling perfectly well and in good health?		.55	.51	
been feeling in need of a good tonic?		.66		
been feeling run down and out of sorts?		.63	.47	
felt that you are ill?		.66		
been getting any pains in your head?		.81		
been getting a feeling of tightness or pressure in your head?		.73		
been having hot or cold spells?		.47		.43
Anxiety & Insomnia				
lost much sleep over worry?				.48
had difficulty staying asleep once you are off?				.51
felt constantly under strain?		.63	.43	
been getting edgy and bad-tempered?	.48	.44		
been getting scared or panicky for no good reason?	.55		.44	
found everything getting on top of you?		.46	.47	
been feeling nervous and strung-up all the time?			.61	
Social Dysfunction				
been managing to keep yourself busy and occupied?				.62
been taking longer over the things you do?			.68	
felt on the whole you were doing things well?			.61	.49
been satisfied with the way you've carried out your task?			.53	.55
felt that you are playing a useful part in things?				.61
felt capable of making decisions about things?			.52	
been able to enjoy your normal day-to-day activities?			.52	
Severe Depression				
been thinking of yourself as a worthless person?	.65			
felt that life is entirely hopeless?	.78			
felt that life isn't worth living?	.88			
thought of the possibility that you might do away with yourself?	.88			
found at times you couldn't do anything because your nerves were too bad?	.51		.48	
found yourself wishing you were dead and away from it all?	.86			
found that the idea of taking your own life kept coming into your mind?	.85			
% of the variance explained	20.8	17.2	14.3	9.6

Note: Time 2 = 13 months after perinatal death. Only significant factor loadings (CV = .42) are shown. GHQ-28 = General Health Questionnaire-28.

Table 5.10. PFQ-2 descriptive statistics

	Women		Men					Women & Men	
	Mean	SD	Mean	SD	t	p	eta^2	Mean	SD
				Time 1					
Shame	14.7	4.56	14.1	5.29	.71	NS	—	14.4 (16.1)	4.90 (4.51)
Guilt	10.1	3.59	9.8	3.96	.45	NS	—	10.0 (9.8)	3.75 (3.11)
				Time 2					
Shame	13.7	5.28	13.7	5.71	.10	NS	—	13.7 (18.7)	5.46 (7.48)
Guilt	9.7	3.30	9.4	3.99	.50	NS	—	9.5 (11.6)	3.63 (6.49)

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1 N = 158 (Women = 86, Men = 72). Time 2 N = 149 (Women = 80, Men = 69). Time 1 data in parentheses are from Harder and Zalma (1990). Time 2 data in parentheses are from Averill *et al.* (2002). PFQ-2 = Personal Feelings Questionnaire-2.

Table 5.11. PFQ-2 factor analysis

		Time 1		Time 2	
	Emotion	Factor 1	Factor 2	Factor 1	Factor 2
Embarrassment	S	.45	.45 (.49)		.58
Feeling ridiculous	S		.76 (.62)		.72
Self-consciousness	S	.47 (.59)		.46	
Feeling humiliated	S	(.50)	.66	.48	.60
Feeling 'stupid'	S	(.40)	.71 (.68)		.62
Feeling 'childish'	S		.59 (.72)		.63
Feeling helpless, paralysed	S		(.55)	.64	
Feelings of blushing	S		.50 (.41)		.72
Feeling laughable	S		.48 (.76)		.56
Feeling disgusting to others	S		.54 (.58)	.57	
Mild guilt	G	.79 (.61)		.65	
Worry about hurting or injuring someone	G	.42 (.69)			
Intense guilt	G	.78 (.75)		.80	
Regret	G	.67 (.54)		.80	
Feeling you deserve criticism for what you did	G	.51 (.54)			.47
Remorse	G	.62 (.47)		.64	
% of variance explained		21.0	20.3	23.5	22.8

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Only significant factor loadings (CV = .41) are shown. S = shame, G = guilt. Data in parentheses are from Harder and Zalma (1990). PFQ-2 = Personal Feelings Questionnaire-2.

Table 5.12. TOSCA-2 descriptive statistics

	Women		Men				
	Mean	SD	Mean	SD	t	p	eta^2
				Time 1			
Shame	47.9 (44.9–48.3)	8.51	41.8 (40.6–42.9)	8.78	4.42	< .0005	.11
Guilt	66.3 (63.4–65.4)	6.33	61.3 (59.6–61.3)	7.46	4.60	< .0005	.12
Ruminative Guilt	53.0	11.20	46.1	9.63	4.13	< .0005	.10
				Time 2			
Shame	47.3	9.95	40.5	9.36	4.28	< .0005	.11
Guilt	66.1	6.96	61.6	6.76	3.96	< .0005	.10
Ruminative Guilt	51.7	10.85	45.2	9.68	3.82	< .0005	.09

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1 N = 158 (Women = 86, Men = 72. Time 2 N = 149 (Women 80, Men = 69). Data in parentheses are range of means for TOSCA-3 (TOSCA-2 minus Ruminative Guilt) from Tangney and Dearing (2002). TOSCA-2 = Test of Self-Conscious Affect-2.

Table 5.13. TOSCA-2 Shame, Guilt and Ruminative Guilt factor analysis

Item	TOSCA-2 Shame			TOSCA-2 Guilt			TOSCA-2 Ruminative Guilt		
	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
1					.40	.43		.45	
2			-.49			.33		.64	
3		.35		.35			.36	.40	
4		.31					.32	.54	
5			-.55			.50	.35		
6		.46			.46			.52	
7	.39					.67	.44		
8			-.43			.49	.42		
9	.52	.34		.46			.51		
10	.49					.38	.49		
11	.61			.50			.54		
12	.48			.47		.41	.63		
13	.43	.47				.46	.51	.37	
14	.39			.33		.35	.47		
15	.35			.32		.46	.48	.40	
16		.47		.44		.32		.65	

Note: Only significant factor loadings (CV = .30) are shown. TOSCA-2 = Test of Self-Conscious Affect-2.

Table 5.14. TOSCA-2 Shame and Ruminative Guilt factor analysis

Item	TOSCA-2 Shame		TOSCA-2 Ruminative Guilt	
	Factor 1	Factor 2	Factor 1	Factor 2
1			.39	
2		.68	.39	.31
3	.47		.56	
4	.44		.57	
5		.49		.35
6		.35	.36	.31
7		.35	.36	.38
8		.37		.52
9	.54	.31	.58	
10	.53		.57	
11	.63		.43	
12	.45		.46	.36
13	.55	.33	.64	
14	.49		.54	
15	.32	.36	.62	
16		.49	.35	.48

Note: Only significant factor loadings (CV = .30) are shown. TOSCA-2 = Test of Self-Conscious Affect-2.

Table 5.15. TOSCA-2 Shame and Guilt factor analysis

Item	TOSCA-2 Shame		TOSCA-2 Guilt	
	Factor 1	Factor 2	Factor 1	Factor 2
1	.39		.32	.44
2	.37	-.44		.37
3	.35		.33	
4	.49		.36	
5		-.51		.50
6				
7	.43			.72
8		-.35		.53
9	.57		.39	
10	.61			.46
11	.48		.39	
12	.49		.33	.53
13	.63			.51
14	.34	.31		.48
15	.55			.52
16	.47			

Note: Only significant factor loadings (CV = .30) are shown. TOSCA-2 = Test of Self-Conscious Affect-2.

Table 5.16. IGQ-67 descriptive statistics

	Women		Men					Women & Men	
	Mean	SD	Mean	SD	t	p	eta^2	Mean	SD
					Time 1				
Survivor Guilt	67.9 (68.9)	8.48 (11.1)	64.0 (65.4)	7.96 (10.7)	2.55	.01	.05	66.2	8.45
Separation Guilt	39.4 (45.2)	8.15 (9.1)	38.5 (44.2)	8.00 (8.7)	0.58	NS	—	39.0	8.06
Omnipotence Guilt	48.9 (51.5)	7.35 (8.4)	46.9 (47.7)	5.74 (6.8)	1.58	NS	—	48.0	6.73
Self-Hate Guilt	30.7 (37.4)	8.69 (9.2)	29.1 (35.6)	8.16 (8.8)	1.05	NS	—	30.0	8.46
					Time 2				
Survivor Guilt	67.7	9.11	63.6	9.99	2.66	.009	.05	65.8	9.72
Separation Guilt	38.4	8.20	37.8	8.77	0.40	NS	—	38.1	8.44
Omnipotence Guilt	48.3	8.20	47.1	6.51	0.96	NS	—	47.8	7.46
Self-Hate Guilt	28.4	9.19	29.0	8.98	0.45	NS	—	28.7	9.07

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1 N = 115 (W = 64, M = 51). Time 2 N = 149 (W = 80, M = 69). CI = Upper 95% confidence interval for the mean. Data in parentheses are from O'Connor and Berry (1997). IGQ-67 = Interpersonal Guilt Questionnaire-67.

Table 5.17. Guilt and shame correlations

	1	2	3	4	5	6	7	8	9
1. TOSCA-2 Shame	—	.54***	.73***	.46***	.46***	.58***	.25**	.38***	.49***
2. TOSCA-2 Guilt	.50***	—	.60***	.29***	.34***	.49***	.13	.31***	.11
3. TOSCA-2 Ruminative Guilt	.73***	.61***	—	.48***	.44***	.54***	.40***	.49***	.46***
4. PFQ-2 Shame	.45***	.13	.36***	—	.70***	.47***	.32***	.41***	.68***
5. PFQ-2 Guilt	.36***	.12	.35***	.60***	—	.45***	.20*	.39***	.58***
6. IGQ-67 Survivor Guilt	.54***	.36***	.58***	.31	.37***	—	.42***	.58***	.54***
7. IGQ-67 Separation Guilt	.21*	.18	.32***	.29**	.15	.26**	—	.62***	.42***
8. IGQ-67 Omnipotence Guilt	.42***	.37***	.46***	.35**	.31**	.52***	.46***	—	.42***
9. IGQ-67 Self-Hate Guilt	.46***	.05	.43***	.46***	.39***	.47***	.35***	.26**	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*** $p < .001$, ** $p < .01$, *$p < .05$ (2-tailed).

Chapter 6

Results

Participant characteristics

Participants. There were 359 parents who were eligible for the study and 158 (44%) agreed to participate, including 86 of 185 women (46.5%) and 72 of 174 men (41.4%, χ^2 (1, 359) = 0.95, p = NS). There were 68 couples and 22 individuals (18 women and 4 men). The women's age (M = 32.0, SD = 6.00 years) was significantly less than the men's age (M = 34.4, SD = 7.09 years; t (156) = -2.30, p = .02). Of the 359 eligible parents, 201 (56%) did not participate in the study: 158 declined, 11 could not be contacted, and 32 did not respond to a mailed letter, which was the only mode of initial contact permitted by one of the participating hospitals. The demographic, social, pregnancy-related and infant-related characteristics of the non-participating parents were not sought because of ethical concern for their privacy.

All 158 parents who participated in the study one month after the loss were contacted 12 months later and 149 (94.3%) agreed to continue their participation, including 80 of the 86 women (93.0%) and 69 of the 72 men (95.8%, χ^2 (1, 158) = 0.57, p = NS). Ten parents who had moved residence beyond metropolitan Sydney were interviewed by telephone and they returned their completed questionnaires by mail. All but two of the remaining 139 parents were interviewed and completed the questionnaires in their homes.

Ethnicity. The parents' ethnicity according to birthplace is recorded below with the *Australian Bureau of Statistics* (ABS) 2001 Sydney population prevalence data (ABS, 2003a) shown in parentheses: 75.3% English-Australian (ABS,

74.7%), 11.4% Asian-Australian (ABS, 11.4%), 7.6% European-Australian (ABS, 5.5%) and 5.7% Other-Australian (ABS, 8.4%).

Education level. The highest educational attainment of the parents is recorded below with the ABS 2001 Australian population prevalence data in persons 25–44 years of age (ABS, 2003b) shown in parentheses: 4% attended high school, 19% completed the School Certificate (Year 10, ABS Year 10 or lower, 25%), 40% completed the Higher School Certificate (Year 12) or a Technical and Further Education (TAFE) diploma (ABS, 36%), and 37% completed a university bachelor degree (ABS, 30%). There was no significant gender difference in the level of education.

Occupational status. The parents' prepregnancy occupational status according to the *Australian Standard Classification of Occupations* (ASCO, 1997) is recorded below with the 2001 Sydney population prevalence data in persons 25–44 years of age (ABS, 2003a) shown in parentheses: 2.5% Manager or Administrator (ABS, 10.1%), 36.1% Professional (ABS, 24.4%), 11.4% Associate Professional (ABS, 13.2%), 10.8% Tradesperson (ABS, 11.4%), 7.6% Advanced Clerical or Service Worker (ABS, 4.7%), 12% Intermediate Clerical, Sales or Service Worker (ABS, 16.6%), 2.5% Intermediate Production or Transport Worker (ABS, 7.5%), 5.7% Elementary Clerical, Sales or Service Worker (ABS, 6.3%), 1.9% Labourer (ABS, 5.8%) and 9.5% Unclassified (unemployed persons, full-time students and house persons). There was no significant gender difference in occupational status.

Marital status. The parents' marital status was as follows: 70.3% married, 23.4% stable cohabiting relationship, 4.4% single and 1.9% separated.

Religious denomination. The parents' declared religious affiliation is recorded below with the ABS 2001 Sydney population data (ABS, 2003a) shown in parentheses: 33.5% Protestantism (ABS, 42.8%), 32.9% Catholicism (ABS,

33.8%), 10.8% other religious faith (ABS, 10.0%) and 22.8% no formal religion or agnosticism (ABS, 13.4%).

Previous reproductive loss. A history of previous reproductive loss (termination of pregnancy, miscarriage, stillbirth or neonatal death) in the mother (and by implication in the father) was elicited in 45.6% of the parents, but only 3.8% had experienced a previous stillbirth or neonatal death.

Living children. Living children were present in the family home in 67 (42.4%) of the 158 parents. Thirty-four of the 35 women and 30 of the 32 men were the biological parents of the children.

Present pregnancy. There were 90 pregnancies resulting in 94 perinatal deaths. Eleven pregnancies were multiple gestations, including 10 sets of twins and one set of triplets. One twin died in eight of the twin sets and both died in two sets. All of the triplets died. The period of gestation for the 48 pregnancies that resulted in stillbirth (M = 31.0, SD = 6.59 weeks) was significantly longer than for the 42 pregnancies that resulted in neonatal death (M = 27.6, SD = 5.67 weeks; t (88) = 2.59, p = .01).

Cause of perinatal death. The underlying cause of death in the 158 parent-infant pairs included antepartum death (19.6%), intrapartum asphyxia (8.9%), lethal malformation (18.4%), prematurity (37.3%) and other causes of death (15.8%).

Post death hospital practices and rituals. All parents had been offered the opportunity and most had been encouraged to see and hold their infant after death. Thus, 96% saw their infant, 90% held their infant, 96% received photographs, 96% received hand and foot prints, 69% had their infant baptised and 91% attended a funeral service. Fewer than 5% of the parents chose not to see their infant after death and/or did not accept photographs or hand and foot prints. An autopsy was performed in 46% of the infants.

Perinatal grief

Grief at Time 1

The parents were seen for the first time one month (M = 4.8, SD = 1.28 weeks) after the death, hereafter referred to as Time 1.

The descriptive statistics and results of independent samples t-tests for PGS-33 measures of grief in women and men are shown in Table 6.1. Self-reported PGS-33 Total Grief after a perinatal death (stillbirth or neonatal death) was significantly higher in women (M = 95.4, SD = 21.00) compared with men (M = 82.7, SD = 20.73; t (156) = 3.81, p < .0005) and the effect size was moderate (eta^2 = .08). Similarly, women compared with men reported significantly more PGS-33 Active Grief (t (156) = 4.09, p < .0005), Difficulty Coping (t (156) = 2.69, p = .007) and Despair (t (156) = 3.32, p = .001) and the effect sizes were small or moderate (eta^2 = .04–.10) (Table 6.1). The aforementioned constellation of significant between gender differences in PGS-33 measures of grief persisted when the analysis was confined to stillbirths, but only applied to PGS-33 Active Grief (t (74) = 2.35, p = .02, eta^2 = .07) in the case of neonatal deaths (Table 6.1).

Two PGS-33 items had guilt-relevant face validity: *'I feel guilty when I think about the baby'* and *'I blame myself for the baby's death'* (Appendix B1). The *'I feel guilty when I think about the baby'* item score was significantly higher in women (M = 2.7, SD = 1.30) compared with men (M = 2.1, SD = 1.20; t (156) = 2.94, p = .004). Similarly, the *'I blame myself for the baby's death'* item score was significantly higher in women (M = 2.6, SD = 1.30) compared with men (M = 1.8, SD = 0.98; t (156) = 4.26, p < .0005). Thirty-one (36%) of the 86 women and 11 (15%) of the 72 men felt guilty when they thought about the baby (χ^2 (1, 158) = 13.83, p = .008). Twenty-seven women (31%) and 6 men (8%) blamed themselves for the baby's death (χ^2 (1, 158) = 16.06, p = .003).

Three PGS-33 items had shame-relevant face validity: *'I feel worthless since he/she died'*, *'The best part of me died with the baby'* and *'Being a bereaved parent means being a "Second-Class Citizen"'* (Appendix B1). The *'I feel worthless since he/she died'* item score was significantly higher in women (M = 2.3, SD = 1.07) compared with men (M = 1.7, SD = 0.89, t (156) = 3.87, p < .0005). Fifteen (17%) of 86 women and 3 (4%) of 72 men felt worthless (χ^2 (1, 158) = 18.11, p = .001). The between gender difference in the mean scores for the other two items was not statistically significant. Fourteen women (16%) and 8 men (11%) felt the best part of them had died with the baby (χ^2 (1, 158) = 1.48, p = NS). Eleven women (13%) and 3 men (1%) agreed that bereaved parents were stigmatised as second-class citizens (χ^2 (1, 158) = 4.17, p = NS).

Grief at Time 2

The parents were seen for the second time 13 months (M = 56.3, SD = 1.12 weeks) after the death, hereafter referred to as Time 2.

The descriptive statistics and results of independent samples t-tests for PGS-33 measures of grief in women and men are shown in Table 6.1. Since exploratory factor analysis did not support a three-factor structure for the PGS-33 (see Chapter 5—*Psychometrics*), only the data pertaining to Total Grief are described in the text below. Total Grief after a perinatal death was not significantly different in women (M = 76.7, SD = 24.02) compared with men (M = 71.9, SD = 24.57; t (147) = 1.19, p = NS). Similarly, there was no significant between gender difference in Total Grief after a stillbirth or neonatal death (Table 6.1).

A paired-sample t-test showed that Total Grief after a perinatal death decreased significantly from Time 1 to Time 2 in both women (M = 94.8, SD = 21.07 vs. M = 76.7, SD = 24.02; t (79) = 9.31, p < .0005, eta^2 = .52) and men (M = 82.0,

SD = 20.66 vs. M = 71.9, SD = 24.57; t (68) = 5.03, p < .0005, eta^2 = .27) (Table 6.3).

The guilt-relevant *'I feel guilty when I think about the baby'* item scores for women and men were not significantly different, but the *'I blame myself for the baby's death'* item score was significantly higher in women (M = 2.2, SD = 1.19) compared with men (M = 1.7, SD = 1.11; t (147) = 2.45, p = .01). Seventeen (21%) of 80 women and 8 (12%) of 69 men felt guilty when they thought about the baby (χ^2 (1, 149) = 5.12, p = NS). Nineteen women (24%) and 7 men (10%) felt they were to blame for the baby's death (χ^2 (1, 149) = 20.43, p < .0005). The mean scores and frequencies for the three shame-relevant items were not significantly different for women compared with men. Nine (11%) of 80 women and 5 (6%) of 69 men felt the best part of them had died with the baby, 9 women (11%) and 7 men (10%) felt worthless, and 7 women (9%) and 9 men (13%) agreed that perinatally bereaved parents were regarded as second-class citizens.

Psychological dysphoria

Psychological dysphoria at Time 1

The descriptive statistics and results of independent samples t-tests for GHQ-28 measures of psychological dysphoria in women and men are shown in Table 6.2. Total Dysphoria was significantly higher in women (M = 32.8, SD = 16.30) compared with men (M = 27.0, SD = 12.95; t (156) = 2.44, p = .02), but the effect size was small (eta^2 = .04). A Total Dysphoria score greater than 23 is considered by Goldberg *et al.* (1997) to be the threshold for psychiatric 'caseness', and this was present in 61 (71%) of 86 women and 40 (56%) of 72 men (χ^2 (1, 158) = 4.02, p = .04). Women compared with men reported significantly more Anxiety and Insomnia (t (156) = 2.55, p = .01), Social

Dysfunction (t (156) = 3.50, p = .001) and Severe Depression (t (156) = 2.08, p = .04) after a perinatal death and the effect sizes were small or moderate (eta^2 = .03–.07). Women compared with men reported significantly more Anxiety and Insomnia (t (80) = 2.22, p = .03) and Social Dysfunction (t (80) = 2.38, p = .02) after a stillbirth, and more Social Dysfunction (t (74) = 2.52, p = .01) after a neonatal death, but the effect sizes were small (Table 6.2).

Psychological dysphoria at Time 2

The descriptive statistics and results of independent samples t-tests for GHQ-28 measures of psychological dysphoria in women and men are shown in Table 6.2. Total Dysphoria after a perinatal death was not significantly different in women (M = 20.5, SD = 14.43) compared with men (M = 20.7, SD = 12.55, t (147) = .10, p = NS). The Total Dysphoria score was greater than 23 in 22 (27%) of 80 women and 22 (32%) of 69 men (χ^2 (1, 149) = .34, p = NS). There was no significant gender difference in Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression after a perinatal death (Table 6.2).

A paired-sample t-test showed that Total Dysphoria after a perinatal death decreased significantly from Time 1 to Time 2 in both women (M = 32.8, SD = 16.23 vs. M = 20.5, SD = 14.43; t (79) = 6.81, p < .0005, eta^2 = .34) and men (M = 26.4, SD = 12.71 vs. M = 20.7 (SD = 12.55; t (68) = 4.27, p < .0005, eta^2 = .21) (Table 6.3). Similarly, Somatic Symptoms, Anxiety and Insomnia, and Social Dysfunction decreased significantly from Time 1 to Time 2. Severe Depression decreased significantly in women, but there was no appreciable change in men (Table 6.3).

Grief and psychological dysphoria correlations

The bivariate correlations between PGS-33 grief and GHQ-28 psychological dysphoria are shown in Table 6.4. Very strong correlations ($r \geq .70$) were found at Time 1 between PGS-33 Total Grief and GHQ-28 Total Dysphoria ($r = .79$), Anxiety and Insomnia ($r = .73$), and Severe Depression ($r = .70$) in women; PGS-33 Difficulty Coping and GHQ-28 Anxiety and Insomnia ($r = .70$) in women, and Total Dysphoria ($r = .70$) in men; and PGS-33 Despair and GHQ-28 Total Dysphoria ($r = .71$) in women. PGS Total Grief at Time 2 showed similarly strong correlations with GHQ-28 Total Dysphoria ($r = .70$), Anxiety and Insomnia ($r = .70$), and Severe Depression ($r = .70$) in women, and Total Dysphoria ($r = .75$) and Severe Depression ($r = .80$) in men.

Study variables correlations at Time 1

In reporting the strength of a correlation coefficient the following rule was applied: *small* ($r = \pm.20–.29$), *moderate* ($r = \pm.30–.49$), and *large* ($r = \pm.50–1.0$) (Cohen, 1988). Unless otherwise stated, the correlation coefficients had a positive valence. The levels of statistical significance for correlation coefficients are not stated in the text (Pallant, 2001), but they were calculated and the results are presented in the tables and in the synopsis that concludes each section.

Women. The bivariate correlations of the demographic, social, pregnancy-related and infant-related variables with the grief and psychological dysphoria variables at Time 1 in women are shown in Appendix D1. Marital dissatisfaction showed a small correlation with PGS-33 Difficulty Coping ($r = .25$) and Despair ($r = .25$), a moderate correlation with GHQ-28 Severe Depression ($r = .37$), and a small correlation with GHQ-28 Total Dysphoria ($r = .27$) and Anxiety and Insomnia ($r = .22$). Singleton gestation showed a

moderate correlation with PGS-33 Total Grief (r = .30) and Active Grief (r = .32), a small correlation with PGS-33 Difficulty Coping (r = .25) and Despair (r = .22), and a small correlation with GHQ-28 Total Dysphoria (r = .28), Somatic Symptoms (r = .26), Anxiety and Insomnia (r = .25), and Social Dysfunction (r = .28). Gestation showed a small correlation with PGS-33 Active Grief (r = .21) and GHQ-28 Social Dysfunction (r = .26).

The correlations of maternal age, education, occupation, type of loss (stillbirth or neonatal death), infant gender, previous reproductive loss and living children with grief and psychological dysphoria were less than r = ±.20 (Appendix D1).

Men. The bivariate correlations of the demographic, social, pregnancy-related and infant-related variables with the grief and psychological dysphoria variables at Time 1 in men are shown in Appendix D2. Marital dissatisfaction showed a moderate correlation with PGS-33 Difficulty Coping (r = .33), a small correlation with PGS-33 Total Grief (r = .21) and Despair (r = .22), and a small correlation with GHQ-28 Total Dysphoria (r = .21), Anxiety and Insomnia (r = .20), and Severe Depression (r = .28). There was a small negative correlation of paternal age with PGS-33 Total Grief (r = -.20) and Active Grief (r = -.21); education with PGS-33 Despair (r = -.23); and gestation with GHQ-28 Total Dysphoria (r = -.20), Somatic Symptoms (r = -.24) and Anxiety and Insomnia (r = -.22). Previous maternal reproductive loss had a small correlation with PGS-33 Total Grief (r = .23), Difficulty Coping (r = .24) and Despair (r = .22), and GHQ-28 Severe Depression (r = .20). Autopsy had a small correlation with GHQ-28 Total Dysphoria (r = .20), Anxiety and Insomnia (r = .23), Social Dysfunction (r = .22) and Severe Depression (r = .21). Paradoxically, lower occupation showed a small correlation with PGS-33 Despair (r = .25), but a small negative correlation with GHQ-28 Social Dysfunction (r = -.23).

The correlations of type of loss, infant gender, singleton gestation and living children with grief and psychological dysphoria were smaller than r = ±.20 (Appendix D2).

Analysis of variance. Using one-way analysis of variance (ANOVA), ethnicity, religious denomination and cause of death were shown to be not significantly related to grief or psychological dysphoria at Time 1. However, there was a significant relationship between marital status and PGS-33 Total Grief ($F(3, 154) = 5.56$, $p = .001$), Difficulty Coping ($F(3, 154) = 4.29$, $p = .006$) and Despair ($F(3, 154) = 7.39$, $p < .0005$), and GHQ-28 Total Dysphoria ($F(3, 154) = 3.75$, $p = .01$), Social Dysfunction ($F(3, 154) = 3.05$, $p = .03$) and Severe Depression ($F(3, 154) = 6.21$, $p = .001$). Bonferroni post hoc pairwise multiple comparisons showed that single women reported more PGS-33 Total Grief, Difficulty Coping and Despair, and more GHQ-28 Total Dysphoria, Social Dysfunction and Severe Depression than married parents, and more GHQ-28 Severe Depression than cohabiting parents. Cohabiting parents reported more PGS-33 Despair than married parents. There were too few counts in some categories to permit separate analyses for women and men.

Synopsis of statistically significant correlations at Time 1

Women. The following correlations were statistically significant in women: marital dissatisfaction with PGS-33 Difficulty Coping and Despair, and GHQ-28 Total Dysphoria and Severe Depression; loss of a singleton gestation with PGS-33 Total Grief, Active Grief and Difficulty Coping, and GHQ-28 Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, and Severe Depression; and longer pregnancy gestation with GHQ-28 Social Dysfunction.

Men. The following correlations were statistically significant in men: marital dissatisfaction with PGS-33 Difficulty Coping, and GHQ-28 Severe Depression; shorter pregnancy gestation with GHQ-28 Somatic Symptoms; previous

(maternal) reproductive loss with PGS-33 Difficulty Coping; and the performance of an autopsy with GHQ-28 Anxiety and Insomnia.

Study variables correlations at Time 2

Women. The bivariate correlations of the demographic, social, pregnancy-related and infant-related variables with the grief and psychological dysphoria variables at Time 2 in women are shown in Appendix D3. Marital dissatisfaction had a moderate correlation with GHQ-28 Total Dysphoria (r = .40), Somatic Symptoms (r = .38), Anxiety and Insomnia (r = .31), and Severe Depression (r = .40). The occurrence of an interval major life event had a small correlation with PGS-33 Total Grief (r = .21), a moderate correlation with GHQ-28 Somatic Symptoms (r = .34), and a small correlation with GHQ-28 Total Dysphoria (r = .29) and Anxiety and Insomnia (r = .29). In addition, there was a small negative correlation of maternal age with GHQ-28 Somatic Symptoms (r = -.22); education with GHQ-28 Total Dysphoria (r = -.20), Social Dysfunction (r = -.26) and Severe Depression (r = -.20); and previous reproductive loss with GHQ-28 Severe Depression (r = -.23). Lastly, there was a small correlation of male infant gender with PGS-33 Total Grief (r = .27).

The correlations of occupation, type of loss, gestation, singleton gestation, living children and autopsy with grief and psychological dysphoria were smaller than r = ±.20 (Appendix D3).

Men. The bivariate correlations of the demographic, social, pregnancy-related and infant-related variables with the grief and psychological dysphoria variables at Time 2 in men are shown in Appendix D4. Paternal age had a small negative correlation with PGS-33 Total Grief (r = -.23), a moderate negative correlation with GHQ-28 Somatic Symptoms (r = -.30) and Severe Depression (r = -.30), and a small negative correlation with GHQ-28 Total Dysphoria

(r = -.29) and Anxiety and Insomnia (r = -.20). Education level had a small negative correlation with PGS-33 Total Grief (r = -.22) and a moderate negative correlation with GHQ-28 Severe Depression (r = -.31). Lower occupation status had a small correlation with PGS-33 Total Grief (r = .24), a moderate correlation with GHQ-28 Severe Depression (r = .33), and a small correlation with GHQ-28 Total Dysphoria (r = .21) and Social Dysfunction (r = .21). Marital dissatisfaction had a small correlation with GHQ-28 Total Dysphoria (r = .20), Anxiety and Insomnia (r = .23) and Severe Depression (r = .21). Gestation of the pregnancy had a small negative correlation with GHQ-28 Anxiety and Insomnia (r = -.22) and Social Dysfunction (r = -.27). Living children had a small correlation with PGS Total Grief (r = .20). Neonatal death had a small correlation with PGS Total Grief (r = .22) and GHQ-28 Anxiety and Insomnia (r = .22). The occurrence of an interval major life event had a small correlation with GHQ-28 Somatic Symptoms (r = .22).

The correlations of infant gender, singleton gestation, previous reproductive loss and autopsy with grief and psychological were smaller than r = ±.20 (Appendix D4).

Analysis of variance. ANOVA showed that ethnicity and cause of death were not significantly correlated with grief or psychological dysphoria. However, there was a significant relationship between religious denomination and GHQ-28 Severe Depression ($F(3, 145) = 3.00$, $p = .03$). Bonferroni post hoc pairwise comparisons showed that parents who professed nil religion or agnosticism reported less Severe Depression than parents who professed a religion other than Protestantism or Catholicism. There was also a significant correlation between marital status and GHQ-28 Severe Depression ($F(3, 145) = 3.89$, $p = .01$) with single women reporting more Severe Depression than married parents.

The parents' post loss pregnancy status was as follows: 22 (14.8%) had given birth to a live baby, 45 (30.2%) were pregnant, 25 (16.8%) were trying to conceive another pregnancy, and 57 (38.3%) were not currently pursuing another pregnancy. ANOVA showed a significant correlation between pregnancy status and PGS-33 Total Grief ($F(3, 76) = 3.33$, $p = .02$), and GHQ-28 Severe Depression ($F(3, 76) = 3.36$, $p = .02$) in women. Women who were trying to conceive but were not yet pregnant reported more PGS-33 Total Grief than women not pursuing another pregnancy, and more GHQ-28 Severe Depression than women who were pregnant.

Synopsis of statistically significant correlations at Time 2

Women. The following correlations were statistically significant in women: marital dissatisfaction with GHQ-28 Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression; male infant gender with PGS-33 Total Grief; and an interval major life event with GHQ-28 Total Dysphoria, Somatic Symptoms, and Anxiety and Insomnia.

Men. The following correlations were statistically significant in men: younger paternal age with GHQ-28 Total Dysphoria, Somatic Symptoms and Severe Depression; lesser education and lower occupation status with GHQ-28 Severe Depression; and shorter pregnancy duration with GHQ-28 Social Dysfunction.

Shame and guilt correlations with grief and psychological dysphoria

As well as zero-order correlations, a series of partial correlations was performed in which TOSCA-2 Shame was partialled for TOSCA-2 Guilt and vice versa, PFQ-2 Shame was partialled for PFQ-2 Guilt and vice versa, and IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt were partialled for TOSCA-2 Shame (see Chapter 5—*Psychometrics*).

Discriminant validity of TOSCA-2 Ruminative Guilt

TOSCA-2 Ruminative Guilt was found to have poor discriminant validity vis-à-vis TOSCA-2 Shame on the following grounds. First, the zero-order correlations of TOSCA-2 Ruminative Guilt and Shame with grief and psychological dysphoria were very similar in both women and men (Table 6.5, Table 6.6 and Table 6.7). Second, TOSCA-2 Ruminative Guilt partialled for TOSCA-2 Shame showed negligible or small and non-significant correlations with grief and psychological dysphoria (Table 6.5, Table 6.6 and Table 6.7). Third, TOSCA-2 Ruminative Guilt had a large bivariate correlation with TOSCA-2 Shame (r = .73, see Chapter 5—*Psychometrics*). Finally, the TOSCA-2 Ruminative Guilt and TOSCA-2 Shame items did not have orthogonal factor loadings on exploratory factor analysis (see Chapter 5—*Psychometrics*). Because the discriminant validity of the TOSCA-2 Ruminative Guilt scale was dubious it was omitted from the data analyses that follow.

Shame and guilt correlations with grief at Time 1

The zero-order and partial correlations of shame and guilt with PGS-33 measures of grief at Time 1 in women and men are shown in Table 6.5.

TOSCA-2 Shame. TOSCA-2 Shame partialled for TOSCA-2 Guilt had a small correlation with Total Grief (r = .24), Difficulty Coping (r = .23) and Despair (r = .29) in women, and a moderate correlation with Total Grief (r = .44), Active Grief (r = .35) Difficulty Coping (r = .41) and Despair (r = .43) in men (Table 6.5). The partial correlations were similar in strength to the corresponding zero-order correlations in both women and men (Table 6.5).

Although TOSCA-2 Shame partialled for TOSCA-2 Guilt was more strongly correlated with measures of grief in men compared with women, none of the between gender differences was statistically significant.

PFQ-2 Shame. PFQ-2 Shame partialled for PFQ-2 Guilt had a small correlation with Difficulty Coping (r = .24) in women, whereas there was a small or moderate zero-order correlation with Total Grief (r = .33), Active Grief (r = .20), Difficulty Coping (r = .37) and Despair (r = .28) (Table 6.5). In men, PFQ-2 Shame partialled for PFQ-2 Guilt had a small correlation with Despair (r = .22), whereas there was a moderate zero-order correlation with Total Grief, (r = .37) Active Grief (r = .30), Difficulty Coping (r = .31) and Despair (r = .41) (Table 6.5).

TOSCA-2 Guilt. TOSCA-2 Guilt partialled for TOSCA-2 Shame had a small negative correlation with Despair (r = -.22) in women, whereas the zero-order correlation with each measure of grief was less than r = ±.20 (Table 6.5). In men, the partial and zero-order correlation of TOSCA-2 Guilt with each measure of grief was less than r = ±.20 (Table 6.5).

PFQ-2 Guilt. PFQ-2 Guilt partialled for PFQ-2 Shame had a small correlation with Total Grief (r = .20) and Despair (r = .24) in women, whereas there was a small or moderate zero-order correlation with Total Grief (r = .34), Active Grief (r = .22), Difficulty Coping (r = .33) and Despair (r = .35) (Table 6.5). In men, PFQ-2 Guilt partialled for PFQ-2 Shame showed a small or moderate correlation with Total Grief (r = .28), Difficulty Coping (r = .40) and Despair (r = .21). Similarly, there was a small or moderate zero-order correlation of PFQ-2 Guilt with Total Grief (r = .43), Active Grief (r = .28), Difficulty Coping (r = .49) and Despair (r = .41) (Table 6.5).

IGQ-67 Survivor Guilt. IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame had a small correlation with Total Grief (r = .28), Active Grief (r = .20), Difficulty Coping (r = .27) and Despair (r = .26) in women, whereas there was a small or moderate zero-order correlation with Total Grief (r = .34), Active Grief (r = .25), Difficulty Coping (r = .32) and Despair (r = .32) (Table 6.5). In men,

IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame had a moderate correlation with Total Grief (r = .39), Active Grief (r = .38), Difficulty Coping (r = .33) and Despair (r = .34). Similarly, there was a moderate zero-order correlation of IGQ-67 Survivor Guilt with Total Grief (r = .52), Active Grief (r = .48), Difficulty Coping (r = .48) and Despair (r = .46) (Table 6.5).

Although the correlations of IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame with measures of grief were stronger in men compared with women, none of the between gender differences was statistically significant.

IGQ-67 Separation Guilt. IGQ-67 Separation Guilt partialled for TOSCA-2 Shame had a small or moderate correlation with Total Grief (r = .24), Active Grief (r = .35) and Despair (r = .23) in women, and a moderate correlation with Active Grief (r = .31) in men (Table 6.5). The partial correlations were similar in strength to the corresponding zero-order correlations in both women and men (Table 6.5).

IGQ-67 Omnipotence Guilt. IGQ-67 Omnipotence Guilt partialled for TOSCA-2 Shame had a small correlation with Active Grief (r = .21) and Despair (r = .20) in women (Table 6.5). In men, the correlation of IGQ-67 Omnipotence Guilt partialled for TOSCA-2 Shame with each measure of grief was less than r = ±.20 (Table 6.5). The partial correlations were only marginally weaker than the corresponding zero-order correlations in both women and men (Table 6.5).

IGQ-67 Self-Hate Guilt. IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame showed a moderate or large correlation with Total Grief (r = .64), Active Grief (r = .43), Difficulty Coping (r = .58) and Despair (r = .68) in women, and with Total Grief (r = .45), Active Grief (r = .32), Difficulty Coping (r = .30) and Despair (r = .60) in men (Table 6.5). The partial correlations were similar in strength to the zero-order correlations in women, but noticeably weaker in men (Table 6.5).

Although IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame was more strongly correlated with measures of grief in women compared with men, none of the between gender differences was statistically significant.

Shame and guilt correlations with psychological dysphoria at Time 1

The zero-order and partial correlations of shame and guilt with GHQ-28 measures of psychological dysphoria at Time 1 in women and men are shown in Table 6.6.

TOSCA-2 Shame. TOSCA-2 Shame partialled for TOSCA-2 Guilt had a small correlation with Total Dysphoria (r = .24), Anxiety and Insomnia (r = .26), and Severe Depression (r = .29) in women (Table 6.6). In men, TOSCA-2 Shame partialled for TOSCA-2 Guilt had a small or moderate correlation with Total Dysphoria (r = .26), Anxiety and Insomnia (r = .30), and Severe Depression (r = .31) (Table 6.6). The partial correlations were similar in strength to the corresponding zero-order correlations in both women and men (Table 6.6).

PFQ-2 Shame. PFQ-2 Shame partialled for PFQ-2 Guilt had a small correlation with Social Dysfunction (r = .23) in women, whereas there was a small or moderate zero-order correlation with Total Dysphoria (r = .32), Somatic Symptoms (r = .25), Anxiety and Insomnia (r = .27), Social Dysfunction (r = .31) and Severe Depression (r = .27) (Table 6.6). In men, the correlation of PFQ-2 Shame partialled for PFQ-2 Guilt with each measure of psychological dysphoria was less than r = ±.20, whereas there was a small or moderate zero-order correlation with Total Dysphoria (r = .26), Anxiety and Insomnia (r = .31), and Severe Depression (r = .31) (Table 6.6).

TOSCA-2 Guilt. TOSCA-2 Guilt partialled for TOSCA-2 Shame showed a small negative correlation with Severe Depression (r = -.20) in women, whereas the zero-order correlation with each of the other measures of psychological

dysphoria was less than r = ±.20 (Table 6.6). In men, the correlation of TOSCA-2 Guilt partialled for TOSCA-2 Shame with each measure of psychological dysphoria was less than r = ±.20, whereas there was a small zero-order correlation with Total Dysphoria (r = .22) and Anxiety and Insomnia (r = .28) (Table 6.6).

PFQ-2 Guilt. PFQ-2 Guilt partialled for PFQ-2 Shame had a small correlation with Anxiety and Insomnia (r = .28) in women, whereas there was a small or moderate zero-order correlation with Total Dysphoria (r = .31), Anxiety and Insomnia (r = .38), Social Dysfunction (r = .22) and Severe Depression (r = .27) (Table 6.6). In men, PFQ-2 Guilt partialled for PFQ-2 Shame had a small or moderate correlation with Total Dysphoria (r = .32), Somatic Symptoms (r = .23), Anxiety and Insomnia (r = .28), Social Dysfunction (r = .28) and Severe Depression (r = .23). Similarly, there was a small or moderate zero-order correlation of PFQ-2 Guilt with Total Dysphoria (r = .40), Somatic Symptoms (r = .26), Anxiety and Insomnia (r = .40), Social Dysfunction (r = .24) and Severe Depression (r = .36) (Table 6.6).

Although the correlation of PFQ-2 Guilt partialled for PFQ-2 Shame with each measure of psychological dysphoria was stronger in men compared with women, none of the between gender differences was statistically significant.

IGQ-67 Survivor Guilt. IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame had a small correlation with Total Dysphoria (r = .22), Anxiety and Insomnia (r = .25), and Severe Depression (r = .20) in women, whereas there was a small or moderate zero-order correlation with Total Dysphoria (r = .32), Anxiety and Insomnia (r = .34), Social Dysfunction (r = .27) and Severe Depression (r = .28) (Table 6.6). In men, IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame had a small correlation with Total Dysphoria (r = .24), Anxiety and Insomnia (r = .27), and Severe Depression (r = .27), whereas there was a small or moderate

zero-order correlation with Total Dysphoria (r = .37), Somatic Symptoms (r = .25), Anxiety and Insomnia (r = .43), and Severe Depression (r = .39) (Table 6.6).

IGQ-67 Separation Guilt. IGQ-67 Separation Guilt partialled for TOSCA-2 Shame had a correlation with each measure of psychological dysphoria that was less than r = ±.20 in women, whereas there was a small zero-order correlation with Anxiety and Insomnia (r = .23) (Table 6.6). In men, the shame partialled and zero-order correlation of IGQ-67 Separation Guilt with each measure of psychological dysphoria was less than r = ±.20 (Table 6.6).

IGQ-67 Omnipotence Guilt. IGQ-67 Omnipotence Guilt partialled for TOSCA-2 Shame had a correlation with each measure of psychological dysphoria that was less than r = ±.20 in women and men (Table 6.6). There was a small zero-order correlation with Total Dysphoria (r = .21) and Anxiety and Insomnia (r = .25) in women, and Anxiety and Insomnia (r = .24) in men (Table 6.6).

IGQ-67 Self-Hate Guilt. IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame had a small, moderate or a large correlation with Total Dysphoria (r = .49), Somatic Symptoms (r = .27), Anxiety and Insomnia (r = .54), Social Dysfunction (r = .28) and Severe Depression (r = .54) in women. The partial correlations were not substantially different in strength from the counterpart zero-order correlations (Table 6.6). In men, IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame had a moderate correlation with Severe Depression (r = .44), whereas there was a moderate or large zero-order correlation with Total Dysphoria (r = .35), Anxiety and Insomnia (r = .35), and Severe Depression (r = .53) (Table 6.6).

Although the correlation of IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame with each measure of psychological dysphoria was invariably stronger in women compared with men, none of the between gender differences was statistically significant.

Synopsis of statistically significant correlations at Time 1

Women. The following partial correlations of shame and guilt with PGS-33 grief were statistically significant in women: TOSCA-2 Shame with Total Grief, Difficulty Coping and Despair; PFQ-2 Shame with Difficulty Coping; TOSCA-2 Guilt (negatively) with Despair; PFQ-2 Guilt with Despair; IGQ-67 Survivor Guilt with Total Grief, Difficulty Coping and Despair; IGQ-67 Separation Guilt with Active Grief; and IGQ-67 Self-Hate Guilt with Total Grief, Active Grief, Difficulty Coping and Despair.

The following partial correlations of shame and guilt with GHQ-28 psychological dysphoria were statistically significant in women: TOSCA-2 Shame with Total Dysphoria, Anxiety and Insomnia, and Severe Depression; PFQ-2 Shame with Social Dysfunction; PFQ-2 Guilt with Anxiety and Insomnia; IGQ-67 Survivor Guilt with Anxiety and Insomnia; and IGQ-67 Self-Hate Guilt with Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression.

