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Parent Spirituality, Grief, and Mental Health at 1 and 3 Months After Their Infant's/Child's Death in an Intensive Care Unit

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Abstract

Problem—The death of an infant/child is one of the most devastating experiences for parents and immediately throws them into crisis. Research on the use of spiritual/religious coping strategies is limited, especially with Black and Hispanic parents after a neonatal (NICU) or pediatric intensive care unit (PICU) death.

Purpose—The purpose of this longitudinal study was to test the relationships between spiritual/religious coping strategies and grief, mental health (depression and post-traumatic stress disorder) and personal growth for mothers and fathers at 1 (T1) and 3 (T2) months after the infant's/child's death in the NICU/ PICU, with and without control for race/ethnicity and religion.

Results—Bereaved parents' greater use of spiritual activities was associated with lower symptoms of grief, mental health (depression and post-traumatic stress), but not post-traumatic stress in fathers. Use of religious activities was significantly related to greater personal growth for mothers, but not fathers.

Conclusion—Spiritual strategies and activities helped parents cope with their grief and helped bereaved mothers maintain their mental health and experience personal growth.

Keywords

Spirituality; Bereaved parents; NICU/PICU death

IN 2008 IN the United States, 28,033 infants (0–1 year old) and 22,844 children and adolescents under the age of 18 died (Matthews, Minino, Osterman, Strobino, & Guyer, 2011). Most died in an intensive care unit (Fontana, Farrell, Gauvin, Lacroix, & Janvier, 2013). The death of an infant/ child is unimaginable and one of the most devastating events that parents can experience. The resulting stress disrupts their mental and physical health (Youngblut, Brooten, Cantwell, del Moral, & Totapally, 2013). While parents' symptoms of

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depression and PTSD diminished over the first 13 months post-death, about one-third continued to have symptoms indicative of clinical depression and/or PTSD. The number of chronic health conditions parents reported at 13 months post-death was more than double that before the ICU death (Youngblut et al., 2013). Physical and emotional symptoms occur during the early phase of grieving and continue for years afterwards (Werthmann, Smits, & Li, 2010).

Some parents turn to spirituality and religion to cope with their loss. Although often used interchangeably, spirituality involves caring for the human spirit; achieving a state of wholeness; connecting with oneself, others, nature and God/ life forces; and an attempt to understand the meaning and purpose of life (O'Brien, 2014) even in the most difficult circumstances. In contrast, religion is an organized system of faith with a set of rules that individuals may use in guiding their lives (Koenig, 2009). Religion may be an explicit expression of spirituality. Therefore an individual may be spiritual without espousing a specific religion or very religious without having a well-developed sense of spirituality (Subone & Baider, 2010).

Research about bereaved parents' use of spiritual coping strategies and its effects on their psychological adjustment after their child's NICU/PICU death is limited. Most studies in this area have focused on religious coping neglecting the potential effect of non-religious spiritual coping strategies in helping bereaved parents (primarily White) cope with their grief. There is minimal research on whether bereaved parents use religious and/or spiritual coping strategies in early grief and on the differences between mothers' and fathers' coping strategies. Additionally, most studies on spirituality as a coping strategy in the grieving process have examined spirituality at one time point with very little research on the use of spirituality over time. The purpose of this longitudinal study with a sample of Hispanic, Black non-Hispanic, and White non-Hispanic bereaved parents was to test the relationships between spiritual/religious coping strategies and grief, mental health, (depression and post-traumatic stress disorder) and personal growth for mothers and fathers at 1 (T1) and 3 (T2) months after the infant's/child's death in the NICU/PICU, with and without control for race/ethnicity and religion.

Use of Spirituality/Religion as a Coping Strategy

The few studies on the use of spiritual/religious coping strategies by bereaved parents whose infants/children died in the NICU/PICU have described using rituals, sacred text, and prayer; putting their trust in God; having access to their clergy/pastor; connecting with others and remaining connected to the deceased child as spiritual strategies that help to alleviate the parents' pain, provide inner strength and comfort, and give meaning and purpose to their child's death (Ganzevoort & Falkenburg, 2012; Meert, Thurston, & Briller, 2005).

