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Comparison of Continuing Bonds Reported by Parents and Siblings After a Child's Death from Cancer

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Abstract

Few studies have distinguished similarities and differences between continuing bonds as they appear in various bereaved populations, particularly parent versus sibling cohorts following a child's death. This mixed-method study compared how parents and siblings experienced continuing bonds in 40 families who lost a child to cancer. Thirty-six mothers, 24 fathers, and 39 siblings were recruited 3-12 months post-loss ($M = 10.7$, $SD = 3.5$). Nearly all participants (97%) reported engaging in purposeful bonds with deceased children, while only 14% reported nonpurposeful connections. Over half of participants (58%) experienced comforting effects from reminders of the deceased child, while only 10% of family members experienced discomforting effects. Mothers communicated with the deceased, thought about the deceased, and did things that the deceased child would have liked more often than siblings. Mothers also reported significantly more comforting effects than siblings. Additional research is needed to further delineate continuing bonds for different types of loss and examine associations with positive and negative outcomes for bereaved individuals.

Few experiences affect a family as deeply as the death of a child. In the United States and Canada, nearly 60,000 children under the age of 20 die each year (Heron, 2007; Statistics Canada, 2007). The death of a child is not only a significant loss in the present, but it also symbolizes the loss of a future for families (Davies et al., 2004). Bereaved families can experience positive growth or significant negative consequences. For example, bereaved parents reported being stronger, more sensitive, and more courageous (Arnold, Gemma, and Cushman, 2005). Bereaved adolescents reported having a better outlook on life and being kinder, compassionate, and more tolerant (Hogan & Greenfield, 1991). On the other hand, bereaved parents may also be at higher risk for marital disruptions (Oliver, 1999), psychopathology (Li, Laursen, Precht, Olsen, & Mortensen, 2005), and mortality (Li, Precht, Mortensen, & Olsen, 2003). Bereaved siblings may have a range of responses, including both internalizing (e.g., feeling sad, frightened) and externalizing (e.g., acting out, fighting) problems (Hutton & Bradley, 1994; McCown & Davies, 1995; Silverman, Baker, Cait, & Boerner, 2003).

Klass, Silverman, and Nickman (1996) proposed that continued connections with deceased loved ones could provide comfort, ease the transition from the past to the future, and facilitate coping for both bereaved adults and children. A growing body of literature has described various expressions of continuing bonds and suggested that maintaining connections with deceased loved ones is an integral component of adaptation to bereavement (e.g., Asai et al., 2009; Davies, 2005; Packman, Horsley, Davies, & Kramer, 2006). Continuing bonds have been observed in a variety of bereaved individuals, including spouses (e.g., Field & Friedrichs, 2004; Field, Gal-Oz, & Bonanno, 2003), siblings (e.g., Davies, 1999; Worden, Davies, & McCown, 1999), parents (e.g., Barrera et al., 2006; Doran & Hansen, 2006; Klass, 1993; Ronen et al., 2009), adult children (Tyson-Rawson, 1996), and pet owners (Field, Orsini, Gavish, & Packman, 2009). Synthesis across 26 studies concluded that the prevalence of continuing bonds is high among bereaved individuals (Foster & Gilmer, 2008). However, few studies have examined differences and similarities in continuing bonds within families or based on relationship to the deceased (e.g., bereaved parents vs. siblings).

Bowlby's (1982) Attachment Theory may provide a framework for understanding how bereaved parents and siblings form and experience continuing bonds differently. Attachment behavior is organized around maintaining proximity to a caregiver or feeling secure. For example, goals of the caregiving system are to keep an infant or child close to the caregiver, to protect the infant or child, and to associate strong feelings of pleasure arising from being close to the young. It is transactional in nature and often develops in a hierarchical fashion based on a principal attachment figure and proximity to other caregivers. Mothers typically serve as the primary caregiver for children and are presumed to be the primary attachment figure with whom children have the most complex or developed bond. In this case we might expect parents, and specifically mothers, to report more frequent or intense bonds with deceased children and experience more negative consequences at the disruption of these bonds compared to siblings and/or fathers.

Siblings share multifaceted relationships, which are different from parent-child relationships. For children, the sibling relationship is a unique and powerful bond. Siblings share many experiences, because they typically spend much of their day together, and their relationship often spans a lifetime. Davies (1999) describes siblings as attachment figures that can serve as teachers, friends, comforters, protectors, as well as competitors and antagonists. During childhood, the sibling relationship is a key component to the socialization and development of a child (Conger & McManus, 2000; Davies, 1999; Stormshak, Bullock, & Falkenstein, 2009; Wong, Branje, VanderValk, Hawk, & Meeus, in press). As such, some siblings also report continuing bonds with deceased children (Packman et al., 2006), which may differ in nature or frequency compared to parents.