Men. The following partial correlations of shame and guilt with PGS-33 grief were statistically significant in men: TOSCA-2 Shame with Total Grief, Active Grief, Difficulty Coping and Despair; PFQ-2 Guilt with Total Grief and Difficulty Coping, IGQ-67 Survivor Guilt with Total Grief, Active Grief, Difficulty Coping and Despair; IGQ-67 Separation Guilt with Active Grief; and IGQ-67 Self-Hate Guilt with Total Grief, Active Grief, Difficulty Coping and Despair.

The following partial correlations of shame and guilt with GHQ-28 psychological dysphoria were statistically significant in men: TOSCA-2 Shame with Total Dysphoria, Anxiety and Insomnia, and Severe Depression; PFQ-2 Guilt with Total Dysphoria, Anxiety and Insomnia, and Social Dysfunction; and IGQ-67 Self-Hate Guilt with Severe Depression.

Shame and guilt correlations with grief at Time 2

The zero-order and partial correlations of shame and guilt with PGS-33 Total Grief at Time 2 in women and men are shown in Table 6.7.

TOSCA-2 Shame. TOSCA-2 Shame partialled for TOSCA-2 Guilt had a moderate correlation with Total Grief (r = .39) in women, and a large correlation with Total Grief (r = .61) in men (Table 6.7). The partial correlation compared with the zero-order correlation was marginally stronger in women and weaker in men (Table 6.7).

Although TOSCA-2 Shame partialled for TOSCA-2 Guilt was more strongly correlated with Total Grief in women compared with men, the between gender difference was not statistically significant.

PFQ-2 Shame. PFQ-2 Shame partialled for PFQ-2 Guilt had a small correlation with Total Grief (r = .26) in women, whereas the zero-order correlation with Total Grief (r = .51) was large (Table 6.7). In men, PFQ-2 Shame partialled for PFQ-2 Guilt had a moderate correlation with Total Grief (r = .41), whereas the zero-order correlation with Total Grief (r = .71) was large (Table 6.7).

TOSCA-2 Guilt. TOSCA-2 Guilt partialled for TOSCA-2 Shame had a small negative correlation with Total Grief (r = -.24) in women, whereas the zero-order correlation was negligible (Table 6.7). In men, TOSCA-2 Guilt partialled for TOSCA-2 Shame had a negligible correlation with Total Grief, whereas the zero-order correlation with Total Grief (r = .35) was moderate (Table 6.7).

PFQ-2 Guilt. PFQ-2 Guilt partialled for PFQ-2 Shame had a moderate correlation with Total Grief (r = .32) in women, whereas the zero-order correlation with Total Grief (r = .54) was large (Table 6.7). In men, PFQ-2 Guilt partialled for PFQ-2 Shame had a moderate correlation with Total Grief

(r = .30), whereas the zero-order correlation with Total Grief (r = .67) was large (Table 6.7).

IGQ-67 Survivor Guilt. IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame had a moderate correlation with Total Grief (r = .30) in women, and with Total Grief (r = .38) in men (Table 6.7). There was a moderate zero-order correlation of IGQ-67 Survivor Guilt with Total Grief (r = .40) in women, and a large correlation with Total Grief (r = .64) in men (Table 6.7).

IGQ-67 Separation Guilt. The correlation of IGQ-67 Separation Guilt partialled for TOSCA-2 Shame with Total Grief was less than r = ±.20 in both women and men (Table 6.7). There was a small zero-order correlation of IGQ-67 Separation Guilt with Total Grief (r = .23) in men (Table 6.7).

IGQ-67 Omnipotence Guilt. IGQ-67 Omnipotence Guilt partialled for TOSCA-2 Shame had a negligible correlation with Total Grief in women, and a moderate correlation with Total Grief (r = .34) in men (Table 6.7). There was a small zero-order correlation of IGQ-67 Omnipotence Guilt with Total Grief (r = .21) in women, and a moderate correlation with Total Grief (r = .47) in men (Table 6.7).

IGQ-67 Self-Hate Guilt. IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame had a large correlation with Total Grief (r = .56) in women, and a moderate correlation with Total Grief (r = .39) in men (Table 6.7). There was a large zero-order correlation of IGQ-67 Self-Hate Guilt with Total Grief (r = .61) in women, and with Total Grief (r = .69) in men (Table 6.7).

Although IGQ-67 Self-Hate partialled for TOSCA-2 Shame showed a stronger correlation with Total Grief in men compared with women, the between gender difference was not statistically significant.

Shame and guilt correlations with psychological dysphoria at Time 2

The zero-order and partial correlations of shame and guilt with GHQ-28 measures of psychological dysphoria at Time 2 in women and men are shown in Table 6.7.

TOSCA-2 Shame. TOSCA-2 Shame partialled for TOSCA-2 Guilt had a small or moderate correlation with Total Dysphoria (r = .33), Anxiety and Insomnia (r = .33), Social Dysfunction (r = .26) and Severe Depression (r = .40) in women (Table 6.7). In men, TOSCA-2 Shame partialled for TOSCA-2 Guilt had a small, moderate or large correlation with Total Dysphoria (r = .45), Somatic Symptoms (r = .34), Anxiety and Insomnia (r = .37), Social Dysfunction (r = .25) and Severe Depression (r = .53) (Table 6.7). The partial correlations compared with the zero-order correlations were stronger in women and weaker in men, sometimes by a substantial amount, particularly in women (Table 6.7).

Although TOSCA-2 Shame partialled for TOSCA-2 Guilt showed a stronger correlation with each measure of psychological dysphoria in men compared with women, none of the between gender differences was statistically significant.

PFQ-2 Shame. PFQ-2 Shame partialled for PFQ-2 Guilt had a small or moderate correlation with Total Dysphoria (r = .32), Somatic Symptoms (r = .24), Anxiety and Insomnia (r = .26), Social Dysfunction (r = .24) and Severe Depression (r = .35) in women, whereas there was a moderate or strong zero-order correlation with Total Dysphoria (r = .53), Somatic Symptoms (r = .42), Anxiety and Insomnia (r = .47), Social Dysfunction (r = .43) and Severe Depression (r = .53) (Table 6.7). In men, PFQ-2 Shame partialled for PFQ-2 Guilt had a small or moderate correlation with Total Dysphoria (r = .38), Somatic Symptoms (r = .22), Anxiety and Insomnia (r = .25), Social Dysfunction (r = .37) and Severe Depression (r = .40), whereas there was a moderate or strong

zero-order correlation with Total Dysphoria (r = .66), Somatic Symptoms (r = .41), Anxiety and Insomnia (r = .56), Social Dysfunction (r = .58) and Severe Depression (r = .70) (Table 6.7).

Although PFQ-2 Shame partialled for PFQ-2 Guilt was more strongly correlated with each measure of psychological dysphoria in men compared with women, none of the between gender differences was statistically significant.

TOSCA-2 Guilt. TOSCA-2 Guilt partialled for TOSCA-2 Shame had a small or moderate negative correlation with Total Dysphoria (r = -.23), Anxiety and Insomnia (r = -.23) and Severe Depression (r = -.40) in women, whereas the zero-order correlations were negligible, except for a small negative correlation with Severe Depression (r = -.24) (Table 6.7). In men, TOSCA-2 Guilt partialled for TOSCA-2 Shame had a negligible, usually negative, correlation with each measure of psychological dysphoria, whereas there was a small or moderate zero-order correlation with Total Dysphoria (r = .27), Somatic Symptoms (r = .20), Social Dysfunction (r = .21) and Severe Depression (r = .32) (Table 6.7).

Although TOSCA-2 Guilt partialled for TOSCA-2 Shame showed a stronger correlation with each measure of psychological dysphoria in women compared with men, none of the between gender differences was statistically significant.

PFQ-2 Guilt. PFQ-2 Guilt partialled for PFQ-2 Shame had a small correlation with Total Dysphoria (r = .24), Anxiety and Insomnia (r = .23), and Social Dysfunction (r = .20) in women, whereas there was a moderate or large zero-order correlation with Total Dysphoria (r = .50), Somatic Symptoms (r = .39), Anxiety and Insomnia (r = .45), Social Dysfunction (r = .41) and Severe Depression (r = .46) (Table 6.7). In men, PFQ-2 Guilt partialled for PFQ-2 Shame had a small or moderate correlation with Total Dysphoria (r = .24), Anxiety and Insomnia (r = .26) and Severe Depression (r = .31), whereas there was a moderate or large zero-order correlation with Total Dysphoria (r = .62), Somatic

Symptoms (r = .36), Anxiety and Insomnia (r = .56), Social Dysfunction (r = .49) and Severe Depression (r = .68) (Table 6.7).

IGQ-67 Survivor Guilt. IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame had a small or moderate correlation with Total Dysphoria (r = .32), Somatic Symptoms (r = .30), Anxiety and Insomnia (r = .29), Social Dysfunction (r = .22) and Severe Depression (r = .26) in women. Similarly, there was a small or moderate zero-order correlation of IGQ-67 Survivor Guilt with Total Dysphoria (r = .39), Social Symptoms (r = .34), Anxiety and Insomnia (r = .37), Social Dysfunction (r = .29) and Severe Depression (r = .33) (Table 6.7). In men, there was a small correlation of IGQ-67 Survivor Guilt partialled for TOSCA-2 Shame with Severe Depression (r = .25), whereas there was a small, moderate or large zero-order correlation with Total Dysphoria (r = .44), Somatic Symptoms (r = .32), Anxiety and Insomnia (r = .34), Social Dysfunction (r = .28) and Severe Depression (r = .53) (Table 6.7).

IGQ-67 Separation Guilt. IGQ-67 Separation Guilt partialled for TOSCA-2 Shame had a small correlation with Anxiety and Insomnia (r = .20) in women, whereas there was a small zero-order correlation with Total Dysphoria (r = .23), Somatic Symptoms (r = .21), Anxiety and Insomnia (r = .27), and Severe Depression (r = .22) (Table 6.7). In men, IGQ-67 Separation Guilt partialled for TOSCA-2 Shame had a negligible correlation with Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, and Social Dysfunction. There was a small zero-order correlation with Severe Depression (r = .24), which did not persist when IGQ-67 Separation Guilt was partialled for TOSCA-2 Shame (Table 6.7).

IGQ-67 Omnipotence Guilt. IGQ-67 Omnipotence Guilt partialled for TOSCA-2 Shame showed a small or moderate correlation with Total Dysphoria (r = .30), Somatic Symptoms (r = .25), Anxiety and Insomnia (r = .32), Social Dysfunction (r = .25) and Severe Depression (r = .21) in women. Similarly, there was a small

or moderate zero-order correlation of IGQ-67 Omnipotence Guilt with Total Dysphoria (r = .37), Somatic Symptoms (r = .29), Anxiety and Insomnia (r = .39), Social Dysfunction (r = .32) and Severe Depression (r = .28) (Table 6.7). In men, IGQ-67 Omnipotence Guilt partialled for TOSCA-2 Shame had a small or moderate correlation with Total Dysphoria (r = .28), Anxiety and Insomnia (r = .23), Social Dysfunction (r = .24) and Severe Depression (r = .33). Likewise, there was a small or moderate zero-order correlation of IGQ-67 Omnipotence Guilt with Total Dysphoria (r = .40), Somatic Symptoms (r = .23), Anxiety and Insomnia (r = .34), Social Dysfunction (r = .32) and Severe Depression (r = .45) (Table 6.7).

IGQ-67 Self-Hate Guilt. IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame had a moderate or large correlation with Total Dysphoria (r = .63), Somatic Symptoms (r = .50), Anxiety and Insomnia (r = .54), Social Dysfunction (r = .43) and Severe Depression (r = .71) in women (Table 6.7). In men, IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame had a moderate correlation with Total Dysphoria (r = .35), Anxiety and Insomnia (r = .34), Social Dysfunction (r = .28) and Severe Depression (r = .46) (Table 6.7). The partial correlations compared with the zero-order correlations were marginally weaker in women, but substantially weaker in men (Table 6.7).

IGQ-67 Self-Hate Guilt partialled for TOSCA-2 Shame was more strongly correlated with Total Dysphoria and Severe Depression in women compared with men and these between gender differences were statistically significant.

Synopsis of statistically significant correlations at Time 2

Women. The following correlations of shame and guilt with PGS-33 grief and GHQ-28 psychological dysphoria were statistically significant in women: TOSCA-2 Shame with Total Grief, and Total Dysphoria, Anxiety and Insomnia, Social Dysfunction and Severe Depression; PFQ-2 Shame with Total Grief, and

Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression; TOSCA-2 Guilt (negatively) with Total Grief, and Total Dysphoria, Anxiety and Insomnia, and Severe Depression; PFQ-2 Guilt with Total Grief, and Total Dysphoria, and Anxiety and Insomnia; IGQ-67 Survivor Guilt with Total Grief, and Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, and Severe Depression; IGQ-67 Omnipotence Guilt with Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, and Social Dysfunction; and IGQ-67 Self-Hate Guilt with Total Grief, and Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression.

Men. The following correlations of shame and guilt with PGS-33 grief and GHQ-28 psychological dysphoria were statistically significant in men: TOSCA-2 Shame with Total Grief, and Total Dysphoria, Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression; PFQ-2 Shame with Total Grief, and Total Dysphoria, Anxiety and Insomnia, Social Dysfunction and Severe Depression; PFQ-2 Guilt with Total Grief, and Total Dysphoria, Anxiety and Insomnia, and Severe Depression; IGQ-67 Survivor Guilt with Total Grief, and Severe Depression; IGQ-67 Omnipotence Guilt with Total Grief, and Total Dysphoria, Anxiety and Insomnia, Social Dysfunction and Severe Depression; and IGQ-67 Self-Hate Guilt with Total Grief, and Total Dysphoria, Anxiety and Insomnia, Social Dysfunction and Severe Depression.

Multiple regressions at Time 1

A series of hierarchical multiple regressions was performed to assess the proportion of the variance in grief and psychological dysphoria explained by shame and guilt at Time 1. TOSCA-2 Shame and PFQ-2 Shame were entered at Step 1, and TOSCA-2 Guilt, PFQ-2 Guilt, and IGQ-67 Survivor Guilt, Separation Guilt and Omnipotence Guilt were entered at Step 2. The shame variables were

entered before the guilt variables to render the latter free of the variance due to shame, but thereby favouring shame in the allocation of shared variance.

PGS-33 Total Grief

Women. The results of the multiple regression of Total Grief on shame and guilt in women are shown in Table 6.8. The multiple R-value at both steps was significantly different from zero. Shame explained 12% (9% adjusted) of the variance in Total Grief, and PFQ-2 Shame ($\beta = .29$, $t = 2.24$, $p < .05$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Total Grief. The final multiple R, R^2 and adjusted R^2 were .48 ($F (7, 56) = 2.45$, $p < .05$), .23 and .14, respectively. Thus, shame and guilt together explained 23% (14% adjusted) of the variance in Total Grief in women.

Men. The results of the multiple regression of Total Grief on shame and guilt in men are shown in Table 6.8. The multiple R-value at both steps was significantly different from zero. Shame explained 22% (19% adjusted) of the variance in Total Grief, and TOSCA-2 Shame ($\beta = .38$, $t = 2.45$, $p < .05$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Total Grief. The final multiple R, R^2 and adjusted R^2 were .59 ($F (7, 42) = 3.22$, $p < .01$), .35 and .24, respectively. Thus, shame and guilt together explained 35% (24% adjusted) of the variance in Total Grief in men.

PGS-33 Active Grief

Women. The results of the multiple regression of Active Grief on shame and guilt in women are shown in Table 6.9. Shame and/or guilt did not explain a significant proportion of the variance in Active Grief, though IGQ-67 Separation

Guilt ($\beta = .31$, $t = 2.16$, $p < .05$) made a significant unique contribution to the variance with all variables entered.

Men. The results of the multiple regression of Active Grief on shame and guilt in men are shown in Table 6.9. The multiple R-value at both steps was significantly different from zero. Shame explained 15% (11% adjusted) of the variance in Active Grief. Guilt controlled for shame did not make a significant independent contribution to the variance in Active Grief. The final multiple R, R^2 and adjusted R^2 were .54 ($F (7, 42) = 2.51$, $p < .05$), .30 and .18, respectively. Thus, shame and guilt together explained 30% (18% adjusted) of the variance in Active Grief in men.

PGS-33 Difficulty Coping

Women. The results of the multiple regression of Difficulty Coping on shame and guilt in women are shown in Table 6.10. The multiple R-value at both steps was significantly different from zero. Shame explained 14% (12% adjusted) of the variance in Difficulty Coping, and PFQ-2 Shame ($\beta = .35$, $t = 2.73$, $p < .01$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Difficulty Coping, though IGQ-67 Survivor Guilt ($\beta = .36$, $t = 2.37$, $p < .05$) made a significant unique contribution to the variance. PFQ-2 Shame ($\beta = .32$, $t = 2.09$, $p < .05$) continued to make a unique contribution to the variance in Difficulty Coping with all variables entered. The final multiple R, R^2 and adjusted R^2 were .51 ($F (7, 56) = 2.79$, $p < .05$), .26 and .17, respectively. Thus, shame and guilt together explained 26% (17% adjusted) of the variance in Difficulty Coping in women.

Men. The results of the multiple regression of Difficulty Coping on shame and guilt in men are shown in Table 6.10. The multiple R-value at both steps was

significantly different from zero. Shame explained 18% (15% adjusted) of the variance in Difficulty Coping, and TOSCA-2 Shame ($\beta = .38$, $t = 2.37$, $p < .05$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Difficulty Coping, though PFQ-2 Guilt ($\beta = .36$, $t = 2.11$, $p < .05$) made a significant unique contribution to the variance. The final multiple R, R^2 and adjusted R^2 were .59 ($F (7, 42) = 3.26$, $p < .01$), .35 and .24, respectively. Thus, shame and guilt together explained 35% (24% adjusted) of the variance in Difficulty Coping in men.

PGS-33 Despair

Women. The results of the multiple regression of Despair on shame and guilt in women are shown in Table 6.11. Shame did not explain a significant proportion of the variance in Despair, though guilt controlled for shame did explain a significant proportion of the variance ($\Delta R^2 = .18$, F change = 2.78, $p < .05$), and TOSCA-2 Guilt ($\beta = -.34$, $t = -2.41$, $p < .05$) made a significant unique contribution to the variance. The final multiple R was significant ($R = .52$, $F (7, 56) = 2.94$, $p < .05$), and R^2 and adjusted R^2 were .27 and .18, respectively. Thus, shame and guilt together explained 27% (18% adjusted) of the variance in Despair in women.

Men. The results of the multiple regression of Despair on shame and guilt in men are shown in Table 6.11. The multiple R-value was significantly different from zero at both steps. Shame explained 22% (19% adjusted) of the variance in Despair, and TOSCA-2 Shame ($\beta = .32$, $t = 2.09$, $p < .05$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Despair. The final multiple R, R^2 and adjusted R^2 were .55 ($F (7, 42) = 2.54$, $p < .05$), .30 and .18,

respectively. Thus, shame and guilt together explained 30% (18% adjusted) of the variance in Despair in men.

Synopsis of shame and guilt and grief at Time 1

Shame explained a statistically significant but small proportion of the variance in Total Grief (9%) and Difficulty Coping (12%) in women, and Total Grief (19%), Active Grief (11%), Difficulty Coping (15%) and Despair (19%) in men. Guilt (controlled for shame) did not make a significant further contribution to the variance in grief in women or men, except for PGS-33 Despair (18%) in women.

The following variables made unique contributions to the variance in PGS-33 grief with all variables entered in the regression: IGQ-67 Separation Guilt to Active Grief, PFQ-2 Shame and IGQ-67 Survivor Guilt to Difficulty Coping, and TOSCA-2 Guilt (negatively) to Despair in women, and PFQ-2 Guilt to Difficulty Coping in men.

Shame and guilt together explained 14–18% of the variance in Total Grief (14%), Difficulty Coping (17%) and Despair (18%) in women, and 18–24% of the variance in Total Grief (24%), Active Grief (18%), Difficulty Coping (24%) and Despair (18%) in men.

GHQ-28 Total Dysphoria

Women. The results of the multiple regression of Total Dysphoria on shame and guilt in women are shown in Table 6.12. Only the multiple R-value at Step 1 was significantly different from zero ($R = .35$, $F(2, 61) = 4.19$, $p < .05$). Shame explained 12% (9% adjusted) of the variance in Total Dysphoria, and PFQ-2 Shame ($\beta = .27$, $t = 2.09$, $p < .05$) made a significant unique contribution to the variance. Guilt controlled for shame, and shame and guilt together did not make significant contributions to the variance in Total Dysphoria in women.

Men. The results of the multiple regression of Total Dysphoria on shame and guilt in men are shown in Table 6.12. Only the multiple R-value at Step 1 was significantly different from zero ($R = .35$, $F\ (2, 47) = 3.31$, $p < .05$). Shame explained 12% (9% adjusted) of the variance in Total Dysphoria. Guilt controlled for shame, and shame and guilt together did not make significant contributions to the variance in Total Dysphoria in men.

GHQ-28 Somatic Symptoms

The results of the multiple regression of Somatic Symptoms on shame and guilt in women and men are shown in Table 6.13. Shame and/or guilt did not explain significant proportions of the variance in Somatic Symptoms in women or men.

GHQ-28 Anxiety and Insomnia

Women. The results of the multiple regression of Anxiety and Insomnia on shame and guilt in women are shown in Table 6.14. The multiple R-value was significantly different from zero at both steps. Shame explained 10% (7% adjusted) of the variance in Anxiety and Insomnia. Guilt controlled for shame did not make a significant independent contribution to the variance in Anxiety and Insomnia. The final multiple R, R^2 and adjusted R^2 were .48 ($F\ (7, 56) = 2.36$, $p < .05$), .23 and .13, respectively. Thus, shame and guilt together explained 23% (13% adjusted) of the variance in Anxiety and Insomnia in women.

Men. The results of the multiple regression of Anxiety and Insomnia on shame and guilt in men are shown in Table 6.14. The multiple R-value was significantly different from zero at both steps. Shame explained 17% (13% adjusted) of the variance in Anxiety and Insomnia. Guilt controlled for shame did not make a significant independent contribution to the variance in

Anxiety and Insomnia. The final multiple R, R^2 and adjusted R^2 were .55 (F (7, 42) = 2.60, $p < .05$), .30 and .19, respectively. Thus, shame and guilt together explained 30% (19% adjusted) of the variance in Anxiety and Insomnia in men.

GHQ-28 Social Dysfunction

Women. The results of the multiple regression of Social Dysfunction on shame and guilt in women are shown in Table 6.15. Only the multiple R-value at Step 1 was significantly different from zero ($R = .32$, F (2, 61) = 3.46, $p < .05$). Shame explained 10% (7% adjusted) of the variance in Social Dysfunction, and PFQ-2 Shame ($\beta = .28$, $t = 2.12$, $p < .05$) made a significant unique contribution to the variance. Guilt controlled for shame, and shame and guilt together did not make significant contributions to the variance in Social Dysfunction in women. PFQ-2 Shame ($\beta = .32$, $t = 2.02$, $p < .05$) continued to make a unique contribution to the variance in Social Dysfunction with all variables entered.

Men. The results of the multiple regression of Social Dysfunction on shame and guilt in men are shown in Table 6.15. Shame and/or guilt did not make significant contributions to the variance in Social Dysfunction in men, though PFQ-2 Guilt ($\beta = .42$, $t = 2.07$, $p < .05$) made a unique contribution to the variance with all variables entered.

GHQ-28 Severe Depression

Women. The results of the multiple regression of Severe Depression on shame and guilt in women are shown in Table 6.16. Shame and/or guilt did not make a significant contribution to the variance in Severe Depression in women.

Men. The results of the multiple regression of Severe Depression on shame and guilt in men are shown in Table 6.16. The multiple R-value was significantly different from zero at both steps. Shame explained 14% (10% adjusted) of the

variance in Severe Depression. Guilt controlled for shame did not make a significant independent contribution to the variance in Severe Depression, though IGQ-67 Survivor Guilt ($\beta = .35$, $t = 2.05$, $p < .05$) made a unique contribution to the variance. The final multiple R, R^2 and adjusted R^2 were .54 ($F\ (7, 42) = 2.41$, $p < .05$), .29 and .17, respectively. Thus, shame and guilt together explained 29% (17% adjusted) of the variance in Severe Depression in men.

Synopsis of shame and guilt and psychological dysphoria at Time 1

Shame explained a statistically significant but small proportion of the variance in Total Dysphoria (9%), Anxiety and Insomnia (7%) and Social Dysfunction (10%) in women, and Total Dysphoria (9%), Anxiety and Insomnia (13%) and Severe Depression (10%) in men. Guilt (controlled for shame) did not make a significant further contribution to the variance in psychological dysphoria in women or men.

The following variables made unique contributions to the variance in GHQ-28 psychological dysphoria with all variables entered in the regression: PFQ-2 Shame to Social Dysfunction in women, and PFQ-2 Guilt to Social Dysfunction and IGQ-67 Survivor Guilt to Severe Depression in men.

Shame and guilt together accounted for small amounts of the variance in Total Dysphoria (9%) and Anxiety and Insomnia (13%) in women, and Total Dysphoria (14%), Anxiety and Insomnia (19%), and Severe Depression (17%) in men.

Multiple regressions at Time 2

A series of hierarchical multiple regressions was conducted to investigate the individual and collective contributions of shame and guilt to the variance in

grief and psychological dysphoria at Time 2. In order to control for the contribution made by the grief or psychological dysphoria variable at Time 1 to the variance in the counterpart dependent variable at Time 2, the former was entered as an independent variable before shame and guilt in a second series of hierarchical multiple regressions.

PGS-33 Total Grief

Women. The results of the multiple regression of Total Grief on shame and guilt in women are shown in Table 6.17. The multiple R-value was significantly different from zero at both steps. Shame explained 29% (27% adjusted) of the variance in Total Grief, and PFQ-2 Shame ($\beta = .46$, $t = 4.48$, $p < .001$) made a significant unique contribution to the variance. Guilt controlled for shame contributed a further 21% to the variance in Total Grief ($\Delta R^2 = .21$, F change = 5.99, $p < .001$), and TOSCA-2 Guilt ($\beta = -.38$, $t = -3.98$, $p < .001$), PFQ-2 Guilt ($\beta = .41$, $t = 3.55$, $p < .01$) and IGQ-67 Survivor Guilt ($\beta = .29$, $t = 2.51$, $p < .05$) made significant unique contributions to the variance. TOSCA-2 Shame ($\beta = .23$, $t = 2.25$, $p < .05$) continued to make a significant unique contribution to the variance in Total Grief with all variables entered. The final multiple R, R^2 and adjusted R^2 were .71 ($F (7, 72) = 10.17$, $p < .001$), .50 and .45, respectively. Thus, shame and guilt together explained 50% (45% adjusted) of the variance in Total Grief in women.

The results of the multiple regression of Total Grief at Time 2 on Total Grief at Time 1 and shame and guilt at Time 2 in women are shown in Table 6.18. The multiple R-value at all three steps was significantly different from zero. Total Grief at Time 1 explained 50% of the variance in Total Grief at Time 2. Shame controlled for Total Grief at Time 1 contributed a further 11% to the variance in Total Grief ($\Delta R^2 = .11$, F change = 11.20, $p < .001$), and PFQ-2 Shame ($\beta = .31$, $t = 3.97$, $p < .001$) made a significant unique contribution to the variance. Guilt

did not make a significant independent contribution to the variance in Total Grief, though PFQ-2 Guilt (β = .21, t = 2.04, p < .05) and TOSCA-2 Guilt (β = -.21, t = -2.39, p < .05) made unique contributions to the variance. PFQ-2 Shame (β = .22, t = 2.36, p < .05) continued to make a unique contribution to the variance in Total Grief with all variables entered.

Men. The results of the multiple regression of Total Grief on shame and guilt in men are shown in Table 6.17. The multiple R-value was significantly different from zero at both steps. Shame explained 57% (56% adjusted) of the variance in Total Grief, and both TOSCA-2 Shame (β = .36, t = 3.30, p < .01), and PFQ-2 Shame (β = .47, t = 4.35, p < .001) made significant unique contributions to the variance. Guilt controlled for shame contributed a further 11% to the variance in Total Grief (ΔR^2 = .11, F change 4.04, p < .01), and TOSCA-2 Guilt (β = -.21, t = -2.18, p < .05) and IGQ-67 Survivor Guilt (β = .35, t = 3.02, p < .01) made significant unique contributions to the variance. PFQ-2 Shame (β = .34, t = 2.60, p < .05) continued to make a significant unique contribution to the variance in Total Grief with all variables entered. The final multiple R, R^2 and adjusted R^2 were .82 (F (7, 61) = 18.23, p < .001), .68 and .64, respectively. Thus, shame and guilt together explained 68% (64% adjusted) of the variance in Total Grief in men.

The results of the multiple regression of Total Grief at Time 2 on Total Grief at Time 1 and shame and guilt at Time 2 in men are shown in Table 6.18. The multiple R-value at all three steps was significantly different from zero. Total Grief at Time 1 explained 55% of the variance in Total Grief at Time 2. Shame contributed a further 15% to the variance in Total Grief (ΔR^2 = .15, F change = 15.61, p < .001), and TOSCA-2 Shame (β = .20, t = 2.08, p < .05) and PFQ-2 Shame (β = .32, t = 3.40, p < .01) made significant unique contributions to the variance. Guilt contributed a further 6% to the variance in Total Grief

(ΔR^2 = .06, F change = 2.71, p < .05), and PFQ-2 Guilt (β = .22, t = 2.10, p < .05) and IGQ-67 Survivor Guilt (β = .27, t = 2.58, p < .05) made significant unique contributions to the variance.

Synopsis of shame and guilt and grief at Time 2

Shame explained a significant proportion of the variance in Total Grief in women (27%) and men (56%). Guilt (controlled for shame) made a significant additional contribution to the variance in Total Grief in women (21%) and men (11%).

The following variables made unique contributions to the variance in Total Grief with all variables entered in the regression: TOSCA-2 Shame, TOSCA-2 Guilt, PFQ-2 Guilt and IGQ-67 Survivor Guilt in women, and PFQ-2 Shame, TOSCA-2 Guilt and IGQ-67 Survivor Guilt in men.

Shame and guilt together explained 45% of the variance in Total Grief in women and 64% in men.

After controlling for Total Grief at Time 1, shame continued to make a significant contribution to the variance in Total Grief at Time 2 in both women and men. Guilt controlled for Total Grief at Time 1 and shame made a significant additional contribution to the variance in Total Grief at Time 2 in men, but not in women.

GHQ-28 Total Dysphoria

Women. The results of the multiple regression of Total Dysphoria on shame and guilt in women are shown in Table 6.19. The multiple R-value was significantly different from zero at both steps. Shame explained 29% (27% adjusted) of the variance in Total Dysphoria, and PFQ-2 Shame (β = .50, t = 4.93, p < .001) made a significant unique contribution to the variance. Guilt controlled for shame

contributed a further 16% to the variance in Total Dysphoria (ΔR^2 = .16, F change = 4.11, $p < .01$), and TOSCA-2 Guilt (β = -.36, t = -3.56, $p < .01$) and PFQ-2 Guilt (β = .28, t = 2.32, $p < .05$) made significant unique contributions to the variance. PFQ-2 Shame (β = .28, t = 2.38, $p < .05$) continued to make a unique contribution to the variance in Total Dysphoria with all variables entered. The final multiple R, R^2 and adjusted R^2 were .67 (F (7, 72) = 8.33, $p < .001$), .45 and .39, respectively. Thus, shame and guilt together explained 45% (39% adjusted) of the variance in Total Dysphoria in women.

The results of the multiple regression of Total Dysphoria at Time 2 on Total Dysphoria at Time 1 and shame and guilt at Time 2 in women are shown in Table 6.20. The multiple R-value at all three steps was significantly different from zero. Total Dysphoria at Time 1 explained 20% of the variance in Total Dysphoria at Time 2. Shame contributed a further 19% to the variance in Total Dysphoria (ΔR^2 = .19, F change = 11.51, $p < .001$), and PFQ-2 Shame (β = .44, t = 4.55, $p < .001$) made a significant unique contribution to the variance. Guilt contributed a further 9% to the variance in Total Dysphoria (ΔR^2 = .09, F change = 2.48, $p < .05$), and TOSCA-2 Guilt (β = -.28, t = -2.70, $p < .01$) made a significant unique contribution to the variance. PFQ-2 Shame (β = .31, t = 2.65, $p < .05$) continued to make a unique contribution to the variance in Total Dysphoria with all variables entered.

Men. The results of the multiple regression of Total Dysphoria on shame and guilt in men are shown in Table 6.19. The multiple R-value was significantly different from zero at both steps. Shame explained 45% (43% adjusted) of the variance in Total Dysphoria, and PFQ-2 Shame (β = .58, t = 4.78, $p < .001$) made a significant unique contribution to the variance. Guilt did not make a significant independent contribution to the variance in Total Dysphoria. The β value for IGQ-67 Separation Guilt was negative and opposite in valence to the

zero-order and partial correlations and therefore considered to be a spurious result. PFQ-2 Shame (β = .47, t = 3.05, $p < .01$) continued to make a unique contribution to the variance in Total Dysphoria with all variables entered. The final multiple R, R^2 and adjusted R^2 were .73 (F (7, 61) = 9.95, $p < .001$), .53 and .48, respectively. Thus, shame and guilt together explained 53% (48% adjusted) of the variance in Total Dysphoria in men.

The results of the multiple regression of Total Dysphoria at Time 2 on Total Dysphoria at Time 1 and shame and guilt at Time 2 in men are shown in Table 6.20. The multiple R-value at all three steps was significantly different from zero. Total Dysphoria at Time 1 explained 37% of the variance in Total Dysphoria at Time 2. Shame contributed a further 18% to the variance in Total Dysphoria (ΔR^2 = .18, F change = 12.79, $p < .001$), and PFQ-2 Shame (β = .47, t = 4.07, $p < .001$) made a significant unique contribution to the variance. Guilt did not make a significant independent contribution to the variance in Total Dysphoria. PFQ-2 Shame (β = .40, t = 2.69, $p < .01$) continued to make a unique contribution to the variance in Total Dysphoria with all variables entered.

GHQ-28 Somatic Symptoms

Women. The results of the multiple regression of Somatic Symptoms on shame and guilt in women are shown in Table 6.21. The multiple R-value was significantly different from zero at both steps. Shame explained 18% (16% adjusted) of the variance in Somatic Symptoms, and PFQ-2 Shame (β = .41, t = 3.73, $p < .001$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Somatic Symptoms. The final multiple R, R^2 and adjusted R^2 were .49 (F (7, 72) = 3.30, $p < .01$), .24 and .17, respectively. Thus, shame and guilt together explained 24% (17% adjusted) of the variance in Somatic Symptoms in women.

The results of the multiple regression of Somatic Symptoms at Time 2 on Somatic Symptoms at Time 1 and shame and guilt at Time 2 in women are shown in Table 6.22. The multiple R-value at all three steps was significantly different from zero. Somatic Symptoms at Time 1 explained 12% of the variance in Somatic Symptoms at Time 2. Shame contributed a further 14% to the variance in Somatic Symptoms ($\Delta R^2 = .14$, F change = 7.25, $p < .01$), and PFQ-2 Shame ($\beta = .39$, $t = 3.70$, $p < .001$) made a significant unique contribution to the variance. Guilt did not make a significant additional contribution to the variance in Somatic Symptoms.

Men. The results of the multiple regression of Somatic Symptoms on shame and guilt in men are shown in Table 6.21. The multiple R-value was significantly different from zero at both steps. Shame explained 19% (17% adjusted) of the variance in Somatic Symptoms. Guilt controlled for shame did not make a significant independent contribution to the variance in Somatic Symptoms. The final multiple R, R^2 and adjusted R^2 were .50 ($F (7, 61) = 2.94$, $p < .05$), .25 and .17, respectively. Shame and guilt together explained 25% (17% adjusted) of the variance in Somatic Symptoms in men.

The results of the multiple regression of Somatic Symptoms at Time 2 on Somatic Symptoms at Time 1 and shame and guilt at Time 2 in men are shown in Table 6.22. The multiple R-value at all three steps was significantly different from zero. Somatic Symptoms at Time 1 explained 11% of the variance in Somatic Symptoms at Time 2. Shame contributed a further 12% to the variance in Somatic Symptoms ($\Delta R^2 = .12$, F change = 4.87, $p < .05$). Guilt did not make a significant additional contribution to the variance in Somatic Symptoms.

GHQ-28 Anxiety and Insomnia

Women. The results of the multiple regression of Anxiety and Insomnia on shame and guilt in women are shown in Table 6.23. The multiple R-value was

significantly different from zero at both steps. Shame explained 23% (21% adjusted) of the variance in Anxiety and Insomnia, and PFQ-2 Shame (β = .43, t = 4.05, p < .001) made a significant unique contribution to the variance. Guilt controlled for shame contributed an additional 16% to the variance in Anxiety and Insomnia (ΔR^2 = .16, F change = 3.84, p < .01), and TOSCA-2 Guilt (β = -.35, t = 3.31, p < .01) and PFQ-2 Guilt (β = .27, t = 2.12, p < .05) made significant unique contributions to the variance. The final multiple R, R^2 and adjusted R^2 were .63 (F (7, 72) = 6.62, p < .001), .39 and .33, respectively. Thus, shame and guilt together explained 39% (33% adjusted) of the variance in Anxiety and Insomnia in women.

The results of the multiple regression of Anxiety and Insomnia at Time 2 on Anxiety and Insomnia at Time 1 and shame and guilt at Time 2 in women are shown in Table 6.24. The multiple R-value at all three steps was significantly different from zero. Anxiety and Insomnia at Time 1 explained 19% of the variance in Anxiety and Insomnia at Time 2. Shame contributed an additional 14% to the variance in Anxiety and Insomnia (ΔR^2 = .14, F change = 8.04, p < .01), and PFQ-2 Shame (β = .37, t = 3.63, p < .01) made a significant unique contribution to the variance. Guilt did not make a significant additional contribution to the variance in Anxiety and Insomnia, though TOSCA-2 Guilt (β = -.28, t = -2.54, p < .05) made a significant unique contribution to the variance.

Men. The results of the multiple regression of Anxiety and Insomnia on shame and guilt in men are shown in Table 6.23. The multiple R-value was significantly different from zero at both steps. Shame explained 32% (30% adjusted) of the variance in Anxiety and Insomnia, and PFQ-2 Shame (β = .53, t = 3.94, p < .001) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent

contribution to the variance in Anxiety and Insomnia. PFQ-2 Shame (β = .37, t = 2.14, p < .05) continued to make a unique contribution to the variance in Anxiety and Insomnia with all variables entered. The final multiple R, R^2 and adjusted R^2 were .64 (F (7, 61) = 6.19, p < .001), .42 and .35, respectively. Thus, shame and guilt together explained 42% (35% adjusted) of the variance in Anxiety and Insomnia in men.

The results of the multiple regression of Anxiety and Insomnia at Time 2 on Anxiety and Insomnia at Time 1 and shame and guilt at Time 2 in men are shown in Table 6.24. The multiple R-value at all three steps was significantly different from zero. Anxiety and Insomnia at Time 1 explained 39% of the variance in Anxiety and Insomnia at Time 2. Shame contributed a further 8% to the variance in Anxiety and Insomnia (ΔR^2 = .08, F change = 5.10, p < .01), and PFQ-2 Shame (β = .37, t = 2.94, p < .01) made a significant unique contribution to the variance. Guilt did not make a significant additional contribution to the variance in Anxiety and Insomnia.

GHQ-28 Social Dysfunction

Women. The results of the multiple regression of Social Dysfunction on shame and guilt in women are shown in Table 6.25. The multiple R-value was significantly different from zero at both steps. Shame explained 19% (17% adjusted) of the variance in Social Dysfunction, and PFQ-2 Shame (β = .40, t = 3.72, p < .001) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Social Dysfunction, though TOSCA-2 Guilt (β = -.24, t = -2.14, p < .05) made a significant unique contribution to the variance. The final multiple R, R^2 and adjusted R^2 were .55 (F (7, 72) = 4.44, p < .001), .30 and .23, respectively. Thus, shame and guilt together explained 30% (23% adjusted) of the variance in Social Dysfunction in women.

The results of the multiple regression of Social Dysfunction at Time 2 on Social Dysfunction at Time 1 and shame and guilt at Time 2 in women are shown in Table 6.26. The multiple R-value at all three steps was significantly different from zero. Social Dysfunction at Time 1 explained 9% of the variance in Social Dysfunction at Time 2. Shame contributed an additional 14% to the variance in Social Dysfunction (ΔR^2 = .14, F change = 7.12, $p < .01$), and PFQ-2 Shame (β = .37, t = 3.40, $p < .01$) made a significant unique contribution to the variance. Guilt did not make a significant additional contribution to the variance in Social Dysfunction.

Men. The results of the multiple regression of Social Dysfunction on shame and guilt in men are shown in Table 6.25. The multiple R-value was significantly different from zero at both steps. Shame explained 35% (33% adjusted) of the variance in Social Dysfunction, and PFQ-2 Shame (β = .66, t = 5.00, $p < .001$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Social Dysfunction. PFQ-2 Shame (β = .60, t = 3.38, $p < .01$) continued to make a unique contribution to the variance in Social Dysfunction with all variables entered. The final multiple R, R^2 and adjusted R^2 were .62 (F (7, 61) = 5.55, $p < .001$), .39 and .32, respectively. Thus, shame and guilt together explained 39% (32% adjusted) of the variance in Social Dysfunction in men.

The results of the multiple regression of Social Dysfunction at Time 2 on Social Dysfunction at Time 1 and shame and guilt at Time 2 in men are shown in Table 6.26. The multiple R-value at all three steps was significantly different from zero. Social Dysfunction at Time 1 explained 6% of the variance in Social Dysfunction. Shame contributed an additional 31% to the variance in Social Dysfunction (ΔR^2 = .31, F change = 16.09, $p < .001$), and PFQ-2 Shame (β = .65, t = 4.91, $p < .001$) made a significant unique contribution to the variance. Guilt

did not make a significant additional contribution to the variance in Social Dysfunction. PFQ-2 Shame (β = .59, t = 3.34, p < .01) continued to make a unique contribution to the variance in Social Dysfunction with all variables entered.

GHQ-28 Severe Depression

Women. The results of the multiple regression of Severe Depression on shame and guilt in women are shown in Table 6.27. The multiple R-value was significantly different from zero at both steps. Shame explained 28% (27% adjusted) of the variance in Severe Depression, and PFQ-2 Shame (β = .51, t = 4.95, p < .001) made a significant unique contribution to the variance. Guilt controlled for shame contributed a further 25% to the variance in Severe Depression (ΔR^2 = .25, F change = 7.66, p < .001), and TOSCA-2 Guilt (β = -.54, t = -5.81, p < .001) and PFQ-2 Guilt (β = .28, t = 2.57, p < .05) made significant unique contributions to the variance. PFQ-2 Shame (β = .33, t = 2.98, p < .01) continued to make a unique contribution to the variance in Severe Depression with all variables entered. The final multiple R, R^2 and adjusted R^2 were .73 (F (7, 72) = 11.74, p < .001), .53 and .49, respectively. Thus, shame and guilt together explained 53% (49%) of the variance in Severe Depression in women.

The results of the multiple regression of Severe Depression at Time 2 on Severe Depression at Time 1 and shame and guilt at Time 2 in women are shown in Table 6.28. The multiple R-value at all three steps was significantly different from zero. Severe Depression at Time 1 explained 30% of the variance in Severe Depression. Shame contributed an additional 16% to the variance in Severe Depression (ΔR^2 = .16, F change = 11.31, p < .001), and PFQ-2 Shame (β = .42, t = 4.61, p < .001) made a significant unique contribution to the variance. Guilt contributed an additional 12% to the variance in Severe Depression (ΔR^2 = .12, F change = 4.10, p < .01), and TOSCA-2 Guilt (β = -.41, t = -4.12, p < .001) made

a significant unique contribution to the variance. PFQ-2 Shame (β = .34, t = 3.24, p < .01) continued to make a unique contribution to the variance in Severe Depression with all variables entered.

Men. The results of the multiple regression of Severe Depression on shame and guilt in men are shown in Table 6.27. The multiple R-value was significantly different from zero at both steps. Shame explained 53% (51% adjusted) of the variance in Severe Depression, and TOSCA-2 Shame (β = .23, t = 2.04, p < .05) and PFQ-2 Shame (β = .55, t = 4.88, p < .001) made significant unique contributions to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Severe Depression. PFQ-2 Shame (β = .37, t = 2.56, p < .05) continued to make a unique contribution to the variance in Severe Depression with all variables entered. The final multiple R, R^2 and adjusted R^2 were .78 (F (7, 61) = 13.20, p < .001), .60 and .56, respectively. Thus, shame and guilt together explained 60% (56%) of the variance in Severe Depression in men.

The results of the multiple regression of Severe Depression at Time 2 on Severe Depression at Time 1 and shame and guilt at Time 2 in men are shown in Table 6.28. The multiple R-value at all three steps was significantly different from zero. Severe Depression at Time 1 explained 45% of the variance in Severe Depression. Shame contributed a further 19% to the variance in Severe Depression (ΔR^2 = .19, F change = 17.71, p < .001), and PFQ-2 Shame (β = .39, t = 3.67, p < .001) made a significant unique contribution to the variance. Guilt did not make a significant independent contribution to the variance in Severe Depression.

Synopsis of shame and guilt and psychological dysphoria at Time 2

Shame explained a statistically significant proportion of the variance in Total Dysphoria (27%), Somatic Symptoms (16%), Anxiety and Insomnia (21%), Social Dysfunction (17%) and Severe Depression (27%) in women, and Total Dysphoria (43%), Somatic Symptoms (17%), Anxiety and Insomnia (30%), Social Dysfunction (33%) and Severe Depression (51%) in men.