Bereaved parents may find solace (Klass, 1999) in using spiritual and/or religious coping strategies. Parents who believe in a heaven or an afterlife find comfort in believing that their deceased child is in a better place and close to God and that when they die they will be reunited with their child (Armentrout, 2009; Ganzevoort & Falkenburg, 2012; Klass, 1999). Similar beliefs were identified by Lichtenhal, Currier, Neimeyer, and Keese (2010) who

found that bereaved parents' reliance on spiritual or religious beliefs proved helpful in coping with their grief. In that study, 28 (18%) of 156 bereaved parents believed that their child's death was God's will and 25 parents (16%) believed that their child was safe in heaven. Bereaved parents also can find healing or bring meaning to their own lives through spirituality, independent of religion, with meditation, inspirational writings, poetry, nature walks, listening to or creating music, painting or sculpting, and therapeutic touch, among others (Klass, 1999; Meert et al., 2005).

Research has found that some bereaved parents expressed anger with God for their infant's/child's death. Some felt that God was punishing them; others questioned or abandoned their belief in a perfect omniscient and omnipotent God, instead choosing to believe in a higher power that can make mistakes (Armentrout, 2009; Bakker & Paris, 2013). Meert et al. (2005) found that 30 to 60% of bereaved parents expressed anger and blame at themselves and God for their infant's/child's death.

An infant's/child's admission, stay and subsequent death in the NICU/PICU is overwhelming and painful for parents. Many are faced with the difficult decision of limiting treatment or withdrawing life support from their very sick infant/child (Buchi et al., 2007). Researchers have found that bereaved parents described their grief as feelings of emptiness, sadness, deep suffering, emotional devastation and being nonfunctional following the death of their infant/child in the ICU (Armentrout, 2009; Meert, Briller, Myers-Shim, Thurston, & Karbel, 2009).

Parent Mental Health and Personal Growth

Research on the effects of an infant's/child's death on parents' mental health and personal growth has found symptoms of PTSD, depression, and anxiety; lower quality of life; and minimal involvement in social activities up to 6 years after the loss (Werthmann et al., 2010). However few studies have examined parent mental health and personal growth following an infant's/child's death in the NICU/PICU. In bereaved parents 13 months after the death of their infant/child in the NICU/ PICU, Youngblut et al. (2013) found that 30% of parents had scores indicative of depression and 35% of PTSD.

Personal growth is described by bereaved parents as a positive change in themselves, their family and social life (Armentrout, 2009; Buchi et al., 2007). These changes included beginning to find meaning and purpose in their lives, moving forward with their lives and becoming emotionally stronger (Armentrout, 2009; Buchi et al., 2007). They describe their values and priorities as being redefined, often finding material things less important and a greater appreciation for family relationships (Armentrout, 2009). Parents often became involved in community activities that transformed their lives and honored the memory of the deceased infant/child; some joined organizations whose goals were to help others (Armentrout, 2009).

In summary, parents have difficulty dealing with their infant's or child's death, even when studied years after the death. Youngblut et al. (2013) found that bereaved parents had symptoms of depression, panic attacks, anxiety, chest pain, hypertension, and headaches

after the child's death. Religion and spirituality have been used interchangeably in research, so it is unclear whether religious and spiritual activities are equally effective or have differing effects. Most of the research on bereaved parents has been after a child's death due to cancer or trauma in primarily White families (Youngblut & Brooten, 2012). The study reported here is part of a racially/ethnically diverse sample of parents in a larger longitudinal study of parent health and family functioning through the first 13 months after an infant's or child's death in a NICU or PICU.

Conceptual Framework

Hogan, Morse, and Tason (1996) defines grief as “a process of coping, learning and adapting” (p. 44) irrespective of the relationship of the bereaved person to the deceased with six phases. The first phase is “Getting the news” that a loved one has a terminal diagnosis, or “Finding out” their loved one has died. The bereaved person responds to the news with shock, especially if the death was sudden. “Facing reality” is the second phase where the bereaved person experiences intense feelings of grief. In the third phase, “Becoming engulfed in the suffering,” the bereaved person longs for the deceased and often experiences feelings of sadness, loneliness, guilt, and reliving the past. As the bereaved person gradually “Emerges from the suffering” in the fourth phase, they begin to experience some good days and by the fifth phase, “Getting on with their lives,” hope and happiness gradually begin to return. In the final phase “Experiencing personal growth,” the bereaved person develops a new perspective on life. They often reorganize and re-prioritize aspects of their lives, making it more purposeful and meaningful. These stages are hypothesized to be cyclical, not linear (Hogan et al., 1996). Greater parent use of spiritual/religious coping activities is expected to help parents through this process, resulting in less severe parent grief (despair, detachment and disorganization) and better parent mental health (depression, post-traumatic stress) and personal growth at 1 and 3 months post-death.