Despite the growth in research on continuing bonds, a better understanding of the frequency, nature, and impact of bonds is needed. Few studies have distinguished differences and similarities between bonds phenomena as they appear in various bereaved populations, particularly parent versus sibling cohorts. Thus, the purpose of this study was to examine how parents and siblings experienced continuing bonds with children who died from cancer. Using mixed methods and a multi-site design, we described the frequency, nature, and perceived impact of continuing bonds among family members within the first year of a child's death.

Methods

This research was part of an ongoing longitudinal study of families following the death of a child from cancer. Data collection in the larger study involved visits to bereaved siblings'

schools and homes in the first year after the death, followed by another home visit in the second year post-death. This paper includes cross-sectional, qualitative data collected from a subset of families at the first home visit.

Participants

Of 60 eligible and located bereaved families, 41 (68%) participated in the home visit. Qualitative data were missing from one family due to tape recording malfunction. Participants ($N = 99$) included 36 mothers, 24 fathers, and 39 siblings. Mothers averaged 40.50 years of age ($SD = 7.35$), and 78% ($n = 28$) were Caucasian. Fathers averaged 43.88 years of age ($SD = 7.75$), and 83% ($n = 20$) were Caucasian. Parent educational level averaged 14.52 years ($SD = 2.24$). Average family socioeconomic status ($M = 44.20$, $SD = 25.10$), computed using the revised Duncan (Nakao & Treas, 1992), reflected clerical, sales, and service occupations. Siblings were primarily female (64%, $n = 25$), Caucasian (72%, $n = 28$), and on average 12.28 years of age ($SD = 2.64$). Deceased children also averaged 12 years of age ($SD = 5.27$) with approximately 2.73 years ($SD = 2.34$) from diagnosis to death. Data were collected 6 to 19 months ($M = 10.68$, $SD = 3.48$) after the death.

Procedures and Measures

Institutional Review Board approval was obtained at the three participating children's hospitals in the U.S. and Canada. Families were sent a letter of introduction from deceased children's attending physicians and recruited via phone 3-12 months after children died. Recruited families (a) had a bereaved sibling 8-17 years old, (b) were fluent in English, and (c) lived within 100 miles of the hospital. Adopted, half-siblings, and step-siblings were eligible if the sibling had regular, ongoing contact with the child who died. Informed consent and assent was obtained from each parent and child, respectively, at the beginning of the visit. As part of the larger study, research assistants administered a series of questionnaires and conducted semi-structured interviews that were audio-taped for transcription and coding. For this report, individual interviews included an open-ended question developed by the research team:

Some parents/kids/teens have told us that they stay in touch with their child/brother/sister who died by talking to them, keeping something special that belonged to them, or remembering them in some special way. Others haven't said much about this. What about you? What kinds of things do you do to remember or stay in touch with your child/brother/sister?

This free response interview item identified participants' most mentally accessible forms of continuing bonds (e.g., those that spontaneously come to mind). The question offered a range of responses by suggesting that some families may stay in touch with deceased children, and other families may not. The question was worded in this way to let participants know that there were no right or wrong answers and that all answers were acceptable.

Analysis

Three researchers independently analyzed data through content analysis, a qualitative approach to analyze data from open-ended questions (Hickey & Kipping, 1996; LoBiondo-Wood & Haber, 2006). Although a literature review on continuing bonds was conducted before the analysis, a coding scheme was not developed a priori so the researchers could best discover emerging categories within the data.

Content analysis began with immersion, which involved repeatedly reading the transcripts to gain a sense of the data as a whole. Next, similar ideas were clustered within excerpted quotes from 15 transcripts and preliminary categories emerged. The researchers reviewed the suggested coding scheme, extracted quotes, and discussed the rationale for emerging

categories. They re-examined data by recoding original transcripts and made mutually agreed upon changes (e.g., editing category names, exploring new categories, combining or dividing categories). Fifteen more transcripts were added, and new codes were adopted when data did not fit an existing category. Memos tracked this decision trail and included questions, possible comparisons, and leads for follow-up (Strauss & Corbin, 1990). Responses that did not fit into an existing category were identified as “other” and reconsidered each time transcripts were recoded. This analytic process was repeated until consensus was reached and no new categories emerged. All data were examined based on the final coding scheme, and narratives for each major category included exemplar quotes. Member checking with 6 families occurred 12 months after the initial visit. A description resulted of how family members perceived continuing bonds with deceased children and the impact of these bonds on bereaved parents and siblings.