Guilt controlled for shame made a significant additional contribution to the variance in Total Dysphoria (16%), Anxiety and Insomnia (16%), and Severe Depression (25%) in women.

The following variables made unique contributions to the variance in GHQ-28 psychological dysphoria with all variables entered in the regression: PFQ-2 Shame, TOSCA-2 Guilt and PFQ-2 Guilt to Total Dysphoria in women, and PFQ-2 Shame to Total Dysphoria in men; TOSCA-2 Guilt and PFQ-2 Guilt to Anxiety and Insomnia in women, and PFQ-2 Shame to Anxiety and Insomnia in men; TOSCA-2 Guilt to Social Dysfunction in women, and PFQ-2 Shame to Social Dysfunction in men; and PFQ-2 Shame, TOSCA-2 Guilt and PFQ-2 Guilt to Severe Depression in women, and PFQ-2 Shame to Severe Depression in men.

Shame and guilt (controlled for shame) in women and shame in men continued to contribute significantly to the variance in Total Dysphoria and Severe Depression at Time 2 after controlling for the counterpart variable at Time 1. Shame, but not guilt, continued to contribute significantly to the variance in Somatic Symptoms, Anxiety and Insomnia, and Social Dysfunction at Time 2 after controlling for the counterpart variable at Time 1 in both women and men.

Predicting late grief and psychological dysphoria

A series of hierarchical multiple regressions was conducted to ascertain the proportion of the variance in grief and psychological dysphoria at Time 2 explained by shame and guilt at Time 1. In order to control for the contribution made by the grief or psychological dysphoria variable at Time 1 to the variance in the corresponding variable at Time 2, a second series of hierarchical multiple regressions was performed in which the former was entered as an independent variable before shame and guilt.

PGS-33 Total Grief

Women. The results of the multiple regression of Total Grief at Time 2 on shame and guilt at Time 1 in women are shown in Table 6.29. Shame and/or guilt at Time 1 did not explain a significant proportion of the variance in Total Grief at Time 2 in women.

Men. The results of the multiple regression of Total Grief at Time 2 on shame and guilt at Time 1 in men are shown in Table 6.29. The multiple R-value at both steps was significantly different from zero. Shame at Time 1 explained 27% (24% adjusted) of the variance in Total Grief at Time 2, and PFQ-2 Shame ($\beta = .46$, $t = 3.33$, $p < .01$) made a significant unique contribution to the variance. Guilt controlled for shame contributed a further 22% to the variance in Total Grief at Time 2 ($\Delta R^2 = .22$, F change = 3.70, $p < .01$), and IGQ-67 Survivor Guilt ($\beta = .57$, $t = 3.90$, $p < .001$) made a significant unique contribution to the variance. PFQ-2 Shame ($\beta = .32$, $t = 2.12$, $p < .05$) continued to make a unique contribution to the variance in Total Grief at Time 2 with all variables entered. The final R, R^2 and adjusted R^2 values were .70 ($F (7, 42) = 5.91$, $p < .001$), .50 and .41, respectively. Thus, shame and guilt at

Time 1 explained 50% (41% adjusted) of the variance in Total Grief at Time 2 in men.

Shame controlled for Total Grief at Time 1 continued to make a significant independent contribution to the variance in Total Grief at Time 2 in men (ΔR^2 = .09, F change = 6.49, $p < .01$), and PFQ-2 shame made a significant unique contribution to the variance (β = .34, t = 3.60, $p < .01$). Guilt controlled for both Total Grief and shame at Time 1 did not make a significant additional contribution to the variance in Total Grief at Time 2, though IGQ-67 Survivor Guilt (β = .34, t = 3.10, $p < .01$) made a significant unique contribution to the variance. PFQ-2 Shame (β = .37, t = 3.42, $p < .01$) continued to make a significant contribution to the variance in Total Grief at Time 2 with all variables entered.

GHQ-28 Total Dysphoria

Women. The results of the multiple regression of Total Dysphoria at Time 2 on shame and guilt at Time 1 in women are shown in Table 6.30. Shame and/or guilt at Time 1 did not make a significant contribution to the variance in Total Dysphoria at Time 2 in women.

Men. The results of the multiple regression of Total Dysphoria at Time 2 on shame and guilt at Time 1 in men are shown in Table 6.30. The multiple R-value at Step 1 was significantly different from zero (R = .40, F (2, 47) = 4.55, $p < .05$). Shame at Time 1 explained 16% (13% adjusted) of the variance in Total Dysphoria at Time 2, and PFQ-2 Shame (β = .38, t = 2.58, $p < .05$) made a significant unique contribution to the variance. Guilt, and shame and guilt together at Time 1 did not make significant contributions to the variance in Total Dysphoria at Time 2 in men.

Shame controlled for Total Dysphoria at Time 1 continued to make a significant independent contribution to the variance in Total Dysphoria at Time 2 (ΔR^2 = .10, F change = 4.44, $p < .05$), and PFQ-2 shame (β = .35, t = 2.98, $p < .01$) made a significant unique contribution to the variance. PFQ-2 shame (β = .35, t = 2.26, $p < .05$) continued to make a unique contribution to the variance in Total Dysphoria at Time 2 with all variables entered.

GHQ-28 Somatic Symptoms

The results of the multiple regression of Somatic Symptoms at Time 2 on shame and guilt at Time 1 are shown in Table 6.31. Shame and/or guilt at Time 1 did not make significant contributions to the variance in Somatic Symptoms at Time 2 in women or men.

GHQ-28 Anxiety and Insomnia

Women. The results of the multiple regression of Anxiety and Insomnia at Time 2 on shame and guilt at Time 1 in women are shown in Table 6.32. Shame and/or guilt at Time 1 did not make significant contributions to the variance in Anxiety and Insomnia at Time 2 in women.

Men. The results of the multiple regression of Anxiety and Insomnia at Time 2 on shame and guilt at Time 1 in men are shown in Table 6.32. The multiple R-value at Step 1 was significantly different from zero (R = .35, F (2, 47) = 3.27, $p < .05$). Shame at Time 1 explained 12% (8% adjusted) of the variance in Anxiety and Insomnia at Time 2, and PFQ-2 Shame (β = .33, t = 2.17, $p < .05$) made a significant unique contribution to the variance. Guilt, and shame and guilt together did not make significant contributions to the variance in Anxiety and Insomnia at Time 2. Shame controlled for Anxiety and Insomnia at Time 1 did not make a significant additional contribution to the variance in Anxiety and Insomnia at Time 2 in men.

GHQ-28 Social Dysfunction

The results of the multiple regression of Social Dysfunction at Time 2 on shame and guilt at Time 1 are shown in Table 6.33. Shame and/or guilt at Time 1 did not make significant contributions to the variance in Social Dysfunction at Time 2 in women or men.

GHQ-28 Severe Depression

Women. The results of the multiple regression of Severe Depression at Time 2 on shame and guilt at Time 1 in women are shown in Table 6.34. Shame and/or guilt at Time 1 did not make significant contributions to the variance in Severe Depression at Time 2 in women.

Men. The results of the multiple regression of Severe Depression at Time 2 on shame and guilt at Time 1 in men are shown in Table 6.34. The multiple R-value at both steps was significantly different from zero. Shame at Time 1 explained 25% (21% adjusted) of the variance in Severe Depression at Time 2, and PFQ-2 Shame ($\beta = .50$, $t = 3.55$, $p < .01$) made a significant unique contribution to the variance. Guilt controlled for shame did not make a significant independent contribution to the variance in Severe Depression at Time 2, though IGQ-67 Survivor Guilt ($\beta = .43$, $t = 2.71$, $p < .05$) made a significant unique contribution to the variance. PFQ-2 Shame ($\beta = .40$, $t = 2.41$, $p < .05$) continued to make a unique contribution to the variance in Severe Depression at Time 2 with all variables entered. The final multiple R, R^2 and adjusted R^2 were .63 (F (2, 47) .40 and .30, respectively. Thus, shame and guilt at Time 1 explained 40% (30% adjusted) of the variance in Severe Depression at Time 2 in men.

Shame controlled for Severe Depression at Time 1 continued to make a significant independent contribution to Severe Depression at Time 2 in men

(ΔR^2 = .15, F change = 7.54, $p < .01$), and PFQ-2 Shame (β = .44, t = 3.88, $p < .001$) made a significant unique contribution to the variance. PFQ-2 Shame (β = .35, t = 2.70, $p < .05$) continued to make a significant unique contribution to the variance in Severe Depression at Time 2 with all variables entered.

Synopsis of shame and guilt as longitudinal predictors of grief and psychological dysphoria

Women. Shame and/or guilt at Time 1 did not predict significant proportions of the variance in PGS-33 grief or GHQ-28 psychological dysphoria at Time 2 in women.

Men. Shame and guilt (controlled for shame) at Time 1 predicted statistically significant proportions of the variance in Total Grief at Time 2 in men. Shame, but not guilt, continued to explain a significant proportion of the variance in Total Grief at Time 2 after controlling for Total Grief at Time 1.

Shame, but not guilt, at Time 1 predicted statistically significant proportions of the variance in Total Dysphoria, Anxiety and Insomnia, and Severe Depression at Time 2 in men. Shame continued to explain a significant proportion of the variance in Total Dysphoria and Severe Depression at Time 2, after controlling for the relevant counterpart variable at Time 1.

Quadratic regression

The statistical computations used to generate the above results were concerned with linear relationships of guilt- and shame-proneness to grief and psychological dysphoria. A series of regressions using a quadratic model did not suggest that the linear model was missing statistically significant relationships of shame-proneness with early or late grief or psychological dysphoria in women.

Tables

Table 6.1. PGS-33 scores

	Women		Men				
	Mean	SD	Mean	SD	t	p	eta^2
	Time 1						
Perinatal death							
Total Grief	95.4	21.00	82.7	20.73	3.81	< .0005	.08
Active Grief	40.6	7.39	35.4	8.50	4.09	< .0005	.10
Difficulty Coping	29.9	8.72	26.3	7.48	2.69	.007	.04
Despair	25.0	7.96	20.9	7.06	3.32	.001	.07
Stillbirth							
Total Grief	95.7	21.88	79.3	20.21	3.49	.001	.13
Active Grief	40.5	8.12	34.3	7.91	3.43	.001	.13
Difficulty Coping	30.0	8.48	24.9	7.61	2.80	.006	.09
Despair	25.2	8.42	20.0	7.02	3.00	.004	.10
Neonatal death							
Total Grief	95.0	20.22	86.1	20.97	1.89	NS	—
Active Grief	40.7	6.55	36.4	9.03	2.35	.02	.07
Difficulty Coping	29.7	9.09	27.7	7.18	1.03	NS	—
Despair	24.6	7.49	21.9	7.07	1.63	NS	—
	Time 2						
Perinatal death							
Total Grief	76.7	24.02	71.9	24.57	1.19	NS	—
Active Grief	31.9	8.43	29.6	9.25	1.63	NS	—
Difficulty Coping	24.4	9.56	22.9	8.20	1.03	NS	—
Despair	20.4	8.09	19.5	8.51	.64	NS	—
Stillbirth							
Total Grief	76.1	24.78	66.6	22.29	1.74	NS	—
Active Grief	32.0	8.49	27.5	8.21	2.33	.02	.07
Difficulty Coping	24.2	9.88	21.0	7.76	1.55	NS	—
Despair	19.9	8.31	18.1	7.93	.96	NS	—
Neonatal death							
Total Grief	77.4	23.43	77.2	25.83	.00	NS	—
Active Grief	31.9	8.47	31.6	9.87	.14	NS	—
Difficulty Coping	24.7	9.30	24.8	8.29	.00	NS	—
Despair	20.9	7.91	20.8	8.94	.00	NS	—

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1: Perinatal death N = 158 (Women = 86, Men = 72), Stillbirth N = 82 (Women = 46, Men = 36), Neonatal death N = 76 (Women = 40, Men = 36). Time 2: Perinatal death N = 149 (Women = 80, Men = 69), Stillbirth N = 77 (Women = 43, Men = 34), Neonatal death N = 72 (Women = 37, Men = 35). PGS-33 = Perinatal Grief Scale-33.

Table 6.2. GHQ-28 scores

	Women		Men				
	Mean	SD	Mean	SD	t	p	eta^2
				Time 1			
Perinatal death							
Total Dysphoria	32.8	16.30	27.0	12.95	2.44	.02	.04
Somatic Symptoms	7.6	4.64	7.5	4.14	.10	NS	—
Anxiety/Insomnia	10.0	5.21	8.0	4.53	2.55	.01	.04
Social Dysfunction	10.9	4.18	8.7	3.54	3.50	.001	.07
Severe Depression	4.3	5.17	2.8	3.98	2.08	.04	.03
Stillbirth							
Total Dysphoria	34.1	17.29	27.4	12.49	1.96	NS	—
Somatic Symptoms	7.8	4.57	7.6	4.04	.17	NS	—
Anxiety/Insomnia	10.4	5.45	7.9	4.33	2.22	.03	.03
Social Dysfunction	11.4	4.52	9.3	3.23	2.38	.02	.02
Severe Depression	4.6	5.71	2.6	3.68	1.80	NS	—
Neonatal death							
Total Dysphoria	31.2	15.15	26.5	13.56	1.41	NS	—
Somatic Symptoms	7.3	4.77	7.3	4.29	.00	NS	—
Anxiety/Insomnia	9.6	4.95	8.1	4.78	1.33	NS	—
Social Dysfunction	10.3	3.71	8.1	3.78	2.52	.01	.04
Severe Depression	4.0	4.52	2.9	4.30	1.06	NS	—
				Time 2			
Perinatal death							
Total Dysphoria	20.5	14.43	20.7	12.55	.10	NS	—
Somatic Symptoms	5.1	4.41	6.0	4.10	1.23	NS	—
Anxiety/Insomnia	6.5	5.00	6.1	4.12	.62	NS	—
Social Dysfunction	6.8	3.31	6.5	2.93	.57	NS	—
Severe Depression	2.0	3.88	2.1	3.73	.10	NS	—
Stillbirth							
Total Dysphoria	20.6	14.22	18.7	11.04	.66	NS	—
Somatic Symptoms	5.2	4.53	6.0	4.25	.75	NS	—
Anxiety/Insomnia	6.7	4.75	5.2	3.94	1.51	NS	—
Social Dysfunction	6.9	3.43	6.2	2.33	1.03	NS	—
Severe Depression	1.8	3.68	1.4	2.65	.62	NS	—
Neonatal death							
Total Dysphoria	20.4	14.88	22.6	13.74	.66	NS	—
Somatic Symptoms	5.1	4.32	6.0	4.01	.99	NS	—
Anxiety/Insomnia	6.4	5.34	7.0	4.15	.52	NS	—
Social Dysfunction	6.7	3.20	6.9	3.42	.17	NS	—
Severe Depression	2.2	4.15	2.8	4.47	.55	NS	—

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1: Perinatal death N = 158 (Women = 86, Men = 72), Stillbirth N = 82 (Women = 46, Men = 36), Neonatal death N = 76 (Women = 40, Men = 36). Time 2: Perinatal death N = 149 (Women = 80, Men = 69), Stillbirth N = 77 (Women = 43, Men = 34), Neonatal death. N = 72 (Women = 37, Men = 35). GHQ-28 = General Health Questionnaire-28.

Table 6.3. PGS-33 and GHQ-28 score changes over one year

		Women (N = 80)					Men (N = 69)				
		Mean	SD	t	p	eta^2	Mean	SD	t	p	eta^2
Total Grief	Time 1	94.8	21.07	9.31	< .0005	.52	82.0	20.66	5.03	< .0005	.27
	Time 2	76.7	24.02				71.9	24.57			
Total Dysphoria	Time 1	32.8	16.23	6.81	< .0005	.34	26.4	12.71	4.27	< .0005	.21
	Time 2	20.5	14.43				20.7	12.55			
Somatic Symptoms	Time 1	7.7	4.71	4.39	< .0005	.20	7.4	4.07	2.37	.02	.08
	Time 2	5.1	4.41				6.0	4.10			
Anxiety/Insomnia	Time 1	10.1	5.13	5.87	< .0005	.30	7.9	4.54	3.91	< .0005	.18
	Time 2	6.5	5.00				6.1	4.12			
Social Dysfunction	Time 1	10.8	4.21	8.03	< .0005	.45	8.6	3.56	4.25	< .0005	.21
	Time 2	6.8	3.31				6.5	2.93			
Severe Depression	Time 1	4.2	5.12	4.48	< .0005	.20	2.6	3.84	1.49	NS	—
	Time 2	2.0	3.88				2.1	3.73			

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Data analysis by paired-samples t-test. GHQ-28 = General Health Questionnaire-28. PGS-33 = Perinatal Grief Scale-33.

Table 6.4. PGS-33 and GHQ-28 correlations

	PGS-33								PGS-33	
	Total Grief		Active Grief		Difficulty Coping		Despair		Total Grief	
	Time 1								Time 2	
GHQ-28	W	M	W	M	W	M	W	M	W	M
Total Dysphoria	.79***	.66***	.56***	.57***	.77***	.70***	.71***	.53***	.70***	.75***
Somatic Symptoms	.61***	.38**	.45***	.28*	.64***	.42**	.47***	.34**	.53***	.51***
Anxiety & Insomnia	.73***	.63***	.50***	.55***	.70***	.67***	.69***	.47***	.70***	.67***
Social Dysfunction	.64***	.42***	.49***	.38**	.63***	.50***	.53***	.24*	.45***	.52***
Severe Depression	.70***	.67***	.47***	.57***	.65***	.63***	.69***	.62***	.70***	.80***

Note: Time 1 = one month after perinatal death, N = 158 (Women = 86, Men = 72). Time 2 = 13 months after perinatal death, N = 149 (Women = 80, Men = 69). GHQ-28 = General Health Questionnaire-28. GHQ-28 = General Health Questionnaire-28. PGS-33 = Perinatal Grief Scale-33.

*p < .05, **p < .01, ***p < .001 (2-tailed)

Table 6.5. Shame and guilt correlations with PGS-33 at Time 1

	PGS-33							
	Total Grief		Active Grief		Difficulty Coping		Despair	
	Women	Men	Women	Men	Women	Men	Women	Men
TOSCA-2 Shame [a]	.22*	.44***	.18	.37**	.20	.41***	.20	.42***
TOSCA-2 Shame [b]	.24*	.44***	.10	.35**	.23*	.41***	.29**	.43***
TOSCA-2 Shame [c]	.12	.21	.06	.10	.16	.27*	.09	.19
PFQ-2 Shame [a]	.33**	.37**	.20	.30*	.37***	.31**	.28*	.41***
PFQ-2 Shame [d]	.18	.15	.10	.16	.24*	.01	.10	.22
TOSCA-2 Guilt [a]	.03	.10	.17	.13	.01	.07	-.08	.05
TOSCA-2 Guilt [e]	-.10	-.06	.09	.01	-.12	-.08	-.22*	-.10
TOSCA-2 R-Guilt [a]	.19	.43***	.19	.41***	.12	.33**	.20	.42***
TOSCA-2 R-Guilt [e]	.06	.18	.10	.23	-.03	.05	.09	.17
PFQ-2 Guilt [a]	.34**	.43***	.22*	.28*	.33**	.49***	.35**	.41***
PFQ-2 Guilt [d]	.20	.28*	.12	.13	.15	.40***	.24*	.21
IGQ-67 Survivor Guilt [a]	.34**	.52***	.25*	.48***	.32*	.48***	.32**	.46**
IGQ-67 Survivor Guilt [e]	.28*	.39**	.20	.38**	.27*	.33*	.26*	.34*
IGQ-67 Separation Guilt [a]	.29*	.15	.37**	.30*	.13	-.01	.28*	.08
IGQ-67 Separation Guilt [e]	.24	.16	.35**	.31*	.08	-.01	.23	.09
IGQ-67 Omnipotence Guilt [a]	.24	.24	.26*	.24	.11	.18	.27*	.24
IGQ-67 Omnipotence Guilt [e]	.16	.16	.21	.17	.03	.09	.20	.17
IGQ-67 Self-Hate Guilt [a]	.66***	.58***	.45***	.45***	.60***	.49***	.70***	.66***
IGQ-67 Self-Hate Guilt [e]	.64***	.45**	.43**	.32*	.58***	.30*	.68***	.60***

Note: Time 1 = one month after perinatal death. IGQ-67 = Interpersonal Guilt Questionnaire-67 (Women N = 64, Men N = 51). PFQ-2 = Personal Feelings Questionnaire-2 (Women N = 86, Men N = 72). TOSCA-2 = Test of Self-Conscious Affect-2 (Women N = 86, Men N = 72). a = Zero-order correlations. b = TOSCA-2 Shame partialled for TOSCA-2 Guilt. c = TOSCA-2 Shame partialled for TOSCA-2 R- (Ruminative) Guilt. d = PFQ-2 Shame and PFQ-2 Guilt partialled for one another. e = TOSCA-2 Guilt, TOSCA-2 R-Guilt and IGQ-67 Survivor Guilt, Separation Guilt, Omnipotence Guilt and Self-Hate Guilt partialled for TOSCA-2 Shame. PGS-33 = Perinatal Grief Scale-33.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.6. Shame and guilt correlations with GHQ-28 at Time 1

	GHQ-28									
	Total Dysphoria		Somatic Symptoms		Anxiety & Insomnia		Social Dysfunction		Severe Depression	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
TOSCA-2 Shame [a]	.24*	.32**	.16	.21	.25*	.37**	.19	.08	.22*	.32**
TOSCA-2 Shame [b]	.24*	.26*	.11	.16	.26*	.30*	.14	.04	.29**	.31**
TOSCA-2 Shame [c]	.17	.20	.09	.14	.16	.20	.13	.07	.18	.21
PFQ-2 Shame [a]	.32**	.26*	.25*	.14	.27*	.31**	.31**	.03	.27*	.31**
PFQ-2 Shame [d]	.18	.01	.18	-.03	.07	.08	.23*	-.16	.15	.11
TOSCA-2 Guilt [a]	.07	.22	.12	.16	.05	.28*	.13	.14	-.05	.10
TOSCA-2 Guilt [e]	-.08	.12	.05	.10	-.11	.18	.03	.12	-.20	-.01
TOSCA-2 R-Guilt [a]	.17	.25*	.13	.15	.20	.32**	.13	.04	.13	.25*
TOSCA-2 R-Guilt [e]	.01	.03	.03	-.00	.04	.09	.01	-.02	-.03	.02
PFQ-2 Guilt [a]	.31**	.40***	.18	.26*	.38***	.40***	.22*	.24*	.27*	.36**
PFQ-2 Guilt [d]	.17	.32**	.04	.23	.28**	.28*	.06	.28*	.15	.23
IGQ-67 Survivor Guilt [a]	.32*	.37**	.18	.25	.34**	.43**	.27*	.05	.28*	.39**
IGQ-67 Survivor Guilt [e]	.22	.24	.13	.19	.25*	.27	.16	-.00	.20	.27
IGQ-67 Separation Guilt [a]	.12	.01	.05	.11	.23	.01	-.02	-.11	.12	.00
IGQ-67 Separation Guilt e[a]	.03	.01	-.00	.11	.15	.01	-.13	-.11	.05	-.01
IGQ-67 Omnipotence Guilt [a]	.21	.12	.11	.19	.25*	.24	.18	-.08	.16	-.05
IGQ-67 Omnipotence Guilt [e]	.09	.05	.04	.18	.14	.16	.05	-.12	.06	-.13
IGQ-67 Self-Hate Guilt [a]	.54***	.35*	.30*	.17	.58***	.35*	.34**	.06	.57***	.53***
IGQ-67 Self-Hate Guilt [e]	.49***	.19	.27*	.08	.54***	.11	.28*	-.02	.54***	.44**

Note: Time 1 = one month after perinatal death. IGQ-67 = Interpersonal Guilt Questionnaire-67 (Women N = 64, Men N = 51). PFQ-2 = Personal Feelings Questionnaire-2 (Women N = 86, Men N = 72). TOSCA-2 = Test of Self-Conscious Affect-2 (Women N = 86, Men N = 72). a = Zero-order correlations. b = TOSCA-2 Shame partialled for TOSCA-2 Guilt. c = TOSCA-2 Shame partialled for TOSCA-2 R- (Ruminative) Guilt. d = PFQ-2 Shame partialled for PFQ-2 Guilt and vice versa. e = TOSCA-2 Guilt, TOSCA-2 R-Guilt and IGQ-67 Guilt partialled for TOSCA-2 Shame. GHQ-28 = General Health Questionnaire-28.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.7. Shame and guilt correlations with PGS-33 and GHQ-28 at Time 2

	PGS-33		GHQ-28									
	Total Grief		Total Dysphoria		Somatic Symptoms		Anxiety & Insomnia		Social Dysfunction		Severe Depression	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
TOSCA-2 Shame [a]	.32**	.67***	.26*	.51***	.17	.39**	.25*	.40**	.22*	.32**	.24*	.60***
TOSCA-2 Shame [b]	.39***	.61***	.33**	.45***	.16	.34**	.33**	.37**	.26*	.25*	.40***	.53***
TOSCA-2 Shame [c]	.20	.44***	.16	.29*	.04	.25*	.14	.17	.16	.12	.23*	.39**
PFQ-2 Shame [a]	.51***	.71***	.53***	.66***	.42***	.41***	.47***	.56***	.43***	.58***	.53***	.70***
PFQ-2 Shame [d]	.26*	.41**	.32**	.38**	.24*	.22	.26*	.25*	.24*	.37**	.35**	.40**
TOSCA-2 Guilt [a]	-.06	.35**	-.08	.27*	.05	.20	-.08	.17	-.02	.21	-.24*	.32**
TOSCA-2 Guilt [e]	-.24*	-.02	-.23*	-.01	-.03	-.01	-.23*	-.06	-.13	.05	-.40***	-.00
TOSCA-2 R-Guilt [a]	.27*	.56***	.21	.45***	.21	.31**	.23*	.38**	.16	.32**	.10	.50***
TOSCA-2 R-Guilt [e]	.08	.12	.06	.11	.14	.02	.09	.14	.02	.12	-.08	.09
PFQ-2 Guilt [a]	.54***	.67***	.50***	.62***	.39***	.36**	.45***	.56***	.41***	.49***	.46***	.68***
PFQ-2 Guilt [d]	.32**	.30*	.24*	.24*	.18	.09	.23*	.26*	.20	.10	.19	.31*
IGQ-67 Survivor Guilt [a]	.40***	.64***	.39***	.44***	.34**	.32**	.37**	.34**	.29**	.28*	.33**	.53***
IGQ-67 Survivor Guilt [e]	.30**	.38**	.32**	.17	.30**	.09	.29**	.12	.22	.10	.26*	.25*
IGQ-67 Separation Guilt [a]	.14	.23	.23*	.14	.21	-.00	.27*	.11	.08	.13	.22	.24*
IGQ-67 Separation Guilt [e]	.03	.17	.16	.06	.17	-.07	.20	.05	.00	.08	.15	.18
IGQ-67 Omnipotence Guilt [a]	.21	.47***	.37**	.40**	.29**	.23	.39***	.34**	.32**	.32**	.28*	.45***
IGQ-67 Omnipotence Guilt [e]	.09	.34**	.30**	.28*	.25*	.11	.32**	.23	.25*	.24	.21	.33**
IGQ-67 Self-Hate Guilt [a]	.61***	.69***	.66***	.58***	.52***	.36**	.57***	.51***	.47***	.41***	.73***	.69***
IGQ-67 Self-Hate Guilt [e]	.56***	.39**	.63***	.35**	.50***	.10	.54***	.34**	.43***	.28*	.71***	.46***

Note: Time 2 = 13 months after perinatal death. N = 149 (Women = 80, Men = 69). a = Zero-order correlations. b = TOSCA-2 Shame partialled for TOSCA-2 Guilt. c = TOSCA-2 Shame partialled for TOSCA-2 R- (Ruminative) Guilt. d = PFQ-2 Shame partialled for PFQ-2 Guilt and vice versa. e = TOSCA-2 Guilt, TOSCA-2 R-Guilt and IGQ-67 Guilt partialled for TOSCA-2 Shame. GHQ-28 = General Health Questionnaire-28. IGQ-67 = Interpersonal Guilt Questionnaire-67. PGS-33 = Perinatal Grief Scale-33. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.8. Regression of Total Grief on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.35			.47		
F	4.18*			6.63**		
R2	.12			.22		
R2 adjusted	.09			.19		
Step 2						
R	.48			.59		
F	2.45*			3.22**		
R2	.23			.35		
R2 adjusted	.14			.24		
ΔR2	.11			.13		
F change	1.67			1.67		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		4.26***			2.99**	
TOSCA-2 Shame	.11	.87	.011	.38	2.45*	.100
PFQ-2 Shame	.29	2.24*	.072	.14	.88	.013
Step 2						
(Constant)		1.87			-.14	
TOSCA-2 Shame	.04	.26	.001	.21	1.24	.024
PFQ-2 Shame	.14	.94	.012	.00	-.03	.000
TOSCA-2 Guilt	-.16	-1.14	.018	-.04	-.25	.001
PFQ-2 Guilt	.18	1.25	.021	.21	1.19	.022
IGQ-67 Survivor Guilt	.27	1.75	.042	.32	1.95	.059
IGQ-67 Separation Guilt	.16	1.17	.019	.07	.51	.004
IGQ-67 Omnipotence Guilt	-.08	-.48	.003	.02	.13	.000

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.9. Regression of Active Grief on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.23			.38		
F	1.70			4.01*		
R^2	.05			.15		
R^2 adjusted	.02			.11		
Step 2						
R	.41			.54		
F	1.63			2.51*		
R^2	.17			.30		
R^2 adjusted	.07			.18		
ΔR^2	.12			.15		
F change	1.57			1.78		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		5.96***			3.70**	
TOSCA-2 Shame	.12	.86	.011	.32	1.99	.072
PFQ-2 Shame	.16	1.20	.022	.09	.57	.006
Step 2						
(Constant)		1.63			-.12	
TOSCA-2 Shame	-.06	-.38	.002	.19	1.05	.018
PFQ-2 Shame	.01	.08	.000	.00	.00	.000
TOSCA-2 Guilt	.06	.40	.002	-.04	-.22	.001
PFQ-2 Guilt	.08	.52	.004	.08	.45	.003
IGQ-67 Survivor Guilt	.14	.85	.011	.32	1.88	.059
IGQ-67 Separation Guilt	.31	2.16*	.069	.24	1.63	.045
IGQ-67 Omnipotence Guilt	-.01	-.03	.000	-.02	-.12	.000

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.10. Regression of Difficulty Coping on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.38			.43		
F	5.14**			5.22**		
R2	.14			.18		
R2 adjusted	.12			.15		
Step 2						
R	.51			.59		
F	2.79*			3.26**		
R2	.26			.35		
R2 adjusted	.17			.24		
ΔR2	.11			.17		
F change	1.73			2.21		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.77**			2.41*	
TOSCA-2 Shame	.07	.54	.004	.38	2.37*	.098
PFQ-2 Shame	.35	2.73**	.105	.08	.51	.005
Step 2						
(Constant)		1.42			.14	
TOSCA-2 Shame	.05	.35	.002	.20	1.14	.020
PFQ-2 Shame	.32	2.09*	.058	-.12	-.67	.007
TOSCA-2 Guilt	-.14	-.98	.013	-.01	-.08	.000
PFQ-2 Guilt	.14	.95	.012	.36	2.11*	.068
IGQ-67 Survivor Guilt	.36	2.37*	.074	.27	1.66	.042
IGQ-67 Separation Guilt	-.01	-.04	.000	-.06	-.42	.003
IGQ-67 Omnipotence Guilt	-.25	-1.48	.029	.01	.04	.000

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01 (2-tailed).

Table 6.11. Regression of Despair on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.29			.47		
F	2.90			6.57**		
R^2	.09			.22		
R^2 adjusted	.06			.19		
Step 2						
R	.52			.55		
F	2.94*			2.54*		
R^2	.27			.30		
R^2 adjusted	.18			.18		
ΔR^2	.18			.08		
F change	2.78*			.95		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.46*			1.47	
TOSCA-2 Shame	.11	.86	.011	.32	2.09*	.073
PFQ-2 Shame	.23	1.77	.047	.20	1.31	.028
Step 2						
(Constant)		1.83			-.40	
TOSCA-2 Shame	.10	.65	.005	.18	1.03	.018
PFQ-2 Shame	.02	.16	.000	.12	.64	.007
TOSCA-2 Guilt	-.34	-2.41*	.076	-.06	-.38	.002
PFQ-2 Guilt	.26	1.79	.042	.12	.64	.007
IGQ-67 Survivor Guilt	.21	1.36	.024	.27	1.61	.043
IGQ-67 Separation Guilt	.15	1.11	.016	-.03	-.19	.001
IGQ-67 Omnipotence Guilt	.06	.38	.002	.08	.49	.004

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01 (2-tailed).

Table 6.12. Regression of Total Dysphoria on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.35			.35		
F	4.19*			3.31*		
R^2	.12			.12		
R^2 adjusted	.09			.09		
Step 2						
R	.44			.51		
F	1.90			2.10		
R^2	.19			.26		
R^2 adjusted	.09			.14		
ΔR^2	.07			.14		
F change	.99			1.54		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		.50			.92	
TOSCA-2 Shame	.14	1.08	.017	.22	1.34	.033
PFQ-2 Shame	.27	2.09*	.063	.18	1.09	.022
Step 2						
(Constant)		.14			-.56	
TOSCA-2 Shame	.10	.60	.005	.06	.34	.002
PFQ-2 Shame	.21	1.31	.025	-.01	-.04	.000
TOSCA-2 Guilt	-.12	-.80	.009	.00	-.02	.000
PFQ-2 Guilt	.15	.97	.014	.32	1.76	.054
IGQ-67 Survivor Guilt	.26	1.63	.038	.26	1.48	.039
IGQ-67 Separation Guilt	-.06	-.42	.003	.05	.30	.002
IGQ-67 Omnipotence Guilt	-.06	-.33	.002	-.05	-.29	.002

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*$p < .05$ (2-tailed).

Table 6.13. Regression of Somatic Symptoms on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.26			.22		
F	2.17			1.16		
R^2	.07			.05		
R^2 adjusted	.04			.01		
Step 2						
R	.30			.37		
F	.80			.96		
R^2	.09			.14		
R^2 adjusted	-.02			-.01		
ΔR^2	.02			.09		
F change	.30			.88		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		.70			1.23	
TOSCA-2 Shame	.07	.55	.005	.16	.95	.018
PFQ-2 Shame	.22	1.66	.042	.08	.46	.004
Step 2						
(Constant)		-.19			-.53	
TOSCA-2 Shame	.02	.09	.000	.08	.39	.003
PFQ-2 Shame	.25	1.49	.036	-.09	-.46	.004
TOSCA-2 Guilt	.06	.39	.003	-.04	-.23	.001
PFQ-2 Guilt	.01	.08	.000	.24	1.23	.031
IGQ-67 Survivor Guilt	.17	1.00	.016	.14	.76	.012
IGQ-67 Separation Guilt	-.08	-.50	.004	.13	.78	.013
IGQ-67 Omnipotence Guilt	-.10	-.52	.004	.07	.42	.004

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

Table 6.14. Regression of Anxiety and Insomnia on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.31			.41		
F	3.32*			4.77*		
R^2	.10			.17		
R^2 adjusted	.07			.13		
Step 2						
R	.48			.55		
F	2.36*			2.60*		
R^2	.23			.30		
R^2 adjusted	.13			.19		
ΔR^2	.13			.13		
F change	1.89			1.61		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		.42			.04	
TOSCA-2 Shame	.17	1.29	.025	.26	1.60	.045
PFQ-2 Shame	.21	1.59	.037	.21	1.32	.031
Step 2						
(Constant)		.16			-1.61	
TOSCA-2 Shame	.11	.67	.006	.06	.31	.002
PFQ-2 Shame	.02	.14	.000	.07	.39	.003
TOSCA-2 Guilt	-.19	-1.30	.023	.04	.25	.001
PFQ-2 Guilt	.28	1.93	.051	.23	1.27	.027
IGQ-67 Survivor Guilt	.24	1.51	.032	.28	1.62	.043
IGQ-67 Separation Guilt	.08	.59	.005	-.05	-.31	.002
IGQ-67 Omnipotence Guilt	-.01	-.09	.000	.09	.61	.006

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*$p < .05$ (2-tailed).

Table 6.15. Regression of Social Dysfunction on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.32			.08		
F	3.46*			.17		
R^2	.10			.01		
R^2 adjusted	.07			-.04		
Step 2						
R	.42			.34		
F	1.73			.78		
R^2	.18			.11		
R^2 adjusted	.08			-.03		
ΔR^2	.08			.11		
F change	1.04			1.02		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		1.74			3.06**	
TOSCA-2 Shame	.09	.66	.006	.06	.33	.002
PFQ-2 Shame	.28	2.12*	.066	.04	.21	.001
Step 2						
(Constant)		.27			1.40	
TOSCA-2 Shame	.01	.07	.000	.00	.01	.000
PFQ-2 Shame	.32	2.02*	.060	-.16	-.77	.012
TOSCA-2 Guilt	.03	.18	.000	.13	.70	.010
PFQ-2 Guilt	.02	.11	.000	.42	2.07*	.090
IGQ-67 Survivor Guilt	.25	1.54	.035	-.04	-.21	.001
IGQ-67 Separation Guilt	-.23	-1.60	.038	.01	.08	.000
IGQ-67 Omnipotence Guilt	-.01	-.08	.000	-.16	-.96	.019

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01 (2-tailed).

Table 6.16. Regression of Depression on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.30			.37		
F	3.00			3.80*		
R^2	.09			.14		
R^2 adjusted	.06			.10		
Step 2						
R	.43			.54		
F	1.81			2.41*		
R^2	.18			.29		
R^2 adjusted	.08			.17		
ΔR^2	.09			.15		
F change	1.30			1.74		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		-.90			-1.28	
TOSCA-2 Shame	.14	1.04	.016	.20	1.21	.027
PFQ-2 Shame	.22	1.67	.042	.23	1.39	.035
Step 2						
(Constant)		.24			-.56	
TOSCA-2 Shame	.18	1.08	.017	.08	.42	.003
PFQ-2 Shame	.15	.94	.013	.12	.66	.007
TOSCA-2 Guilt	-.26	-1.76	.045	-.09	-.56	.005
PFQ-2 Guilt	.15	.99	.014	.20	1.09	.020
IGQ-67 Survivor Guilt	.24	1.46	.031	.35	2.05*	.071
IGQ-67 Separation Guilt	-.02	-.13	.000	.07	.49	.004
IGQ-67 Omnipotence Guilt	-.07	-.39	.002	-.24	-1.56	.041

Note: Time 1 = one month after perinatal death. Women N = 64, Men N = 51. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*$p < .05$ (2-tailed).