Methods

The sample for this study consisted of 165 bereaved parents (114 mothers, 51 fathers) of 124 deceased infants/ children (69 NICU and 55 PICU) recruited for the larger study from four level III NICUs and four tertiary care PICUs. Death records from the Office of Vital Statistics, Florida Department of Health, were used to identify infants and children who died in other NICUs or PICUs in South Florida. Parents were eligible for the study if their deceased newborn was from a singleton pregnancy and lived for more than 2 hours in the NICU or their deceased infant/child was 18 years or younger and a patient in the PICU for at least 2 hours. Parents had to understand spoken English or Spanish. Exclusion criteria were multiple gestation pregnancy if the deceased was a newborn, being in a foster home before hospitalization, injuries suspected to be due to child abuse, and death of a parent in the illness/injury event.

Measures of Dependent Variables

Grief was measured with four of the six subscales in the Hogan Grief Reaction Checklist (HGRC; Hogan, Greenfield, & Schmidt, 2001): despair (hopelessness, sadness and

loneliness), detachment (detached from others, avoidance of intimacy), disorganization (difficulty in concentrating and/or retaining new information), and personal growth (personal transformation; becoming more compassionate, tolerant and hopeful). Bereaved parents rated each of the 61 items on a 5-point scale from 1 “does not describe me at all” to 5 “describes me very well” with higher summative scores indicating higher grief symptoms or personal growth in the previous two weeks. Hogan et al. (2001) reported internal consistencies for the 4 subscales of .82 to .89 and test–retest reliabilities from .77 to .85. In this study, Cronbach's alphas for the four subscales at T1 and T2 were .84–.93 for mothers and .79–.89 for fathers.

Depression was measured with the Beck Depression Inventory (BDI-II) (Beck, Steer, & Brown, 1996). Parents rated each of the 21 items on a scale from 0 to 3 with higher summative scores indicating greater severity of depressive symptoms. Beck et al. reported an internal consistency of .92 and test–retest reliability of .93. In this study, internal consistencies were .89–.93 for mothers and fathers at T1 and T2.

Post-traumatic stress disorder (PTSD) was measured with the Impact of Events Scale–Revised (IES-R; Weiss & Marmar, 1997). Bereaved parents rated each of the 22 items from 0 “not at all” to 4 “extremely” to indicate how distressing each item had been during the past 1 weeks with respect to the death of their infant/child. Higher summative scores indicate greater severity of PTSD symptoms. Weiss and Marmar reported internal consistencies for the three subscales as .79–.92. In this study, Cronbach's alphas for the subscales at T1 and T2 were .76–.86 for mothers and .71–.91 for fathers.

Measures of Independent Variables

Spiritual coping was measured with the Spiritual Coping Strategies Scale (SCS) (Baldacchino & Bulhagiar, 2003). The SCS contains two subscales: religious strategies/activities (9 items) and spiritual strategies/activities (11 items). Activities on the religious subscale are oriented toward religion and belief in God (attending church, praying, and trusting in God). Activities on the spiritual subscale are oriented toward relationship with self (reflection), others (relating to relatives and friends by confiding in them) and the environment (appreciating nature and the arts). Parents rated each activity on a 4-point scale ranging from 0 “never used” to 3 “used often” with higher scores indicating greater use of religious and spiritual activities. Baldacchino and Bulhagiar reported Cronbach's alphas of .82 for the religious and .74 for the spiritual strategies/activities subscales. Construct validity of the SCS subscales is supported by correlations of .40 with the well-established Spiritual Well Being instrument (Baldacchino & Bulhagiar, 2003). In this study, parents' subscales internal consistencies at T1 and T2 were .87 to .90 for religious activities and .80 to .82 for spiritual activities.