To gain a better understanding of similarities or differences in continuing bonds among family members, we conducted a frequency count of purposeful reminders, nonpurposeful reminders, and their effects on siblings, mothers, and fathers. Frequencies were double-counted, resulting in 96% agreement. Because reports were not available from siblings, mothers, and fathers within all of the families, McNemar tests were used to examine differences in the frequency of continuing bonds expressions between each paired set of reports (sibling vs. mother, sibling vs. father, mother vs. father). A Bonferroni-corrected alpha value of .017 (.05/3) was used for assessing statistical significance.

Results

After content analysis, three major themes emerged: (a) bereaved parents and siblings purposely chose reminders of deceased children, (b) bereaved parents and siblings encountered nonpurposeful reminders of deceased children, and (c) family members experienced both comforting and discomforting effects from these reminders. Of note, three siblings simply responded “no” to the interview question, even after prompting. Frequency data (see Table 1) and McNemar results highlighted similarities and differences in continuing bonds reported by siblings and parents.

Purposeful Reminders

Choosing reminders of the deceased child was a purposeful, voluntary, and conscious action reported by both parents and siblings. Ninety-seven percent ($n = 96$) of all family members reported experiencing at least one purposeful reminder of the deceased child; this included 100% of mothers ($n = 36$) and fathers ($n = 24$) but only 92% ($n = 36$) of siblings. Nine purposeful reminders were evident.

Visual representations of deceased children—Fifty-three percent ($n = 19$) of mothers, 50% ($n = 12$) of fathers, and 28% ($n = 11$) of siblings similarly chose visual representations as reminders of the deceased child. None of the comparisons between parents and siblings were statistically significant. The majority of visual representations included photographs, videos, and scrapbooks. Participants, such as this father, most often chose to keep photographs: “I think about him all the time and have pictures of him around and always stop to look at those.... I like being reminded of him.” Some participants chose video representations. One mother shared:

Just occasionally we'll listen to a video just to hear his voice. It is, because I'm worried that I'll forget...so then looking at the videos of him – not very often but just after weeks that are hard – it helps me remember just the little sound of his voice and his little, you know, like his...the way he said something, just his motions, just who he was.

In addition, visual representations included stuffed animals, often chosen by siblings:

(The hospital) sent our classroom a big teddy bear to put in his seat for him.... His name is (name of deceased child)...I talk to him sometimes, and it feels just like I'm talking to (deceased child).

Communicating to deceased children—Fifty-eight percent ($n = 21$) of mothers, 33% ($n = 8$) of fathers, and 18% ($n = 7$) of siblings reported communicating to deceased children as a means of remembering and connecting. This was more common among mothers compared to siblings ($p = .004$). Communication occurred through talking, writing letters, or praying to deceased children. A mother said, “I talk to her...every night when I finish praying.... I'll just say, ‘(Name of deceased child), I'm so sorry for what you had to go through, but mommy is so proud of you....’” A sibling said, “I talk to her every day.”

Some family members talked silently to deceased children, such as one sibling: “I also talk to her in my head.” A father said, “When I talked and meditated in quiet it was always to (deceased child)....” Others spoke aloud to deceased children. A mother sought advice from her child: “I just talk out and may say, ‘(Name of deceased child), what would you do...what do you think about this?’” Some parents and siblings communicated through prayer, such as this mother: “(I) pray, for him and with him.” One sibling said, “I like to write him letters sometimes.” Communicating allowed this father to stay in touch with his deceased child: “I talk to him and he talks back. I...tell him how my week is, how my day is.”

Being with deceased children's personal belongings—Thirty-six percent ($n = 36$) of family members chose to retain their deceased child's personal belongings, including bedding, clothing, and toys. While differences among family members were not statistically significant, this was the most common purposeful reminder reported by siblings (44%, $n = 17$), who often kept toys that belonged to the deceased child. One sibling said, “I bought him a Thomas Train toy, and now it's up in my room. I keep it on my bed. I have some of his toys.” Parents also chose toys that belonged to deceased children. One mother shared, “[There are] certain little toys that I would probably never get rid of....”

Family members similarly kept deceased children's clothes and sometimes chose to wear them. A father said, “We keep her clothes very close to us.” A sibling shared, “I use her stuff.... cell phone or necklace. Her bracelet...sometimes clothes.” One mother said, “I'll wear her stuff.” Family members kept other belongings, such as one father who said:

His car's in the garage that I look at, and you know, I even see him backing up.... All of his goods, everything he has is still in his room and you know, we touch and feel those...just anything we can to remember.