Table 6.17. Regression of Total Grief on shame and guilt at Time 2

	Women			Men		
Step 1						
R	.54			.75		
F	15.58***			43.63***		
R^2	.29			.57		
R^2 adjusted	.27			.56		
Step 2						
R	.71			.82		
F	10.17***			18.23***		
R^2	.50			.68		
R^2 adjusted	.45			.64		
ΔR^2	.21			.11		
F change	5.99***			4.04**		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.55*			.70	
TOSCA-2 Shame	.17	1.62	.024	.36	3.30**	.071
PFQ-2 Shame	.46	4.48***	.185	.47	4.35***	.124
Step 2						
(Constant)		3.39**			.12	
TOSCA-2 Shame	.23	2.25*	.035	.20	1.67	.015
PFQ-2 Shame	.21	1.81	.023	.34	2.60*	.036
TOSCA-2 Guilt	-.38	-3.98***	.111	-.21	-2.18*	.025
PFQ-2 Guilt	.41	3.55**	.088	.18	1.53	.012
IGQ-67 Survivor Guilt	.29	2.51*	.044	.35	3.02**	.048
IGQ-67 Separation Guilt	-.07	-.67	.003	-.16	-1.61	.014
IGQ-67 Omnipotence Guilt	-.15	-1.29	.012	.15	1.31	.009

Note: Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.18. Regression of Total Grief at Time 2 on Total Grief at Time 1 and shame and guilt at Time 2

	Women			Men		
Step 1						
R	.71			.74		
F	79.32***			81.75***		
R^2	.50			.55		
R^2 adjusted	.50			.54		
Step 2						
R	.79			.83		
F	40.82***			49.55***		
R^2	.62			.70		
R^2 adjusted	.60			.68		
ΔR^2	.11			.15		
F change	11.20***			15.61***		
Step 3						
R	.81			.87		
F	16.99***			22.72***		
R^2	.66			.75		
R^2 adjusted	.62			.72		
ΔR^2	.04			.06		
F change	1.64			2.71*		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		-.09			-.08	
Total Grief at Time 1	.71	8.91***	.504	.74	9.04***	.550
Step 2						
(Constant)		-1.85			-1.50	
Total Grief at Time 1	.60	8.08***	.329	.45	5.20***	.126
TOSCA-2 Shame	.10	1.27	.008	.20	2.08*	.020
PFQ-2 Shame	.31	3.97***	.079	.32	3.40**	.054
Step3						
(Constant)		.97			-.36	
Total Grief at Time 1	.50	5.75***	.160	.39	4.27***	.075
TOSCA-2 Shame	.16	1.87	.017	.09	.86	.003
PFQ-2 Shame	.22	2.36*	.027	.20	1.71	.012
TOSCA-2 Guilt	-.21	-2.39*	.028	-.14	-1.64	.011
PFQ-2 Guilt	.21	2.04*	.020	.22	2.10*	.018
IGQ-67 Survivor Guilt	.05	.53	.001	.27	2.58*	.028
IGQ-67 Separation Guilt	-.04	-.44	.001	-.03	-.32	.000
IGQ-67 Omnipotence Guilt	-.02	-.21	.000	-.01	-.12	.000

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.19. Regression of Total Dysphoria on shame and guilt at Time 2

	Women			Men		
Step 1						
R	.54			.67		
F	15.73***			27.09***		
R^2	.29			.45		
R^2 adjusted	.27			.43		
Step 2						
R	.67			.73		
F	8.33***			9.95***		
R^2	.45			.53		
R^2 adjusted	.39			.48		
ΔR^2	.16			.08		
F change	4.11**			2.15		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		-.62			-.73	
TOSCA-2 Shame	.09	.84	.007	.12	1.02	.009
PFQ-2 Shame	.50	4.93***	.224	.58	4.78***	.190
Step 2						
(Constant)		1.02			-.16	
TOSCA-2 Shame	.11	1.00	.008	.04	.31	.001
PFQ-2 Shame	.28	2.38*	.044	.47	3.05**	.071
TOSCA-2 Guilt	-.36	-3.56**	.097	-.16	-1.39	.015
PFQ-2 Guilt	.28	2.32*	.041	.19	1.38	.015
IGQ-67 Survivor Guilt	.17	1.38	.015	.12	.86	.006
IGQ-67 Separation Guilt	-.03	-.29	.001	-.28	-2.27*	.039
IGQ-67 Omnipotence Guilt	.12	.96	.007	.26	1.87	.027

Note: Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.20. Regression of Total Dysphoria at Time 2 on Total Dysphoria at Time 1 and shame and guilt at Time 2

	Women			Men		
Step 1						
R	.45			.61		
F	19.57***			39.88***		
R^2	.20			.37		
R^2 adjusted	.19			.36		
Step 2						
R	.62			.74		
F	15.95***			26.50***		
R^2	.39			.55		
R^2 adjusted	.36			.53		
ΔR^2	.19			.18		
F change	11.51***			12.79***		
Step 3						
R	.69			.77		
F	8.11***			10.75***		
R^2	.48			.59		
R^2 adjusted	.42			.53		
ΔR^2	.09			.04		
F change	2.48*			1.14		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.29*			1.68	
Total Dysphoria at Time 1	.45	4.42***	.201	.61	6.31***	.373
Step 2						
(Constant)		-1.02			-.96	
Total Dysphoria at Time 1	.33	3.46**	.096	.37	3.79***	.099
TOSCA-2 Shame	.01	.15	.000	.02	.21	.000
PFQ-2 Shame	.44	4.55***	.167	.47	4.07***	.114
Step3						
(Constant)		.61			-.14	
Total Dysphoria at Time 1	.22	2.02*	.030	.30	2.86**	.056
TOSCA-2 Shame	.05	.49	.002	-.01	-.07	.000
PFQ-2 Shame	.31	2.65*	.052	.40	2.69**	.049
TOSCA-2 Guilt	-.28	-2.70**	.054	-.13	-1.16	.009
PFQ-2 Guilt	.17	1.36	.014	.16	1.22	.010
IGQ-67 Survivor Guilt	.07	.59	.003	.09	.66	.003
IGQ-67 Separation Guilt	-.00	-.02	.000	-.19	-1.54	.016
IGQ-67 Omnipotence Guilt	.17	1.34	.013	.17	1.27	.011

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.21. Regression of Somatic Symptoms on shame and guilt at Time 2

	Women			Men		
Step 1						
R	.42			.44		
F	8.32**			7.93**		
R^2	.18			.19		
R^2 adjusted	.16			.17		
Step 2						
R	.49			.50		
F	3.30**			2.94*		
R^2	.24			.25		
R^2 adjusted	.17			.17		
ΔR^2	.07			.06		
F change	1.24			.95		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		-.10			-.22	
TOSCA-2 Shame	.03	.30	.001	.21	1.45	.026
PFQ-2 Shame	.41	3.73***	.149	.27	1.82	.040
Step 2						
(Constant)		-.38			.16	
TOSCA-2 Shame	-.03	-.26	.001	.15	.84	.009
PFQ-2 Shame	.22	1.57	.026	.31	1.60	.031
TOSCA-2 Guilt	-.12	-1.03	.011	-.12	-.86	.009
PFQ-2 Guilt	.21	1.47	.023	-.00	-.02	.000
IGQ-67 Survivor Guilt	.17	1.23	.016	.13	.72	.006
IGQ-67 Separation Guilt	.03	.20	.000	-.32	-2.03*	.051
IGQ-67 Omnipotence Guilt	.05	.37	.001	.21	1.21	.018

Note: Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.22. Regression of Somatic Symptoms at Time 2 on Somatic Symptoms at Time 1 and shame and guilt at Time 2

	Women			Men		
Step 1						
R	.35			.33		
F	11.07**			8.36**		
R^2	.12			.11		
R^2 adjusted	.11			.10		
Step 2						
R	.51			.48		
F	9.11***			6.35**		
R^2	.26			.23		
R^2 adjusted	.24			.19		
ΔR^2	.14			.12		
F change	7.25**			4.87*		
Step 3						
R	.55			.52		
F	3.80**			2.85*		
R^2	.30			.28		
R^2 adjusted	.30			.18		
ΔR^2	.04			.12		
F change	.71			.80		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.91**			3.64**	
Somatic Symptoms at Time 1	.35	3.33**	.124	.33	2.89**	.111
Step 2						
(Constant)		-.35			-.28	
Somatic Symptoms at Time 1	.30	3.00**	.087	.20	1.66	.033
TOSCA-2 Shame	-.04	-.33	.001	.15	.98	.011
PFQ-2 Shame	.39	3.70***	.133	.25	1.72	.035
Step3						
(Constant)		-.55			.08	
Somatic Symptoms at Time 1	.27	2.40*	.057	.17	1.38	.023
TOSCA-2 Shame	-.08	-.68	.005	.09	.50	.003
PFQ-2 Shame	.27	1.98	.039	.31	1.59	.031
TOSCA-2 Guilt	-.08	-.69	.005	-.10	-.66	.005
PFQ-2 Guilt	.10	.69	.005	-.02	-.10	.000
IGQ-67 Survivor Guilt	.10	.69	.005	.12	.70	.006
IGQ-67 Separation Guilt	.04	.33	.001	-.30	-1.90	.044
IGQ-67 Omnipotence Guilt	.10	.68	.005	.18	1.04	.013

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.23. Regression of Anxiety on shame and guilt at Time 2

	Women			Men		
Step 1						
R	.48			.56		
F	11.45***			15.45***		
R^2	.23			.32		
R^2 adjusted	.21			.30		
Step 2						
R	.63			.64		
F	6.62***			6.19***		
R^2	.39			.42		
R^2 adjusted	.33			.35		
ΔR^2	.16			.10		
F change	3.84**			2.01		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		-.67			-.01	
TOSCA-2 Shame	.11	1.03	.011	.04	.32	.001
PFQ-2 Shame	.43	4.05***	.164	.53	3.94***	.160
Step 2						
(Constant)		.77			.44	
TOSCA-2 Shame	.12	1.03	.009	-.01	-.08	.000
PFQ-2 Shame	.21	1.68	.024	.37	2.14*	.044
TOSCA-2 Guilt	-.35	-3.31**	.093	-.19	-1.51	.022
PFQ-2 Guilt	.27	2.12*	.038	.28	1.78	.030
IGQ-67 Survivor Guilt	.14	1.08	.010	.08	.52	.003
IGQ-67 Separation Guilt	.02	.13	.000	-.25	-1.85	.033
IGQ-67 Omnipotence Guilt	.15	1.15	.011	.26	1.65	.026

Note: Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.24. Regression of Anxiety at Time 2 on Anxiety at Time 1 and shame and guilt at Time 2

	Women			Men		
Step 1						
R	.43			.62		
F	18.15***			42.27***		
R^2	.19			.39		
R^2 adjusted	.18			.38		
Step 2						
R	.57			.69		
F	12.50***			19.22***		
R^2	.33			.47		
R^2 adjusted	.30			.45		
ΔR^2	.14			.08		
F change	8.04**			5.10**		
Step 3						
R	.65			.72		
F	6.42***			8.01***		
R^2	.42			.52		
R^2 adjusted	.35			.45		
ΔR^2	.09			.05		
F change	2.19			1.16		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.02*			2.08*	
Anxiety/Insomnia at Time 1	.43	4.26***	.189	.62	6.50***	.387
Step 2						
(Constant)		-1.19			.21	
Anxiety/Insomnia at Time 1	.33	3.39**	.101	.47	4.31***	.151
TOSCA-2 Shame	.05	.54	.003	-.07	-.59	.003
PFQ-2 Shame	.37	3.63**	.116	.37	2.94**	.071
Step3						
(Constant)		.52			.86	
Anxiety/Insomnia at Time 1	.21	1.86	.028	.41	3.55**	.101
TOSCA-2 Shame	.09	.79	.005	-.07	-.49	.002
PFQ-2 Shame	.24	1.96	.031	.26	1.59	.020
TOSCA-2 Guilt	-.28	-2.54*	.053	-.19	-1.64	.022
PFQ-2 Guilt	.17	1.30	.014	.22	1.52	.019
IGQ-67 Survivor Guilt	.05	.35	.001	.07	.50	.002
IGQ-67 Separation Guilt	.02	.17	.000	-.11	-.81	.005
IGQ-67 Omnipotence Guilt	.18	1.36	.015	.12	.80	.005

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.25. Regression of Social Dysfunction on shame and guilt at Time 2

	Women			Men		
Step 1						
R	.44			.59		
F	9.32***			17.67***		
R^2	.19			.35		
R^2 adjusted	.17			.33		
Step 2						
R	.55			.62		
F	4.44***			5.55***		
R^2	.30			.39		
R^2 adjusted	.23			.32		
ΔR^2	.11			.04		
F change	2.20			.81		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		1.17			2.57*	
TOSCA-2 Shame	.09	.81	.007	-.12	-.91	.008
PFQ-2 Shame	.40	3.72***	.145	.66	5.00***	.247
Step 2						
(Constant)		1.42			.93	
TOSCA-2 Shame	.11	.92	.008	-.17	-1.06	.011
PFQ-2 Shame	.25	1.83	.033	.60	3.38**	.115
TOSCA-2 Guilt	-.24	-2.14*	.044	-.04	-.34	.001
PFQ-2 Guilt	.20	1.50	.022	.12	.76	.006
IGQ-67 Survivor Guilt	.10	.74	.005	.01	.07	.000
IGQ-67 Separation Guilt	-.21	-1.66	.027	-.22	-1.60	.025
IGQ-67 Omnipotence Guilt	.22	1.58	.024	.21	1.35	.018

Note: Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.26. Regression of Social Dysfunction at Time 2 on Social Dysfunction at Time 1 and shame and guilt at Time 2

	Women			Men		
Step 1						
R	.31			.25		
F	8.12**			4.59*		
R^2	.09			.06		
R^2 adjusted	.08			.05		
Step 2						
R	.49			.61		
F	7.88***			12.95***		
R^2	.24			.37		
R^2 adjusted	.21			.35		
ΔR^2	.14			.31		
F change	7.12**			16.09***		
Step 3						
R	.57			.64		
F	4.18***			5.11***		
R^2	.32			.41		
R^2 adjusted	.24			.33		
ΔR^2	.08			.03		
F change	1.73			.62		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		4.27***			5.24***	
Social Dysfunction at Time 1	.31	2.85**	.094	.25	2.14*	.064
Step 2						
(Constant)		.57			1.85	
Social Dysfunction at Time 1	.21	2.05*	.042	.16	1.62	.025
TOSCA-2 Shame	.06	.52	.003	-.14	-1.05	.011
PFQ-2 Shame	.37	3.40**	.116	.65	4.91***	.232
Step3						
(Constant)		1.03			.86	
Social Dysfunction at Time 1	.16	1.40	.019	.13	1.26	.016
TOSCA-2 Shame	.08	.65	.004	-.17	-1.05	.011
PFQ-2 Shame	.25	1.86	.033	.59	3.34**	.111
TOSCA-2 Guilt	-.22	-1.90	.034	-.06	-.43	.002
PFQ-2 Guilt	.15	1.06	.011	.12	.73	.005
IGQ-67 Survivor Guilt	.05	.39	.001	.00	.03	.000
IGQ-67 Separation Guilt	-.16	-1.25	.015	-.20	-1.38	.019
IGQ-67 Omnipotence Guilt	.25	1.78	.030	.19	1.18	.014

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.27. Regression of Depression on shame and guilt at Time 2

	Women			Men		
Step 1						
R	.53			.73		
F	15.31***			36.83***		
R^2	.28			.53		
R^2 adjusted	.27			.51		
Step 2						
R	.73			.78		
F	11.74***			13.20***		
R^2	.53			.60		
R^2 adjusted	.49			.56		
ΔR^2	.25			.08		
F change	7.66***			2.30		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		-2.34*			-4.68***	
TOSCA-2 Shame	.07	.65	.004	.23	2.04*	.030
PFQ-2 Shame	.51	4.95***	.228	.55	4.88***	.171
Step 2						
(Constant)		2.06*			-2.34*	
TOSCA-2 Shame	.19	1.92	.024	.13	.99	.006
PFQ-2 Shame	.33	2.98**	.058	.37	2.56*	.043
TOSCA-2 Guilt	-.54	-5.81***	.219	-.15	-1.41	.013
PFQ-2 Guilt	.28	2.57*	.043	.25	1.93	.024
IGQ-67 Survivor Guilt	.16	1.43	.013	.17	1.31	.011
IGQ-67 Separation Guilt	.01	.07	.000	-.13	-1.19	.009
IGQ-67 Omnipotence Guilt	.00	.02	.000	.19	1.49	.014

Note: Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.
*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.28. Regression of Depression at Time 2 on Depression at Time 1 and shame and guilt at Time 2

	Women			Men		
Step 1						
R	.55			.67		
F	33.23***			54.46***		
R^2	.30			.45		
R^2 adjusted	.29			.44		
Step 2						
R	.68			.80		
F	21.54***			39.02***		
R^2	.46			.64		
R^2 adjusted	.44			.63		
ΔR^2	.16			.19		
F change	11.31***			17.71***		
Step 3						
R	.76			.82		
F	12.29***			15.85***		
R^2	.58			.68		
R^2 adjusted	.53			.64		
ΔR^2	.12			.04		
F change	4.10**			1.34		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		.53			.90	
Severe Depression at Time 1	.55	5.76***	.299	.67	7.38***	.448
Step 2						
(Constant)		-2.01*			-4.08***	
Severe Depression at Time 1	.44	4.96***	.175	.40	4.59***	.116
TOSCA-2 Shame	-.02	-.21	.000	.17	1.73	.016
PFQ-2 Shame	.42	4.61***	.151	.39	3.67***	.074
Step3						
(Constant)		1.51			-2.38*	
Severe Depression at Time 1	.28	2.84**	.048	.35	3.78***	.076
TOSCA-2 Shame	.11	1.07	.007	.11	.91	.004
PFQ-2 Shame	.34	3.24**	.062	.23	1.67	.015
TOSCA-2 Guilt	-.41	-4.12***	.100	-.06	-.58	.002
PFQ-2 Guilt	.17	1.52	.014	.23	1.99	.021
IGQ-67 Survivor Guilt	.05	.45	.001	.07	.61	.002
IGQ-67 Separation Guilt	.04	.39	.001	-.03	-.32	.001
IGQ-67 Omnipotence Guilt	.07	.65	.002	.11	.94	.005

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 80, Men N = 69. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.29. Regression of Total Grief at Time 2 on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.17			.52		
F	.90			8.86**		
R^2	.03			.27		
R^2 adjusted	-.004			.24		
Step 2						
R	.25			.70		
F	.50			5.91***		
R^2	.06			.50		
R^2 adjusted	-.06			.41		
ΔR^2	.03			.22		
F change	.36			3.70**		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		3.08**			1.53	
TOSCA-2 Shame	.13	.93	.015	.12	.88	.012
PFQ-2 Shame	.07	.51	.004	.46	3.33**	.171
Step 2						
(Constant)		1.34			-.34	
TOSCA-2 Shame	.11	.62	.007	-.16	-1.08	.014
PFQ-2 Shame	.04	.22	.001	.32	2.12*	.054
TOSCA-2 Guilt	-.08	-.47	.004	-.10	-.80	.008
PFQ-2 Guilt	.04	.24	.001	.14	.85	.009
IGQ-67 Survivor Guilt	.14	.79	.011	.57	3.90***	.182
IGQ-67 Separation Guilt	.13	.78	.011	-.01	-.06	.000
IGQ-67 Omnipotence Guilt	-.13	-.65	.008	-.11	-.83	.008

Note: Women Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. N = 60, Men N = 50. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Table 6.30. Regression of Total Dysphoria at Time 2 on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.05			.40		
F	.06			4.55*		
R^2	.00			.16		
R^2 adjusted	-.03			.13		
Step 2						
R	.19			.46		
F	.27			1.62		
R^2	.03			.21		
R^2 adjusted	-.10			.08		
ΔR^2	.03			.05		
F change	.35			.53		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		1.65			.77	
TOSCA-2 Shame	.03	.19	.001	.04	.29	.002
PFQ-2 Shame	.03	.20	.001	.38	2.58*	.119
Step 2						
(Constant)		1.33			-.06	
TOSCA-2 Shame	.10	.53	.005	-.11	-.58	.006
PFQ-2 Shame	.00	.02	.000	.30	1.59	.047
TOSCA-2 Guilt	-.15	-.91	.015	.02	.16	.000
PFQ-2 Guilt	-.05	-.26	.001	.15	.74	.010
IGQ-67 Survivor Guilt	-.09	-.50	.005	.22	1.21	.027
IGQ-67 Separation Guilt	.11	.66	.008	.03	.19	.001
IGQ-67 Omnipotence Guilt	.09	.45	.004	-.11	-.64	.008

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 60, Men N = 50. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*$p < .05$ (2-tailed).

Table 6.31. Regression of Somatic Symptoms at Time 2 on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.08			.18		
F	.17			.76		
R^2	.01			.03		
R^2 adjusted	-.03			-.01		
Step 2						
R	.20			.23		
F	.31			.35		
R^2	.04			.05		
R^2 adjusted	-.09			-.10		
ΔR^2	.03			.02		
F change	.36			.21		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		1.48			.83	
TOSCA-2 Shame	.06	.42	.003	.14	.88	.016
PFQ-2 Shame	-.08	-.55	.005	.06	.39	.003
Step 2						
(Constant)		.22			.15	
TOSCA-2 Shame	.03	.18	.001	.03	.16	.001
PFQ-2 Shame	-.09	-.45	.004	-.01	-.04	.000
TOSCA-2 Guilt	.07	.43	.003	.04	.23	.001
PFQ-2 Guilt	-.13	-.74	.010	.15	.67	.010
IGQ-67 Survivor Guilt	-.06	-.35	.002	.11	.53	.006
IGQ-67 Separation Guilt	.16	.97	.017	-.02	-.13	.000
IGQ-67 Omnipotence Guilt	.04	.18	.001	-.04	-.23	.001

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 60, Men N = 50. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

Table 6.32. Regression of Anxiety at Time 2 on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.09			.35		
F	.21			3.27*		
R^2	.01			.12		
R^2 adjusted	-.03			.08		
Step 2						
R	.20			.41		
F	.32			1.25		
R^2	.04			.17		
R^2 adjusted	-.09			.03		
ΔR^2	.03			.05		
F change	.36			.51		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		1.34			.58	
TOSCA-2 Shame	.00	.02	.000	.04	.28	.001
PFQ-2 Shame	.08	.59	.006	.33	2.17*	.088
Step 2						
(Constant)		1.01			-.25	
TOSCA-2 Shame	.04	.23	.001	-.12	-.61	.007
PFQ-2 Shame	-.01	-.07	.000	.20	1.05	.022
TOSCA-2 Guilt	-.11	-.70	.009	.04	.27	.001
PFQ-2 Guilt	.05	.29	.002	.24	1.12	.025
IGQ-67 Survivor Guilt	-.12	-.66	.008	.14	.75	.011
IGQ-67 Separation Guilt	.12	.72	.010	-.02	-.15	.000
IGQ-67 Omnipotence Guilt	.13	.65	.008	-.00	-.01	.000

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 60, Men N = 50. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05 (2-tailed).

Table 6.33. Regression of Social Dysfunction at Time 2 on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.02			.34		
F	.01			3.10		
R^2	.00			.12		
R^2 adjusted	-.03			.08		
Step 2						
R	.18			.41		
F	.24			1.20		
R^2	.03			.17		
R^2 adjusted	-.10			.03		
ΔR^2	.03			.05		
F change	.33			.51		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		2.67*			2.50*	
TOSCA-2 Shame	.02	.14	.000	-.08	-.54	.005
PFQ-2 Shame	-.00	-.01	.000	.37	2.42*	.111
Step 2						
(Constant)		1.52			.34	
TOSCA-2 Shame	.05	.26	.001	-.15	-.77	.012
PFQ-2 Shame	.03	.15	.000	.44	2.28*	.103
TOSCA-2 Guilt	-.11	-.67	.008	.24	1.50	.045
PFQ-2 Guilt	-.06	-.35	.002	-.01	-.05	.000
IGQ-67 Survivor Guilt	-.04	-.20	.001	.00	-.02	.000
IGQ-67 Separation Guilt	-.11	-.67	.008	.03	.16	.001
IGQ-67 Omnipotence Guilt	.20	1.01	.019	-.08	-.47	.004

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 60, Men N = 50. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05 (2-tailed).

Table 6.34. Regression of Depression at Time 2 on shame and guilt at Time 1

	Women			Men		
Step 1						
R	.08			.50		
F	.20			7.67**		
R^2	.01			.25		
R^2 adjusted	-.03			.21		
Step 2						
R	.36			.63		
F	1.12			4.03**		
R^2	.13			.40		
R^2 adjusted	.01			.30		
ΔR^2	.12			.16		
F change	1.49			2.19		
	Women			Men		
	β	t	sr^2	β	t	sr^2
Step 1						
(Constant)		.32			-1.31	
TOSCA-2 Shame	.01	.07	.000	-.00	-.03	.000
PFQ-2 Shame	.08	.54	.005	.50	3.55**	.202
Step 2						
(Constant)		2.08*			-.42	
TOSCA-2 Shame	.23	1.28	.027	-.14	-.86	.011
PFQ-2 Shame	.10	.57	.005	.40	2.41*	.083
TOSCA-2 Guilt	-.37	-2.40*	.096	-.20	-1.50	.032
PFQ-2 Guilt	-.04	-.22	.001	.06	.34	.002
IGQ-67 Survivor Guilt	-.07	-.42	.003	.43	2.71*	.104
IGQ-67 Separation Guilt	.16	1.01	.017	.13	.94	.012
IGQ-67 Omnipotence Guilt	-.06	-.32	.002	-.24	-1.60	.037

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Women N = 60, Men N = 50. IGQ-67 = Interpersonal Guilt Questionnaire-67. PFQ-2 = Personal Feelings Questionnaire-2. TOSCA-2 = Test of Self-Conscious Affect-2.

*p < .05, ** p < .01 (2-tailed).

Chapter 7

Discussion

> The trouble that can breed neurosis comes when our two principal moral emotions, shame and guilt, have to develop in an insecurely affectionate environment in infancy. Trouble is compounded when shame and guilt function, later on, in a very unjust world (Lewis, 1987b, p. 36).

Perinatal grief

The finding of more intense self-reported grief in women compared with men one month after a perinatal death, but no significant sex difference in grief one year later replicated the results of other longitudinal studies in which the PGS-33 was used to quantify grief after reproductive loss (Cuisinier *et al.*, 1996; Goldbach *et al.*, 1991; Hunfeld *et al.*, 1996; Lasker & Toedter, 1991; Stinson *et al.*, 1992; Toedter *et al.*, 1988; Toedter *et al.*, 2001).

The terms 'early' and 'late' grief were used as pragmatic descriptors to minimise repetition and avoid confusion in the presentation of results. There was no inferred relationship between 'late' grief and abnormal, pathological, chronic, or traumatic grief (Jacobs, Mazure, & Prigerson, 2000), though Condon expressed the opinion that 'grief is pathological if a stillbirth still occupies center stage in a woman's emotional life after 6–9 months or if significant signs that resolution is underway are not apparent at this stage' (Condon, 1986, p. 988). Parents commonly grieve for several years after the death of a child (Lehman *et al.*, 1987), but the word 'common' should not be considered synonymous with 'normal', and normal may not be healthy, if one holds a sceptical view of what normal is:

> What we call 'normal' is a product of repression, denial, splitting, projection, introjection and other forms of destructive action on experience…It is radically estranged from the structure of being (Laing, 1967, pp. 23-24).

The fact that women reported more early active grief, difficulty coping and despair than men after a stillbirth, but only more active grief following a neonatal death was in keeping with Leon's (1990) eclectic psychodynamic exposé on the psychological meaning of pregnancy for women and men, which included the following passage:

> Although the father-to-be is unable to experience pregnancy biologically, his psychological journey strikingly parallels that of his wife (Leon, 1990, p. 3) …
>
> [vis-à-vis the] solidifying of gender identification, resolution of oedipal conflicts, reconciliation of ambivalence, further attainment of separation-individuation, narcissistic gratification of omnipotence, and expansion of ego ideal (Leon, 1990, p. 20).

Similarly, Condon (1985) concluded from an empirical study of women's and men's cognitive, affective and behavioural responses to the fetus that 'the "inner world" experiences of the men and women in terms of their internal representations of the foetus and their emotional responses to it are remarkably similar, although…their "outer world" behavioural expressions of these thoughts and feelings differ markedly' (Condon, 1985, p. 280).

The fact that women reported more active grief than men was not unexpected, since the expression of grief related emotions was consistent with the traditional female stereotype, but antithetical to the male stereotype (see also, Goldbach *et al.*, 1991; Stinson *et al.*, 1992). Although mindful of the important distinction between (biological) sex and (social) gender (Busfield, 1996a; Eagly, 1995; Shields, 1990), sociopsychological, if not biological, imperatives determine that women are generally more outwardly expressive of sorrow and

sadness than men (Brody, 1999; Fischer, 2000). The PGS-33 active grief scale was congruent with a feminine, communal, intuitive model of grief, which sanctions and values the expression of sadness and sorrow and an 'emotion-focused' coping style (Archer, 1999a; Doka & Martin, 2001; Folkman, 2001; Martin & Doka, 2000; Potvin *et al.*, 1989; Toedter *et al.*, 1988), but contrary to the masculine model of grief, which emphasises the repression of feelings indicative of vulnerability, reliance on self-support and a 'problem-focused' coping style (Archer, 1999a; Doka & Martin, 2001; Folkman, 2001; Martin & Doka, 2000).

The grief engendered by perinatal death entails secondary losses, as well as the primary loss, since 'a child is many things: a part of the self, and of the loved partner; a representation of the generations past; the genes of the forebears; the hope of the future; a source of love, pleasure, even narcissistic delight; a tie or a burden; and sometimes a symbol of the worst parts of the self and others' (Raphael, 1983, p. 229). In addition, the often disparate and sometimes antithetical mourning and coping styles of women and men may generate interpersonal conflict and self-oriented personal distress with a concomitant intensification of grief (Batson, 1987; Lang & Gottlieb, 1993; Rando, 1986; Tangney, 1991). Thus, if grief is the resultant vector of many antecedent forces, it is perhaps not too surprising that women's and men's ultimate appraisal of the loss make for comparable levels of grief one year after the death, even though this might be contrary to accepted wisdom (Archer, 1999a).

In the aggregated results of 22 studies that used the PGS-33 to quantify grief after reproductive loss in the United States, the Netherlands, Great Britain and Germany, Toedter and Lasker (2001) reported that women and men did not have significantly different grief scores. Toedter and Lasker (2001) expected to find that women grieved more intensely than men and attributed the lack of a sex difference to recruitment bias, arguing that men were less likely to

participate in studies of perinatal bereavement and more likely to be enlisted from support groups, thereby self-selecting men who were more stricken by the death. The present study was not subject to this recruitment bias, since women and men were enlisted with equal frequency from a general population, thus arguing against recruitment aberration as a plausible explanation for the unexpected lack of a sex difference in perinatal grief.

Finally, biological sex may have been less discerning than sociological gender in determining individual differences in grief following perinatal bereavement, for as Leslie Brody (1999) has stated:

> The extent to which an individual is characterized by levels of communion [femininity] and agency [masculinity] is more powerful than biological sex in predicting the expression of many emotions, including hurt, guilt, shame, happiness, fear, and sadness (Brody, 1999, p. 211).

The PGS-33 is a rating-scale item measure of grief that is open to the usual criticisms directed at this form of data acquisition, such as participant acquiescence, indecisiveness and extreme responsiveness (Rust & Golombok, 1999; Stone *et al.*, 2000). In addition, there is the specific criticism concerning the self-report measurement of emotion; namely, possible ambiguity in how feelings are experienced, differentiated and quantified (Barrett & Campos, 1987). At least three criticisms are particularly relevant to the present research. First, the PGS-33 measured the intensity of grief symptoms rather than their frequency, though the latter may better reflect the severity of grief (Diener *et al.*, 1985). Second, social desirability was not controlled for and individuals may have responded in gender coded ways commensurate with their desire to be seen in a stereotypically favourable light concerning their grief (Baldwin, 2000). Third, individuals may have denied psychological distress in their self-reports, because of their wish to appear psychologically healthy (Shedler, Mayman, &

Manis, 1993). Even so, Brody (1999) has cited evidence for the belief that 'gender differences in self-reported emotions reflect actual differences in emotional expressiveness, not merely stereotypes or differential memory processes' (Brody, 1999, p. 34). In the end, however, there is the ponderable conundrum of 'how else does one determine how a person *feels*?' (Barrett & Campos, 1987, p. 557), particularly since emotion theorists, apart from Darwin (1872), do not count grief amongst the emotions that find expression in the face (e.g., Bonanno & Keltner, 1997; Ekman, 1999a, 1999b).

The PGS-33 has been shown to have satisfactory psychometric properties and the present study confirmed the scale's acceptable internal reliability and three-factor structure one month after a perinatal death (Potvin *et al.*, 1989; Toedter *et al.*, 1988; Toedter *et al.*, 2001). In fact, the factor-structure elaborated in the present study was very similar to that reported by Potvin *et al.* (1989), even though the latter's analysis was confined to women. The three-factor structure of the PGS-33 was not sustained, however, and by 13 months from the loss the scale was more or less one-dimensional. Thus, researchers intending to use the PGS-33 in longitudinal studies of reproductive loss should examine the instrument's factor structure, else they presume a meaningful subscale structure that does not exist. John Archer's (1999b) general caveat concerning the use of rating scales in bereavement research may be particularised to the use of the PGS-33 in the present study:

> The use of such a simple measure can provide a useful strategy for certain types of research, where it is only necessary to assess gross differences in the overall extent of grieving…However, detailed studies of the pattern of associations between different grief reactions revealed that there are several underlying dimensions and that these are not consistent across different samples and circumstances (Archer, 1999b, pp. 106-107).

Psychological dysphoria

> We would expect, given the way in which masculinities and femininities are currently constructed, to find more cases of pathological depression, anxiety and phobia in women than men, since feelings of misery, anxiety and fear are deemed more appropriate in women, just as we would expect more alcoholism and drug abuse among men (Busfield, 1996b, p. 103).

In the present longitudinal study of perinatal bereavement, women reported more anxiety and depression than men one month after the loss, but one year later there was no significant sex difference in these dimensions of psychological health. In previous studies comparing women's and men's psychological symptoms following a perinatal death, anxiety and depression have been more common in women compared with men, though the studies were flawed by their retrospective or cross-sectional designs (Dyregrov & Matthiesen, 1987a; Franche & Bulow, 1999; Murray & Callan, 1988; Vance *et al.*, 1991; Wilson *et al.*, 1982; Zeanah *et al.*, 1995). In one cross-sectional study, women and men reported comparable levels of depression after a perinatal death (Wilson *et al.*, 1985).

Women in Western societies express and, probably, experience more anxiety and depression than men, whether these constructs are formulated as emotion states or mental disorders (Busfield, 1996b; Madden, Feldman Barrett, & Pietromonaco, 2000; Oatley & Jenkins, 1996). The explanation for the sex difference in the experience and expression of anxiety and depression is complex with biological, social and cultural factors all participating. Nevertheless, there is a consensus that 'nurture', which inculcates socially and culturally determined gender roles, stereotypes and display rules, is more important than 'nature', which contributes temperament, brain function and hormones, in the development of gender differences in anxiety and depression

(Brody, 1999; Nolen-Hoeksema, 1990). In the present study, women self-reported more anxiety and depression than men one month after the death, but there was no sex difference in anxiety or depression one year later. The explanation for the lack of a sex difference in late anxiety and depression may be similar to that proposed above for late grief intensity. The kinship relationship, type of death, and protean nature of the secondary losses (Archer, 1999b), together with the aforementioned sociocultural factors, presumably culminated in a final appraisal that rendered women and men equally fearful and sad following a perinatal death (Brody, 1999).

Anxiety and depression may not have been the most appropriate yardsticks by which to compare women's and men's psychological dysphoria after a perinatal death, since 'typical' men are not apt to express feelings that signal vulnerability and the need for social support, such as fear, sadness and sorrow (Doka & Martin, 2001). In this regard, Vance *et al.* (1995) reported that women and men reported equivalent levels of distress after the death of a baby when the outcome was a composite measure of anxiety, depression and excessive use of alcohol. The present study's finding that women and men reported comparable levels of late anxiety and depression following a perinatal death suggested that the latter's distress was not seriously underestimated by using anxiety and depression as measures of psychological health.

The scaled GHQ-28 was used in the present research because it was a multidimensional measure of psychological symptoms that included anxiety and depression (Goldberg & Hillier, 1979), which have been the most commonly used measures of psychological health following perinatal bereavement (Boyle, 1997; Boyle, Najman *et al.*, 1996; Boyle, Vance *et al.*, 1996; Dyregrov & Matthiesen, 1987a, 1987b, 1991; Forrest *et al.*, 1982; Franche & Bulow, 1999; Graham *et al.*, 1987; Hughes *et al.*, 2002; Hughes *et al.*, 1999; Janssen *et al.*, 1997; Janssen *et al.*, 1996; Jensen & Zahourek, 1972; LaRoche *et al.*, 1984;

LaRoche *et al.*, 1982; Lilford *et al.*, 1994; Murray & Callan, 1988; Thearle *et al.*, 1995; Vance, Boyle *et al.*, 1995; Vance *et al.*, 2002; Vance *et al.*, 1991; Vance, Najman *et al.*, 1995; Wilson *et al.*, 1982; Wilson *et al.*, 1985; Zeanah *et al.*, 1993; Zeanah *et al.*, 1995). The GHQ-28 was preferred to the SCL-90 (Derogatis *et al.*, 1973), which is another commonly used multidimensional measure of psychopathology, because it was shorter, though the SCL-90 may have been a better measure of anxiety (Koeter, 1992). In this regard, factor analysis of the GHQ-28 one month after the loss replicated the four-factor structure reported by Goldberg and Hillier (1979), but the repeat analysis one year later showed that *Anxiety and Insomnia*, and *Social Dysfunction* were not clearly delineated factors. The present study confirmed the internal reliability of the GHQ-28. Previous research has shown that sex has no significant effect on the validity of the GHQ-28 (Goldberg *et al.*, 1997).

The GHQ-28 was used in the present study primarily as a dimensional measure of psychological health (Goldberg & Williams, 1988). Anxiety and depression were not considered to be psychiatric syndromes nor were they posited as personality predispositions. Instead, anxiety and depression were considered to be symptom clusters in the 'hinterland between psychological sickness and health' (Goldberg & Williams, 1988, p. 2). Nevertheless, the GHQ-28 total score enabled a measure of the intensity of the psychological perturbation occasioned by perinatal death: approximately one-quarter of the women and one-third of the men had GHQ-28 scores that exceeded the threshold for psychiatric 'caseness' one year after the loss (Goldberg *et al.*, 1997).

Demographic variables, grief and psychological dysphoria

Lower grief scores are related to male gender, older age, shorter pregnancy, passage of more time since the loss, good mental health, good marital

> relationship, good social support, and a subsequent pregnancy (Lasker & Toedter, 2000, p. 365).

Although the primary thrust of the present study was to elucidate the relationship of personality guilt- and shame-proneness to grief after perinatal death, factors which previous empirical research had shown to be correlated with grief and/or psychological dysphoria were also investigated (Lasker & Toedter, 2000).

The significant correlation of marital dissatisfaction with early and late grief and/or psychological dysphoria in women was in accord with findings from previous research (Boyle, 1997; Cuisinier *et al.*, 1993; Forrest *et al.*, 1982; Janssen *et al.*, 1997; Lang & Gottlieb, 1993; Lang *et al.*, 1996; LaRoche *et al.*, 1984; Lasker & Toedter, 1991; Lasker & Toedter, 2000; Mekosh-Rosenbaum & Lasker, 1995; Nicol *et al.*, 1986; Toedter *et al.*, 1988). Although direction of causality should not be inferred from a correlational study, social support seems to be important in mitigating grief and psychological distress in women (Brody, 1999; Brody *et al.*, 2002). In men, marital dissatisfaction was correlated with grief and psychological symptoms one month after the loss, but not one year later. Marital satisfaction following perinatal bereavement has been studied far less frequently in men compared with women, but Lasker and her colleagues also found a correlation between marital dissatisfaction and grief in men (Lasker & Toedter, 1991; Mekosh-Rosenbaum & Lasker, 1995; Toedter *et al.*, 1988). Interpersonal intimacy has been shown to have a complex relationship with grief not only in terms of sex differences, but also because different types of intimacy (emotional, intellectual, recreational, social and sexual) relate differently to grief and the relationships do not remain constant over time (Lang & Gottlieb, 1993; Lang *et al.*, 1996). Thus, a one-dimensional measure of marital satisfaction, such as the GRIMS, only provides a gross perspective on the relationship between marital satisfaction and perinatal grief. Finally, the

relationship of marital satisfaction to grief and psychological health needs to be considered in the context of the possible bias that an individual's participation in the research might have been conditional on the participation of his or her spouse or partner.

In the present study, women who were trying to conceive, but were not yet pregnant, reported more late grief than women not actively pursuing another pregnancy, and more depression than women who were pregnant. Subsequent pregnancy status was not related to late grief or psychological dysphoria in men (see also, Franche, 2001). The empirical perinatal grief literature has generally attested to the salutary effect of a subsequent pregnancy on grief and psychological distress (Franche, 2001; Franche & Bulow, 1999; Lasker & Toedter, 2000; Murray & Callan, 1988; Peppers & Knapp, 1980a; Smith & Borgers, 1988), though the reverse has also been reported (Hughes *et al.*, 1999; Rowe *et al.*, 1978).

Younger age, lower education attainment and lower occupation status were found to correlate with late depression in men. Paternal age was also correlated with proneness to chronic shame, and men's education and occupation were correlated with proneness to omnipotence guilt. In turn, these shame and guilt variables were correlated with late depression in men, thus inviting the possibility that guilt- and shame-proneness mediated the correlation of paternal age, education and occupation with depression in men.

Guilt, shame, grief and psychological dysphoria

The theoretical and clinical literature that references negative emotions in relation to perinatal grief has been concerned with emotions as ephemeral states or moods rather than stable, enduring and recurring personality traits. Negative emotion moods, such as sadness, anger and guilt, are common accompaniments

of grief (Bonanno, 2001), but whether or not they are the harbingers of chronic grief or psychopathology has not been the subject of empirical study.

Previous research has shown that certain personality predispositions, such as *ego-strength* (Zeanah *et al.*, 1995), *neuroticism* (Janssen *et al.*, 1997), *personal inadequacy* (Hunfeld *et al.*, 1995), and *self-criticism* (Franche, 2001), explain significant proportions of the variance in grief after reproductive loss. There has been no previous study of the relationship of guilt- and shame-proneness to grief intensity following stillbirth or newborn death, although neuroticism has been shown to correlate with shame-proneness (Einstein & Lanning, 1998; Harder & Greenwald, 1999). However, there has been one cross-sectional study of guilt- and shame-proneness and grief involving a convenience sample (Gould, 1999). Gould (1999) showed that shame- rather than guilt-proneness was correlated with grief following the death of a close family member (grandparent, parent, sibling, spouse or child) and men were particularly vulnerable to 'object loss'.

In the discussion that follows, TOSCA-2 guilt and shame are referred to as 'situational' guilt and 'situational' shame, respectively, befitting the scenario-based, context specific nature of the TOSCA-2 inventory (Tangney, Ferguson *et al.*, 1996). PFQ-2 guilt and shame are referred to as 'chronic' guilt and 'chronic' shame, respectively, because the measure assesses 'continual feelings of guilt [and shame] unattached to a precipitating event' (Bybee & Quiles, 1998, p. 273). The acronym IGQ-67 is omitted from the nomenclature for different types of interpersonal guilt, which, hereafter, are referred to as survivor guilt, separation guilt and omnipotence guilt (O'Connor *et al.*, 1997). Finally, GHQ-28 Anxiety and Insomnia, and Severe Depression are referred to below as anxiety and depression, respectively (Goldberg & Williams, 1988).

Situational guilt

Situational guilt-proneness had a significant negative correlation with early grief-related despair and late grief in women, but only after controlling for the variance due to shame. This finding indicated the value of the partialling procedure in uncovering possibly important correlations of guilt or shame with grief or psychopathology when their zero-order correlations were opposite in valence and cancelled each other out (Tangney, 1996).

Thus, guilt cast as personality proneness to remorseful acceptance of responsibility for an actual here-and-now transgression accompanied by the desire to seek redress through apology or other reparative behaviour, which is not thwarted, and where the self is not denigrated, showed a negative correlation with early grief-related despair and late total grief in women. Situational guilt was unrelated to early psychological dysphoria in women and men, but showed a significant negative correlation with late anxiety and depression in women. These findings are in keeping with previous research that has shown a negligible or negative correlation of situational guilt with psychological symptoms in both clinical and non-clinical populations (Sanftner, Barlow, Marschall, & Tangney, 1995; Tangney, 1990, 1991, 1995b; Tangney *et al.*, 1995; Tangney, Wagner, & Gramzow, 1992). Tangney *et al.* (1990; 1991; 1995b; 1995; 1992) did not explore sex differences in the relationship of situational guilt to psychopathology in their studies undertaken in undergraduate college students.

Situational guilt has been aligned with behavioural, and, therefore, potentially 'controllable', self-blame (Janoff-Bulman, 1979; Tangney & Dearing, 2002; Weiner, 1986), which may partly explain the negative correlation with grief, or, at least, the absence of a positive correlation. Archer (1999b) has reviewed the literature on the relationship of self-blame and blaming others to the outcome

following negative life events, including bereavement. Although the evidence was conflicting regarding the relationship of self-blame to grief, behavioural self-blame seemed somewhat less relevant to troublesome grief than characterological ('uncontrollable') self-blame, though neither type of self-blame seemed to predict grief outcome (Downey, Silver, & Wortman, 1990). The mobilisation of 'healthy' situational guilt as a means of gaining a sense of personal control over what may otherwise be perceived as an uncontrollable, inexplicable, starkly random, and, possibly, shameful death may be a useful coping strategy for parents (Gardner, 1969; Kaufman, 1989; Leon, 1992b; Miles & Demi, 1986; Wurmser, 1999; Yalom, 1980). Proneness to situational guilt, which is related to empathic and egoistic or altruistic concern for the well-being of others (Batson, 1987), may mitigate against a morbid ruminative depressive preoccupation with loss and grief, particularly in women (Nolen-Hoeksema, 1990, 2001). The situational guilt-prone bereaved parent, who is agentive, empathic and not hostile, may be more able than others to garner, value and benefit from psychosocial support (Lasker & Toedter, 2000). Thus, proneness to situational guilt may be a personality characteristic that has a salutary effect on perinatal grief, through the modalities of personal control, empathy and social relatedness.

Few studies have addressed the role of personality factors in the amelioration of grief, though *emotional stability* (Stroebe *et al.*, 1988; Vachon *et al.*, 1982), *perceived personal control* (Stroebe *et al.*, 1988), *problem-oriented coping style* (Meuser & Marwit, 1999), *hardiness* (Campbell *et al.*, 1991), and *death acceptance* and *belief in a just world* (Bonanno *et al.*, 2002) have been associated with less grief. In the perinatal grief literature, 'hardiness' reflecting a sense of personal control, active orientation to problem solving and the ability to find meaning in adverse life events has been associated with less grief (Lang *et al.*, 2001).

Although direction of causality cannot be inferred from a correlational study, personality proneness to situational guilt can probably be added to these other personality characteristics as a potential emollient of grief. Indeed, situational guilt-proneness may be one emotion trait that underpins the aforementioned personality characteristics of emotional stability, perceived personal control, problem-oriented coping style and hardiness, though Einstein and Lanning concluded from their research that 'despite a statistically significant correlation with Agreeableness, [TOSCA guilt] could not be adequately represented within the five-factor space' of a geometric model of the Five-Factor Model of personality (Einstein & Lanning, 1998, p. 577). Finally, in considering the foregoing discussion of the relationship of situational guilt to grief it is important to remain mindful of the fact that it is predicated on the understanding that the TOSCA-2 is a measure of guilt affect (Tangney, 1996), rather than something else, such as moral values (Kugler & Jones, 1992) or empathy (Ferguson & Stegge, 1998).

Chronic guilt

Chronic guilt (controlled for shame) was positively correlated with early grief-related despair in women and difficulty coping in men, and late grief in both sexes. Thus, chronic guilt defined as frequent feelings of guilt, remorse or regret occurring without a specified precipitating event, and possibly preconscious in origin (Harder, 1995), was correlated with early and late grief in both women and men. Proneness to chronic guilt also showed significant partial correlations with early and late anxiety in women and men, and late depression in men. The relationship of chronic guilt to anxiety and depression was in keeping with the previously reported positive partial correlation of chronic guilt-proneness with symptoms of psychopathology, such as somatisation, obsession-compulsion, interpersonal sensitivity, anxiety,

hostility-anger, psychoticism and depression, in non-clinical populations (Bybee & Quiles, 1998; Harder, 1995; Harder *et al.*, 1992).

Chronic guilt, wherein the individual habitually and frequently assumes disproportionate or irrational responsibility for real or imagined transgressions, often accompanied by a morbid fear of punishment, may be fused or confused with shame (Lewis, 1979b, 1987a), such that 'the sense of guilt and the sense of inferiority [shame] are difficult to distinguish' (Freud, 1964/1933, p. 66). For example, Irvin Yalom has defined 'neurotic' guilt as 'a feeling state related to a sense of wrongdoing—a pervasive, highly uncomfortable state which has been described as anxiety plus a sense of badness' (Yalom, 1980, p. 276). Hence the theoretical importance of statistically controlling chronic guilt for shame in correlation and multiple regression studies of the relationship of chronic guilt to grief and psychological dysphoria. However, there is a downside to the partialling process, which is the removal of valid variance due to guilt and a consequent watering-down of the strength of association between chronic guilt and grief or psychopathology (Ferguson & Stegge, 1998; Harder, 1995; Tangney, Wagner, & Gramzow, 1992). This unwanted side effect of the partialling process was noted in the present study, but, even so, chronic guilt showed positive correlations with early and late grief in both women and men.

A functionalist conceptualisation of guilt posits that situational guilt falls at the functional or adaptive end of the guilt continuum, whereas chronic guilt falls at the dysfunctional or maladaptive end (Barrett, 1995; Campos, Mumme, Kermoian, & Campos, 1994; Cole, Michel, & Teti, 1994; Luyten *et al.*, 2002). According to this theory, functional guilt relates to mental health and dysfunctional guilt relates to psychopathology (Bybee & Quiles, 1998; Quiles & Bybee, 1997). Proneness to guilt seemed to have both a functional and dysfunctional relationship with grief in women. Although the correlational nature of the present study precludes definitive conclusions regarding direction

of causality, it would seem likely that situational guilt-proneness serves to ameliorate grief, anxiety and depression in women, whereas chronic guilt-proneness tends to potentiate women's grief and psychological dysphoria. Although men were less prone than women to situational guilt, they were not devoid of this form of guilt (see also, Tangney & Dearing, 2002). The pervasive lack of correlation of situational guilt-proneness with grief and psychological dysphoria in men may have been because the hypothetical everyday life scenario-based format of the TOSCA-2 lacked sensitivity and/or ecological validity in grieving men or because situational guilt was not relevant to men's grief after the death of a baby. Thus, although men were less likely than women to express guilt over the death of a baby (see also, Benfield *et al.*, 1978; Clyman *et al.*, 1980; Dyregrov & Matthiesen, 1987a; Franche, 2001; Smith & Borgers, 1988; Wilson *et al.*, 1985), the relationship of their guilt-proneness to grief seemed only to be dysfunctional. The degree to which temperament, prevailing mood and the immutability of the death were responsible for informing the relationship of situational and chronic guilt with grief and psychological dysphoria in grieving parents remains speculative (Bybee & Quiles, 1998), though the apparent sex difference suggests that personality was more important than the immutability of the death or the possible thwarting of reparative responses.