Race/ethnicity was categorized as “White, non-Hispanic,” “Black non-Hispanic,” or “Hispanic/Latino(a)” based on parent self-identified race (White, Black, Asian, Native American) and Ethnicity (Hispanic-yes/no). Two dummy-coded variables were created to represent race/ethnicity in the regression analyses: Black non-Hispanic (yes/no) and Hispanic/Latino (yes/no). White non-Hispanic was coded as the comparison group.

Religion indicated by the parent was categorized as Protestant, Catholic, none (atheists, agnostics) and other (Jewish, Buddhist, Muslim, Santeria/Espiritismo, Mormon and Rastafarian). Three dummy-coded variables were created to represent religion in the regression analyses: “Protestant” (yes/no), “Catholic” (yes/no), and “other” (yes/ no). The “none” group was coded as the comparison group.

Procedure

The study was approved by the Institutional Review Boards (IRB) from the University, the 4 recruitment facilities, and the State Department of Health prior to recruitment of study participants. A clinical co-investigator from each NICU/PICU identified eligible families. The project director sent a letter to each family (Spanish on one side and English on the other) describing the study and called the family to explain the study. Of the 348 families contacted for the larger study, 188 (54%) families signed consent forms for their participation and review of their deceased child's medical record. The SCS was added to the study after 64 families were recruited. The remaining 124 families completed the SCS. Data were collected in the family's home or another place of their choosing at 1 (T1) and 3 (T2) months post-death. Data were collected from mothers and fathers separately.

Data Analysis

Analyses were conducted separately for mothers and fathers for each time point. Correlations were used to test the relationships of the SCS subscales with bereaved mothers' and fathers' grief (despair, detachment, disorganization), mental health (depression and PTSD) and personal growth at T1 and T2. Multiple regression analyses were used to test whether these relationships changed when the influence of race/ethnicity and religion were controlled. A priori power analysis showed that a sample size of 115 would provide sufficient power (80%) to detect an adjusted R^2 of 0.02 representing a medium effect and with alpha set at .05.

Results

In this sample of 114 mothers and 51 fathers from 124 families, fathers were older than mothers on average. Most parents were married or living with a partner, Hispanic (38%) or Black non-Hispanic (40%), high school graduates, employed, and Protestant (53%) or Catholic (27%). Of the 93 families who provided income data, 39% had annual incomes less than \$30,000 (Table 1).

More infants/children died in the NICU ($n = 69$, 56%) than the PICU ($n = 55$, 44%); 70 (56%) were boys. The average infant/child age was 34.9 (SD = 60.38) months at death. More than half were infants ($n = 95$, 76%), followed by toddlers/preschoolers ($n = 5$, 4%), school age children ($n = 12$, 10%) and adolescents ($n = 12$, 10%). Mean length of stay was 32 days (SD = 63.10). Causes of death were respiratory conditions ($n = 36$, 29%), prematurity ($n = 27$, 22%), congenital anomalies ($n = 20$, 16%), infection ($n = 13$, 10%), accidents ($n = 11$, 9%), neurological disorders ($n = 6$, 5%), cardiac arrest ($n = 5$, 4%), cancer ($n = 4$, 3%), and complications of surgery ($n = 2$, 2%).

Grief and Mental Health

Use of spiritual activities was more strongly related to all outcomes for mothers and fathers than use of religious activities. Bereaved mothers' greater use of spiritual activities, but not religious activities, was significantly related to lower symptoms of grief (despair, detachment and disorganization), depression, and PTSD at T1 and T2 (Table 2). Controlling for race/ethnicity and religion, spiritual activities continued to have a significant influence on mothers' grief and mental health outcomes, except for disorganization at T2 (Table 3). The influence of religious activities remained non-significant when race/ethnicity and religion were controlled.

Bereaved fathers' greater use of spiritual activities was significantly related to lower symptoms of grief (despair, detachment and disorganization) and depression at T1 and T2 (Table 2). Fathers' greater use of religious activities was related to lower symptoms of grief and depression at T1 but not at T2 (Table 2). Controlling for race/ethnicity and religion, the influence of spiritual activities on fathers' grief, but not depression or PTSD, remained statistically significant at T1, but not at T2 (Table 4). The influence of religious activities was no longer significant for any of the fathers' T1 and T2 outcomes when race/ethnicity and religion were controlled.