A sibling said he wears his brother's dog tags: “That's mostly how I remember him. I wear it every day.”

Sometimes, personal belongings had varying meanings for members of the same family. A mother noted:

I have two big crates of her stuff in there. Schoolbooks that she's written in, notes that she's written, her favorite coat...the hat things she would wear.... Her pencils. Just every little belonging that I could keep, I kept. Having her belongings with me, it makes me feel much better. (Sibling) had a bad time with it for a while. She felt kind of weirded out almost by having (deceased child) around, but it makes me feel a whole lot better. I don't think (boyfriend) understands that, but I have to do it.

Despite their different meanings, family members advised others to keep their child's belongings: "Choose to keep personal belongings, [for] when you need to smell them or you need to remember."

Thinking about deceased children—Thirty-three percent ($n = 33$) of participants chose to reminisce about deceased children. Only 15% ($n = 6$) of siblings but almost half (47%, $n = 17$) of mothers and fathers (42%, $n = 10$) reported this, such as one mother: "I like to think about her often...keeping her in my mind helps." The difference in frequency of this type of bond between mothers and siblings was statistically significant ($p = .003$). One sibling said, "I can go back to the memory that matches with the picture and how much fun we're having." Family members also thought about deceased children in the present. A father said, "I think of what he might be doing, you know at this point in his life. He'd probably be preparing to get his learner's permit.... I often think how, how would he be?"

Another father chose to think about the deceased child's current spiritual existence:

I believe that her spirit or essence is on a different plane now... contact exists and that general spirit exists... that positive energy that was my daughter still exists.... I don't keep in touch; I acknowledge and focus energy on that spirit.

Locations children occupied when they were alive—Thirty-three percent ($n = 8$) of fathers, 22% ($n = 8$) of mothers, and 18% ($n = 7$) of siblings chose to visit places deceased children occupied when they were alive. None of the comparisons between parents and siblings were statistically significant. Siblings especially chose the deceased child's bedroom as a reminder: "Sometimes I just walk into his room and play with my little brother...It kinda makes me remember him when he was in our house and stuff." Some siblings found comfort by sleeping in their brother or sister's bed: "His room is right across from me.... I always sleep in his bed 'cause he has this really cool mattress. It's nice and comfy."

Most parents chose to keep the deceased child's room intact, such as this father: "His room is still the way he left it." For some parents, their home served as a constant reminder of their deceased children. One mother said, "As you can see [many pictures in the room of deceased child], the house is just (deceased child) this, (deceased child) that." One father chose to hike on the same trails he and his child used to hike on together:

I have those times I like to get away. Go places that he and I went and enjoy time alone... I like to hike and there was hikes that I go on and particular trails that he was with me...it's a time of meditation and reflection, and I feel close to him then.

Activities honoring deceased children—Twenty-nine percent ($n = 7$) of fathers, 25% ($n = 9$) of mothers, and 13% ($n = 5$) of siblings chose special activities to honor deceased children, such as planning and participating in special events and projects. There were no statistically significant differences in these findings. A father said, "[We] started a foundation...to fund certain research projects...a way that we somewhat stay in touch or keep her memory alive." Another parent believed their foundation was a way to "continue her [deceased child's] fight."

Many activities involved bereaved families giving to the community, especially through sporting events. One mother shared, "She was a competitive swimmer...and so we're still doing that. We've got a fund for a scholarship in her name. And they're gonna name our spring swim meet after her." A father remembered his child while training for marathons:

I've run two marathons... putting it [iPod] on and getting lost in the music and hearing the spoken Word and hearing Bible verses... And I just think about him a lot during that.

Many families created memorial events, especially in recognition of the deceased child's birthday. One father said, "We had a kind of memorial thing for him on the anniversary of his birthday.... I've kind of been working on this little scrapbook project...as well." A sibling said the family held a "candlelight service one time in our backyard for him." One mother explained: "I've done things like send up balloons to him with notes on them." Although most family members chose activities after the death of their child, some recounted activities the family participated in together before children died: "That is one of the paintings that we did... Before she passed away...we [the family and the ill child] put this together...to remember."

Doing things deceased children would have liked or chosen—Thirty-six percent ($n = 13$) of bereaved mothers, 8% ($n = 3$) of bereaved siblings, and none of the fathers chose to do things deceased children would have liked, such as listening to music, eating foods, and choosing room decorations. Statistically significant differences were found between the reports of mothers and siblings ($p = .001$) and mothers and fathers ($p = .016$). One mother said:

And then we'll play cards... She (deceased child) liked playing cards.... (Sibling will) go on the computer that she used to like to play, too.... I'll try to make stuff that she used to like and then we'll eat in her honor.