'Guilt' has been a common accompaniment of grief in most empirical studies of perinatal bereavement, but the origin of the guilt has not usually been elucidated (Cullberg, 1971; Forrest *et al.*, 1982; Lake *et al.*, 1987; Potvin *et al.*, 1989; Rowe *et al.*, 1978; Theut *et al.*, 1988; Tudehope *et al.*, 1986; Zeanah *et al.*, 1993). If defined, guilt has mostly been described as originating from irrational self-blame for having *done something* that may have unwittingly caused the baby's death or not having done something to protect the baby from harm (Benfield *et al.*, 1978; Dunn *et al.*, 1991; Dyregrov & Matthiesen, 1987a, 1987b;

Graham *et al.*, 1987), though only Dunn *et al.* (1991) referred explicitly to the important distinction between guilt-relevant behavioural self blame and shame-relevant characterological self blame (Hoblitzelle, 1987; Janoff-Bulman, 1979; Leon, 1992b; Lewis, 1987b; Weiner, 1986). On other occasions, parental 'guilt' has been linked to feeling responsible for the baby's death, but guilt could not reliably be distinguished from shame because of insufficient information (LaRoche *et al.*, 1984; Smith & Borgers, 1988; Wilson *et al.*, 1982; Wolff *et al.*, 1970). Some authors have described guilt owing to behavioural self-blame (Clyman *et al.*, 1980; Cullberg, 1971; Giles, 1970), but with a strong overlay of punishment, possibly engendered by an ambivalent relationship with the fetus or newborn infant (Condon, 1985; Leon, 1990), suggesting the presence of guilt fused with shame (Bybee *et al.*, 1998; Lewis, 1971; Tangney *et al.*, 1995).

Survivor guilt

Survivor guilt was included in the typology of guilt states experienced by bereaved parents described by Miles and Demi (Miles & Demi, 1986), but otherwise there are few, if any, unambiguous textual references to survivor guilt in the empirical perinatal bereavement literature. Nonetheless, the present research showed that proneness to survivor guilt (controlled for shame) was positively correlated with early and, particularly, late grief, and late depression in women and men. Thus, guilt conceived as owing to the unconscious belief 'that one is harming others by surpassing them, being better off, being successful or happy' (O'Connor *et al.*, 1999, p. 190) was positively correlated with grief and psychological symptoms in both sexes.

Niederland (1981) used the term survivor guilt in reference to survivors of the holocaust and Friedman defined the literal form of this guilt as the '[belief] that one could have helped but failed to help a loved one' (Friedman, 1985,

pp. 531-532). Nowadays, the term survivor guilt is applied more generally to include situations that do not necessarily involve a transgression or a death, but where 'one feels guilty about inequities in one's favour in comparison with significant others' (Baumeister *et al.*, 1994, p. 252) or believes that 'fate has dealt harshly with other members of the family…[and] he has obtained more of his share of the "good"' (Modell, 1971, p. 340). The 'nowadays' conceptualisation of survivor guilt as an (unconscious) affect operating in the interpersonal realm to maintain personal equity was used in the formulation of the IGQ-67 Survivor Guilt scale.

The observed relationship of survivor guilt-proneness to early grief may have been an unbidden consequence of the evolutionary importance of maintaining personal equity in human relationships (O'Connor, 2000). In this way, survivor guilt may be similar to the yearning, searching and pining that not only characterises the behaviour of infants separated from their primary caregivers, but also the early 'phases' of adult grief (Bowlby, 1973). Thus, the psychoevolutionary value and importance of survivor guilt, which 'promotes group cohesion, inhibits antisocial competition, and leads people to engage in altruistic behaviour' (O'Connor *et al.*, 2000), may not translate to the here-and-now context of a recent perinatal bereavement. On the other hand, the correlation of survivor guilt-proneness with late grief and severe depression suggested that a personality trait founded on the pathogenic belief that being better off than others may cause them harm may serve to prolong parental grief and potentiate psychological symptoms following a perinatal death. The relevance of personality proneness to survivor guilt to grief and psychological symptoms has not previously been reported, but mirrors the previously noted relationship of survivor guilt to symptoms of psychopathology, including anxiety and depression (O'Connor *et al.*, 1999).

Separation guilt

Separation guilt was interesting because it had an exclusive correlation with early active grief in both women and men. O'Connor *et al.* (1999) have defined separation guilt as the 'belief that one is disloyal and harming loved one(s) by leaving or being different' (O'Connor *et al.*, 1999, p. 190). Guilt construed in this manner should not relate to early active grief and not to late grief or psychopathology. The correlation of separation guilt-proneness with active grief might have been spurious, but there is a more appealing explanation. The items comprising the IGQ-67 Separation Guilt inventory could be interpreted as reflecting separation anxiety rather than guilt. For example, items such as, 'I feel that bad things may happen to my family if I do not stay in close contact with them', 'It makes me anxious to be away from home for too long', and 'I feel uncomfortable if I don't do things in the same way my parents did' may be manifestations of separation anxiety rather than guilt, since they pertain to 'excessive anxiety concerning separation from home or from those to whom the individual is attached' (DSM-IV-TR, 2000, p. 125). Although active grief may have been related to separation anxiety rather than guilt, the relationship was probably not mediated by an anxious/ambivalent or preoccupied attachment style (Ainsworth, 1989; Shaver & Tancredy, 2001), since the available evidence, albeit meagre, suggests that this attachment style is related to chronic rather than acute grief (Archer, 1999b; Bowlby, 1980; Shaver & Tancredy, 2001; Stroebe & Schut, 2001). Existential separation anxiety is probably a ubiquitous reaction to bereavement, which has no causal relationship with individual personality differences, for as Raphael (1983) has suggested:

> The pain and emptiness the bereaved feels is associated with anxiety and helplessness. These affects are powerful and in themselves frightening for they reawaken the earliest preverbal memories of painful separation

> experiences in the first year of life, the times of earliest separation anxiety (Raphael, 1983, pp. 40-41).

The finding that separation guilt was unrelated to symptoms of psychopathology in perinatally bereaved parents was consistent with the report by O'Connor *et al.* (1999), which showed that separation guilt controlled for shame was not correlated with anxiety or depression as measured by the Brief Symptom Inventory (Derogatis & Melisaratos, 1983).

Omnipotence guilt

Omnipotence guilt (controlled for shame) was not correlated with early grief or psychological dysphoria in women or men. The frequent concern expressed by parents that they felt in some way responsible for the death did not translate into a significant relationship between personality proneness to omnipotence guilt and early grief or psychological dysphoria. Thus, state guilt related to feeling responsible for the death may be a common coping defence, whereby the individual seeks to impose control and meaning on an otherwise unfathomable tragedy (Gardner, 1969; Kaufman, 1989; Leon, 1992b; Miles & Demi, 1986; Wurmser, 1999; Yalom, 1980), for as Yalom writes, 'if one is guilty about not having done something one should have done, then it follows that *there is something that could have been done*—a far more comfortable state of affairs than the hard existential facts of life' (Yalom, 1980, pp. 170-171). Alternatively, guilt may be a predictable, if not inevitable, consequence of the parent failing in her or his primary evolutionary function, which is to protect the vulnerable and dependent infant from harm (Shaver & Tancredy, 2001; Weiss, 2001).

Omnipotence guilt-proneness (controlled for shame) was positively correlated with late grief and depression in men, but unrelated to these variables in women. Omnipotence guilt-proneness also showed positive partial correlations with late anxiety and social dysfunction in women, but this finding should be

interpreted with some caution, since exploratory factor analysis of the GHQ-28 13 months after the loss did not confirm the specificity of these psychological symptom clusters. Although men were no more prone to omnipotence guilt than women (cf., O'Connor *et al.*, 1997), the 'belief that one [is] responsible for the well-being of others, and that one has the power to make others successful and happy' (O'Connor *et al.*, 1999, p. 190), was found to be germane to late grief in men, but not women. There are at least five speculative explanations for the significant relationship of omnipotence guilt-proneness to late grief in men. First, men may have anguished over their apparent inability to help alleviate the distress of their distraught wives or partners and this anguish, aided and abetted by their proneness to omnipotence guilt, may have been a substantial contributor to their own grief. Second, men's omnipotence guilt-proneness may have been further dysregulated by the accompanying depressive mood and the associated feelings of helplessness and powerlessness (Wurmser, 1999). Third, the correlation between omnipotence guilt and grief may have been coincidental, since both variables were also correlated with depression. Fourth, men compared with women may have been more instrumental in their grief and, therefore, more attuned to controlling events and initiating problem solving behaviours, thereby rendering them more susceptible to the negative consequences of omnipotence guilt, namely vulnerability to feelings of helplessness and powerlessness in the face of an immutable loss (Doka & Martin, 2001; Martin & Doka, 2000). Finally, the relationship between omnipotence guilt and grief in men may have been the result of a Type 1 statistical error (Norman & Streiner, 2000).

Leon's psychodynamically based theoretical proposition that 'the mother's narcissistic experience of omnipotence in pregnancy and the deepening maternal identification that prepares her to assume total care for her helpless infant contribute to her enormous sense of responsibility and resulting guilt for

her child's death' (Leon, 1990, pp. 40-41) does not receive empirical support from the present research, since proneness to omnipotence guilt controlled for shame was unrelated to perinatal grief in women.

Composite guilt

A composite of guilt-proneness (comprising situational guilt, chronic guilt, survivor guilt, separation guilt and omnipotence guilt) controlled for shame explained a significant proportion of the variance in early grief-related despair in women, courtesy mainly of the negatively valenced contribution made by situational guilt. Otherwise, composite guilt did not make a significant contribution to the variance in early grief or psychological dysphoria in either women or men. Thus, although the individual measures of guilt showed significant shame partialled correlations with early grief in both sexes, the effect was not sustained in the hierarchical multiple regressions where shame was entered before 'shame-free' guilt (Ferguson & Stegge, 1998; Tangney & Dearing, 2002), and, thereby, allowed first claim on the shared variance with grief and psychological symptoms (Tabachnick & Fidell, 2001).

On the other hand, composite guilt-proneness controlled for shame made a significant contribution to the variance in late grief in both women and men. In addition, chronic guilt and survivor guilt in women, and survivor guilt in men made important unique contributions to the variance in late grief. Situational guilt-proneness made a unique negatively valenced contribution to the variance in late grief in both women and men, though the latter was contrary to the zero-order and partial correlations and probably spurious. In addition, composite guilt controlled for shame made a significant contribution to the variance in late anxiety and depression in women, but not in men, perhaps because shame explained so much of the variance in these variables in men.

Composite guilt-proneness one month after the loss predicted grief one year later in men, and survivor guilt made a significant unique contribution to this variance in late grief. Early composite guilt-proneness did not predict late grief in women. Thus, although women were more likely than men to feel guilty and blame themselves for the baby's death, these state experiences did not translate into stronger positive correlations between maladaptive guilt-proneness and grief for women compared with men. The fact that women were more likely than men to feel guilt and blame themselves for the baby's death did not necessarily portend more problematic grief in women, since their guilt had both functional and dysfunctional elements, whereas men's guilt-proneness seemed to be only dysfunctional.

Shame, grief and psychological symptoms

Situational shame

Situational shame-proneness was correlated with early grief in both sexes, though the correlation with grief-related difficulty coping and despair in women only became significant when the variance due to guilt was statistically removed by partialling shame for guilt, presumably because the guilt and shame correlations with difficulty coping and despair were opposite in valence and cancelled each other out (Tangney, 1996). The partial correlations of situational shame with measures of early grief were stronger in men compared with women, and included a significant correlation with active grief in men. Situational shame also showed positive partial correlations with early anxiety and depression in both sexes, but there was no manifest sex difference in the strength of these correlations.

Situational shame-proneness partialled for guilt had moderate correlations with late grief, anxiety, and depression in women, and moderate to strong partial

correlations with these particular variables in men. For example, the partial correlation of situational shame with late grief in women and men was r = .39 and r = .61, respectively. The situational shame partialled for guilt correlations compared with the zero-order correlations were predictably stronger in women and weaker in men.

Thus, situational shame-proneness, defined as the likelihood of responding to everyday life behavioural transgressions or failures by evoking characterological self-blame and wanting to hide or disappear, was correlated with early, and, particularly, late grief, anxiety, and depression in both sexes. Although men were less prone to situational shame than women (see also, Averill *et al.*, 2002; Tangney & Dearing, 2002), they tended to show stronger correlations of situational shame-proneness with grief, anxiety and depression following perinatal bereavement.

Chronic shame

Chronic shame-proneness partialled for guilt showed small but significant correlations with early grief (difficulty coping) and psychological symptoms (social dysfunction) in women, but chronic shame was unrelated to early grief or psychological dysphoria in men. Chronic shame partialled for guilt showed small to moderate correlations with late grief, anxiety, and depression in both sexes. The partial correlation of chronic shame with late grief was stronger in men (r = .41) compared with women (r = .26), but the strength of the correlations with anxiety and depression were not appreciably different between the sexes.

Although the strength of the zero-order correlations of chronic shame and situational shame with grief and psychological dysphoria were comparable, partialling chronic shame for guilt resulted in a substantial reduction in the strength of the correlations in both sexes. There are a number of possible

explanations for the substantially weaker partial correlations of chronic shame with grief and psychological symptoms compared with the counterpart zero-order correlations. First, the partialling procedure may have removed valid variance due to shame as well as the confounding variance due to guilt (Ferguson & Crowley, 1997a; Ferguson & Stegge, 1998; Harder, 1995; Tangney, Wagner, & Gramzow, 1992). Second, PFQ-2 chronic guilt may have been a de facto measure of shame and not a valid measure of guilt (Harder, 1995; Tangney, 1990; Tangney, 1995a; Tangney, 1995b; Tangney, 1996; Tangney *et al.*, 1995). However, the fact that PFQ-2 shame and guilt were shown to be orthogonal factors on exploratory factor analysis, albeit with some anomalies, argued for the validity of PFQ-2 guilt (see also, Harder & Zalma, 1990). Third, the stultifying effect of partialling chronic shame for guilt may have been because the PFQ-2 measured general negative affect rather than discrete shame and guilt affect (Watson & Clark, 1992). In any event, partialling chronic shame for guilt invoked a material reduction in the strength of the correlations of chronic shame with grief and psychological symptoms.

Although there was a downside to partialling chronic shame for guilt, shame-proneness reckoned to be the frequency with which individuals feel embarrassed, stupid, incompetent, humiliated, ridiculous, and disgusting to others showed at least small to moderate correlations with late grief, anxiety and depression in both women and men.

Composite shame

A composite measure of shame, comprising situational shame and chronic shame, uncontrolled for guilt, accounted for a small (10–20%), albeit significant, proportion of the variance in early grief, anxiety, and depression in women and men. In contrast, composite shame explained substantial amounts of the variance in late grief and depression in both sexes—approximately

one-quarter of the variance in both of these variables in women and around one-half of their variance in men. Chronic shame (uncontrolled for guilt) made a unique contribution to the variance in late grief and depression in women and men, and situational shame made a contribution to the variance in these variables in men. Composite shame continued to make a unique contribution to the variance in late grief and depression in women and men, despite controlling for the variance explained by early grief, anxiety, and depression, respectively.

Importantly, early composite shame predicted one-quarter of the variance in late grief and depression in men, and chronic shame made a unique contribution to each of these variances. Early composite shame did not predict late grief or psychological symptoms in women. The longitudinal design of the present study showed that shame-proneness was a predictor of late grief and depression in men, but also an important concomitant and, possibly, consequence of late grief and psychological dysphoria in both women and men (Bonanno & Kaltman, 1999). The present study endorses Andrews's comment about 'the inadequacy of cross-sectional designs to distinguish factors as antecedents, concomitants, or consequences of the disorder under investigation' (Andrews, 1998, p. 50).

These findings suggest that chronic shame-proneness, untrammelled by the process of partialling for guilt, may have been more relevant to parents' late grief and psychological symptoms than situational shame-proneness. Andrews (1998) has elaborated on the differences between the TOSCA-2 and PFQ-2 measures of shame and argued in favour of the PFQ-2 measure. According to Andrews (1998), PFQ-2 shame has strong face validity and a satisfactory factor analysis, does not confound shame affect with low self-esteem, and measures more than characterological self-blame and shame related to behavioural transgression. On the other hand, the TOSCA-2 measure of shame has a number of possible shortcomings, including uncertain ecological validity, possible

confounding with low self-esteem, emphasis on characterological self-blame, which may be neither necessary nor sufficient for eliciting shame affect, and constraining the eliciting of shame to behavioural transgression or failure (Andrews, 1998; Luyten *et al.*, 2002; Tangney, 1996). These conceptual and methodological difficulties in defining and measuring shame (and guilt) ratified the present study's use of several instruments in considering the relationship of negative self-conscious emotion to grief (Andrews, 1998; Ferguson & Stegge, 1998; Harder, 1995; Tangney, 1995a).

The correlational nature of the present study did not allow any firm conclusions about whether shame-proneness caused grief or vice versa, or, indeed, whether the relationship was bi-directional. In any event, shame-proneness was found to be an important concomitant of late grief and depression in both sexes, and a consequential antecedent to late grief and depression in men. Although shame-proneness was correlated with parents' early grief and psychological symptoms its contribution to their respective variances was only modest.

Sex differences in shame proneness to grief

The present study showed that men compared with women reported less proneness to situational shame and similar chronic shame proneness (see also, Harder & Zalma, 1990; Tangney & Dearing, 2002), yet shame-proneness was more relevant to their grief than to women's. There are a number of speculative explanations for why men made stronger shame-relevant global self and observed other cognitive appraisals about their perceived failure, inadequacy or transgression in respect of the cumulative primary and secondary losses occasioned by stillbirth or death in the newborn period (Barrett, 1995; Lazarus & Lazarus, 1994; Lewis, 1995; Raphael, 1983; Weiss, 2001). First, the circumstances of the death and the consequent grief may have evoked an

unwanted (Ferguson *et al.*, 2000; Lindsay-Hartz *et al.*, 1995), or stigmatising (Lewis, 1998) and, therefore, shameful masculine identity; namely, the vulnerable, emotionally expressive, grief-stricken man. Second, grief may have constituted a significant gender role stress in men, because the expression of vulnerable feelings is not congruent with the normal masculine stereotype, and gender role stress is known to be correlated with shame-proneness (Efthim *et al.*, 2001). Third, men may have been less able than women to mollify their shame experience by evoking a defensive functional guilt response (Lewis, 1995). Fourth, men rather than women may have felt shame for their partner or deceased infant, since according to Lynd 'the import of shame for others may reach even deeper than shame for ourselves' (Lynd, 1958, p. 56). Fourth, the correlation of shame-proneness with late grief and depression in men may have been because all three were simply measures of negative affectivity, though this seems an unlikely possibility, since all of the correlation coefficients were less than r = .70 (Andrews, 1998). Fifth, although shame-proneness was more strongly correlated with late grief, anxiety and depression in men compared with women, none of the sex differences was statistically significant. Finally, the present study was concerned with the linear relationship of shame-proneness to grief or psychological dysphoria. Ferguson and Stegge (1998) have posited the possibility of a curvilinear relationship of guilt- and shame-proneness with psychological health in keeping with a functionalist conceptualisation of guilt and shame. The shame and grief constructs used in the present study were formulated to reflect maladaptiveness and therefore a curvilinear relationship was not expected. The regression of early or late grief on shame was not better expressed by a quadratic model compared with a linear model in either women or men.

Alternatively, the scenario based TOSCA-2 and the adjective checklist based PFQ-2 may not have captured the shame-proneness of perinatally bereaved

women. The TOSCA-2 and PFQ-2 did not measure bodily shame (Andrews, 1995, 1998; Thompson, Dinnel, & Dill, 2003), which may be a specific vulnerability of the narcissistically injured mother (Furman, 1978; Leon, 1992b), since 'both parents include the child in their own mental self, but only the mother invests him also as a part of her bodily self, i.e., he is included in the boundaries of her body ego' (Furman, 1996, p. 431).

Shame: the 'sleeper' in perinatal grief

H B Lewis (1987a) referred to shame as 'the "sleeper" in psychopathology that fuels the irrational guilt whose malignant consequences Freud was the first to describe' (Lewis, 1987a, p. 1). For example, Freudian theory posits that depression is the consequence of outwardly directed innate hostility and anger turned back upon the self under the civilising press of post-oedipal superego guilt. In contrast, Lewis (1971; 1987b) proposed that shame was the primary culprit in depression, whereas guilt was a secondary phenomenon. Enamoured of Bowlby's (1969; 1973; 1980) attachment theory, Lewis considered that shame and guilt 'function not only as "drive controls", but as the means by which we maintain our fundamental affectional ties' (Lewis, 1987b, p. 32):

> Shame is the state in which one accepts the loss of the other as if it were a loss in the self. Humiliated fury, which is the inevitable accompaniment of shame, angrily protests the loss while demanding restitution of the other's positive feeling…The guilt that accompanies humiliated fury is a useful reminder of affectional ties' (Lewis, 1987b, p. 32-33).

Thus, according to Lewis's dialectic, the individual's experience of loss evokes shame and humiliated fury, followed by empathic guilt for the hurt caused by the anger, and finally depression (Lewis, 1971, 1979b, 1987b). The importance of shame in depression is now well established (Averill *et al.*, 2002; e.g., Bybee & Quiles, 1998; Harder, 1995; Harder *et al.*, 1992; Harder & Zalma, 1990;

Hoblitzelle, 1987; Kaufman, 1989; Tangney *et al.*, 1995; Tangney, Wagner, & Gramzow, 1992), though mainstream psychiatry uses guilt together with worthlessness, rather than shame, to formulate one criterion for a diagnosis of major depression according to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR, 2000).

If shame is the quintessential social emotion embedded in most if not all human relationships—'to understand shame is, in some sense, to understand human nature' (M Lewis, 1995, p. 2)—then the grief that follows the severing of the affectional bond between parent and child through death should perforce include shame affect. Bowlby likened the 'protest' stage of adult grief to the 'crying and screaming…by means of which a child commonly attracts and recovers his missing mother' (Bowlby, 1980, p. 90), Darwin (1872) considered the facial contours of adult grief to be the expression of the suppressed desire to cry or scream like a child, and, finally, Lewis (1987b) suggested that the 'outraged crying' of such a child resembled the humiliated fury that accompanies overt shame:

> I suggest that outraged crying and bitter protest are both expressions of humiliated fury [that] communicate a very complex message: the infant feels separation as rejection. Rejection by the other is experienced as a loss in the self. The infant is furiously demanding that mother change her feeling state (rejection) and resume affectionate attention. The infant's fury is the forerunner of humiliated fury, and the emotional loss experienced by the self is the forerunner of shame' (Lewis, 1987b, p. 33).

The theoretical postulates by Bowlby (1980), Darwin (1872) and Lewis (1987b) regarding attachment/grief and attachment/shame would, if true, predict an important relationship between the grief of pregnancy loss and shame. If narcissism, personal inadequacy and failure are considered to be manifestations of shame (Broucek, 1991; Gramzow & Tangney, 1992; Kaufman, 1989; Kohut,

1972; Lewis, 1971, 1987c; Lewis, 1995; Mollon, 1984; Morrison, 1983; Morrison & Stolorow, 1997; Wright *et al.*, 1989; Wurmser, 1987), then the psychoanalytic tradition has long recognised the relationship between reproductive loss and shame (Bourne, 1968; Cullberg, 1971; Furman, 1978; Leon, 1992b), including Leon's attention to the previously mentioned and important distinction between shame relevant characterological self blame and guilt relevant behavioural self blame (Janoff-Bulman, 1979):

> A certain degree of behavioral self-blame, in which the bereaved parent believes that future losses may be prevented by specific actions, may engender a sense of mastery and control, limiting the traumatic helplessness that often follows such a loss…This guilt, inoculating the bereaved against a more debilitating powerlessness, must be conceptually and methodologically distinguished from the feeling of worthlessness resulting from narcissistic damage, which, while common, is not adaptive. Very different questions would distinguish a mother blaming herself for behavior during her pregnancy that she could change in the future and a mother experiencing a pervasive sense of failure. There is also a crucial difference in affective tone; self-blame regarding behavior potentially provides hope and the possibility of efficacy for the future, while narcissistic devaluation intensifies despair and inadequacy (Leon, 1992b, p. 1470).

A theoretical model of adult grief informed by attachment theory (Bowlby, 1969, 1973, 1980) would predict a correlation between adult attachment style and grief (Archer, 1999b; Shaver & Tancredy, 2001; Stroebe, 2002; Weiss, 2001). According to this theoretical perspective, individuals who form 'preoccupied' (anxious-ambivalent) attachments should be more prone to chronic grief than 'securely' attached individuals (Shaver & Tancredy, 2001; Weiss, 2001). In this regard, Wayment and Vierthaler (2002) have shown that individuals inclined to an anxious-ambivalent attachment style do report more grief and depression

than securely attached individuals. In a similar vein, an understanding of shame grounded in attachment theory would predict a correlation between adult attachment style and shame-proneness (Lewis, 1987b). There is empirical support for this notion, because securely attached individuals and anxiously/preoccupied individuals have shown the theoretically expected correlations with shame-proneness (Gross & Hansen, 2000; Harder & Greenwald, 1999; Lopez *et al.*, 1997). In the context of the present study, Harder and Greenwald (1999) have shown that PFQ-2 shame has a negative correlation with security of attachment in adults.

The findings from the present study provide empirical support for the theoretically opined positive correlation between individual proneness to shame and perinatal grief and suggest that shame may be the "sleeper" in chronic grief, anxiety and depression that follow perinatal bereavement. Although the present study was only concerned with dysfunctional shame, since there was no available measure of functional shame, it should be recalled that shame serves important prosocial functions vis-à-vis the maintenance and restoration of social bonds (Braithwaite, 1996; Gilbert & McGuire, 1998; Greenwald & Harder, 1998; Retzinger, 1996; Scheff, 1997b). Although not as yet measurable, a negative correlation may exist between functional shame and grief, since bereavement and the awareness of finitude may be considered opportunities to review one's existential 'being-in-the-world' (Binswanger, 1963), engineer change in the quality of one's interpersonal relationships (Horney, 1950), and facilitate a self-actualising 'search for identity' (Lynd, 1958) or the process of individuation (Jacoby, 1994). Finally, an examination of the relationship of functional shame to the resolution of loss might further understanding of the 'continuing bonds' theory of grief (Klass, Silverman, & Nickman, 1996), which currently holds sway over the 'grief work' theory of disengagement promulgated by Freud (1957/1917).

Shame-and-guilt and grief

The correlations of guilt- and shame-proneness with early grief-related despair, which contained guilt and shame mood relevant items, and late total grief were moderately strong, but not strong enough to suggest they were simply measuring the same phenomenon, namely nonspecific negative affectivity.

Although the present work has been at pains to distinguish between guilt and shame and evaluate their separate within and between sex relationships with perinatal grief and psychological dysphoria, the emotions are by no means dichotomous:

> Approaches from different directions to experiences of shame and guilt [imply] that the same situation may give rise to both shame and guilt; that shame and guilt may sometimes alternate with and reinforce each other; and that a particular situation may be experienced by an individual as shame or guilt or both according to the nature of the person, the axis on which he habitually behaves, and the nature of his relation to other persons who may be involved. Shame and guilt are in no sense—either in the older or in the more recent conceptions of the experiences—antitheses, or at opposite poles from each other (Lynd, 1958, pp. 22-23).

In deference to the complex interweaving of guilt and shame in individual experience, the present study also sought to examine the joint contribution that proneness to shame-and-guilt made to the variance in grief and psychological dysphoria following a perinatal death.

Shame-and-guilt proneness made only small contributions to the variance in early grief and psychological symptoms in both women and men, suggesting that personality was not a dominant factor in early grief:

> The idea that a person may organize his affects, impulses, behaviours, and goals in accordance with his reality is obvious in certain dramatic

> situations—for instance…when he has received news of the death of a beloved child…In such situations, a person's immediate reality is so powerful that it is likely to override the reality that his conscious and unconscious beliefs portray for him (Weiss, 1993, p. 34).

On the other hand, shame-and-guilt proneness made moderate to large contributions to the variance in late grief and depression in both sexes, even though mood feelings of guilt and shame were on the wane. The multiple *R* values for the regression of shame and guilt on late grief and depression were .70 or higher, thereby making each of these multiple regressions 'worth its salt' (Norman & Streiner, 2000, p. 137). These findings suggested that the ubiquitous existential angst occasioned by the loss was more relevant to parental grief than individual personality one month after the death (Kubany & Watson, 2003), but one year later personality shame-and-guilt proneness was a substantive contributor to women's and men's grief and depression following the death of a baby.

Generalising study results

There follow some concluding remarks about the generalisability of the results of the present research. There should always be concern that people who choose not to participate in a bereavement research study may be different in important ways from study participants, thereby rendering the latter unrepresentative of the general population (Stroebe *et al.*, 2003; Stroebe & Stroebe, 1989). For example, Boyle showed that young, unmarried and unemployed parents were less likely to have participated in a longitudinal study of mental health after a perinatal death or SIDS than parents not disadvantaged in these respects, though the bias incurred from non-participation was small (Boyle, Najman *et al.*, 1996). The decision not to collect demographic information on non-participants in the present study was

informed by ethical concern for their privacy. However, the lack of a significant correlation between most of the demographic variables and grief or psychological dysphoria, together with the study's primary focus on individual differences in personality proneness to guilt and shame and their relationship to grief or psychological dysphoria suggested that non-participation bias was probably not an important consideration. In addition, the study participants' ethnicity, educational level, occupation status and religious affiliation were very little different from the prevalence of these demographic variables in the general population, thereby offering reasonable reassurance that the study participants were representative of the population from which they were harvested. The participant attrition rate in the present study was very low, suggesting this particular bias did not constitute a threat to the generalisability of the results. Conversely, the study participants were predominantly well educated, thirty-something, perinatally bereaved Anglo-Australians, and therefore caution should be exercised in extrapolating the findings to other populations with different demographic profiles or different losses.

Chapter 8

Epilogue

> Although mourning involves grave departures from the normal attitude to life, it never occurs to us to regard it as a pathological condition and to refer it to medical treatment. We rely on its being overcome after a certain lapse of time, and we look upon any interference with it as useless or even harmful (Freud, 1957/1917, pp. 243-244).

Grief theory

In recent years, there has been a paradigm shift in how grief is understood, and, consequently, what bereaved individuals might need to accomplish in order for them to assimilate their loss (Archer, 1999b; Bonanno & Kaltman, 1999; Stroebe & Stroebe, 1991; Wortman & Silver, 1989). Until recently, the modus operandi for the successful resolution of grief was informed by the 'grief-work theory', originally proposed by Freud in his important paper, *Mourning and Melancholia* (1957/1917), and encapsulated in his phrase 'the work of mourning':

> Reality-testing has shown that the loved object no longer exists, and it proceeds to demand that all libido shall be withdrawn from its attachments to that object…Each single one of the memories and expectations in which the libido is bound to the object is brought up and hypercathected, and detachment of the libido is accomplished in respect of it…It is remarkable that this painful unpleasure is taken as a matter of course by us. The fact is, however, that when the work of mourning is completed the ego becomes free and uninhibited again (Freud, 1957/1917, pp. 244-245).

According to the grief-work theory, any disinclination the bereaved might have to confront and forgo emotionally laden ties to the 'loved object' would be considered a block to recovery and, consequently, the possible harbinger of chronic grief (Bowlby, 1980; Freud, 1957/1917; Parkes & Weiss, 1983; Raphael, 1983; Sanders, 1993). For example, ambivalence in the relationship, particularly feelings of hostility toward the deceased, has been considered among the foremost blocks to 'normal' grieving (Freud, 1957/1917; Parkes & Weiss, 1983; Raphael, 1977), since according to psychodynamic drive theory anger that is denied expression is retroflected on the self resulting in unforgiving self-reproach and guilt, which are traditional hallmarks of chronic grief and depression.

In recent times, however, the empirical validity of the grief work notion tentatively spawned by Freud (1957/1917), and promulgated by notable others (Bowlby, 1980; Parkes & Weiss, 1983; Rando, 1993; Raphael, 1983; Sanders, 1993; Worden, 1991), has been questioned and alternative theories concerning the nature of grief have been proposed (Archer, 1999b; Bonanno & Kaltman, 1999; Bonanno *et al.*, 1999; Rubin, 1981; Stroebe & Stroebe, 1991; Stroebe, van den Bout, & Schut, 1994; Stroebe, 1992; Wortman & Silver, 1989). The contemporary theory most relevant to the present study is the four primary component model proposed by Bonanno and Kaltman (1999). Bonanno and Kaltman (1999) have utilised four tenets of general psychology: cognitive stress theory (Folkman, 2001; Lazarus *et al.*, 1980), attachment theory (Bowlby, 1969, 1973, 1980), trauma theory (Horowitz, 1997; Jacobs *et al.*, 2000; Malkinson, Rubin, & Witztum, 2000; Raphael & Martinek, 1997), and the social-functional theory of emotion (Barrett & Campos, 1987; Campos *et al.*, 1994; Keltner & Gross, 1999; Malatesta & Wilson, 1988), to explain four important determinants of grief experience: the context of the death, the surviving individual's ongoing

subjective experience of the loss, the individual's internal representation of the 'lost object', and, finally, the individual's facility for emotion regulation.

According to Bonanno and Kaltman (1999), grief is determined by a conglomerate of factors. First, *cognitive stress theory* explains the level of significance bestowed on the death by the bereaved and determines the particular coping style the individual uses to contend with the loss:

> When an event, or person–environment encounter, generates psychological stress, deliberate coping strategies are instigated. These strategies either alter the deployment of attention to or away from the source of distress (e.g., distancing), change the meaning of the situation (e.g., self-blame, optimism, positive reappraisal), or lead to behaviors that directly alter the nature of the person–environment encounter (e.g., seeking social support, escape–avoidance) (Bonanno & Kaltman, 1999, p. 763).

Second, Bonanno and Kaltman (1999) contend that *attachment theory*, which hitherto has mostly informed the stage theory of grief (Bowlby, 1980), may be extended beyond the stage of protest to include the role of ambivalent attachment in the genesis of chronic grief. In addition, attachment theory can accommodate the notion of 'continuing bonds' (Klass *et al.*, 1996), which may provide a comforting transcendent reality while the bereaved individual remodels his or her self-identity and assumptive world view to include the absence of the deceased's corporeal presence (Bowlby, 1980; Janoff-Bulman, 1989):

> The pain of grief leads to a reshaping of internal representational models and a reorganization of the attachment configuration, both of which include the "persistence of the relationship" with the deceased (Bonanno & Kaltman, 1999, p. 764).

Third, Bonanno and Kaltman (1999) use *trauma theory* to explain the special difficulties that traumatic losses impose on the bereaved as they struggle to understand and make sense of an unconscionable loss. In addition, Bonanno and Kaltman (1999) allude to the potential value of social sharing in the processing of grief following traumatic bereavement:

> The death of a loved one…[is] thought to challenge or even shatter individuals' core assumptions about themselves, the world around them, and other people. Thus, recovery hinges, to some extent, on the survivor's struggle to integrate his or her understanding of the event into broader meaning structures (Bonanno & Kaltman, 1999, p. 787).

Finally, and particularly relevant to the present study, Bonanno and Kaltman (1999) engage the *social-functional theory of emotion* to consider the role of negative (and positive) emotions in the grief process:

> When negative emotions are enacted repeatedly or indiscriminately, they become less functionally relevant and tend to lead to untoward personal and social consequences (Bonanno & Kaltman, 1999, p. 766).

Bonanno and Kaltman (1999) regard the experience and expression of negative emotions to be antithetical to the successful resolution of grief, but their conceptualisation fails to include the functional value of negative self-conscious emotions in defining the nature of the self or the self's behaviour vis-à-vis interpersonal relationships (Barrett & Campos, 1987; Campos *et al.*, 1994; Malatesta & Wilson, 1988).

Shame and guilt and grief are similar in that all three gauge the personal relevance and integrity of social relationships, and, therefore, not surprisingly, shame and guilt can be understood within the psychological nexus proposed for grief by Bonanno and Kaltman (1999). According to cognitive appraisal theory, dysfunctional shame-proneness encourages the individual to make negative,

internal, stable and global cognitive attributions for loss, thereby fostering characterological self-blame, withdrawal and depressogenic rumination, or defensive externalisation of blame, hostility and anger. Guilt-proneness that encourages negative, internal, unstable and specific attributions for loss, protects the inherent integrity of the self and fosters empathy based social relatedness. On the other hand, chronic guilt with more stable preconsciously derived attributions of responsibility may be less amenable to the sway of contemporary circumstances, particularly when death precludes guilt ameliorating apology, forgiveness or reparative behaviour for perceived transgression. Thus, functional guilt rather than dysfunctional shame or guilt may be sympathetic to the dual processing of grief, wherein engagement and distancing afford the bereaved opportunities not only to experience and process their grief but also to obtain relief from it (Stroebe & Schut, 1999).

Attachment theory not only likens the protest stage of adult grief to the humiliated fury occasioned by shame (Bowlby, 1980; Darwin, 1872; Lewis, 1971, 1987b), it also relates preoccupied or anxious-ambivalent attachment styles to grief (Shaver & Tancredy, 2001; Wayment & Vierthaler, 2002), In addition, secure attachment style and shame-proneness have been negatively correlated (Harder & Greenwald, 1999; Lopez *et al.*, 1997). Thus, dysfunctional shame-proneness may not potentiate the benevolent 'continuing bonds' that serve to nurture the bereaved during and beyond their grief. Although empirical information concerning the relationship between guilt-proneness and attachment bonds is limited, chronic guilt has shown a negative correlation with secure attachment (Harder & Greenwald, 1999). Thus, guilt founded on dysregulatory unconscious beliefs concerning responsibility for transgression or perceived harm to others through self-actualisation or personal inequity seems less likely than functional, rational, resolvable guilt to foster a continuing bond

that potentiates the ongoing presence of the deceased as a benevolent transcendent reality.

Traumatic stress has been based on shame and guilt formulations as well as on the more common foundation of fear (Andrews, Brewin, Rose, & Kirk, 2000; Lee, Scragg, & Turner, 2001; Stone, 1992). Trauma theory considers social sharing to be important in the resolution of traumatic death through talking about the loss and finding meaning in it. Shame-proneness in individuals motivates them to withdraw, thereby limiting the potential succour they can obtain by talking about their loss in a nurturing social milieu, or to enact defensive hostility that might deter the resolve of would-be comforters. Chronic guilt proneness in individuals is likely to incite similar behaviours to shame-proneness, but empathy-based guilt-proneness should promote relatedness with others that is wholesome, providing the latter are warm, tolerant and nonjudgemental (Bonanno & Kaltman, 1999).

In respect of the social-functional theory of emotion, the present study demonstrated that both shame and guilt 'enacted repeatedly or indiscriminately' because they were dysfunctional negative emotion personality traits were associated with more intense grief and depression. These findings support the view that minimising the experience and expression of dysfunctional negative emotions may facilitate recovery from bereavement by enabling the 'grieved person to continue to function in areas of personal importance, such as performing in the work place or caring for others' (Bonanno & Kaltman, 1999, p. 766). On the other hand, functional guilt was associated with less intense grief and depression, and functional shame might have shown a similar benefit had it been measured. Thus the beneficent as well as the maleficent qualities of negative self-conscious emotions need to be borne in mind when considering them in bereavement counselling.

Bereavement counselling

Raphael *et al.* (2001) have recently reviewed the psychotherapeutic interventions and techniques used to facilitate 'normal' grieving, when mitigating circumstances might collude to foster a pathological grief response. Although different psychotherapeutic modalities have been used, they all encourage the following:

> Dealing with the circumstances of the death; reviewing the lost relationship; expressing the various affects of grief; mourning the deceased, both psychologically and in ritual; coming to some terms with the new realities that result from the loss, including any altered role or status; dealing with the concurrent life stressors; and achieving the necessary tasks of a practical nature through this period (Raphael *et al.*, 2001, p. 600).

The present discussion is concerned with two of the 'various affects of grief'; namely, shame and guilt.

Shame

The scope of the present research precluded an exhaustive discourse on bereavement counselling or therapy, but, because shame is notably absent from considerations of the topic, a short discussion on the approach to shame in therapy seems appropriate. Apart from the counsellor establishing a respectful, genuine, empathic, nonjudgemental 'Rogerian' attitude toward the person (Raskin & Rogers, 1995), the cornerstone of psychotherapy is to help the person clarify ways of thinking, feeling and behaving that are commensurate with present-day reality and 'good enough' mental health rather than according to the dictates of outmoded pathogenic beliefs or life scripts upon which the person has foundered (Greenberg & Paivio, 1993; Weiss, 1993).

The strongly aversive nature of shame and the motivation to hide or withdraw mean that manifestations of shame are often oblique and, unless the counsellor is watchful, shame phenomena may ambush the therapeutic alliance through 'resistance' and/or inept therapy. If healing occurs within the transference-countertransference relationship (Broucek, 1991; Kaufman, 1989; Retzinger, 1998), the counsellor must be aware of his or her own shame phenomenology before the person's shame and its role in psychopathology can be adequately addressed, since 'by paying attention to shifts in her own self-evaluation, the therapist may become sensitive to ways in which she has become the spokesperson for aspects of the patient's malignant self-esteem' (Zaslav, 1998, p. 159).

People do not usually mention the word shame in their discourse with the therapist (Lewis, 1971). Instead, they may use any of a number of verbal substitutions, such as feeling bad, uncomfortable, weird, silly, stupid, confused, blank or even guilty (Retzinger, 1995). At the same time, subtle body movements, such as postural collapse, touching the face, averting the gaze and biting or manipulating the lips, may betray the presence of shame. Similarly, shame may find veiled expression in the person's speech in the form of hesitations, abrupt silences, rapid or breathless speech, or nervous laughter (Retzinger, 1987, 1995). Alternatively, people may bypass their shame altogether such that it finds expression as a defensive response, most notably hostility and the externalisation of blame, whereby the therapist is angrily accused of a lack of genuine interest or blamed for perceived lack of progress in therapy (Lewis, 1971; Retzinger, 1995; Tangney & Dearing, 2002).

Although the task may be daunting and only partial solace may be achieved (Pattison, 2000), attending to a person's shame in bereavement counselling may be beneficial for several possible reasons (Greenberg & Paivio, 1993; Harder & Greenwald, 2000; Pulver, 1999; Tangney & Dearing, 2002; Yontef, 1993). First,

the awareness of shame allows for a contemporary evaluation of the role of the competence of the global self in the genesis of present day concerns about the death rather than basing them on outdated unconscious pathogenic beliefs. Second, the awareness of shame allows for a psychoeducational elaboration of the important differences between shame and guilt, particularly furthering bereaved parents' understanding of the distinction between characterological and behavioural self-blame in the possible causation of the death. The notion that the expression of negative emotions may be counterproductive in grief needs to be interpreted with caution, since sex differences were not sought and shame was not amongst the negative emotions referred to by Bonanno *et al.* (Bonanno, 2001; Bonanno & Kaltman, 1999; Bonanno & Keltner, 1997). Because shame may be unobtrusively present with fear, anger, guilt and sadness, the presence of 'unanalysed' shame may be one reason why expressing 'negative emotions' has not been shown to be helpful in grief (Lewis, 1971). Third, the recognition of shame allows for the possible therapeutic use of humour and laughter in the dissipation of shame through the dissolving of self-consciousness (Retzinger, 1987). The recent evidence for the potential value of laughter in grief may be partly owing to the dissolution of shame, though humour based on sarcasm or teasing is likely to be counterproductive (Lewis, 1995; Yontef, 1993). Although Bonanno and his colleagues (2001; 1999; 1997) did not consider shame in speculating about how laughter might ameliorate grief, Bonanno's comment that 'genuine laughter serves an important interpersonal function by enhancing social relations and also plays a role in self-regulation by fostering dissociation from distress' (Bonanno, 2001, p. 505) could be interpreted as referring to the dissolution of shame. Fourth, identifying shame as an inherently functional prosocial emotion that may go awry when conditions are unsavoury offers bereaved parents the opportunity to disinherit the dysfunctional crippling aspects of shame (Greenberg & Paivio, 1993;

Greenwald & Harder, 1998; Harder & Greenwald, 2000; Jacoby, 1994; Lynd, 1958; Retzinger, 1998; Yontef, 1993), by processes that predominantly involve phenomenological awareness and cognitive restructuring within an agreeable therapeutic milieu (Beck & Weishaar, 1995). Fifth, a good deal has been written about shame and psychopathology, but very little attention has been given to modes of therapeutic intervention and their efficacy (Harder & Greenwald, 2000). In any event, working with shame in the bereaved individual requires considerable expertise as well as sensitivity, because '"being a good listener" is not enough to hold a patient who is withdrawing in shame and anger and who may have little inclination to talk' (Bourne, 1968, p. 111). Finally, although the salutary effect of an emotional catharsis ('good cry') may be true for the majority of women, the positive correlation between shame and active grief suggests this may not be the case in men. Indeed, men may be better served avoiding the social display of emotion ('stiff-upper-lip'), since men who report more negative internalising emotions—hurt, shame, disappointment, sadness and guilt—in response to requests for intimacy also report more anxiety and depression (Brody *et al.*, 2002). Brody *et al.* have speculated that 'clinicians [should] question whether acknowledging feelings of vulnerability is a fruitful goal for men' (Brody *et al.*, 2002, p. 244). Brody *et al.* (2002) were not referring to grief, but a similar sentiment has been expressed by Ryan (1989) in relation to the death of his infant son:

> I knew I could hide my feelings very well. I had learned that and counted it as a strength. People who thought similarly would never try to draw someone's feelings out unless they wanted to humiliate him or her. I was thankful to these, for there were times when I was very close to that fearful state of being out of control of my emotions. But I was spared that indignity (Ryan, 1989, p. 128).