Personal Growth

For mothers, use of spiritual and religious activities was significantly related to greater personal growth at both T1 and T2, with (T1: adjusted $R^2 = .10$, $\beta = .34$, T2: $R^2 = .10$, $\beta = .33$, $p < .01$) and without control for race/ethnicity and religion (Table 2). For fathers, spiritual activities were related to greater personal growth at T1 and T2, but the positive effects of religious activities on fathers' personal growth was significant at T2 only (Table 2). Fathers' spiritual and religious activities were not related to their personal growth when race/ethnicity and religion were controlled.

Discussion

Loss of an infant or child is devastating for mothers and fathers and it is often associated with increased morbidity (Youngblut et al., 2013) and mortality (Espinosa & Evans, 2013). Youngblut et al. reported that about one third of the bereaved parents in their sample had clinical depression and/or PTSD at 13 months after their infant's or child's death in the NICU/PICU. Identifying strategies that help parents cope with the death of their child may mitigate some of these negative health effects.

Spiritual coping strategies may be helpful to parents at this time of very high stress. In this study, mothers' and fathers' spiritual activities at 1 month post-death were related to less severe symptoms of grief at both 1 and 3 months. Use of religious activities was helpful in reducing fathers' grief at 1 month, but not at 3 months; these activities were not related to mothers' grief at either time point. These findings suggest that fathers may find more solace in religious activities than mothers. If so, use of both spiritual and religious activities may help fathers move through the grieving process faster, allowing them to return to their

previous routines such as returning to work earlier than bereaved mothers (Aho, Tarkka, Kurki, & Kaunonen, 2006; Armentrout, 2009).

Mothers' use of spiritual activities, but not religious activities, was related to less severe symptoms of depression and PTSD at 1 and 3 months. Fathers' use of spiritual activities was related to less severe symptoms of depression at both 1 and 3 months. Use of religious activities was related to less severe symptoms of depression at 1 month for fathers' after their infant's/child's death.

Gender differences in coping with grief are supported in the literature. Bereaved mothers need to talk more about the death than bereaved fathers (Barrera et al., 2007; Buchi et al., 2007), whereas bereaved fathers were found to cope with their grief by isolating themselves from family and friends (Aho et al., 2006). Religious activities such as praying privately or watching religious programs may allow fathers periods of solitude grieving, not requiring discussion of the infant/ child and their feelings about the death. These activities also may serve to limit the opportunities for mothers and others to engage fathers in conversation about the deceased infant/child.

In contrast, spiritual activities involve engaging with others, discussing difficulties with others who have endured similar circumstances, spending time with and confiding in relatives and/or friend. These activities provide the mothers with the discussion they reportedly want and need. This suggests that bereaved mothers valued the social support received from family and friends and used non-religious activities to relieve feelings of hopelessness, sadness and loneliness, to connect with their inner self, to acknowledge their strengths and ultimately find peace (Bakker & Paris, 2013). Additionally, studies of gender differences in bereaved couples' grief reaction have found mothers to have a longer recovery time in adjusting to their grief than fathers (Armentrout, 2009; Lang, Gottlieb, & Amsel, 1996). Perhaps it reflects societal expectations that men should be stoic which is reinforced in the workplace and social gatherings.

Personal growth at 1 and 3 months was greater for mothers using greater spiritual and religious activities. Fathers had greater personal growth at 1 and 3 months with greater use of spiritual activities and at 3 months with religious activities. This is consistent with other studies in which bereaved parents describe a transformation in their lives. Personal growth was identified as becoming more compassionate, caring, and sensitive to the needs of others and becoming more giving of themselves by reaching out to other bereaved parents (Armentrout, 2009; Lichtenhal et al., 2010).

Stronger associations were found between greater use of spiritual activities as compared to religious activities and positive bereavement outcomes over time. A possible explanation for this relationship may be that in times of crisis bereaved parents engaged in coping activities that are based on their personal beliefs and values to buffer their grief. Spiritual practices can be characterized as being more personal, individualistic and include secular terms that are free from religious rules or regulations. Religious coping gives indirect control to God/the sacred and reduces the need for personal control (Koenig, 2009).

Additionally, some research studies found that bereaved parents expressed negative feelings such as anger at God for their infant's/child's death; some felt that God was punishing them and others questioned God their faith (Armentrout, 2009; Ganzevoort & Falkenburg, 2012). Meert et al. (2005) found that 30 to 60% of bereaved parents expressed anger and blame at themselves and God for their infant's/child's death and this may result in using less religious coping activities to cope with early grief.