Guilt

The urgency to confess guilt and the desire to make amends for perceived transgression are such that bereaved parents are usually aware of their guilt, though they may not be too cognisant of its various forms. Thus, effective counselling of the parent who feels guilty about the baby's death requires facilitated enquiry into the specific nature of the guilt. First, if the parent feels that he or she is to blame for the death then clarification is necessary regarding true culpability and whether the felt blame is a measure of the person's behaviour or character, since to disconfirm the latter may be helpful. Simple unelaborated assurance regarding a parent's lack of culpability has been proposed (Giles, 1970; Graham *et al.*, 1987), but is unlikely to be helpful, and may even be harmful if the parent's felt experience is unwittingly negated (Condon, 1986). Second, people frequently believe that guilt is a dysfunctional, unnecessary and unhelpful emotion; so cognitively reframing it to be prosocial and related to empathic concern for the baby and a normal response to separation anxiety may help parents feel better about themselves. Third, parents may be aided by understanding that their guilt may be a defensive manoeuvre whereby they seek to wrest control of the death from the seemingly random and meaningless hands of cosmic indifference (Gardner, 1969; Wurmser, 1999; Yalom, 1980). Fourth, although theoretically parents may have had ambivalent feelings toward the fetus or newborn prior to the death (Condon, 1985; Condon, 1986), 'Freudian' guilt from these retroflected hostile or resentful feelings is not a common clinical accompaniment of parental grief. Consequently, this analytic interpretation of guilt is not likely to resonate with parents' experience. Fifth, the counsellor should be concerned about parents who express frequent and unremitting feelings of guilt and remorse in response to the baby's death or its secondary consequences. Although the death is immutable and forgiveness from the baby can not be forthcoming, a 'two-chair dialogue' may facilitate

authorship of parental projections and enable parents to forgive themselves (Gilbert, 2000; Greenberg & Paivio, 1993). In addition, psychotherapy based on the principles expounded above concerning learning to think, feel, and behave according to present day here-and-now exigencies rather than in accordance with pathogenic beliefs from bygone days may be helpful, because it encourages agency over victimisation:

> As long as patients persist in believing that their major problems are a result of something outside of themselves — the actions of other people, bad nerves, social class injustices, genes — then we therapists are limited in what we can offer. We can commiserate, suggest more adaptive methods of responding to the assaults and unfairness of life, we can help patients attain equanimity or learn to be more effective in altering their environment.
>
> But, if we hope for more significant therapeutic change, we must encourage our patients to assume responsibility — that is to apprehend how they themselves contribute to their own distress (Yalom, 2003, p. 139).

Finally, special mention is made of *Control Mastery Theory* (Weiss, 1993; Weiss & Sampson, 1986), because certain of the pathogenic beliefs the theory considers to be at the core of psychopathology were found in the present study to be correlated with grief, namely those beliefs that constrain self-realisation because of survivor guilt and omnipotence guilt. According to Weiss, '*the therapeutic process is the process by which the patient works with the therapist at the task of disconfirming his pathogenic beliefs*' (Weiss, 1993, p. 9). In the context of perinatal bereavement counselling, for example, survivor guilt may be founded on 'survivor' parents' pathogenic belief that fate has dealt more harshly with the baby who died or their bereft spouse than with themselves. Parents may prolong their grief unnecessarily if they are unwilling or unable to relinquish the survivor guilt occasioned by the personal inequity between them and their dead baby and/or distressed spouse. The deceased baby is a

particularly powerful repository for parents' unconscious projections and, therefore a 'two-chair dialogue' (Greenberg & Paivio, 1993), or its equivalent (for example, Orianna Fallaci's (1982) poignant *Letter to a Child Never Born*), may help parents relinquish their survivor guilt and/or omnipotence guilt and, thereby, attenuate their grief:

> The human being is myself, who can think and speak and laugh and cry and act in a world that acts to build ideas and things. You're nothing but a little flesh doll that can't think, can't speak, can't laugh, can't cry, and can act only to build itself. What I see in you isn't you: it's myself! I've bestowed a mind on you, carried on a dialogue with you, but your mind was my mind, and our dialogue a monologue: mine! Enough of this comedy, this delirium. No one is human by natural right, before being born. We become human afterwards, when we're born, because we stay with others, because others help us, because a mother or a woman or a man or somebody teaches us to eat, to walk, to speak, to think, to behave like humans. The only thing that joins us, my dear, is an umbilical cord (Fallaci, 1982, p. 59).

Although there may be individuals who are predominantly shame or guilt prone, it can reasonably be assumed that both affects are operating and careful attention should be given to the manifestations of each, always expecting the covert presence of the other, so that shame and guilt counselling proceed pari passu with the other components of a holistic approach to bereavement counselling (Raphael *et al.*, 2001).

According to Raphael *et al.*, 'psychotherapy with bereaved people, regardless of modality adopted, requires a dynamic understanding of bereavement and its effects' (Raphael *et al.*, 2001, p. 605). The present study has elaborated on the importance of understanding shame and guilt in perinatal bereavement.

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Appendixes

Appendix A

Appendix A1. Endorsement of study letter

Dear:

The accompanying letter explains a research study by Dr Peter Barr who is a Senior Staff Specialist in Neonatology at The New Children's Hospital. Dr Barr has long had a special interest in the grief experienced by parents after a stillbirth or neonatal death. He is presently undertaking a research project that seeks to understand parents' grief more fully, particularly how their personality characteristics affect the way they grieve. The study should provide a better understanding of parental grief and lead to improved support services for bereaved parents.

Dr Barr's study has been approved by the Area Health Service Research Ethics Committee and is endorsed by the members of the Hospital's Department of Neonatology.

Dr Barr will be contacting you by telephone to find out whether or not you may be prepared to participate in his research.

Yours sincerely:

Dr

Director of New Born Care

Appendix A2. Introductory letter to parent

Dear:

This letter accompanies one from your hospital introducing me and explaining my research study into parental grief after stillbirth or the death of a baby in the newborn period.

Firstly, let me say how sorry I am about the death of your baby. Secondly, may I hasten to add that I hope this letter doesn't offend you or cause you more distress than you're already experiencing. Nevertheless, I hope you might agree to participate in my research, the details of which are provided in the accompanying *Research Study into Parental Grief. Information for Participants*.

The purpose of the research is to study the relationship between a person's personality characteristics and traits and the course of their grief over a one-year period. If you agree to participate in the study, I shall telephone you and arrange to meet with you in your home or, if you prefer, another place 1–2 months after the baby's death so that I might hear about your loss and record some medical details about the death. In addition, I would have you complete six brief questionnaires to do with your grief, personality and temperament, marital (or domestic partner) relationship, and general health. The interview and the questionnaires will take 2–3 hours to complete. Because I want to study the course of parental grief over time, I shall be asking you complete the same six questionnaires and provide me with an update about future pregnancies and stressful life events when I contact you again one year after your loss; providing, of course, you still agree to participate in the study.

The study is quite voluntary, though naturally I would appreciate your participation. I anticipate that going over something as tragic and full of feelings as your baby's death may be upsetting and difficult for you and I will certainly give you what ever support you need at the time. In addition, I shall ensure that you know to whom to turn for further support or counselling if you think you require it.

Introductory letter to parent (continued)

The questionnaires are identified by a special code and I will be the only person who knows the name of the person completing them. In this way your confidentiality and privacy will be assured.

I have included a section at the bottom of this letter and a pre-stamped envelope so that you can let me know that either 1) you are willing to participate in the study and give me permission to telephone you to arrange a meeting; or 2) you do not wish to participate in the study; or 3) you are undecided about participating in the study but would accept a telephone call from me to discuss it further before making a final decision.

Thank you and I hope you will forgive me for intruding into your life in this way.

Yours sincerely:

Peter Barr

✂ .....

Dear Peter Barr:

I have read your letter and the accompanying information sheet and (please tick appropriate box):

- ❒ I am willing to participate in your study and give you permission to telephone me to arrange a meeting.
- ❒ I do not wish to participate in the study.
- ❒ I am uncertain about whether or not to participate in the study but give you permission to telephone me so that I can discuss it further.

Name.....

Telephone number.....

Signature.....

✂ .....

Appendix A3. Participant information sheet

RESEARCH STUDY INTO PARENTAL GRIEF

INFORMATION FOR PARTICIPANTS

You are invited to take part in a research study into *Parental Grief* following a stillbirth or death of a baby in the newborn period. The objective is to investigate how certain aspects of a person's personality affect the nature of their grief over a one year period. The study is being conducted by Dr Peter Barr.

If you agree to participate in this study, Dr Peter Barr will collect information about your reproductive history, including previous pregnancy losses, and the circumstances and experiences surrounding your present loss, and you will be given six questionnaires to answer. The questionnaires measure 1) grief, 2) reactions to encounters in everyday life, 3) personal feelings, 4) emotions and life experiences, 5) degree of contentment with marital or cohabiting relationship, and 6) general health. Collecting the information and answering the questionnaires should take 2–3 hours. In addition, information about subsequent pregnancies and stressful life events and answering the six questionnaires will be repeated 12–14 months after the death of your baby. Understandably, talking about the death of your baby and sharing intimate details of your personal life can be an emotional experience but one which is short-lived and often valued by people.

All aspects of the study, including results, will be strictly confidential and only the investigator named above 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.

While the intention is that this research study furthers understanding of parental grief after stillbirth or neonatal death and helps identify people with more difficult mourning for supportive counselling, it may not be of direct benefit to you.

Participation in this study is entirely voluntary: you are in no way obliged to participate and — if you do participate — you can withdraw at any time. Whatever your decision, please be assured that it will not affect your medical treatment or your relationship with medical staff.

When you have read this information, Dr Peter Barr 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 Peter Barr at The New Children's Hospital. This information sheet is for you to keep.

This study has been approved by your hospital's Human Research Ethics Committee. Any person with concerns or complaints about the conduct of a research study can contact the Research Office.

Appendix A4. Participant consent form

PARENTAL GRIEF STUDY

CONSENT FORM

NAME OF STUDY: Parental Grief following stillbirth or neonatal death

PRINCIPAL INVESTIGATOR: Dr Peter Barr

I .....

of .....

1. voluntarily give my consent to participate in the Study and acknowledge that I may
2. withdraw from the Study at any time and that my refusal to take part in the Study will not affect my usual medical care;
3. understand that the Study will be conducted in a manner conforming with ethical and scientific principles set out by the National Health and Medical Council of Australia;
4. that the Study will be carried out as described in the attached information sheet and I acknowledge that I have read and understood the information sheet about the Study which was provided to me before I signed this consent and that I have received a copy of this consent form and information sheet;
5. that the general purpose, method and demands and the possible risks, inconveniences which may occur to me during the Study have been explained to me by

   .....
6. I understand that I will not be identified in any way, and my personal results will remain strictly confidential to the extent permitted by the relevant privacy laws. I have been given the opportunity to have a member of my family or a friend present while the Study was explained to me.

Participant consent form (continued)

DATED .....

Participant's Signature ..... Participant's Name .....

Witness's Signature ..... Witness's Name .....

Appendix B

Appendix B1. Perinatal Grief Scale-33

Present thoughts and feelings about your loss

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

1 — means that you strongly agree with the statement

2 — means that you agree with the statement

3 — means that you neither agree nor disagree with the statement

4 — means that you disagree with the statement

5 — means that you strongly disagree with the statement

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

It is important that you respond to all of the statements. Please don't skip any of the items.

At the present time

		Strongly agree	Agree	Neither agree nor disagree	Disagree	**Strongly disagree**
1.	I feel depressed (AG)	1	2	3	4	5
2.	I find it hard to get along with certain people (DC)	1	2	3	4	5
3.	I feel empty inside (AG)	1	2	3	4	5
4.	I can't keep up with my normal activities (DC)	1	2	3	4	5
5.	I feel a need to talk about the baby (AG)	1	2	3	4	5
6.	I am grieving for the baby (AG)	1	2	3	4	5
7.	I am frightened (AG)	1	2	3	4	5
8.	I have considered suicide since the loss (DC)	1	2	3	4	5
9.	I take medicine for my nerves (D)	1	2	3	4	5
10.	I very much miss the baby (AG)	1	2	3	4	5

Perinatal Grief Scale-33 (continued)

11.	I feel I have adjusted well to the loss (DC) *	1	2	3	4	5
12.	It is painful to recall memories of the loss (AG)	1	2	3	4	5
13.	I get upset when I think about the baby (AG)	1	2	3	4	5
14.	I cry when I think about him/her (AG)	1	2	3	4	5
15.	I feel guilty when I think about the baby (D)	1	2	3	4	5
16.	I feel physically ill when I think about the baby (D)	1	2	3	4	5
17.	I feel unprotected in a dangerous world since he/she died (D)	1	2	3	4	5
18.	I try to laugh, but nothing seems funny anymore (D)	1	2	3	4	5
19.	Time passes so slowly since the baby died (AG)	1	2	3	4	5
20.	The best part of me died with the baby (D)	1	2	3	4	5
21.	I have let people down since the baby died (DC)	1	2	3	4	5
22.	I feel worthless since he/she died (D)	1	2	3	4	5
23.	I blame myself for the baby's death (D)	1	2	3	4	5
24.	I get cross at my friends and relatives more than I should (DC)	1	2	3	4	5
25.	Sometimes I feel like I need a professional counselor to help me get my life back together again (DC)	1	2	3	4	5
26.	I feel as though I'm just existing and not really living since he/she died (DC)	1	2	3	4	5
27.	I feel so lonely since he/she died (AG)	1	2	3	4	5
28.	I feel somewhat apart and remote, even among friends (DC)	1	2	3	4	5
29.	It's safer not to love (D)	1	2	3	4	5
30.	I find it difficult to make decisions since the baby died (DC)	1	2	3	4	5
31.	I worry about what my future will be like (D)	1	2	3	4	5
32.	Being a bereaved parent means being a "Second-Class Citizen" (D)	1	2	3	4	5
33.	It feels great to be alive (DC) *	1	2	3	4	5

Note: *Item reverse scored. AG = Active Grief. DC = Difficulty Coping. D = Despair. The subscale codes in parentheses were not shown in the study participants' questionnaires.

Appendix B2. Test of Self-Conscious Affect-2

Reactions to encounters in day-to-day life

Below are several situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, ***try to imagine yourself in that situation***. Then indicate how likely you would be to react in each of the ways described. We ask you to rate ALL responses because people may feel or react more than one way to the same situation, or they may react in different ways at different times.

EXAMPLE

A. You wake up early one Saturday morning. It is cold and rainy outside.

		Not likely ..... Very likely
a)	You would telephone a friend to catch up on the news.	(1) ..... 2 ..... 3 ..... 4 5
b)	You would take the extra time to read the paper.	1 ..... 2 ..... 3 ..... 4 ..... (5)
c)	You would feel disappointed that it's raining.	1 ..... 2 ..... (3) 4 5
d)	You would wonder why you woke up so early.	1 ..... 2 ..... 3 ..... (4) 5

In the above example, I've rated ALL of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning — so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't — it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please rate ALL responses. Do not skip any items.

Q 1. You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood him up.

		Not likely ..... Very likely
a)	You cannot apologize enough for forgetting the appointment (RG).	1..... 2..... 3..... 4..... 5
b)	You would think: "I'm inconsiderate." (S)	1..... 2..... 3..... 4..... 5
c)	You would think: "Well, they'll understand." (D)	1..... 2..... 3..... 4..... 5
d)	You think you should make it up to him as soon as possible. (G)	1..... 2..... 3..... 4..... 5
e)	You would think: "My boss distracted me just before lunch." (E)	1..... 2..... 3..... 4..... 5

Q 2. You break something at work and then hide it.

		Not likely ..... Very likely
a)	You would think: "This is making me anxious I need to either fix it or get someone else to." (G)	1..... 2..... 3..... 4..... 5
b)	You would think about quitting. (S)	1..... 2..... 3..... 4..... 5
c)	For days you'd worry about it, repeatedly trying to think of a way to remedy the situation. (RG)	1..... 2..... 3..... 4..... 5
d)	You would think: "A lot of things aren't made very well these days." (E)	1..... 2..... 3..... 4..... 5
e)	You would think: "It was only an accident." (D)	1..... 2..... 3..... 4..... 5

Q 3. You are out with friends one evening and you're feeling especially witty and attractive. Your best friend's spouse seems to particularly enjoy your company.

		Not likely ..... Very likely
a)	You would think: "I should have been aware of what my best friend is feeling." (G)	1..... 2..... 3..... 4..... 5
b)	You would feel happy with your appearance and personality. (AP)	1..... 2..... 3..... 4..... 5
c)	You would feel pleased to have made such a good impression. (BP)	1..... 2..... 3..... 4..... 5
d)	You can't stop thinking about the problems you may have caused your friend and their spouse. (RG)	1..... 2..... 3..... 4..... 5
e)	You would probably avoid eye-contact for a long time. (S)	1..... 2..... 3..... 4..... 5

Q 4. At work, you wait until the last minute to plan a project, and it turns out badly.

		Not likely ..... **Very likely**
a)	You'd bend over backwards for months to make up for it but fear that it won't make any difference. (RG)	1..... 2..... 3..... 4..... 5
b)	You would feel incompetent. (S)	1..... 2..... 3..... 4..... 5
c)	You would think: "There are never enough hours in the day." (E)	1..... 2..... 3..... 4..... 5
d)	You would feel: "I deserve to be reprimanded for mismanaging the project." (G)	1..... 2..... 3..... 4..... 5
e)	You would think: "What's done is done." (D)	1..... 2..... 3..... 4..... 5

Q 5. You make a mistake at work and find out a co-worker is blamed for the error.

		Not likely ..... **Very likely**
a)	You would think the company did not like the co-worker. (E)	1..... 2..... 3..... 4..... 5
b)	You would think: "Life is not fair." (D)	1..... 2..... 3..... 4..... 5
c)	You would keep quiet and avoid the co-worker. (S)	1..... 2..... 3..... 4..... 5
d)	You would feel troubled and preoccupied with what happened but unable to correct the situation. (RG)	1..... 2..... 3..... 4..... 5
e)	You would feel unhappy and eager to correct the situation. (G)	1..... 2..... 3..... 4..... 5

Q 6. For several days you put off making a difficult phone call. At the last minute you make the call and are able to manipulate the conversation so that all goes well.

		Not likely ..... **Very likely**
a)	You would think: "I guess I'm more persuasive than I thought." (AP)	1..... 2..... 3..... 4..... 5
b)	You would regret that you put it off. (G)	1..... 2..... 3..... 4..... 5
c)	You would feel like a coward. (S)	1..... 2..... 3..... 4..... 5
d)	You would think: "I did a good job". (BP)	1..... 2..... 3..... 4..... 5
e)	You would feel badly about getting off so easily and always feel "funny" whenever you thought about the call. (RG)	1..... 2..... 3..... 4..... 5
f)	You would think you shouldn't have to make calls you feel pressured into. (E)	1..... 2..... 3..... 4..... 5

Q 7. While playing around, you throw a ball and it hits your friend in the face.

		Not likely ..... **Very likely**
a)	You would feel inadequate that you can't even throw a ball. (S)	1..... 2..... 3..... 4..... 5
b)	You would think maybe your friend needs more practice at catching. (E)	1..... 2..... 3..... 4..... 5
c)	You'd replay the incident over and over, wondering what you could have done to avoid it. (RG)	1..... 2..... 3..... 4..... 5
d)	You would think: "It was just an accident." (D)	1..... 2..... 3..... 4..... 5
e)	You would apologize and make sure your friend feels better. (G)	1..... 2..... 3..... 4..... 5

Q 8. You have recently moved away from your family, and everyone has been very helpful. A few times you have needed to borrow money, but you paid it back as soon as you could.

		Not likely ..... **Very likely**
a)	You would feel immature. (S)	1..... 2..... 3..... 4..... 5
b)	You would think: "I sure ran into some bad luck." (D)	1..... 2..... 3..... 4..... 5
c)	You would return the favor as quickly as you could. (G)	1..... 2..... 3..... 4..... 5
d)	You would think: "I am a trustworthy person." (AP)	1..... 2..... 3..... 4..... 5
e)	You would be proud that you repaid your debts. (BP)	1..... 2..... 3..... 4..... 5
f)	You'd still never be able to forgive yourself for putting your family out. (RG)	1..... 2..... 3..... 4..... 5

Q 9. You are driving down the road, and hit a small animal.

		Not likely ..... **Very likely**
a)	You would think the animal shouldn't have been on the road. (E)	1..... 2..... 3..... 4..... 5
b)	You would think: "I'm terrible." (S)	1..... 2..... 3..... 4..... 5
c)	You would feel: "Well, it was an accident." (D)	1..... 2..... 3..... 4..... 5
d)	You'd have trouble getting the image of the animal out of your mind. (RG)	1..... 2..... 3..... 4..... 5
e)	You'd feel bad you hadn't been more alert driving down the road. (G)	1..... 2..... 3..... 4..... 5

Q 10. You walk out of an exam thinking you did extremely well. Then you find out you did poorly.

		Not likely ..... Very likely
a)	You would think: "Well, it's just a test." (D)	1..... 2..... 3..... 4..... 5
b)	You would think: "The instructor doesn't like me." (E)	1..... 2..... 3..... 4..... 5
c)	You would think: "I should have studied harder." (G)	1..... 2..... 3..... 4..... 5
d)	You would feel stupid. (S)	1..... 2..... 3..... 4..... 5
e)	You'd keep thinking back to all of the things you did wrong in preparing for the exam. (RG)	1..... 2..... 3..... 4..... 5

Q 11. You and a group of co-workers worked very hard on a project. Your boss singles you out for a bonus because the project was such a success.

		Not likely ..... Very likely
a)	You would feel the boss is rather short-sighted. (E)	1..... 2..... 3..... 4..... 5
b)	You would feel alone and apart from your colleagues. (S)	1..... 2..... 3..... 4..... 5
c)	You would feel your hard work had paid off. (BP)	1..... 2..... 3..... 4..... 5
d)	You would feel competent and proud of yourself. (AP)	1..... 2..... 3..... 4..... 5
e)	You would feel you should not accept it. (G)	1..... 2..... 3..... 4..... 5
f)	You'd feel compelled to find new ways each day to make it up to your co-workers. (RG)	1..... 2..... 3..... 4..... 5

Q 12. While out with a group of friends, you make fun of a friend who's not there.

		Not likely ..... Very likely
a)	You would think: "It was all in fun; it's harmless." (D)	1..... 2..... 3..... 4..... 5
b)	You would feel small … like a "rat." (S)	1..... 2..... 3..... 4..... 5
c)	You would think that perhaps that friend should have been there to defend himself/herself. (E)	1..... 2..... 3..... 4..... 5
d)	You would berate yourself over and over for it and vow <u>never</u> to do it again. (RG)	1..... 2..... 3..... 4..... 5
e)	You would apologize and talk about that person's good points. (G)	1..... 2..... 3..... 4..... 5

Q 13. You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.

		Not likely ..... Very likely
a)	You would think your boss should have been more clear about what was expected of you. (E)	1..... 2..... 3..... 4..... 5
b)	You would walk around for days kicking yourself, thinking of all the mistakes you made. (RG)	1..... 2..... 3..... 4..... 5
c)	You would feel like you wanted to hide. (S)	1..... 2..... 3..... 4..... 5
d)	You would think: "I should have recognized the problem and done a better job." (G)	1..... 2..... 3..... 4..... 5
e)	You would think: "Well, nobody's perfect." (D)	1..... 2..... 3..... 4..... 5

Q 14. You volunteer to help with the local Special Olympics for handicapped children. It turns out to be frustrating and time-consuming work. You think seriously about quitting, but then you see how happy the kids are.

		Not likely ..... Very likely
a)	You would feel selfish and you'd think you are basically lazy. (S)	1..... 2..... 3..... 4..... 5
b)	Every time you hear about the kids, you get a gnawing feeling inside, knowing how you almost let them down. (RG)	1..... 2..... 3..... 4..... 5
c)	You would feel you were forced into doing something you did not want to do. (E)	1..... 2..... 3..... 4..... 5
d)	You would think: "I should be more concerned about people who are less fortunate." (G)	1..... 2..... 3..... 4..... 5
e)	You would feel great that you had helped others. (BP)	1..... 2..... 3..... 4..... 5

Q 15. You are taking care of your friend's dog while they are on vacation and the dog runs away.

		Not likely ..... Very likely
a)	You would think: "I am irresponsible and incompetent." (S)	1..... 2..... 3..... 4..... 5
b)	You would think that your friend must not take very good care of their dog or it wouldn't have run away. (E)	1..... 2..... 3..... 4..... 5
c)	You would feel badly every time you saw a dog. (RG)	1..... 2..... 3..... 4..... 5
d)	You would vow to be more careful next time. (G)	1..... 2..... 3..... 4..... 5
e)	You would think your friend could just get a new dog. (D)	1..... 2..... 3..... 4..... 5

Q 16 You attend your co-worker's housewarming party, and you spill red wine on their new cream-colored carpet, but you think no one notices.

		Not likely..... Very likely
a)	You think your co-worker should have expected some accidents at such a big party. (E)	1..... 2..... 3..... 4..... 5
b)	You would stay late to help clean up the stain after the party. (G)	1..... 2..... 3..... 4..... 5
c)	Every time you see your co-worker you get a nervous feeling in the pit of your stomach, thinking of that stain on the carpet. (RG)	1..... 2..... 3..... 4..... 5
d)	You would wish you were anywhere but at the party. (S)	1..... 2..... 3..... 4..... 5
e)	You would wonder why your co-worker chose to serve red wine with the new light carpet. (D)	1..... 2..... 3..... 4..... 5

Note: AP = Alpha Pride. BP = Beta Pride. E = Externalisation. D = Detachment. G = Guilt. S = Shame. RG = Ruminative Guilt. The self-conscious emotion and psychological defence codes in parentheses were not shown in the study participants' questionnaires.

Appendix B3. Personal Feelings Questionnaire-2

Personal Feelings

Each of the items is a statement of feelings. For each item, circle the number which best indicates how common the feeling is for you.

0 — means that you never experience the feeling

1 — means that you rarely experience the feeling

2 — means that you sometimes experience the feeling

3 — means that you FREQUENTLY experience the feeling

4 — means that you continuously or almost continuously experience the feeling

How common is the feeling for you?

	Never experience	Rarely experience	Sometimes experience	Frequently experience	Continuously or almost continuously experience
1. Embarrassment (S)	0	1	2	3	4
2. Mild guilt (G)	0	1	2	3	4
3. Feeling ridiculous (S)	0	1	2	3	4
4. Worry about hurting or injuring someone (G)	0	1	2	3	4
5. Sadness	0	1	2	3	4
6. Self-consciousness (S)	0	1	2	3	4
7. Feeling humiliated (S)	0	1	2	3	4
8. Intense guilt (G)	0	1	2	3	4
9. Euphoria	0	1	2	3	4
10. Feeling "stupid" (S)	0	1	2	3	4
11. Regret (G)	0	1	2	3	4
12. Feeling "childish" (S)	0	1	2	3	4
13. Mild happiness	0	1	2	3	4
14. Feeling helpless, paralyzed (S)	0	1	2	3	4
15. Depression	0	1	2	3	4
16. Feelings of blushing (S)	0	1	2	3	4
17. Feeling you deserve criticism for what you did (G)	0	1	2	3	4
18. Feeling laughable (S)	0	1	2	3	4
19. Rage	0	1	2	3	4
20. Enjoyment	0	1	2	3	4
21. Feeling disgusting to others (S)	0	1	2	3	4
22. Remorse (G)	0	1	2	3	4

Note: G = Guilt. S = Shame. The guilt and shame codes in parentheses were not shown in the study participants' questionnaires.

Appendix B4. Interpersonal Guilt Questionnaire-67

Emotions and life experiences

Each of the items is a statement of thoughts and feelings which some people have about themselves and/or other people. For each item, circle the number which best indicates the extent to which you think it is UNTRUE or you DISAGREE with it OR you think it is TRUE or you AGREE with it. There are no right or wrong answers. Please try to use the "Sometimes true and sometimes not true OR undecided" category only when you are truly undecided. Please respond to ALL of the statements.

1 — means the statement is VERY UNTRUE of you or you strongly disagree
2 — means the statement is NOT TRUE of you or you DISAGREE
3 — means the statement is sometimes true and sometimes not true of you or you are undecided
4 — means the statement is TRUE of you or you AGREE
5 — means the statement is VERY TRUE of you or you STRONGLY AGREE

		Very untrue of me OR strongly disagree	Not true of me OR disagree	Sometimes true or not true OR undecided	True of me OR agree	Very true of me OR strongly agree
1.	I conceal or minimize my successes (SU)	1	2	3	4	5
2.	It makes me uncomfortable to have critical thoughts about my parents (SE)	1	2	3	4	5
3.	I worry a great deal about my parents, or children, or siblings (O)	1	2	3	4	5
4.	I do not deserve other people's respect or admiration (SH)	1	2	3	4	5
5.	It makes me very uncomfortable to receive better treatment than the people I am with (SU)	1	2	3	4	5
6.	It is difficult to see my parents' flaws (SE)	1	2	3	4	5
7.	I am afraid to fully enjoy my successes because I fear something bad is just around the corner (SU)	1	2	3	4	5

Interpersonal Guilt Questionnaire-67 (continued)

8. I often find myself doing what someone else wants me to do rather than doing what I would most enjoy (O)	1	2	3	4	5
9. I deserve to be rejected by people (SH)	1	2	3	4	5
10. Other people's misfortunes do not affect me (SU) *	1	2	3	4	5
11. I feel bad when I disagree with my parent's ideas or values, even if I keep it to myself (SE)	1	2	3	4	5
12. I worry about hurting other people's feelings if I turn down an invitation from somebody who is eager for me to accept (O)	1	2	3	4	5
13. I am always expecting to be hurt (SH)	1	2	3	4	5
14. I sometimes feel I don't deserve the happiness I've achieved (SU)	1	2	3	4	5
15. I wish I could be more like my parents (SE)	1	2	3	4	5
16. I enjoy having other people envy me (SU) *	1	2	3	4	5
17. It is very hard for me to cancel plans if I know the other person is looking forward to seeing me (O)	1	2	3	4	5
18. If something bad happens to me I feel I must have deserved it (SH)	1	2	3	4	5
19. I feel responsible at social gatherings for people who are not able to enter into conversations with others (SU)	1	2	3	4	5
20. I feel that bad things may happen to my family if I do not stay in close contact with them (SE)	1	2	3	4	5
21. I worry a lot about the people I love even when they seem to be fine (O)	1	2	3	4	5
22. If I make a mistake I get very depressed (SH)	1	2	3	4	5
23. I am able to retain my good humor even after seeing beggars or homeless people (SU) *	1	2	3	4	5
24. It makes me anxious to be away from home for too long (SE)	1	2	3	4	5
25. I generally have trouble saying no to people, i.e. refusing other people's deadlines (O)	1	2	3	4	5
26. If someone blames me for a mishap I assume they are right (SH)	1	2	3	4	5
27. I don't feel sorry for people who are less fortunate or successful than I am (SU) *	1	2	3	4	5
28. I am uncomfortable talking about my achievements in social situations (SU)	1	2	3	4	5
29. I feel uncomfortable if I don't do things in the same way my parents did (SE)	1	2	3	4	5
30. I can't stand the idea of hurting someone else (O)	1	2	3	4	5
31. If I fail at something I condemn myself and want to harm myself (SH)	1	2	3	4	5

Interpersonal Guilt Questionnaire-67 (continued)

32. I feel uncomfortable if other people envy me for what I have (SU)	1	2	3	4	5
33. I prefer to do things the way my parents did them (SE)	1	2	3	4	5
34. I don't let my parents make me feel responsible for their unhappiness (O) *	1	2	3	4	5
35. It does not disturb me to see very poor people (SU) *	1	2	3	4	5
36. Sometimes I feel I am such a bad person that I don't deserve to live (SH)	1	2	3	4	5
37. In social situations, I like to talk about my accomplishments (SU) *	1	2	3	4	5
38. I am very reluctant to express an opinion that is different from the opinions held by family or friends (SE)	1	2	3	4	5
39. If my child, spouse or close friends have a problem, I am very tempted to try to solve it for them (O)	1	2	3	4	5
40. Other people have better lives because they are more deserving than I am (SH)	1	2	3	4	5
41. It makes me very uncomfortable if I am more successful at something than are my friends or family members (SU)	1	2	3	4	5
42. I don't mind saying negative things about my parents (SE) *	1	2	3	4	5
43. I am afraid to be alone (O)	1	2	3	4	5
44. My parents needed to punish me severely as a child because I did so many bad things (SH)	1	2	3	4	5
45. I feel uncomfortable when I feel better than other people (SU)	1	2	3	4	5
46. I have no difficulty rejecting my family's values (SE) *	1	2	3	4	5
47. My parent's problems are their own concern, not mine (O) *	1	2	3	4	5
48. I always assume I am at fault when something goes wrong (SH)	1	2	3	4	5
49. I am relieved when my spouse, my siblings, my parents, or my children are successful or confident, or when they achieve recognition or honors (SU)	1	2	3	4	5
50. I am glad I am not like my parents (SE) *	1	2	3	4	5
51. I can't be happy when a friend or relative is suffering a disappointment (SU)	1	2	3	4	5
52. It is easy for me to say no to others (O) *	1	2	3	4	5
53. People would not mistreat me if I did not deserve it (SH)	1	2	3	4	5
54. It is often hard for me to enjoy things that I have been looking forward to (SU)	1	2	3	4	5

Interpersonal Guilt Questionnaire-67 (continued)

55. I would feel terrible if I did not love my parents (SE)	1	2	3	4	5
56. I don't worry about my parents or children (O) *	1	2	3	4	5
57. I feel like an unlovable person (SH)	1	2	3	4	5
58. I am afraid to get what I want because I feel there will be a price to pay that I did not anticipate (SU)	1	2	3	4	5
59. One's parents should always come first (SE)	1	2	3	4	5
60. If something goes wrong in the family I tend to ask myself how could I have prevented it (O)	1	2	3	4	5
61. I feel I am being punished for bad things I did as a child (SH)	1	2	3	4	5
62. I tend to get somewhat depressed after important accomplishments (SU)	1	2	3	4	5
63. I feel guilty about not liking my parents (SE)	1	2	3	4	5
64. Sometimes I feel that I am a selfish and irresponsible person (SH)	1	2	3	4	5
65. When I get a little extra money I feel tempted to share it with a poor friend or relative (SU)	1	2	3	4	5
66. I feel there is something inherently bad about me (SH)	1	2	3	4	5
67. When a friend or relative suffers a misfortune I imagine how I would feel if I suffered a similar misfortune (SU)	1	2	3	4	5

Note: * Item reverse scored. O = Omnipotence Guilt. SE = Separation Guilt. SH = Self-Hate Guilt. SU = Survivor Guilt.

The interpersonal guilt codes in parentheses were not shown in the study participant's questionnaires.

Appendix B5. Golombok Rust Inventory of Marital State

Feelings about your relationship with your partner

Read each statement carefully and decide which response best describes how you presently feel about your relationship with your partner; then circle the corresponding response.

Each statement is followed by a series of possible responses

0 — means that you strongly disagree with the statement

1 — means that you disagree with the statement

2 — means that you agree with the statement

3 — means that you strongly agree with the statement

Please respond to every statement: if none of the responses seem completely accurate, circle the number which you feel is most appropriate. Do not spend too long on each question.

Please answer the questionnaire without discussing it with your partner.

Present feelings about your partner

		Strongly disagree	Disagree	Agree	**Strongly agree**
1.	My partner is usually sensitive to and aware of my needs *	0	1	2	3
2.	I really appreciate my partner's sense of humor *	0	1	2	3
3.	My partner doesn't seem to listen to me anymore	0	1	2	3
4.	My partner has never been disloyal to me *	0	1	2	3
5.	I would be willing to give up my friends if it meant saving our relationship *	0	1	2	3
6.	I am dissatisfied with our relationship	0	1	2	3
7.	I wish my partner was not so lazy and didn't keep putting things off	0	1	2	3
8.	I sometimes feel lonely even when I am with my partner	0	1	2	3
9.	If my partner left me life would not be worth living *	0	1	2	3
10.	We can 'agree to disagree' with each other *	0	1	2	3
11.	It is useless carrying on with a marriage beyond a certain point	0	1	2	3
12.	We both seem to like the same things *	0	1	2	3

Golombok Rust Inventory of Marital State (continued)

13. I find it difficult to show my partner that I am feeling affectionate	0	1	2	3
14. I never have second thoughts about our relationship *	0	1	2	3
15. I enjoy just sitting and talking with my partner *	0	1	2	3
16. I find the idea of spending the rest of my life with my partner rather boring	0	1	2	3
17. There is always plenty of 'give and take' in our relationship *	0	1	2	3
18. We become competitive when we have to make decisions	0	1	2	3
19. I no longer feel I can really trust my partner	0	1	2	3
20. Our relationship is still full of joy and excitement *	0	1	2	3
21. One of us is continually talking and the other is usually silent	0	1	2	3
22. Our relationship is continually evolving *	0	1	2	3
23. Marriage is really more about security and money than about love	0	1	2	3
24. I wish there was more warmth and affection between us	0	1	2	3
25. I am totally committed to my relationship with my partner *	0	1	2	3
26. Our relationship is sometimes strained because my partner is always correcting me	0	1	2	3
27. I suspect we may be on the brink of separation	0	1	2	3
28. We can always make up quickly after an argument *	0	1	2	3

Note: * Item reverse scored.

Appendix B6. General Health Questionnaire-28

General health questionnaire

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, ***over the past few weeks***. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about ***present and recent complaints***, not those that you had in the past.

It is important that you answer ALL the questions.

Have you recently?

A1 –	been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 –	been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 –	been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 –	felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 –	been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 –	been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 –	been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
B1 –	lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 –	had difficulty staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 –	felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 –	been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual

General Health Questionnaire-28 (continued)

B5 –	been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 –	found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 –	been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
C1 –	been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2 –	been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3 –	felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4 –	been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5 –	felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6 –	felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7 –	been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
D1 –	been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2 –	felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3 –	felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4 –	thought of the possibility that you might do away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5 –	found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6 –	found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7 –	found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

Note: Scoring system 0–1–2–3. A1–A7 = Somatic Symptoms. B1–B7 = Anxiety and Insomnia. C1–C7 = Social Dysfunction. D1–D7 = Severe Depression.

Appendix C

Appendix C1. PGS-33 individual item statistics

		PGS-33			
		Time 1		Time 2	
		Mean	SD	Mean	SD
Active Grief					
A1	I feel depressed	3.3	1.26	2.2	1.18
A2	I feel empty inside	3.5	1.27	2.3	1.23
A3	I feel a need to talk about the baby	3.8	1.17	3.1	1.22
A4	I am grieving for the baby	4.2	0.93	3.3	1.17
A5	I am frightened	2.8	1.33	2.2	1.23
A6	I very much miss the baby	4.5	0.91	4.0	1.22
A7	It is painful to recall memories of the loss	3.7	1.19	3.5	1.18
A8	I get upset when I think about the baby	3.8	1.08	3.3	1.15
A9	I cry when I think about him/her	3.6	1.12	3.0	1.20
A10	Time passes so slowly since the baby died	2.4	1.18	1.8	0.92
A11	I feel so lonely since he/she died	2.9	1.28	2.2	1.25
Difficulty Coping					
B1	I find it hard to get along with certain people	3.0	1.28	2.9	1.32
B2	I can't keep up with my normal activities	2.7	1.26	1.9	1.06
B3	I have considered suicide since the loss	1.6	1.11	1.6	1.09
B4	I feel I have adjusted well to the loss	2.7	1.06	2.3	1.05
B5	I have let people down since the baby died	2.2	1.09	2.0	1.13
B6	I get cross at my friends and relatives more than I should	2.6	1.24	2.4	1.26
B7	Sometimes I feel like I need a professional counselor to help me get my life back together again	2.5	1.17	2.1	1.19
B8	I feel as though I'm just existing and not really living since he/she died	2.6	1.23	1.9	1.13
B9	I feel somewhat apart and remote, even among friends	3.3	1.23	2.4	1.33
B10	I find it difficult to make decisions since the baby died	2.7	1.24	1.9	1.06
B11	It feels great to be alive	2.6	1.15	2.2	1.11
Despair					
C1	I take medicine for my nerves	1.5	1.09	1.4	1.01
C2	I feel guilty when I think about the baby	2.4	1.29	2.0	1.12
C3	I feel physically ill when I think about the baby	1.9	1.04	1.5	0.83
C4	I feel unprotected in a dangerous world since he/she died	2.2	1.22	1.8	1.06
C5	I try to laugh, but nothing seems funny anymore	2.1	0.98	1.7	0.94
C6	The best part of me died with the baby	2.1	1.13	1.8	1.05
C7	I feel worthless since he/she died	2.1	1.04	1.8	1.04
C8	I blame myself for the baby's death	2.2	1.22	2.0	1.18
C9	It's safer not to love	1.6	0.89	1.6	0.97
C10	I worry about what my future will be like	3.2	1.28	2.7	1.35
C11	Being a bereaved parent means being a "Second-Class Citizen"	1.7	0.95	1.7	1.02

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death.

Appendix C2. PGS-33 inter-item correlations

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
A1	—	.75	.20	.41	.53	.26	.35	.43	.42	.41	.61	.54	.54	.45	.41	.49	.44	.41	.58	.53	.46	.30	.34	.49	.54	.41	.59	.55	.54	.46	.51	.37	.42
A2	.58	—	.24	.39	.49	.32	.35	.43	.45	.57	.74	.46	.58	.45	.45	.53	.50	.49	.64	.61	.49	.31	.30	.44	.49	.40	.60	.62	.62	.48	.45	.43	.49
A3	.32	.37	—	.57	.22	.46	.16	.27	.36	.26	.32	.18	.18	.18	.13	.27	.39	.29	.28	.29	.15	.00	.15	.12	.02	.24	.18	.32	.27	.18	.11	.20	.21
A4	.44	.42	.57	—	.35	.49	.40	.46	.49	.32	.50	.38	.27	.33	.27	.37	.41	.39	.39	.42	.30	.11	.17	.27	.20	.23	.31	.36	.42	.30	.23	.25	.33
A5	.38	.43	.17	.29	—	.29	.34	.38	.33	.45	.53	.43	.47	.44	.25	.42	.40	.42	.52	.46	.51	.18	.40	.41	.52	.59	.59	.50	.55	.44	.45	.56	.41
A6	.38	.49	.47	.61	.32	—	.30	.36	.37	.30	.36	.31	.23	.24	.27	.33	.34	.39	.30	.29	.33	.09	.14	.30	.21	.18	.26	.21	.29	.29	.06	.26	.19
A7	.38	.34	.11	.31	.30	.30	—	.66	.61	.29	.45	.26	.35	.25	.22	.38	.31	.36	.47	.34	.31	.18	.30	.34	.35	.30	.34	.39	.38	.39	.33	.23	.40
A8	.42	.33	.25	.47	.28	.36	.58	—	.67	.29	.49	.36	.32	.33	.29	.35	.39	.31	.46	.38	.31	.07	.27	.36	.36	.32	.36	.41	.42	.40	.36	.29	.34
A9	.38	.36	.35	.44	.27	.39	.45	.63	—	.30	.47	.32	.32	.37	.36	.32	.41	.34	.45	.37	.37	.14	.22	.32	.35	.34	.38	.42	.43	.38	.39	.36	.32
A10	.29	.40	.10	.19	.33	.35	.27	.24	.28	—	.55	.38	.46	.42	.40	.46	.39	.44	.57	.49	.53	.23	.37	.35	.46	.42	.61	.52	.64	.44	.39	.40	.54
A11	.43	.50	.28	.39	.48	.50	.29	.32	.38	.44	—	.50	.58	.51	.38	.57	.47	.59	.72	.69	.50	.24	.36	.47	.46	.45	.66	.66	.68	.53	.49	.50	.49
B1	.37	.28	.18	.16	.30	.21	.10	.15	.19	.29	.39	—	.50	.40	.32	.42	.44	.45	.49	.53	.46	.17	.35	.33	.33	.44	.44	.39	.46	.26	.38	.45	.41
B2	.51	.53	.40	.35	.32	.32	.31	.29	.30	.32	.42	.32	—	.46	.39	.57	.44	.51	.63	.50	.61	.29	.44	.40	.51	.46	.57	.55	.54	.46	.45	.37	.39
B3	.29	.24	.07	.23	.34	.13	.14	.00	.16	.23	.27	.25	.29	—	.38	.36	.31	.39	.45	.36	.46	.28	.38	.35	.45	.34	.43	.40	.51	.40	.41	.28	.38
B4	.36	.24	.11	.19	.25	.29	.11	.21	.25	.20	.19	.30	.24	.22	—	.36	.26	.37	.47	.28	.27	.37	.31	.40	.42	.18	.38	.41	.50	.44	.30	.32	.30
B5	.27	.25	.07	.09	.34	.20	.17	.17	.23	.31	.30	.29	.28	.33	.24	—	.59	.59	.66	.57	.45	.26	.48	.54	.42	.43	.55	.56	.64	.57	.44	.44	.51
B6	.24	.09	.06	.09	.10	.16	.17	.30	.27	.23	.23	.41	.23	.05	.26	.24	—	.59	.59	.57	.47	.20	.33	.37	.29	.36	.47	.46	.43	.42	.39	.42	.38
B7	.30	.23	.23	.31	.34	.29	.05	.13	.20	.24	.45	.42	.37	.36	.31	.38	.33	—	.62	.60	.50	.32	.57	.34	.32	.40	.47	.43	.52	.40	.36	.44	.36
B8	.47	.54	.31	.35	.39	.38	.25	.23	.33	.37	.56	.41	.55	.36	.33	.38	.26	.52	—	.70	.58	.37	.39	.50	.55	.43	.68	.71	.72	.59	.54	.50	.68
B9	.31	.38	.22	.32	.35	.30	.18	.23	.24	.35	.52	.46	.43	.27	.19	.24	.32	.48	.58	—	.50	.26	.37	.40	.31	.41	.57	.52	.60	.49	.52	.53	.50
B10	.46	.38	.24	.35	.38	.33	.33	.25	.28	.39	.46	.40	.54	.32	.23	.41	.29	.54	.53	.54	—	.37	.32	.34	.56	.46	.54	.47	.52	.36	.40	.45	.53
B11	.41	.41	.22	.24	.24	.21	.21	.29	.29	.29	.44	.32	.38	.23	.19	.13	.31	.25	.51	.46	.42	—	.35	.19	.24	.17	.36	.28	.32	.25	.31	.28	.36
C1	.34	.21	.17	.15	.31	.11	.10	.17	.16	.23	.22	.34	.27	.38	.36	.29	.28	.33	.21	.19	.19	.23	—	.22	.30	.32	.39	.34	.36	.27	.45	.33	.26
C2	.30	.24	.12	.24	.30	.14	.19	.30	.30	.19	.35	.20	.29	.26	.22	.39	.11	.31	.37	.20	.28	.16	.23	—	.52	.35	.46	.47	.47	.69	.32	.33	.39
C3	.47	.37	.22	.29	.35	.32	.26	.29	.34	.45	.45	.37	.36	.31	.33	.38	.20	.33	.45	.29	.36	.21	.38	.35	—	.42	.56	.52	.57	.49	.52	.33	.50
C4	.37	.29	.20	.28	.51	.28	.16	.19	.32	.37	.46	.23	.30	.29	.29	.31	.17	.30	.43	.31	.33	.34	.34	.40	.49	—	.54	.52	.49	.38	.42	.48	.45
C5	.38	.42	.17	.13	.31	.32	.26	.29	.32	.44	.46	.32	.37	.25	.35	.37	.26	.37	.53	.36	.30	.36	.31	.37	.59	.45	—	.68	.70	.47	.59	.53	.50
C6	.39	.35	.18	.24	.32	.33	.17	.23	.34	.45	.53	.25	.31	.36	.22	.50	.23	.40	.46	.28	.33	.27	.35	.33	.52	.47	.58	—	.68	.55	.55	.44	.53
C7	.43	.35	.17	.20	.49	.28	.23	.24	.36	.47	.51	.27	.40	.45	.33	.61	.22	.45	.52	.29	.46	.29	.37	.50	.50	.51	.57	.61	—	.60	.61	.49	.66
C8	.28	.20	-.02	.18	.33	.10	.26	.20	.23	.19	.29	.13	.30	.32	.28	.45	.09	.36	.38	.29	.33	.19	.19	.65	.34	.37	.38	.29	.61	—	.44	.33	.40
C9	.34	.18	.08	.08	.28	.12	.10	.06	.17	.33	.25	.08	.20	.26	.25	.41	.27	.36	.34	.17	.37	.35	.30	.21	.31	.36	.32	.42	.49	.37	—	.41	.52
C10	.33	.38	.16	.30	.48	.29	.29	.30	.33	.27	.39	.27	.33	.24	.21	.22	.15	.35	.47	.39	.48	.17	.14	.22	.25	.34	.26	.24	.33	.26	.16	—	.46
C11	.24	.20	.05	.13	.27	.11	.18	.15	.17	.31	.30	.22	.25	.28	.10	.30	.28	.32	.32	.28	.36	.29	.06	.31	.25	.26	.19	.29	.30	.29	.42	.14	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. A1–A11 = Active Grief. B1–B11 = Difficulty Coping. C1–C11 = Despair (see Appendix C1 for item descriptions).

Mean inter-item correlations at one month: Total Grief = .31, Active Grief = .37, Difficulty Coping = .34 and Despair = .36.

Mean inter-item correlations at 13 months: Total Grief = .41, Active Grief = .41, Difficulty Coping = .44 and Despair = .46.

Appendix C3. PGS-33 total scale item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
A1	86.3	72.3	437.6	550.2	.65	.71	.59	.70	.93	.96
A2	86.1	72.2	439.7	546.3	.60	.75	.60	.78	.93	.95
A3	85.8	71.4	454.3	568.7	.35	.36	.50	.55	.94	.96
A4	85.4	71.2	452.8	559.7	.49	.54	.65	.58	.93	.96
A5	86.8	72.3	439.2	551.2	.58	.66	.53	.63	.93	.96
A6	85.1	70.5	452.5	564.4	.51	.43	.57	.47	.93	.96
A7	85.9	71.0	451.1	560.1	.41	.53	.50	.61	.93	.96
A8	85.8	71.2	450.8	558.5	.47	.57	.65	.61	.93	.96
A9	86.0	71.5	446.9	556.5	.53	.58	.52	.65	.93	.96
A10	87.2	72.7	445.4	561.7	.53	.65	.46	.60	.93	.96
A11	86.7	72.3	435.0	543.0	.69	.80	.62	.77	.93	.95
B1	86.6	71.6	445.2	551.9	.49	.60	.50	.54	.93	.96
B2	86.9	72.6	439.5	555.5	.61	.68	.52	.64	.93	.96
B3	88.0	72.9	451.1	559.9	.44	.58	.43	.46	.93	.96
B4	86.9	72.2	453.0	564.2	.42	.51	.35	.51	.93	.96
B5	87.4	72.5	448.1	551.8	.52	.71	.51	.67	.93	.96
B6	87.0	72.1	452.3	551.5	.37	.64	.41	.60	.94	.96
B7	87.1	72.4	443.2	551.7	.58	.67	.57	.68	.93	.96
B8	87.0	72.6	434.6	545.9	.72	.83	.67	.82	.93	.95
B9	86.3	72.1	441.9	544.4	.58	.72	.57	.69	.93	.96
B10	86.9	72.6	437.9	556.7	.65	.66	.63	.65	.93	.96
B11	87.0	72.3	447.2	570.3	.51	.37	.55	.41	.93	.96
C1	88.1	73.1	452.1	565.8	.43	.50	.46	.59	.93	.96
C2	87.2	72.5	445.0	558.7	.49	.58	.55	.61	.93	.96
C3	87.7	73.0	445.1	565.9	.62	.62	.55	.63	.93	.96
C4	87.4	72.7	441.8	560.2	.58	.59	.52	.56	.93	.96
C5	87.4	72.8	446.5	556.5	.62	.75	.62	.72	.93	.96
C6	87.5	72.7	443.1	553.3	.61	.74	.60	.68	.93	.96
C7	87.5	72.7	441.6	550.9	.70	.80	.73	.78	.93	.95
C8	87.3	72.5	446.2	553.8	.50	.64	.65	.66	.93	.96
C9	87.9	72.9	455.2	561.5	.45	.62	.53	.61	.93	.96
C10	86.4	71.8	444.3	551.3	.50	.60	.46	.55	.93	.96
C11	87.9	72.8	455.5	558.6	.42	.65	.39	.70	.93	.96

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. A1–A11 = Active Grief. B1–B11 = Difficulty Coping. C1–C11 = Despair (see Appendix C1 for item descriptions).

Appendix C4. PGS-33 subscale item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
					Active Grief					
A1	35.0	28.6	55.8	65.0	.62	.64	.44	.61	.85	.87
A2	34.7	28.6	55.0	63.5	.66	.69	.49	.73	.84	.87
A3	34.4	27.7	59.8	68.4	.43	.44	.39	.41	.86	.89
A4	34.0	27.5	59.1	65.1	.62	.64	.55	.52	.85	.87
A5	35.4	28.7	57.2	65.9	.50	.56	.31	.39	.86	.88
A6	33.8	26.9	59.2	67.1	.63	.50	.50	.33	.85	.88
A7	34.6	27.3	58.4	66.4	.50	.57	.40	.52	.85	.88
A8	34.4	27.5	58.1	65.2	.59	.65	.54	.58	.85	.87
A9	34.6	27.8	57.6	64.6	.59	.66	.47	.56	.85	.87
A10	35.8	29.0	59.6	69.5	.44	.54	.28	.40	.86	.88
A11	35.3	28.6	55.6	62.5	.61	.74	.44	.66	.85	.87
					Difficulty Coping					
B1	25.2	20.9	57.0	65.8	.56	.59	.35	.40	.84	.89
B2	25.6	21.8	57.1	67.0	.57	.70	.40	.55	.84	.88
B3	26.7	22.2	61.2	69.3	.41	.54	.24	.33	.85	.89
B4	25.6	21.4	62.0	70.7	.38	.48	.19	.34	.85	.90
B5	26.1	21.7	60.7	66.3	.45	.69	.29	.55	.85	.88
B6	25.7	21.3	60.1	65.6	.41	.64	.28	.50	.85	.89
B7	25.8	21.6	57.0	65.1	.63	.71	.46	.53	.84	.88
B8	25.6	21.8	55.1	64.4	.71	.81	.57	.69	.83	.88
B9	25.0	21.3	56.3	63.6	.64	.70	.48	.58	.83	.88
B10	25.6	21.8	55.6	67.5	.67	.67	.51	.51	.83	.89
B11	25.7	21.5	59.3	71.7	.50	.39	.37	.24	.84	.90
					Despair					
C1	21.6	18.6	53.2	60.5	.40	.44	.24	.25	.85	.90
C2	20.7	17.9	49.1	57.2	.56	.58	.49	.55	.84	.90
C3	21.2	18.4	50.7	59.4	.62	.65	.46	.48	.84	.89
C4	20.9	18.1	48.7	57.5	.62	.61	.41	.40	.84	.89
C5	21.0	18.2	51.1	56.7	.63	.76	.50	.64	.84	.89
C6	21.0	18.2	49.6	55.7	.63	.74	.51	.59	.84	.89
C7	21.1	18.2	48.7	55.1	.76	.79	.63	.70	.83	.88
C8	20.9	18.0	49.3	55.7	.59	.64	.56	.60	.84	.89
C9	21.5	18.4	53.4	57.7	.51	.67	.38	.51	.85	.89
C10	20.0	17.2	52.6	55.2	.35	.57	.16	.38	.86	.90
C11	21.4	18.3	54.6	57.3	.38	.65	.26	.51	.85	.89

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. A1–A11 = Active Grief. B1–B11 = Difficulty Coping. C1–C11 = Despair (see Appendix C1 for item descriptions).

Appendix C5. GHQ-28 individual item statistics

		GHQ-28			
		Time 1		Time 2	
		Mean	SD	Mean	SD
Somatic Symptoms					
A1	been feeling perfectly well and in good health?	1.4	0.75	1.1	0.71
A2	been feeling in need of a good tonic?	1.4	0.95	1.0	0.80
A3	been feeling run down and out of sorts?	1.6	0.95	1.1	0.85
A4	felt that you are ill?	0.9	0.96	0.7	0.85
A5	been getting any pains in your head?	0.9	0.93	0.7	0.85
A6	been getting a feeling of tightness or pressure in your head?	0.9	0.98	0.6	0.85
A7	been having hot or cold spells?	0.5	0.83	0.5	0.77
Anxiety and Insomnia					
B1	lost much sleep over worry?	1.5	0.97	1.0	0.92
B2	had difficulty staying asleep once you are off?	1.2	1.08	0.9	0.94
B3	felt constantly under strain?	1.4	0.99	1.0	0.81
B4	been getting edgy and bad-tempered?	1.5	0.97	1.1	0.86
B5	been getting scared or panicky for no good reason?	1.0	1.05	0.6	0.81
B6	found everything getting on top of you?	1.3	0.91	1.0	0.81
B7	been feeling nervous and strung-up all the time?	1.2	0.92	0.8	0.83
Social Dysfunction					
C1	been managing to keep yourself busy and occupied?	1.1	0.82	0.8	0.65
C2	been taking longer over the things you do?	1.6	0.74	1.1	0.60
C3	felt on the whole you were doing things well?	1.4	0.68	0.9	0.65
C4	been satisfied with the way you've carried out your task?	1.4	0.72	1.0	0.71
C5	felt that you are playing a useful part in things?	1.4	0.80	0.9	0.67
C6	felt capable of making decisions about things?	1.4	0.80	1.0	0.65
C7	been able to enjoy your normal day-to-day activities?	1.7	0.85	1.1	0.71
Severe Depression					
D1	been thinking of yourself as a worthless person?	0.7	0.95	0.4	0.73
D2	felt that life is entirely hopeless?	0.6	0.92	0.3	0.64
D3	felt that life isn't worth living?	0.4	0.81	0.2	0.56
D4	thought of the possibility that you might do away with yourself?	0.4	0.78	0.3	0.59
D5	found at times you couldn't do anything because your nerves were too bad?	0.7	0.98	0.4	0.74
D6	found yourself wishing you were dead and away from it all?	0.5	0.88	0.2	0.64
D7	found that the idea of taking your own life kept coming into your mind?	0.4	0.72	0.3	0.59

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death.

Appendix C6. GHQ-28 inter-item correlations

	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7
A1	—	.50	.62	.63	.39	.39	.35	.40	.45	.54	.49	.45	.47	.52	.13	.35	.34	.49	.38	.38	.46	.39	.43	.38	.28	.42	.36	.31
A2	.38	—	.58	.42	.38	.48	.36	.26	.22	.44	.38	.33	.38	.41	.07	.19	.20	.34	.27	.28	.37	.36	.25	.17	.11	.30	.20	.23
A3	.63	.45	—	.61	.44	.47	.38	.33	.33	.55	.45	.43	.48	.52	.08	.32	.34	.41	.36	.34	.44	.40	.35	.33	.28	.43	.33	.30
A4	.55	.38	.54	—	.55	.54	.52	.49	.44	.48	.45	.45	.43	.46	.13	.32	.32	.43	.39	.31	.42	.45	.42	.39	.28	.44	.37	.32
A5	.30	.26	.38	.41	—	.73	.40	.40	.38	.54	.39	.28	.39	.36	.05	.12	.10	.26	.32	.30	.35	.39	.33	.28	.24	.28	.28	.31
A6	.31	.29	.45	.43	.75	—	.51	.45	.41	.56	.49	.40	.46	.48	.25	.09	.26	.45	.48	.28	.41	.60	.44	.41	.32	.46	.40	.39
A7	.28	.21	.26	.44	.29	.28	—	.36	.33	.30	.28	.40	.32	.32	.24	.22	.33	.32	.37	.24	.28	.39	.38	.33	.29	.30	.35	.24
B1	.25	.15	.26	.28	.27	.23	.26	—	.68	.51	.53	.51	.44	.52	.23	.23	.38	.45	.38	.24	.40	.48	.49	.41	.31	.54	.41	.38
B2	.15	.10	.28	.23	.20	.22	.23	.67	—	.44	.43	.45	.42	.41	.19	.19	.38	.40	.40	.24	.33	.43	.41	.38	.21	.48	.33	.32
B3	.47	.27	.54	.48	.31	.40	.39	.39	.47	—	.59	.45	.66	.61	.13	.30	.34	.44	.29	.40	.46	.47	.45	.32	.27	.52	.35	.34
B4	.28	.24	.45	.39	.25	.24	.29	.28	.37	.59	—	.55	.50	.56	.19	.23	.33	.45	.42	.32	.49	.55	.54	.51	.46	.50	.53	.53
B5	.20	.16	.32	.20	.24	.30	.25	.34	.41	.36	.40	—	.49	.66	.13	.34	.41	.37	.38	.33	.47	.53	.60	.61	.46	.62	.62	.49
B6	.50	.33	.60	.31	.23	.33	.19	.37	.41	.59	.49	.43	—	.65	.18	.29	.39	.41	.37	.40	.48	.52	.51	.44	.31	.48	.39	.34
B7	.41	.35	.50	.37	.29	.34	.27	.37	.41	.49	.50	.49	.56	—	.18	.42	.52	.52	.44	.33	.45	.53	.50	.45	.38	.72	.47	.39
C1	.41	.24	.35	.23	.05	.10	.22	.18	.14	.27	.26	.30	.38	.28	—	.14	.18	.23	.24	.15	.20	.20	.10	.17	.18	.24	.15	.15
C2	.35	.31	.45	.35	.09	.11	.30	.25	.22	.30	.26	.26	.44	.35	.38	—	.33	.35	.26	.23	.32	.16	.20	.17	.13	.34	.26	.13
C3	.39	.25	.43	.32	.07	.08	.27	.24	.21	.35	.30	.36	.49	.40	.38	.52	—	.59	.52	.36	.49	.46	.42	.39	.24	.54	.42	.29
C4	.31	.25	.44	.35	.18	.27	.27	.27	.33	.41	.35	.38	.46	.33	.38	.47	.69	—	.69	.38	.45	.51	.40	.34	.25	.53	.44	.35
C5	.34	.28	.44	.29	.05	.18	.22	.24	.24	.33	.24	.45	.46	.39	.42	.44	.55	.53	—	.41	.47	.51	.44	.45	.30	.41	.46	.37
C6	.42	.35	.44	.32	.10	.21	.21	.18	.19	.39	.21	.40	.52	.38	.25	.55	.55	.42	.55	—	.57	.24	.32	.25	.18	.31	.26	.21
C7	.50	.31	.55	.34	.17	.23	.28	.31	.27	.39	.29	.45	.55	.42	.46	.52	.56	.47	.55	.53	—	.46	.53	.48	.41	.49	.55	.47
D1	.25	.15	.31	.28	.25	.32	.25	.35	.34	.40	.36	.50	.47	.45	.35	.24	.39	.47	.43	.28	.38	—	.74	.72	.56	.59	.65	.61
D2	.34	.16	.36	.36	.27	.37	.27	.40	.35	.41	.39	.50	.48	.56	.37	.28	.39	.41	.43	.26	.45	.75	—	.84	.63	.59	.76	.61
D3	.32	.14	.30	.40	.23	.32	.32	.45	.40	.42	.41	.48	.43	.48	.38	.29	.36	.34	.33	.26	.36	.56	.67	—	.75	.53	.84	.73
D4	.19	.15	.15	.25	.10	.13	.27	.22	.16	.20	.33	.38	.30	.40	.27	.25	.33	.32	.28	.24	.35	.38	.42	.64	—	.49	.76	.82
D5	.31	.29	.43	.33	.29	.35	.26	.29	.31	.35	.38	.54	.52	.58	.26	.40	.38	.42	.45	.36	.43	.46	.51	.39	.46	—	.61	.52
D6	.31	.18	.35	.32	.22	.29	.24	.32	.33	.35	.41	.43	.40	.47	.36	.29	.35	.39	.39	.30	.40	.51	.56	.69	.64	.55	—	.76
D7	.29	.15	.27	.29	.19	.24	.29	.27	.24	.31	.34	.40	.36	.42	.33	.30	.35	.35	.30	.32	.43	.42	.45	.66	.74	.42	.69	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. A1–A7 = Somatic Symptoms. B1–B7 = Anxiety and Insomnia. C1–C7 = Social Dysfunction. D1–D7 = Severe Depression (see Appendix C5 for item descriptions).

Mean inter-item correlations at one month: Total Dysphoria = .35, Somatic Symptoms = .39, Anxiety and Insomnia = .45, Social Dysfunction = .49 and Severe Depression = .55.

Mean inter-item correlations at 13 months: Total Dysphoria = .40, Somatic Symptoms = .49, Anxiety and Insomnia = .53, Social Dysfunction = .36 and Severe Depression = .67.

Appendix C7. GHQ-28 total scale item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
A1	28.7	19.5	215.1	171.0	.57	.66	.59	—	.93	.95
A2	28.7	19.6	216.0	172.5	.40	.49	.32	—	.94	.95
A3	28.5	19.4	208.9	168.8	.66	.63	.67	—	.93	.95
A4	29.2	19.9	211.4	168.1	.57	.67	.56	—	.93	.95
A5	29.2	19.9	216.3	170.8	.40	.54	.62	—	.94	.95
A6	29.2	20.0	213.5	167.9	.48	.68	.67	—	.94	.95
A7	29.6	20.1	216.8	172.5	.44	.52	.33	—	.94	.95
B1	28.6	19.6	213.1	167.3	.50	.65	.52	—	.94	.95
B2	28.9	19.7	211.8	168.4	.48	.58	.58	—	.94	.95
B3	28.7	19.5	208.5	168.5	.65	.69	.61	—	.93	.95
B4	28.6	19.5	211.1	167.3	.57	.70	.53	—	.93	.95
B5	29.1	20.0	208.8	168.2	.60	.70	.54	—	.93	.95
B6	28.8	19.6	208.6	168.9	.71	.67	.65	—	.93	.95
B7	29.0	19.8	208.8	167.1	.69	.74	.58	—	.93	.94
C1	29.1	19.8	216.1	178.8	.47	.25	.41	—	.94	.95
C2	28.5	19.5	216.0	177.3	.53	.37	.51	—	.94	.95
C3	28.7	19.6	215.9	173.5	.59	.56	.65	—	.93	.95
C4	28.8	19.6	214.7	171.2	.62	.64	.62	—	.93	.95
C5	28.8	19.7	213.8	172.4	.58	.61	.54	—	.93	.95
C6	28.7	19.6	214.7	175.2	.54	.47	.59	—	.94	.95
C7	28.4	19.5	211.2	170.9	.65	.66	.60	—	.93	.95
D1	29.5	20.2	210.0	169.1	.62	.74	.63	—	.93	.94
D2	29.5	20.3	209.1	171.2	.68	.72	.72	—	.93	.95
D3	29.7	20.4	211.8	173.2	.67	.68	.75	—	.93	.95
D4	29.7	20.3	215.9	174.8	.51	.54	.67	—	.94	.95
D5	29.4	20.2	208.8	169.0	.65	.73	.60	—	.93	.95
D6	29.6	20.3	210.8	171.6	.65	.69	.67	—	.93	.95
D7	29.8	20.3	215.2	173.7	.59	.61	.67	—	.93	.95

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. A1–A7 = Somatic Symptoms. B1–B7 = Anxiety and Insomnia. C1–C7 = Social Dysfunction. D1–D7 = Severe Depression (see Appendix C5 for item descriptions).

Appendix C8. GHQ-28 subscale item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
					Somatic Symptoms					
A1	6.1	4.5	15.4	14.4	.59	.63	.47	.50	.79	.85
A2	6.1	4.6	15.2	14.0	.46	.59	.24	.42	.81	.86
A3	5.9	4.4	13.9	13.3	.65	.68	.52	.54	.78	.85
A4	6.6	4.9	13.8	13.0	.66	.73	.47	.59	.78	.84
A5	6.6	4.9	14.5	13.5	.58	.64	.57	.56	.79	.85
A6	6.6	4.9	14.1	13.2	.61	.70	.60	.62	.79	.84
A7	7.0	5.1	16.1	14.5	.40	.55	.21	.35	.82	.86
					Anxiety and Insomnia					
B1	7.6	5.3	19.3	15.4	.55	.69	.46	.57	.84	.87
B2	7.9	5.4	18.1	15.8	.62	.60	.52	.50	.83	.88
B3	7.7	5.3	18.4	16.1	.66	.70	.51	.56	.82	.87
B4	7.6	5.3	19.0	15.9	.59	.68	.43	.48	.83	.87
B5	8.1	5.7	18.9	16.2	.54	.66	.32	.51	.84	.87
B6	7.8	5.4	18.9	16.2	.65	.67	.47	.55	.82	.87
B7	7.9	5.5	18.9	15.7	.64	.73	.45	.62	.82	.86
					Social Dysfunction					
C1	8.8	5.9	12.8	8.4	.49	.26	.29	.08	.87	.82
C2	8.3	5.6	12.4	8.1	.63	.39	.43	.17	.85	.80
C3	8.5	5.8	12.3	7.2	.73	.62	.59	.43	.84	.76
C4	8.5	5.7	12.5	6.8	.65	.68	.52	.57	.85	.75
C5	8.5	5.8	11.9	7.0	.68	.66	.48	.53	.84	.75
C6	8.5	5.7	12.1	7.6	.63	.51	.49	.35	.85	.78
C7	8.2	5.6	11.6	7.0	.69	.62	.48	.45	.84	.76
					Severe Depression					
D1	3.0	1.7	16.3	10.4	.65	.75	.58	.62	.88	.92
D2	3.1	1.8	16.0	10.6	.72	.82	.68	.76	.87	.92
D3	3.2	1.8	16.5	10.9	.76	.87	.67	.83	.87	.91
D4	3.2	1.8	17.2	11.1	.68	.77	.62	.74	.88	.92
D5	2.9	1.6	16.6	10.8	.58	.64	.41	.47	.89	.94
D6	3.2	1.8	16.0	10.4	.77	.87	.64	.79	.87	.91
D7	3.3	1.8	17.5	11.0	.70	.79	.65	.74	.88	.92

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. A1–A7 = Somatic Symptoms. B1–B7 = Anxiety and Insomnia. C1–C7 = Social Dysfunction. D1–D7 = Severe Depression (see Appendix C5 for item descriptions).

Appendix C9. PFQ-2 individual item statistics

	PFQ-2			
	Time 1		Time 2	
	Mean	SD	Mean	SD
Shame				
1. Embarrassment	1.7	0.74	1.6	0.69
2. Feeling ridiculous	1.3	0.79	1.3	0.82
3. Self-consciousness	2.4	0.89	2.3	0.84
4. Feeling humiliated	1.2	0.78	1.1	0.75
5. Feeling 'stupid'	1.4	0.82	1.5	0.88
6. Feeling 'childish'	1.4	0.93	1.3	0.83
7. Feeling helpless, paralysed	1.1	0.85	1.1	1.04
8. Feelings of blushing	1.5	0.80	1.3	0.81
9. Feeling laughable	1.5	1.01	1.5	1.09
10. Feeling disgusting to others	0.9	0.93	0.8	0.86
Guilt				
1. Mild guilt	1.9	0.88	1.8	0.80
2. Worry about hurting or injuring someone	1.9	1.09	1.9	1.00
3. Intense guilt	1.2	0.88	1.1	1.01
4. Regret	2.0	0.94	1.9	0.90
5. Feeling you deserve criticism for what you did	1.4	0.85	1.3	0.83
6. Remorse	1.6	0.88	1.5	0.79

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death.

Appendix C10. PFQ-2 Shame and Guilt inter-item correlations

Shame	1	2	3	4	5	6	7	8	9	10
1	—	.38	.33	.43	.35	.21	.17	.47	.14	.13
2	.51	—	.23	.55	.52	.42	.35	.38	.36	.41
3	.24	.24	—	.39	.38	.08	.25	.19	.25	.22
4	.37	.49	.15	—	.54	.34	.43	.40	.38	.46
5	.35	.53	.21	.35	—	.43	.41	.35	.33	.43
6	.08	.35	.01	.28	.36	—	.28	.29	.35	.36
7	.21	.28	.12	.37	.17	.25	—	.21	.21	.45
8	.42	.37	.13	.27	.33	.09	.06	—	.32	.31
9	.20	.33	.09	.27	.29	.14	.14	.21	—	.33
10	.25	.32	.11	.53	.25	.25	.25	.22	.25	—

Guilt	1	2	3	4	5	6
1	—	.31	.58	.49	.41	.45
2	.32	—	.27	.22	.17	.17
3	.62	.31	—	.53	.30	.50
4	.37	.15	.41	—	.29	.36
5	.37	.28	.39	.34	—	.33
6	.36	.18	.34	.54	.42	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix C9 for shame and guilt item descriptions.

Mean inter-item correlations at one month: Shame = .26 and Guilt = .36.

Mean inter-item correlations at 13 months: Shame = .34 and Guilt = .36.

Appendix C11. PFQ-2 Shame and Guilt scale item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Shame										
1. Embarrassment	12.7	12.1	20.1	26.3	.50	.43	.37	.37	.74	.82
2. Feeling ridiculous	13.1	12.5	18.7	24.1	.67	.63	.51	.44	.72	.80
3. Self-consciousness	12.0	11.4	21.3	25.8	.24	.39	.10	.26	.78	.83
4. Feeling humiliated	13.2	12.6	19.2	24.2	.60	.69	.44	.51	.73	.80
5. Feeling 'stupid'	13.0	12.3	19.3	23.4	.54	.66	.36	.46	.74	.80
6. Feeling 'childish'	13.0	12.4	20.3	25.1	.34	.48	.23	.30	.76	.82
7. Feeling helpless, paralysed	13.3	12.7	20.5	23.9	.35	.48	.19	.30	.76	.82
8. Feelings of blushing	12.9	12.4	20.5	25.2	.38	.50	.24	.34	.76	.82
9. Feeling laughable	13.0	12.2	19.7	23.8	.36	.46	.15	.27	.76	.82
10. Feeling disgusting to others	13.6	13.0	19.3	24.4	.46	.55	.31	.37	.75	.81
Guilt										
1. Mild guilt	8.1	7.7	10.0	9.3	.59	.66	.43	.45	.71	.69
2. Worry about hurting or injuring someone	8.1	7.6	10.5	10.2	.34	.31	.14	.11	.78	.78
3. Intense guilt	8.8	8.5	10.0	8.4	.60	.64	.45	.47	.70	.69
4. Regret	8.0	7.6	10.1	9.4	.51	.54	.36	.34	.73	.72
5. Feeling you deserve criticism for what you did	8.6	8.2	10.6	10.3	.51	.41	.28	.20	.73	.75
6. Remorse	8.4	8.0	10.3	10.0	.52	.52	.37	.31	.72	.73

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death.

Appendix C12. TOSCA-2 individual item statistics

	TOSCA-2 Shame				TOSCA-2 Guilt				TOSCA-2 Ruminative Guilt			
	Time 1		Time 2		Time 1		Time 2		Time 1		Time 2	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	3.5	1.21	3.4	1.31	4.2	0.99	4.2	0.95	4.2	1.12	4.2	0.99
2	1.4	0.78	1.4	0.82	3.9	1.29	3.8	1.24	3.2	1.47	3.1	1.41
3	2.8	1.39	2.6	1.38	3.4	1.31	3.4	1.30	2.9	1.28	2.9	1.30
4	3.4	1.21	3.4	1.23	3.1	1.28	3.2	1.23	3.2	1.25	3.0	1.24
5	1.5	0.75	1.6	0.95	4.5	0.82	4.5	0.73	2.6	1.38	2.6	1.32
6	2.7	1.30	2.7	1.22	3.7	1.17	3.8	1.11	2.7	1.37	2.6	1.28
7	2.0	1.15	2.0	1.19	4.8	0.49	4.8	0.48	2.6	1.38	2.4	1.28
8	2.2	1.30	2.2	1.32	4.3	0.83	4.3	0.82	2.1	1.14	2.0	1.14
9	3.2	1.44	2.8	1.41	4.0	1.14	3.9	1.17	3.6	1.29	3.5	1.31
10	3.1	1.33	3.1	1.27	4.4	0.81	4.4	0.76	3.9	1.08	3.8	1.01
11	3.6	1.34	3.6	1.20	3.2	1.29	3.4	1.27	3.3	1.30	3.3	1.17
12	3.1	1.33	2.9	1.37	3.7	1.08	3.7	1.15	2.9	1.39	3.0	1.39
13	3.4	1.35	3.1	1.26	4.3	0.74	4.3	0.72	3.8	1.12	3.7	1.08
14	3.4	1.33	3.3	1.34	4.1	0.83	4.0	0.91	3.2	1.36	3.0	1.33
15	3.2	1.28	3.1	1.31	4.3	0.90	4.3	0.74	3.0	1.38	3.0	1.37
16	2.8	1.43	2.7	1.35	4.2	0.97	4.1	0.93	2.6	1.18	2.5	1.26

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix B2 for item scenarios and responses.

Appendix C13. TOSCA-2 inter-item correlations

	TOSCA-2 Shame															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	—	.02	.04	.17	.00	.17	.05	.01	.06	.11	.09	.08	.09	.20	.17	.17
2	.02	—	.08	.17	.09	.17	.30	.22	.20	.17	.02	.03	.16	.12	.20	.18
3	.15	.10	—	.22	.05	.25	.02	.26	.23	.21	.32	.25	.18	.17	.19	.15
4	.21	.05	.16	—	.08	.28	.11	.27	.30	.46	.30	.18	.44	.21	.18	.26
5	.05	.31	-.15	.03	—	.17	.18	.14	.16	.05	.01	-.03	.11	-.02	.08	.10
6	.14	.06	.18	.02	-.05	—	.10	.36	.27	.30	.17	.31	.29	.27	.25	.24
7	.05	.20	-.04	.17	.11	.06	—	.26	.22	.25	.11	.05	.19	.15	.30	.22
8	.09	.09	.04	.12	.02	.13	.15	—	.21	.30	.17	.16	.21	.33	.19	.21
9	.10	.11	.11	.25	.01	.14	.15	.06	—	.37	.31	.41	.39	.34	.47	.30
10	.21	.06	.21	.26	.01	.17	.18	.10	.35	—	.30	.28	.57	.24	.33	.28
11	.20	-.07	.26	.24	-.05	-.01	.16	.01	.23	.29	—	.28	.34	.34	.25	.16
12	.12	.04	.17	.20	-.11	.09	.11	.08	.24	.30	.30	—	.35	.20	.19	.20
13	.21	.15	.24	.34	.02	.11	.23	.07	.34	.37	.29	.27	—	.25	.29	.29
14	.11	-.09	.15	.19	-.05	.18	.09	-.05	.26	.36	.22	.19	.13	—	.21	.27
15	.13	.23	.08	.27	.03	.10	.17	.05	.35	.45	.11	.24	.33	.16	—	.27
16	.18	.16	.11	.10	.07	.32	.05	.04	.28	.23	.10	.23	.26	.10	.22	—
	TOSCA-2 Guilt															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	—	.18	.11	.06	.11	.18	.26	.16	.13	.12	.08	.22	-.03	.17	.13	.30
2	.22	—	.31	.27	.24	.11	.22	.14	.14	.18	.08	.27	.24	.01	.18	.13
3	.16	.18	—	.09	.09	.01	.17	.19	.19	-.01	.19	.13	.03	.22	.11	.23
4	.18	.16	.12	—	.04	.09	.00	-.07	.11	.07	.06	.07	.18	.11	.10	.04
5	.16	.25	.10	.17	—	.10	.27	.02	.24	.16	.18	.28	.27	.16	.27	.14
6	.12	.09	-.06	.05	.15	—	.05	.10	.05	.08	.05	.17	.14	.14	.30	.10
7	.28	.25	.23	.09	.29	.18	—	-.06	.09	.15	.02	.25	-.02	.10	.20	.18
8	.28	.15	-.04	.02	.25	.17	.24	—	.32	.14	.25	.20	.13	.24	.20	.30
9	.20	.13	.10	-.01	.12	.00	.15	.20	—	.01	.19	.24	.23	.12	.23	.26
10	.20	.25	.06	.05	.12	.11	.43	.16	.21	—	.10	.32	.30	.28	.13	.06
11	.14	.12	.21	.19	.11	-.04	.06	.17	.17	-.04	—	.24	.31	.19	.14	.26
12	.28	.23	.06	.11	.30	.13	.29	.19	.34	.19	.25	—	.38	.31	.33	.18
13	.22	.16	.09	.01	.15	.09	.28	.25	.22	.18	.13	.18	—	.19	.22	.10
14	.27	.25	.22	.14	.03	.08	.41	.27	.09	.15	.17	.28	.27	—	.28	.16
15	.23	.14	.09	.02	.22	-.02	.33	.12	.25	.30	.13	.40	.26	.22	—	.39
16	.19	.01	.06	.07	.06	-.03	.21	.20	.18	.16	.20	.33	.24	.28	.27	—

Appendix C13. (continued)

	TOSCA-2 Ruminative Guilt															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	—	.23	.05	.32	.04	-.12	-.03	-.09	.04	.12	.22	.09	.13	.01	.17	.03
2	.23	—	.28	.44	.26	.31	.16	.24	.19	.17	.29	.28	.36	.24	.34	.30
3	.18	.25	—	.32	.19	.24	.10	.00	.17	.14	.24	.37	.21	.36	.31	.15
4	.25	.39	.33	—	.31	.25	.23	.14	.20	.21	.29	.23	.41	.30	.25	.13
5	.04	.22	.14	.19	—	.32	.27	.27	.18	.17	.31	.24	.17	.28	.10	.21
6	.13	.25	.27	.34	.10	—	.20	.26	.16	.29	.28	.19	.23	.30	.29	.38
7	.09	.24	.26	.27	.16	.20	—	.30	.28	.22	.25	.31	.25	.27	.33	.29
8	.00	.02	.22	.16	.14	.19	.32	—	.14	.21	.16	.24	.11	.29	.21	.41
9	.20	.28	.25	.21	.18	.22	.25	.11	—	.26	.10	.31	.36	.32	.40	.32
10	.13	.20	.23	.22	.20	.22	.28	.21	.40	—	.28	.26	.36	.39	.31	.27
11	.04	.10	.17	.24	.26	.14	.25	.13	.22	.30	—	.17	.33	.36	.25	.17
12	.05	.19	.31	.20	.11	.21	.28	.37	.34	.35	.31	—	.34	.37	.23	.28
13	.28	.30	.25	.39	.19	.17	.30	.15	.37	.41	.28	.39	—	.39	.29	.32
14	.04	.09	.33	.25	.26	.23	.28	.25	.25	.34	.31	.25	.29	—	.46	.43
15	.13	.36	.28	.32	.21	.34	.35	.21	.39	.36	.30	.33	.39	.37	—	.43
16	.25	.49	.30	.24	.20	.30	.17	.18	.27	.19	.16	.29	.29	.27	.35	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix B2 for item scenarios and responses.

Mean inter-item correlations at one month: TOSCA-2 Shame = .14, TOSCA-2 Guilt = .17 and TOSCA-2 Ruminative Guilt = .24.

Mean inter-item correlations at 13 months: TOSCA-2 Shame = .21, TOSCA-2 Guilt = .17and TOSCA-2 Ruminative Guilt = .24.

Appendix C14. TOSCA-2 item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	TOSCA-2 Shame									
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	41.6	40.7	75.6	98.2	.30	.19	.12	.11	.73	.81
2	43.7	42.7	80.1	99.6	.19	.27	.23	.16	.74	.81
3	42.4	41.5	74.8	93.6	.28	.34	.20	.20	.73	.80
4	41.7	40.7	73.7	91.9	.39	.48	.21	.33	.72	.79
5	43.7	42.5	82.5	101.0	.02	.15	.16	.11	.75	.81
6	42.5	41.4	75.9	92.1	.25	.48	.18	.29	.74	.80
7	43.1	42.2	76.8	95.9	.26	.32	.16	.23	.74	.81
8	42.9	41.9	78.4	92.1	.14	.43	.08	.29	.75	.80
9	42.0	41.3	70.1	87.7	.46	.57	.27	.43	.71	.79
10	42.0	41.1	69.2	89.5	.56	.57	.39	.44	.70	.79
11	41.5	40.6	73.4	93.3	.36	.43	.26	.28	.73	.80
12	42.1	41.2	72.8	92.5	.39	.40	.20	.29	.72	.80
13	41.8	41.0	69.7	89.7	.52	.56	.32	.44	.71	.79
14	41.8	40.8	74.4	91.6	.31	.44	.22	.29	.73	.80
15	41.9	41.0	72.1	91.2	.44	.47	.32	.32	.72	.80
16	42.3	41.4	72.4	91.6	.36	.43	.23	.21	.73	.80
	TOSCA-2 Guilt									
1	59.9	59.9	46.2	46.9	.45	.31	.22	.21	.71	.73
2	60.1	60.2	45.2	43.9	.36	.39	.21	.31	.71	.72
3	60.6	60.6	47.5	44.8	.22	.31	.17	.23	.73	.73
4	60.9	60.9	47.9	47.2	.20	.18	.11	.14	.73	.74
5	59.6	59.5	48.5	47.7	.35	.35	.26	.23	.72	.72
6	60.3	60.2	49.9	47.2	.12	.23	.11	.13	.74	.74
7	59.2	59.2	49.4	49.8	.52	.26	.41	.23	.71	.73
8	59.7	59.7	48.4	47.3	.35	.34	.25	.28	.72	.72
9	60.1	60.1	46.8	44.8	.32	.36	.20	.23	.72	.72
10	59.6	59.6	48.8	48.3	.33	.28	.27	.22	.72	.73
11	60.9	60.7	46.3	44.7	.29	.33	.18	.20	.72	.73
12	60.4	60.3	44.7	43.0	.51	.50	.37	.34	.70	.71
13	59.7	59.7	48.8	47.4	.37	.40	.20	.33	.72	.72
14	60.0	60.1	47.5	46.3	.44	.38	.33	.27	.71	.72
15	59.8	59.7	47.5	46.7	.40	.45	.29	.33	.71	.72
16	59.9	59.9	47.8	45.9	.33	.41	.22	.31	.72	.72

Appendix C14. (continued)

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	TOSCA-2 Ruminative Guilt									
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	45.6	44.5	114.8	112.3	.24	.14	.17	.28	.84	.84
2	46.6	45.5	106.2	100.1	.45	.50	.40	.35	.83	.83
3	46.9	45.8	107.7	104.3	.47	.39	.26	.32	.82	.83
4	46.7	45.7	107.5	102.4	.50	.50	.34	.41	.82	.83
5	47.2	46.1	110.8	103.5	.32	.41	.16	.27	.83	.83
6	47.1	46.1	108.4	103.0	.41	.45	.22	.34	.83	.83
7	47.2	46.3	106.9	103.7	.46	.42	.26	.28	.83	.83
8	47.8	46.6	112.7	106.6	.33	.36	.24	.30	.83	.83
9	46.3	45.2	107.1	103.3	.49	.43	.30	.29	.82	.83
10	45.9	44.8	109.4	106.0	.50	.45	.32	.27	.82	.83
11	46.6	45.4	109.4	104.3	.40	.45	.24	.32	.83	.83
12	46.9	45.7	106.0	100.8	.49	.49	.36	.33	.82	.83
13	46.1	45.0	107.7	103.5	.55	.53	.39	.39	.82	.83
14	46.6	45.7	106.8	98.8	.47	.60	.31	.46	.82	.82
15	46.8	45.7	103.3	99.6	.59	.55	.38	.44	.82	.82
16	47.2	46.2	108.3	101.7	.50	.51	.37	.41	.82	.83

Note. Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix B2 for item scenarios and responses.

Appendix C15. IGQ-67 Survivor Guilt individual item statistics

		IGQ-67 Survivor Guilt			
		Time 1		Time 2	
		Mean	SD	Mean	SD
1	I conceal or minimize my successes.	2.9	1.07	2.8	1.05
2	It makes me very uncomfortable to receive better treatment than the people I am with.	3.5	1.02	3.5	1.09
3	I am afraid to fully enjoy my successes because I fear something bad is just around the corner.	2.5	1.26	2.4	1.19
4	Other people's misfortunes do not affect me.	3.8	0.98	3.9	0.92
5	I sometimes feel I don't deserve the happiness I've achieved.	2.2	1.13	2.1	1.04
6	I enjoy having other people envy me.	3.8	1.05	3.7	1.14
7	I feel responsible at social gatherings for people who are not able to enter into conversations with others.	3.0	1.10	2.9	1.09
8	I am able to retain my good humor even after seeing beggars or homeless people.	3.0	1.07	2.9	1.13
9	I don't feel sorry for people who are less fortunate or successful than I am.	3.7	0.94	3.6	0.95
10	I am uncomfortable talking about my achievements in social situations.	2.9	1.06	3.0	1.01
11	I feel uncomfortable if other people envy me for what I have.	3.1	1.04	3.0	1.11
12	It does not disturb me to see very poor people.	4.0	0.95	3.9	0.94
13	In social situations, I like to talk about my accomplishments.	3.6	1.05	3.7	1.01
14	It makes me very uncomfortable if I am more successful at something than are my friends or family members.	2.1	0.85	2.2	0.93
15	I feel uncomfortable when I feel better than other people.	2.4	0.95	2.3	1.07
16	I am relieved when my spouse, my siblings, my parents, or my children are successful or confident, or when they achieve recognition or honors.	3.9	0.90	3.9	1.04
17	I can't be happy when a friend or relative is suffering a disappointment.	3.1	1.01	3.0	1.06
18	It is often hard for me to enjoy things that I have been looking forward to.	2.2	0.96	2.3	0.96
19	I am afraid to get what I want because I feel there will be a price to pay that I did not anticipate.	2.1	0.97	2.1	1.00
20	I tend to get somewhat depressed after important accomplishments.	1.9	0.90	1.9	0.96
21	When I get a little extra money I feel tempted to share it with a poor friend or relative.	2.9	1.02	2.9	1.04
22	When a friend or relative suffers a misfortune I imagine how I would feel if I suffered a similar misfortune.	4.0	0.86	3.9	0.93

Note: Time 1 = one month after perinatal death (N = 115). Time 2 = 13 months after perinatal death. N = 149.