Controlling for race/ethnicity and religion made little difference in the influence of spiritual activities on mothers' and fathers' grief and mothers' mental health. However, most of the bivariate relationships with religious activities did not remain when race/ethnicity and religion were controlled

Limitations of the Study

There are several additional limitations of the study. At 1 and 3 months post-death, parents were in early stages of grieving. Thus, these findings may not be applicable to parents who are later in the grieving process. In this study most of the bereaved parents reported spiritual activities, not religious activities as effective in helping them to cope with their grief and mental health for a longer period of time. The average age for these bereaved parents was early to mid-thirties and it is possible that individuals of this age may not be strongly affiliated to a religious group (Fowler, 1995).

Additionally, the use of religious and spiritual strategies was not significantly related to bereaved fathers' PTSD at both T1 and T2 and personal growth at T1. This is possibly related to the small number of men who participated in this study, which is a common occurrence in these studies (Lichtenhal et al., 2010) and is a limitation of this study.

Conclusion

Research studies have found that bereaved parents experience many emotional benefits associated with the use of religious coping to deal with their grief and mental health (Lichtenhal et al., 2010; Meert et al., 2005). In this study, religious activities were not effective in lowering symptoms of grief, depression, and PTSD for bereaved mothers at 1 month and fathers at 3 months post-death. This suggests that spiritual activities may assist bereaved mothers to reduce their symptoms of grief, depression, PTSD and increase personal growth over a longer period of time than religious activities. While religious activities might be helpful in the first month after the child's death, maybe religious activities come into play later when their anger with God has diminished. The use of spiritual activities such as self-reflection, confiding in others and cultivating friendships may be more helpful to parents over time.

The findings when race/ethnicity and religion were controlled suggested that the use of spiritual, and not religious activities helped both mothers and fathers cope with their grief but the use and/or effect of using spiritual activities was helpful for bereaved mothers with their mental health and personal growth for a longer time.

Clinical Relevance

The results from this longitudinal study with a racially and ethnically diverse sample provide evidence for healthcare professionals about the importance of spiritual coping activities for bereaved mothers and fathers. Dissemination of this information in the clinical areas to nurses and other healthcare team members will enable bereaved parents to receive relevant and appropriate support following the death of their infant/child.

The study findings suggest that nurses may encourage bereaved parents, especially mothers to identify and use an array of spiritual activities, such as self-reflection, relating to family and friends by confiding in them; finding meaning and purpose to live through their situation may help parents cope with their infant's or child's death, decreasing their symptoms of grief and improving their mental health. Intervening in this manner may enable bereaved parents to receive relevant and appropriate support following the death of their infant/child.

Future Research

Findings from this research study provide implications for future research. The responses obtained from bereaved parents at 1 month and 3 months are applicable to parents in the early stages of bereavement. Further research is needed to determine if any changes, whether negative or positive, occurred in bereaved parents' use of religious and spiritual activities to cope and the effect on their grief response, mental health and personal growth in the later stage of bereavement.

Additionally, future research that specifically examines differences in bereaved mothers' and fathers' use of religious and spiritual activities, with a larger sample of fathers, can determine the specific supportive spiritual coping activities that may be used to help bereaved mothers and fathers cope with their grief.

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Table 1

Description of the Sample.

Characteristic	Mothers (<i>n</i> = 114)	Fathers (<i>n</i> = 51)
Age [<i>M</i> (<i>SD</i>)]	31.1 (7.73)	36.8 (9.32)
Race [<i>n</i> (%)]		
White non-Hispanic	22 (19%)	14 (28%)
Black non-Hispanic	50 (44%)	16 (31%)
Hispanic	42 (37%)	21 (41%)
Education [<i>n</i> (%)]		
<High school	12 (11%)	7 (14%)
High school graduate	31 (27%)	13 (25%)
Some college	36 (32%)	12 (24%)
College degree	35 (30%)	19 (37%)
Partnered [<i>n</i> (%)]	84 (74%)	43 (84%)
Employed [<i>n</i> (%)]	63 (55%)	32 (78%)
Religion [<i>n</i> (%)]		
Protestant	62 (54%)	26 (51%)
Catholic	33 (29%)	11 (22%)
Jewish	4 (4%)	2 (4%)
Other	1 (1%)	2 (4%)
None	14 (12%)	10 (20%)
Total family annual income [<i>n</i> (%)]	<i>N</i> = 93 families	
<\$3000	4 (4%)	
\$3000–29,999	33 (35%)	
\$30,000–49,999	22 (24%)	
\$50,000	34 (37%)	

Table 2

Correlations of parents' use of spiritual and religious activities with grief, mental health and personal growth at 1 (T1) and 3 (T2) months post-death.

Parent outcome	Time point	Spiritual activities		Religious activities	
		Mothers (<i>n</i> = 108)	Fathers (<i>n</i> = 50)	Mothers (<i>n</i> = 108)	Fathers (<i>n</i> = 50)
Grief					
Despair	T1	-.54 **	-.47 **	-.18	-.32 **
	T2	-.51 **	-.29 *	-.11	-.15
Detachment	T1	-.56 **	-.61 **	-.19	-.26 *
	T2	-.53 **	-.35 **	-.02	-.10
Disorganization	T1	-.41 **	-.43 **	-.02	-.25 *
	T2	-.55 **	-.23 *	-.02	-.10
Depression	T1	-.54 **	-.46 **	-.19	-.27 *
	T2	-.55 **	-.39 **	-.14	-.01
PTSD	T1	-.30 **	-.29	-.10	-.12
	T2	-.35 **	-.07	-.08	-.03
Personal Growth	T1	.51 **	.51 **	.42 **	.10
	T2	.64 **	.49 **	.37 **	.31 **

* $p < .05$.

** $p < .01$.

Effects of mothers' use of spiritual activities at T1 on outcomes at 1 and 3 months after their infant's/child's death, controlling for race/ethnicity and religion.

Table 3

	Grief											
	Despair			Detachment			Disorganization			Depression		
	1 mo	3 mo	β	1 mo	3 mo	β	1 mo	3 mo	β	1 mo	3 mo	β
Black non-Hispanic ^a	.12	.03	.15	.14	.15	.15	-.23	-.04	.09	.15	.25	.04
Hispanic ^a	.10	.10	.33 *	.18	.33 *	.15	.04	.15	.18	.24	.35 **	-.12
Protestant religion ^a	.13	.21	.27 *	.27	.47 *	.42	.45 *	.42	.15	.26	.04	.30
Catholic religion ^a	.01	.12	.21	.21	.30	.19	.19	.22	.08	.11	-.05	.13
Other religion ^a	.01	.06	.09	.09	.26	.15	.15	.24	.10	.15	.03	-.04
Spiritual activities	-.55 *	-.53 *	-.58 *	-.59 *	-.59 *	-.41 *	-.29	-.29	-.56 *	-.59 *	-.33 *	.46 *
<i>F</i>	6.29 *	4.90 *	7.34 *	7.51 *	7.51 *	3.69 *	.54	5.86 *	6.61 *	2.62 *	2.90 *	7.65 *
Adj <i>R</i> ²	.27	.23	.31	.33	.33	.16	.04	.26	.30	.10	.13	.32

^a Scored yes = 1, no = 0.

* $p < .05$.

** $p < .01$.

Effects of fathers' use of spiritual activities on grief at 1 and 3 months after their infant's/child's death, controlling for race/ ethnicity and religion.

Table 4

	Grief despair		Grief detachment		Grief disorganization	
	1 mo	3 mo	1 mo	3 mo	1 mo	3 mo
	β	β	β	β	β	β
Black non-Hispanic ^a	-.06	.19	-.03	.12	-.12	-.13
Hispanic ^a	.34	.35	.19	.18	.16	.01
Protestant religion ^a	-.23	-.27	-.15	-.02	-.17	.03
Catholic religion ^a	-.19	-.13	-.12	-.01	.11	.14
Other religion ^a	-.26	.02	-.21	.35	-.13	.24
Spiritual activities	-.58 **	-.28	-.69 **	-.25	-.50 **	-.19
<i>F</i>	3.06 *	1.25	4.30 *	1.81	2.45 *	1.06
Adj <i>R</i> ²	.24	-.04	.34	.11	.18	.01

^aScored yes = 1, no = 0.

* $p < .05$.

** $p < .01$.