Appendix C16. IGQ-67 Survivor Guilt inter-item correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	—	.34	.27	.13	.29	.07	.08	.18	.12	.45	.17	.10	.34	.36	.26	-.11	.12	.23	.05	.11	.12	.23
2	.21	—	.21	.07	.26	.06	.26	.15	.05	.24	.30	.11	.04	.37	.38	-.08	.19	.24	.18	.18	.12	.22
3	.21	.15	—	.04	.45	-.09	.11	.23	.09	.18	.17	.14	.11	.19	.36	.09	.35	.50	.44	.39	.09	.19
4	-.06	-.10	-.18	—	.14	.10	.05	.02	.31	.14	.01	.35	.24	.02	.22	-.03	.10	.02	-.08	.04	.19	.17
5	.02	.13	.37	-.09	—	-.03	.21	.06	.05	.32	.09	.10	.14	.30	.33	.11	.25	.44	.36	.37	.18	.09
6	.22	.05	.05	-.08	-.08	—	-.02	.06	.04	.16	.24	-.09	.23	-.03	-.17	-.02	.01	-.11	-.14	-.14	.07	-.02
7	-.10	-.03	.00	-.08	.12	-.04	—	-.04	.10	.13	.12	-.01	-.11	.11	.09	-.02	-.01	.05	.05	.00	.08	.07
8	.24	.05	.17	-.03	.11	.13	-.04	—	.12	.05	.20	.18	.11	.15	.13	.05	.49	.22	.11	.23	.24	.30
9	-.07	-.10	.01	.14	-.09	-.07	.08	.21	—	.05	.12	.23	.14	.01	.06	.07	.05	-.09	-.07	.04	.11	.15
10	.50	.38	.34	-.10	.22	.18	-.02	.26	-.15	—	.31	.09	.48	.27	.30	-.14	.11	.15	.07	.03	-.03	.09
11	.08	.18	.35	-.05	.07	.21	.18	.27	.14	.17	—	.04	.22	.30	.28	.09	.19	.16	.07	.13	.13	.21
12	-.20	.15	.18	.31	.12	-.14	.12	.16	.45	-.04	.26	—	.18	-.03	.16	.06	.16	.02	.10	-.05	.08	.26
13	.30	.29	.15	-.02	.13	.22	.00	.24	-.02	.45	.32	.13	—	.20	.15	-.08	.06	-.04	.00	-.05	.05	.11
14	.26	.05	.34	-.02	.18	-.03	-.07	.24	.12	.19	.22	.06	.03	—	.56	-.04	.24	.25	.20	.17	.19	.21
15	.27	.11	.15	-.18	.01	.14	-.08	.22	.14	.16	.31	-.01	.21	.34	—	.00	.22	.30	.29	.29	.10	.22
16	-.07	-.02	.01	.09	-.02	.02	.11	-.04	.04	-.13	-.03	-.02	-.11	.05	-.28	—	.24	.09	.23	.05	.11	.10
17	.07	.15	-.02	.08	.01	-.20	.07	.29	.19	.04	.19	.05	.08	.16	.06	.05	—	.20	.29	.18	.28	.32
18	.35	-.01	.33	.05	.25	-.14	-.16	.29	.10	.19	.17	.03	.14	.43	.27	.14	.05	—	.44	.39	.04	.14
19	.29	.11	.50	-.19	.34	-.13	.05	.23	.09	.36	.16	.02	.01	.30	.21	-.02	.19	.44	—	.30	.05	.17
20	.16	.02	.23	-.13	.12	-.17	.13	.21	.17	.20	.26	.05	.10	.23	.14	-.06	.18	.33	.33	—	.25	.06
21	-.14	.10	.20	.06	.15	-.08	.05	.13	.21	.07	.08	.24	.07	.12	-.11	.11	.15	-.08	.08	.00	—	.26
22	-.11	.12	.10	.22	-.03	.08	.13	.13	.12	-.04	.38	.24	.09	.19	.18	.13	.16	.01	.04	.02	.22	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix C15 for item descriptions.

Mean inter-item correlation at one month = .12.

Mean inter-item correlation at 13 months = .14.

Appendix C17. IGQ-67 Survivor Guilt item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	63.6	63.1	70.4	85.0	.33	.44	.40	.38	.73	.77
2	63.0	62.4	70.9	84.5	.32	.44	.26	.33	.73	.77
3	64.0	63.4	65.7	82.2	.49	.51	.47	.47	.72	.77
4	62.7	62.0	76.0	89.5	.03	.24	.26	.34	.75	.78
5	64.3	63.7	69.3	83.8	.36	.51	.33	.45	.73	.77
6	62.7	62.1	75.1	92.8	.06	.02	.34	.23	.75	.80
7	63.5	63.0	74.1	90.3	.11	.14	.14	.19	.75	.79
8	63.5	62.9	69.5	85.7	.38	.36	.30	.38	.73	.78
9	62.8	62.2	73.8	90.2	.17	.19	.26	.19	.74	.79
10	63.6	62.8	68.2	86.2	.46	.39	.49	.45	.72	.78
11	63.4	62.8	68.3	85.1	.47	.40	.40	.32	.72	.78
12	62.6	61.9	72.0	89.5	.28	.23	.39	.28	.73	.78
13	62.9	62.2	71.4	88.3	.28	.28	.31	.39	.73	.78
14	64.4	63.6	70.8	85.8	.41	.45	.32	.46	.73	.77
15	64.1	63.5	70.7	83.4	.36	.51	.33	.51	.73	.77
16	62.6	61.9	75.7	91.8	.06	.08	.23	.18	.75	.79
17	63.4	62.8	71.4	84.5	.29	.46	.24	.43	.73	.77
18	64.3	63.6	69.2	86.2	.46	.41	.49	.45	.72	.78
19	64.4	63.8	69.7	87.0	.42	.35	.47	.38	.72	.78
20	64.6	63.9	72.2	87.6	.28	.33	.30	.36	.73	.78
21	63.6	62.9	73.0	87.7	.19	.30	.19	.25	.74	.78
22	62.5	61.9	72.6	86.7	.28	.40	.22	.26	.74	.78

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix C15 for item descriptions.

Appendix C18. IGQ-67 Separation Guilt individual item statistics

		IGQ-67 Separation Guilt			
		Time 1		Time 2	
		Mean	SD	Mean	SD
1	It makes me uncomfortable to have critical thoughts about my parents.	2.9	1.22	2.7	1.13
2	It is difficult to see my parents flaws.	2.3	0.95	2.3	1.00
3	I feel bad when I disagree with my parent's ideas or values, even if I keep it to myself.	2.4	1.09	2.3	1.06
4	I wish I could be more like my parents.	2.2	0.87	2.2	0.99
5	I feel that bad things may happen to my family if do not stay in close contact with them.	2.3	1.09	2.3	1.18
6	It makes me anxious to be away from home for too long.	3.0	1.26	3.0	1.27
7	I feel uncomfortable if I don't do things in the same way my parents did.	1.9	0.82	1.8	0.82
8	I prefer to do things the way my parents did them.	2.0	0.90	1.9	0.86
9	I am very reluctant to express an opinion that is different from the opinions held by family or friends.	2.3	1.02	2.0	0.92
10	I don't mind saying negative things about my parents.	3.0	1.15	2.9	1.17
11	I have no difficulty rejecting my family's values.	3.4	1.10	3.4	1.13
12	I am glad I am not like my parents.	3.1	1.16	3.1	1.25
13	I would feel terrible if I did not love my parents.	3.9	1.16	3.8	1.30
14	One's parents should always come first.	2.3	0.99	2.3	0.99
15	I feel guilty about not liking my parents.	2.2	1.25	2.2	1.19

Note: Time 1 = one month after perinatal death (N = 115). Time 2 = 13 months after perinatal death. N = 149.

Appendix C19. IGQ-67 Separation Guilt inter-item correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	—	.23	.45	.24	.24	.20	.34	.19	.26	.33	.36	.06	.27	.15	.11
2	.39	—	.39	.39	.22	.16	.32	.39	.16	.21	.28	.24	.02	.25	.16
3	.32	.23	—	.37	.40	.38	.53	.36	.37	.32	.41	.21	.16	.28	.22
4	.26	.42	.37	—	.23	.14	.45	.51	.21	.22	.30	.49	.09	.36	.07
5	.29	.25	.19	.17	—	.30	.37	.24	.12	.05	.18	-.01	.18	.27	.24
6	.30	.25	.24	.34	.15	—	.18	.22	.20	.13	.24	.06	.12	.26	.07
7	.05	.27	.48	.45	.27	.22	—	.45	.25	.10	.21	.08	.09	.16	.18
8	.14	.23	.30	.45	.10	.39	.52	—	.35	.06	.27	.36	.14	.28	.23
9	.08	.13	.32	.33	.20	.10	.23	.24	—	.23	.27	.09	.14	.12	.12
10	.21	.31	.25	.31	.00	.09	.17	.16	.19	—	.36	.21	.29	.18	-.06
11	.18	.29	.28	.35	.05	.22	.15	.31	.13	.45	—	.38	.18	.20	-.01
12	.05	.31	.22	.56	.06	.05	.39	.32	.18	.34	.42	—	.09	.28	-.01
13	.36	.09	.29	.13	.04	.18	.15	.15	.05	.06	.27	.09	—	.35	-.03
14	.31	.26	.23	.39	.27	.24	.23	.28	.24	.33	.38	.26	.27	—	.02
15	.25	-.08	.23	.05	.09	.01	.18	-.16	-.08	-.02	.00	-.05	.16	.06	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix C18 for item descriptions.

Mean inter-item correlation at one month = .21.

Mean inter-item correlation at 13 months = .23.

Appendix C20. IGQ-67 Separation Guilt item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	36.0	35.4	54.8	61.8	.47	.46	.34	.32	.76	.79
2	36.6	35.8	57.9	63.1	.42	.45	.26	.29	.77	.79
3	36.4	35.8	54.7	59.3	.56	.67	.42	.54	.76	.77
4	36.7	36.0	56.2	61.9	.60	.55	.48	.50	.76	.78
5	36.6	35.9	59.3	62.5	.26	.40	.19	.29	.78	.79
6	35.9	35.1	56.1	62.6	.38	.35	.24	.22	.77	.80
7	37.0	36.3	58.3	64.2	.47	.49	.44	.46	.77	.79
8	36.9	36.2	58.1	63.2	.43	.54	.43	.47	.77	.78
9	36.6	36.1	59.1	64.8	.30	.39	.19	.24	.78	.79
10	35.9	35.2	56.4	63.2	.41	.36	.32	.29	.77	.80
11	35.5	34.7	55.1	61.2	.52	.50	.40	.35	.76	.78
12	35.7	35.0	57.6	63.2	.34	.33	.37	.40	.78	.80
13	35.0	34.4	58.3	63.8	.30	.28	.21	.25	.78	.80
14	36.6	35.8	56.7	63.5	.48	.43	.30	.31	.77	.79
15	36.7	35.9	61.8	66.8	.08	.16	.15	.15	.80	.81

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix C18 for item descriptions.

Appendix C21. IGQ-67 Omnipotence Guilt individual item statistics

		IGQ-67 Omnipotence Guilt			
		Time 1		Time 2	
		Mean	SD	Mean	SD
1	I worry a great deal about my parents, or children, or siblings.	3.6	1.21	3.5	1.16
2	I often find myself doing what someone else wants me to do rather than doing what I would most enjoy.	3.3	1.15	3.2	1.12
3	I worry about hurting other people's feelings if I turn down an invitation from somebody who is eager for me to accept.	3.7	1.00	3.6	1.05
4	It is very hard for me to cancel plans if I know the other person is looking forward to seeing me.	3.8	1.01	3.9	0.94
5	I worry a lot about the people I love even when they seem to be fine.	3.0	1.13	2.9	1.24
6	I generally have trouble saying no to people, i.e. refusing other people's deadlines.	3.4	1.10	3.4	1.06
7	I can't stand the idea of hurting someone else.	4.0	0.88	4.0	0.85
8	I don't let my parents make me feel responsible for their unhappiness.	2.4	1.13	2.4	1.21
9	If my child, spouse or close friends have a problem, I am very tempted to try to solve it for them.	3.9	0.80	3.9	0.77
10	I am afraid to be alone.	2.6	1.27	2.6	1.29
11	My parent's problems are their own concern not mine.	3.5	1.05	3.5	1.12
12	It is easy for me to say no to others.	3.5	0.98	3.4	0.99
13	I don't worry about my parents or children.	4.4	0.85	4.4	0.83
14	If something goes wrong in the family I tend to ask myself how could I have prevented it.	3.1	1.12	3.1	1.08

Note: Time 1 = one month after perinatal death (N = 115). Time 2 = 13 months after perinatal death. N = 149

Appendix C22. IGQ-67 Omnipotence Guilt inter-item correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	—	.30	.35	.26	.57	.32	.22	.14	.08	.25	.17	.16	.41	.30
2	.27	—	.20	.20	.31	.30	.08	.14	.07	.30	.05	.35	.14	.15
3	.26	.24	—	.53	.27	.51	.24	.08	.26	.18	.29	.40	.24	.35
4	.08	.19	.45	—	.20	.40	.16	-.10	.25	.11	.23	.17	.15	.13
5	.52	.23	.21	.03	—	.24	.24	.22	.04	.41	.04	.11	.24	.36
6	.32	.52	.33	.18	.22	—	.08	.17	.23	.12	.24	.48	.07	.17
7	.15	-.03	.34	.24	.19	.08	—	.01	.22	.27	.01	.05	.07	.11
8	-.01	.05	-.07	-.14	.00	-.03	-.14	—	-.01	.24	.16	.04	.07	.09
9	.12	.14	.19	.13	.00	.24	.02	-.13	—	.09	.25	.09	.11	.19
10	.11	.13	.01	-.03	.17	.05	-.03	.06	.01	—	.12	.11	.03	.13
11	.23	.09	.14	.16	.06	.19	.11	.07	.06	-.01	—	.07	.14	.14
12	.34	.46	.29	.18	.33	.49	.27	-.02	.03	.14	.17	—	.15	.25
13	.38	.11	-.13	.01	.19	.00	.14	-.05	-.06	-.08	.28	.12	—	.16
14	.29	.18	.25	.19	.27	.24	.10	.08	.10	.16	.04	.30	.02	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix C21 for item descriptions.

Mean inter-item correlation at one month = .16.

Mean inter-item correlation at 13 months = .19.

Appendix C23. IGQ-67 Omnipotence Guilt item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	44.7	44.3	37.9	45.7	.55	.55	.46	.47	.68	.74
2	45.0	44.6	40.5	48.1	.39	.41	.32	.26	.70	.76
3	44.5	44.2	40.2	46.1	.49	.59	.41	.51	.69	.74
4	44.5	43.9	42.5	49.6	.31	.40	.25	.38	.71	.76
5	45.2	44.9	40.1	45.5	.42	.52	.33	.47	.70	.74
6	44.8	44.4	39.8	47.2	.47	.51	.42	.48	.69	.75
7	44.2	43.8	44.3	51.8	.21	.26	.16	.18	.72	.77
8	45.8	45.4	45.8	50.7	.03	.20	.06	.17	.74	.78
9	44.3	43.9	44.4	52.2	.23	.26	.15	.18	.72	.77
10	45.6	45.2	42.6	47.4	.20	.37	.12	.28	.73	.76
11	44.8	44.3	42.4	50.1	.29	.28	.17	.19	.71	.77
12	44.7	44.4	40.6	49.6	.48	.37	.41	.37	.69	.76
13	43.9	43.4	44.3	51.4	.21	.30	.32	.24	.72	.77
14	45.1	44.6	40.1	48.8	.43	.38	.24	.26	.70	.76

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix C21 for item descriptions.

Appendix C24. IGQ-67 Self-Hate Guilt individual item statistics

		IGQ-67 Self-Hate Guilt			
		Time 1		Time 2	
		Mean	SD	Mean	SD
1	I do not deserve other people's respect or admiration.	1.8	0.81	1.8	0.84
2	I deserve to be rejected by people.	1.5	0.77	1.5	0.81
3	I am always expecting to be hurt.	2.2	1.04	2.0	0.99
4	If something bad happens to me I feel I must have deserved it.	2.6	1.18	2.4	1.20
5	If I make a mistake I get very depressed.	2.7	1.11	2.6	1.14
6	If someone blames me for a mishap I assume they are right.	2.3	0.88	2.3	0.93
7	If I fail at something I condemn myself and want to harm myself.	1.8	0.93	1.7	0.98
8	Sometimes I feel I am such a bad person that I don't deserve to live.	1.6	1.01	1.5	0.87
9	Other people have better lives because they are more deserving than I am.	1.8	0.86	1.7	0.83
10	My parents needed to punish me severely as a child because I did so many bad things.	1.6	0.65	1.6	0.81
11	I always assume I am at fault when something goes wrong.	2.3	1.02	2.2	0.96
12	People would not mistreat me if I did not deserve it.	2.1	1.16	2.0	1.08
13	I feel like an unlovable person.	1.7	0.82	1.7	0.87
14	I feel I am being punished for bad things I did as a child.	1.7	0.90	1.6	0.85
15	Sometimes I feel that I am a selfish and irresponsible person.	2.9	1.15	2.7	1.23
16	I feel there is something inherently bad about me.	1.8	0.88	1.7	0.97

Note: Time 1 = one month after perinatal death (N = 115). Time 2 = 13 months after perinatal death. N = 149.

Appendix C25. IGQ-67 Self-Hate Guilt inter-item correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	—	.31	.35	.31	.33	.13	.20	.39	.30	.09	.30	.13	.33	.18	.32	.37
2	.51	—	.45	.37	.39	.22	.47	.52	.37	.23	.34	.33	.41	.46	.25	.49
3	.53	.23	—	.54	.57	.33	.47	.69	.40	.27	.47	.33	.46	.49	.37	.48
4	.36	.32	.52	—	.43	.37	.36	.52	.37	.24	.52	.45	.43	.45	.48	.41
5	.33	.28	.37	.40	—	.30	.50	.49	.22	.23	.51	.32	.27	.46	.27	.45
6	.37	.40	.17	.24	.39	—	.22	.19	.19	.23	.39	.28	.26	.27	.11	.13
7	.25	.53	.24	.25	.30	.24	—	.49	.30	.21	.42	.28	.25	.42	.22	.38
8	.30	.47	.29	.30	.36	.25	.38	—	.41	.33	.46	.42	.52	.53	.34	.57
9	.40	.41	.41	.40	.30	.36	.31	.50	—	.22	.29	.36	.40	.39	.23	.30
10	.17	.20	.19	.28	.13	.14	.18	.31	.21	—	.23	.40	.27	.38	.10	.23
11	.36	.27	.50	.40	.24	.39	.26	.18	.21	.07	—	.31	.42	.35	.37	.46
12	.15	.38	.20	.39	.24	.17	.24	.31	.21	.19	.16	—	.37	.38	.18	.31
13	.42	.33	.41	.38	.40	.31	.30	.31	.40	.17	.32	.19	—	.50	.39	.49
14	.27	.29	.36	.48	.41	.34	.30	.34	.37	.42	.22	.32	.35	—	.36	.51
15	.22	.23	.32	.28	.21	.09	.24	.22	.15	.13	.29	.07	.27	.17	—	.46
16	.33	.38	.48	.53	.36	.21	.37	.47	.47	.21	.38	.43	.35	.45	.27	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix C24 for item descriptions.

Mean inter-item correlation at one month = .31.

Mean inter-item correlation at 13 months = .36.

Appendix C26. IGQ-67 Self-Hate Guilt item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	30.5	29.1	74.5	86.8	.51	.42	.41	.28	.87	.89
2	30.8	29.4	73.7	84.7	.61	.59	.55	.41	.87	.89
3	30.1	28.8	70.4	80.4	.62	.71	.50	.60	.86	.88
4	29.7	28.5	68.3	78.4	.64	.67	.49	.52	.86	.89
5	29.6	28.3	70.8	80.3	.55	.61	.37	.51	.87	.89
6	30.0	28.6	75.4	86.7	.40	.38	.32	.28	.87	.90
7	30.5	29.2	73.6	83.3	.49	.55	.39	.40	.87	.89
8	30.7	29.4	70.9	81.8	.60	.73	.44	.64	.86	.88
9	30.5	29.2	73.4	85.8	.55	.49	.43	.31	.87	.89
10	30.7	29.2	77.7	87.7	.36	.38	.27	.24	.87	.90
11	30.0	28.7	72.8	82.3	.48	.63	.39	.47	.87	.89
12	30.2	28.9	72.8	83.0	.41	.50	.30	.36	.87	.89
13	30.6	29.2	73.8	83.7	.55	.61	.34	.46	.87	.89
14	30.6	29.2	72.5	83.3	.58	.65	.46	.51	.87	.89
15	29.4	28.2	74.3	82.1	.34	.47	.24	.37	.88	.90
16	30.4	29.1	71.4	81.9	.68	.64	.52	.51	.86	.89

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix C24 for item descriptions.

Appendix C27. GRIMS individual item statistics

		Golombok Rust Inventory of Marital State			
		Time 1		Time 2	
		Mean	SD	Mean	SD
1	My partner is usually sensitive to and aware of my needs	0.7	0.66	0.8	0.74
2	I really appreciate my partner's sense of humour	0.5	0.56	0.6	0.61
3	My partner doesn't seem to listen to me anymore	0.7	0.70	0.7	0.71
4	My partner has never been disloyal to me	0.5	0.75	0.6	0.74
5	I would be willing to give up my friends if it meant saving our relationship	0.9	0.89	0.8	0.83
6	I am dissatisfied with our relationship	0.5	0.73	0.6	0.71
7	I wish my partner was not so lazy and didn't keep putting things off	0.9	0.85	0.9	0.79
8	I sometimes feel lonely even when I am with my partner	1.2	0.90	0.1	0.83
9	If my partner left me life would not be worth living	1.6	0.86	0.8	0.81
10	We can 'agree to disagree' with each other	0.9	0.67	0.9	0.69
11	It is useless carrying on with a marriage beyond a certain point	1.5	0.91	0.4	0.94
12	We both seem to like the same things	1.1	0.67	0.0	0.63
13	I find it difficult to show my partner that I am feeling affectionate	0.8	0.78	0.9	0.73
14	I never have second thoughts about our relationship	1.1	0.93	0.2	0.94
15	I enjoy just sitting and talking with my partner	0.5	0.56	0.6	0.55
16	I find the idea of spending the rest of my life with my partner rather boring	0.5	0.71	0.5	0.70
17	There is always plenty of 'give and take' in our relationship	0.8	0.66	0.8	0.62
18	We become competitive when we have to make decisions	1.2	0.76	0.2	0.82
19	I no longer feel I can really trust my partner	0.3	0.58	0.4	0.63
20	Our relationship is still full of joy and excitement	0.7	0.75	0.8	0.69
21	One of us is continually talking and the other is usually silent	1.2	0.83	0.1	0.80
22	Our relationship is continually evolving	0.7	0.58	0.8	0.58
23	Marriage is really more about security and money than about love	0.5	0.63	0.7	0.73
24	I wish there was more warmth and affection between us	1.2	0.90	0.2	0.90
25	I am totally committed to my relationship with my partner	0.4	0.64	0.4	0.64
26	Our relationship is sometimes strained because my partner is always correcting me	0.9	0.75	1.0	0.72
27	I suspect we may be on the brink of separation	0.3	0.63	0.4	0.73
28	We can always make up quickly after an argument	0.8	0.67	0.9	0.67

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. Time 1 N = 150. Time 2 N = 140.

Appendix C28. GRIMS inter-item correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	—	.44	.58	.41	.18	.56	.20	.43	-.01	.20	.21	.18	.39	.47	.38	.20	.53	.32	.44	.47	.27	.18	.34	.49	.24	.35	.32	.46
2	.38	—	.33	.22	.03	.37	.13	.31	-.01	.22	.21	.20	.27	.24	.40	.19	.40	.10	.20	.36	.40	.26	.24	.32	.23	.28	.26	.32
3	.53	.22	—	.41	.13	.54	.31	.34	-.06	.19	.22	.17	.26	.44	.30	.12	.45	.32	.42	.45	.34	.12	.32	.42	.22	.43	.40	.40
4	.24	.14	.18	—	.22	.49	.14	.38	.01	.15	.11	.18	.24	.34	.27	.24	.37	.32	.41	.41	.31	.14	.16	.37	.40	.28	.36	.29
5	.14	.15	.19	.18	—	.16	.05	.14	.26	.13	.13	.16	.13	.15	.15	.00	.21	.14	.21	.15	.00	.00	.20	.05	.16	.00	.12	.12
6	.52	.35	.53	.16	.27	—	.34	.48	-.03	.16	.13	.19	.42	.48	.43	.36	.57	.28	.46	.56	.34	.27	.47	.55	.46	.41	.58	.48
7	.22	.33	.25	.10	.28	.31	—	.20	-.08	.12	.09	.09	.12	.29	.13	-.01	.24	.11	.21	.18	.16	.13	.13	.14	.15	.22	.22	.30
8	.33	.18	.32	.23	.30	.42	.25	—	.07	.25	.23	.16	.29	.36	.30	.23	.38	.20	.29	.53	.30	.15	.33	.46	.36	.32	.25	.39
9	.22	.10	.14	-.03	.13	.22	.15	.08	—	.09	.18	.20	.09	.20	.26	.05	.14	-.15	-.06	.23	-.03	.08	.00	.11	.24	-.01	-.05	.14
10	.21	.09	.28	.21	.27	.19	.08	.18	.07	—	.12	.18	.29	.19	.17	.22	.39	.05	.30	.30	.17	.13	.11	.31	.06	.15	.14	.38
11	.13	.07	.17	.11	.20	.15	.17	.14	.19	.03	—	.05	.17	.26	.23	.18	.23	.18	.23	.32	.20	.01	.18	.36	.23	.25	.21	.33
12	.24	.21	.22	.08	.07	.07	.22	.18	.25	.17	-.06	—	.25	.42	.29	.14	.30	.12	.09	.37	.22	.26	.03	.27	.29	.31	.07	.28
13	.32	.32	.39	.24	.20	.42	.14	.29	.02	.24	.18	.21	—	.38	.54	.32	.44	.28	.34	.36	.26	.30	.27	.44	.34	.35	.29	.35
14	.40	.25	.35	.27	.19	.36	.14	.21	.09	.23	.16	.19	.31	—	.47	.36	.48	.22	.37	.48	.31	.23	.23	.41	.45	.37	.38	.41
15	.27	.41	.28	.23	.16	.42	.19	.19	.21	.13	.28	.21	.45	.24	—	.38	.38	.11	.29	.46	.34	.35	.30	.38	.50	.35	.29	.36
16	.23	.25	.24	.27	.21	.36	.06	.20	.10	.31	.22	.18	.57	.26	.48	—	.21	.16	.40	.39	.20	.21	.40	.33	.38	.18	.30	.28
17	.32	.21	.18	.20	.16	.29	.23	.26	.27	.28	.07	.23	.14	.35	.18	.09	—	.15	.43	.54	.29	.35	.35	.52	.34	.37	.44	.51
18	.18	.25	.21	.19	.19	.23	.23	.27	-.09	.02	.21	.04	.38	.16	.19	.27	.15	—	.18	.17	.16	.10	.26	.32	.23	.38	.11	.28
19	.22	.29	.32	.23	-.01	.37	.24	.11	.02	.15	.09	.03	.28	.25	.25	.23	.23	.21	—	.37	.30	.26	.40	.29	.39	.35	.61	.34
20	.44	.31	.48	.10	.19	.52	.22	.32	.12	.17	.04	.26	.35	.30	.34	.29	.39	.18	.20	—	.37	.32	.40	.57	.51	.39	.39	.54
21	.06	.14	.30	.09	.07	.23	.18	.17	-.06	.06	.04	.08	.32	.13	.31	.29	.11	.14	.12	.24	—	.25	.31	.22	.25	.39	.31	.30
22	.25	.41	.23	.15	.12	.31	.16	.19	.04	.27	.09	.13	.38	.16	.49	.41	.25	.24	.30	.42	.23	—	.34	.27	.41	.20	.26	.25
23	.31	.28	.28	.17	.04	.26	.09	.10	.06	.19	.21	.01	.33	.15	.28	.36	.05	.23	.40	.15	.14	.30	—	.28	.37	.29	.37	.28
24	.44	.28	.43	.18	.12	.47	.11	.28	.15	.18	.20	.21	.51	.40	.37	.42	.24	.21	.22	.45	.24	.33	.33	—	.39	.50	.35	.48
25	.35	.25	.36	.14	.27	.40	.18	.17	.25	.20	.09	.27	.22	.29	.36	.31	.22	.18	.22	.43	.09	.27	.27	.37	—	.36	.53	.36
26	.44	.29	.45	.16	.05	.32	.14	.25	.07	.19	.03	.32	.35	.20	.31	.27	.13	.37	.21	.28	.22	.25	.27	.40	.33	—	.38	.45
27	.39	.30	.34	.23	.22	.47	.12	.35	.13	.13	.10	.16	.32	.28	.43	.35	.26	.21	.30	.37	.27	.31	.20	.35	.39	.26	—	.39
28	.30	.29	.19	.21	.27	.23	.26	.25	.13	.27	.23	.16	.15	.23	.17	.12	.44	.12	.22	.30	.08	.21	.12	.19	.22	.13	.35	—

Note: Lower diagonal = one month after perinatal death. Upper diagonal = 13 months after perinatal death. See Appendix C27 for item descriptions.

Mean inter-item correlation at one month = .23

Mean inter-item correlation at 13 months = .27.

Appendix C29. GRIMS item-total correlations

	Scale mean if item deleted		Scale variance if item deleted		Corrected item-total correlation		Squared multiple correlation		Alpha if item deleted	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
1	22.2	23.1	99.5	114.0	.61	.63	—	—	.88	.90
2	22.4	23.3	102.0	117.9	.49	.46	—	—	.89	.91
3	22.2	23.1	99.1	114.9	.60	.59	—	—	.88	.91
4	22.4	23.3	102.1	115.6	.35	.52	—	—	.89	.91
5	22.0	23.1	101.1	119.6	.34	.23	—	—	.89	.91
6	22.4	23.3	98.1	113.1	.64	.72	—	—	.88	.90
7	22.0	23.0	100.8	118.8	.37	.29	—	—	.89	.91
8	21.7	22.8	98.9	113.9	.46	.55	—	—	.89	.91
9	21.3	22.0	103.6	121.6	.21	.12	—	—	.89	.91
10	22.1	23.0	102.5	118.8	.37	.34	—	—	.89	.91
11	21.4	22.4	102.1	116.3	.27	.36	—	—	.89	.91
12	21.8	22.8	103.1	118.9	.32	.37	—	—	.89	.91
13	22.1	23.0	98.2	115.3	.59	.55	—	—	.88	.91
14	21.8	22.7	98.2	11.9	.48	.64	—	—	.89	.90
15	22.4	23.3	101.1	117.1	.57	.60	—	—	.88	.91
16	22.4	23.3	99.7	117.4	.54	.43	—	—	.88	.91
17	22.1	23.1	101.5	115.0	.45	.68	—	—	.89	.90
18	21.7	22.6	101.7	117.6	.37	.35	—	—	.89	.91
19	22.6	23.5	102.7	116.2	.42	.58	—	—	.89	.91
20	22.2	23.1	98.7	113.3	.58	.72	—	—	.88	.90
21	21.7	22.8	102.2	115.8	.30	.46	—	—	.89	.91
22	22.2	23.1	101.8	119.3	.49	.38	—	—	.89	.91
23	22.4	23.2	102.3	116.2	.41	.49	—	—	.89	.91
24	21.7	22.7	96.5	111.2	.60	.65	—	—	.88	.90
25	22.5	23.4	100.7	115.8	.52	.60	—	—	.88	.91
26	22.0	22.9	100.1	115.2	.48	.56	—	—	.89	.91
27	22.6	23.5	100.5	115.2	.56	.55	—	—	.88	.91
28	22.1	23.0	101.6	114.7	.43	.65	—	—	.89	.90

Note: Time 1 = one month after perinatal death. Time 2 = 13 months after perinatal death. See Appendix C27 for item descriptions.

Appendix D

Appendix D1. Correlations of study variables at Time 1 in women

	1	2	3	4	5	6	7
1. Total Grief	—						
2. Active Grief	.83***	—					
3. Difficulty Coping	.89***	.59***	—				
4. Despair	.89***	.61***	.71***	—			
5. Total Dysphoria	.79***	.57***	.77***	.71***	—		
6. Somatic Symptoms	.60***	.45***	.64***	.47***	.83***	—	
7. Anxiety/Insomnia	.73***	.50***	.70***	.69***	.88***	.65***	—
8. Social Dysfunction	.64***	.49***	.63***	.53***	.82***	.64***	.60***
9. Severe Depression	.70***	.47***	.66***	.69***	.86***	.56***	.70***
10. Parent age	.02	-.12	.10	.06	.05	-.02	.03
11. Education	-.04	-.04	.00	-.08	.05	.17	.06
12. Occupation	.10	.14	.04	.08	.02	-.01	-.02
13. Marital dissatisfaction	.16	-.11	.25*	.25*	.27*	.18	.22
14. Type of loss	-.02	.02	-.02	-.04	-.09	-.06	-.07
15. Gestation	.09	.21	.07	-.04	.06	.06	-.06
16. Infant gender	.03	.01	.02	.04	-.07	-.07	-.04
17. Singleton gestation	.30**	.32**	.25*	.22*	.28**	.26*	.25*
18. Previous loss	.10	-.01	.12	.15	.09	.11	.09
19. Living children	-.10	-.17	.02	-.13	-.08	-.01	-.08
20. Autopsy	.18	.14	.14	.18	.09	.02	.10

	8	9	10	11	12	13	14
8. Social Dysfunction	—						
9. Severe Depression	.61***	—					
10. Parent age	.04	.10	—				
11. Education	.02	-.06	.26*	—			
12. Occupation	.00	.07	-.24*	-.68***	—		
13. Marital dissatisfaction	.12	.37**	.11	-.07	.02	—	
14. Type of loss	-.13	-.06	-.10	-.02	-.01	.12	—
15. Gestation	.26*	-.02	-.01	-.05	.08	-.09	-.24*
16. Infant gender	-.05	-.08	.02	.08	.00	-.07	.14
17. Singleton gestation	.28*	.16	-.07	.13	.06	.08	-.24*
18. Previous loss	-.01	.10	.16	.04	-.04	.20	-.08
19. Living children	-.08	-.12	.25*	-.06	.19	.24*	-.06
20. Autopsy	.19	.02	-.05	-.11	.10	-.11	-.31**

	15	16	17	18	19	20
15. Gestation	—					
16. Infant gender	.04	—				
17. Singleton gestation	.15	-.22*	—			
18. Previous loss	-.02	-.19	-.19	—		
19. Living children	-.05	-.12	-.08	-.08	—	
20. Autopsy	.31**	-.23*	-.27*	-.11	-.13	—

Note: Time 1 = one month after perinatal death. N = 86. Autopsy: no = 0, yes = 1. Education: High School Attendance 1–University Degree 4. Infant gender: female = 0, male = 1. Living children: no = 0, yes = 1. Marital dissatisfaction: higher score = greater dissatisfaction. Singleton gestation: multiple = 0, singleton = 1. Occupation: Manager or Administrator 1–Labourer 9. Previous loss: no = 0, yes = 1. Type of loss: stillbirth = 0, neonatal death = 1.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Appendix D2. Correlations of study variables at Time 1 in men

	1	2	3	4	5	6	7
1. Total Grief	—						
2. Active Grief	.90***	—					
3. Difficulty Coping	.92***	.73***	—				
4. Despair	.88***	.67***	.74***	—			
5. Total Dysphoria	.66***	.57***	.70***	.53***	—		
6. Somatic Symptoms	.39**	.29*	.42***	.34***	.74***	—	
7. Anxiety/Insomnia	.63***	.55***	.67***	.47***	.87***	.54***	—
8. Social Dysfunction	.42***	.39**	.50***	.24*	.77***	.41***	.56***
9. Severe Depression	.67***	.57***	.63***	.62***	.81***	.40**	.65***
10. Parent age	-.20	-.21	-.15	-.19	-.07	-.13	-.04
11. Education	-.14	-.07	-.09	-.23	-.06	-.08	-.04
12. Occupation	.12	.08	.02	.25*	-.02	-.04	.07
13. Marital dissatisfaction	.21	.05	.33**	.22	.21	.11	.20
14. Type of loss	.17	.13	.19	.14	-.03	-.03	.03
15. Gestation	-.06	.02	-.12	-.07	-.20	-.24*	-.22
16. Infant gender	-.08	-.06	-.15	-.01	-.10	-.02	-.06
17. Singleton gestation	.03	.03	.07	-.03	.03	-.12	.09
18. Previous loss	.23	.18	.24*	.22	.16	.09	.18
19. Living children	-.01	-.08	.13	-.08	-.02	-.06	.02
20. Autopsy	.15	.15	.18	.05	.20	-.01	.23*

	8	9	10	11	12	13	14
8. Social Dysfunction	—						
9. Severe Depression	.55***	—					
10. Parent age	.11	-.14	—				
11. Education	.08	-.15	.10	—			
12. Occupation	-.23	.10	-.06	-.57***	—		
13. Marital dissatisfaction	.06	.28*	-.05	-.29*	.09	—	
14. Type of loss	-.16	.04	-.01	.00	.02	.21	—
15. Gestation	-.07	-.07	-.01	-.04	.16	-.17	-.22
16. Infant gender	-.14	-.11	-.08	.10	.14	-.12	.28*
17. Singleton gestation	.04	.08	-.17	.15	.03	.02	-.32**
18. Previous loss	.05	.20	.09	-.22	.13	.27	-.06
19. Living children	.03	-.05	.14	-.05	-.03	.30	-.06
20. Autopsy	.22	.21	-.09	-.22	.23	-.16	-.31**

	15	16	17	18	19	20
15. Gestation	—					
16. Infant gender	-.10	—				
17. Singleton gestation	.17	-.24*	—			
18. Previous loss	-.03	-.22	-.20	—		
19. Living children	-.10	-.11	-.04	-.10	—	
20. Autopsy	.35**	-.25*	-.29*	-.13	-.19	—

Note: Time 1 = one month after perinatal death. N = 72. Autopsy: no = 0, yes = 1. Education: High School Attendance 1–University Degree 4. Infant gender: female = 0, male = 1. Living children: no = 0, yes = 1. Marital dissatisfaction: higher score = greater dissatisfaction. Singleton gestation: multiple = 0, singleton = 1. Occupation: Manager or Administrator 1–Labourer 9. Previous loss: no = 0, yes = 1. Type of loss: stillbirth = 0, neonatal death = 1.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Appendix D3. Correlations of study variables at Time 2 in women

	1	2	3	4	5	6	7
1. Total Grief	—						
2. Active Grief	.88***	—					
3. Difficulty Coping	.94***	.73***	—				
4. Despair	.93***	.72***	.86***	—			
5. Total Dysphoria	.70***	.52***	.69***	.72***	—		
6. Somatic Symptoms	.53***	.37**	.55***	.54***	.88***	—	
7. Anxiety/Insomnia	.70***	.55***	.66***	.74***	.92***	.75***	—
8. Social Dysfunction	.45***	.31**	.46***	.48***	.83***	.67***	.69***
9. Severe Depression	.70***	.53***	.68***	.71***	.83***	.59***	.70***
10. Parent age	-.13	-.18	-.06	-.14	-.14	-.22	-.13
11. Education	-.17	-.21	-.11	-.16	-.20	-.11	-.15
12. Occupation	.10	.18	.01	.11	.16	.12	.10
13. Marital dissatisfaction	.16	-.03	.22	.24*	.40***	.38**	.31**
14. Type of loss	.03	-.01	.02	.06	-.01	-.02	-.03
15. Gestation	.12	.18	.11	.05	.04	-.04	.06
16. Infant gender	.27*	.23*	.30**	.20	.14	.16	.14
17. Singleton gestation	.11	.08	.12	.11	.01	-.02	.01
18. Previous loss	-.11	-.17	-.08	-.05	-.19	-.14	-.13
19. Living children	-.11	-.05	-.10	-.17	-.06	-.04	-.10
20. Autopsy	.17	.13	.15	.18	.09	.03	.07
21. Major life event	.21	.21	.20	.16	.29*	.34**	.29**

	8	9	10	11	12	13	14
8. Social Dysfunction	—						
9. Severe Depression	.58***	—					
10. Parent age	-.03	-.09	—				
11. Education	-.26*	-.20	.26*	—			
12. Occupation	.17	.18	-.24*	-.68***	—		
13. Marital dissatisfaction	.29*	.40***	.04	-.07	.06	—	
14. Type of loss	-.02	.05	-.10	-.02	-.01	.00	—
15. Gestation	.03	.07	-.01	-.05	.09	-.13	-.24
16. Infant gender	-.04	.19	.02	.08	.00	.02	.14
17. Singleton gestation	.02	.02	-.07	.13	.06	.02	-.24*
18. Previous loss	-.19	-.23*	.16	.04	-.04	.02	-.07
19. Living children	.05	-.08	.25*	-.06	.19	.39**	-.06
20. Autopsy	.11	.09	-.05	-.10	.10	-.01	-.31**
21. Major life event	.16	.18	-.18	-.24*	.20	.19	-.01

	15	16	17	18	19	20	21
15. Gestation	—						
16. Infant gender	.04	—					
17. Singleton gestation	.15	-.22*	—				
18. Previous loss	-.02	-.19	-.19	—			
19. Living children	-.04	-.12	-.08	-.08	—		
20. Autopsy	.31**	-.23*	-.27*	-.11	-.13	—	
21. Major life event	.11	-.20	.09	-.14	-.04	-.14	—

Note: Time 2 = 13 months after perinatal death. N = 80. Autopsy: no = 0, yes = 1. Education: High School Attendance 1–University Degree 4. Infant gender: female = 0, male = 1. Living children: no = 0, yes = 1. Major life event: no = 0, yes = 1. Marital dissatisfaction: higher score = greater dissatisfaction. Singleton gestation: multiple = 0, singleton = 1. Occupation: Manager or Administrator 1–Labourer 9. Previous loss: no = 0, yes = 1. Type of loss: stillbirth = 0, neonatal death = 1.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Appendix D4. Correlations of study variables at Time 2 in men

	1	2	3	4	5	6	7
1. Total Grief	—						
2. Active Grief	.95***	—					
3. Difficulty Coping	.95***	.86***	—				
4. Despair	.94***	.82***	.85***	—			
5. Total Dysphoria	.75***	.66***	.72***	.74***	—		
6. Somatic Symptoms	.51***	.47***	.50***	.47***	.81***	—	
7. Anxiety/Insomnia	.67***	.59***	.67***	.65***	.91***	.68***	—
8. Social Dysfunction	.52***	.42***	.51***	.57***	.79***	.50***	.65***
9. Severe Depression	.80***	.72***	.73***	.82***	.84***	.49***	.71***
10. Parent age	-.23	-.29*	-.15	-.21	-.29*	-.30*	-.20
11. Education	-.22	-.14	-.25*	-.26*	-.17	.05	-.17
12. Occupation	.24	.17	.19	.31*	.21	.01	.18
13. Marital dissatisfaction	.08	.03	.20	-.01	.20	.10	.23
14. Type of loss	.22	.22	.23	.16	.16	.01	.22
15. Gestation	-.10	-.05	-.13	-.09	-.19	-.13	-.22
16. Infant gender	.10	.08	.04	.16	.07	.09	.02
17. Singleton gestation	-.00	-.00	-.05	.03	.09	.14	.07
18. Previous loss	.18	.16	.24	.11	.08	.04	.15
19. Living children	-.20	-.19	-.15	-.22	-.17	-.19	-.11
20. Autopsy	.05	.01	.05	.10	.02	-.08	-.01
21. Major life event	.10	.08	.19	.01	-.13	-.22	-.11

	8	9	10	11	12	13	14
8. Social Dysfunction	—						
9. Severe Depression	.62***	—					
10. Parent age	-.17	-.30*	—				
11. Education	-.15	-.31**	.10	—			
12. Occupation	.21	.33**	-.06	-.57***	—		
13. Marital dissatisfaction	.17	.21	.08	-.15	-.12	—	
14. Type of loss	.12	.19	-.01	.00	.02	.14	—
15. Gestation	-.27*	-.04	-.02	-.05	.16	-.20	-.21
16. Infant gender	.10	.04	-.08	.10	.14	-.15	.28*
17. Singleton gestation	-.05	.13	-.17	.15	.03	-.08	-.32**
18. Previous loss	-.03	.09	.09	-.22	.13	.16	-.06
19. Living children	-.11	-.14	.14	-.05	-.03	.31*	-.06
20. Autopsy	.13	.08	-.09	-.22	.23	-.26*	-.31**
21. Major life event	-.12	.03	.10	-.20	.09	.08	-.01

	15	16	17	18	19	20	21
15. Gestation	—						
16. Infant gender	-.11	—					
17. Singleton gestation	.17	-.24*	—				
18. Previous loss	-.03	-.22	-.20	—			
19. Living children	-.10	-.11	-.04	-.10	—		
20. Autopsy	.35**	-.25*	-.29*	-.13	-.19	—	
21. Major life event	.07	-.10	.18	-.14	-.05	-.12	—

Note: Time 2 = 13 months after perinatal death. N = 69. Autopsy: no = 0, yes = 1. Education: High School Attendance 1–University Degree 4. Infant gender: female = 0, male = 1. Living children: no = 0, yes = 1. Major life event: no = 0, yes = 1. Marital dissatisfaction: higher score = greater dissatisfaction. Singleton gestation: multiple = 0, singleton = 1. Occupation: Manager or Administrator 1–Labourer 9. Previous loss: no = 0, yes = 1. Type of loss: stillbirth = 0, neonatal death = 1.

*p < .05, **p < .01, ***p < .001 (2-tailed).

Appendix E

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