Another mother described: "Pink is her favorite color, and the boys...will color in pink or write in pink, or wear pink to remember her." One mother maintained the same relationships her deceased child had: There was a little boy in his (deceased child's) class...I always keep tabs on (the boy) and what he's up to.... When that class graduates, I'll be there.

Visiting cemeteries—Twenty-nine percent ($n = 7$) of fathers, 17% ($n = 6$) of mothers, and 5% ($n = 2$) of siblings chose to visit the cemetery where the deceased child was buried. None of the comparisons between parents and siblings were statistically significant. One mother visited the cemetery to keep a promise to her deceased child:

I try to go to the cemetery every week. That was my promise to him that on the first day that he passed away.... I feel that he's there, but I still don't believe that he's there.... his soul is there or something... he knows that I'm still keeping my promise.

Many parents and siblings talked to the deceased child at the cemetery. One sibling shared, "I'll go to his grave sometimes and talk to him." One mother shared a story about a particular family visit to the cemetery on the deceased child's birthday:

It was like he [deceased child] was calling her [family dog], and she [family dog] went right there.... (Name of sibling) walked over and put the stuff out, put the card down. About that time, the wind blew and the card opened up and it started making music. He said, "(Name of deceased child) already opened his card, Mom." And so, he knew we were there. He knew.

The cemetery was a place for connection. Not only did this family feel connected with the deceased child, but they perceived the deceased child connected with them.

In contrast, a few participants purposely chose not to visit cemeteries, such as this mother: "I don't go to the cemetery very often...because I don't think of him as being there. So that's not something that I do." Similarly, a father said, "I don't feel the need to go.... I think that cemeteries are kinda morbid."

Keeping ashes of deceased children—A few parents ($n = 3$) retained memories by keeping their child's ashes nearby, and no statistically significant differences among family members were found. A mother said:

We planted a tree at my parents' house and scattered some of his ashes out there. It's kind of been made into a garden, so the kids get to go out there and decorate it...they can go out and talk to him if they want or just visit.... He was cremated, so we have his ashes by the fireplace there.... And soon after the funeral, we had a tornado warning so we had to go downstairs, and he (10 year old sibling) was very insistent that we had to take (deceased child's ashes) down with us.

Another mother shared how she holds her son's ashes and talks to him:

I'd come out here and get his ashes and take them out and sit – well, I was holding him in this chair and just sitting here and rock.... I'll walk by and kiss his little container thing and try to say goodnight to him every night when I go to bed.

Nonpurposeful Reminders

Contrary to 97% ($n = 96$) of participants who purposely chose reminders, only 14% ($n = 14$) of family members encountered nonpurposeful, involuntary, nonconscious reminders of deceased children that occurred unexpectedly. This included 22% ($n = 8$) of mothers, 13% ($n = 3$) fathers, and 8% ($n = 3$) siblings. None of the differences among family members in nonpurposeful types of reports were statistically significant. Nine percent ($n = 9$) of participants felt the deceased child's presence. One mother was reading a book:

I remember one time laying in the bathtub.... There's nothing going on in my head, and all of a sudden it [the book] said, "Quit putting flowers at my grave, and you enjoy 'em." ...And that's exactly what she [deceased child] would say.... It's not you thought it, it's just like a thought in your head.... It just popped in your head.

Seven percent ($n = 7$) of family members experienced unexpected signs and visits from deceased children. One mother said, "Every night when we go to bed, we feel her in the room. Sometimes we hear things. She messes with the baby's mobile in the bed all of the time. Our curtains move constantly." The father in the same family expressed:

I think she sends me signs a lot, and I have seen her. She has come and visited me.... And when she came to me she was her original self.... It was a good feeling to know that she's in a better place.

Furthermore, the sibling in that family talked about sensing nonpurposeful reminders:

I see her, and I can also, you know, smell her. She smells like cleanness. I can also...just taste...cause she loved cheese, and I can just taste it. Whenever I eat something that's cheesy I also remember her. It makes me feel closer to her.... Yes, it makes me feel a whole lot better.

Finally, 8% ($n = 3$) of mothers, 5% ($n = 2$) of siblings, but no fathers, had unexpected dreams about the children:

My [deceased] sister comes to visit me in dreams.... I have no control over it, so whenever I get the dream, I feel very lucky....I ask her, "So, how are you? Are you safe? Are you scared?" [My deceased sister says], "No, I'm not scared. I stay with this woman, and we cook together." And then she [deceased sister] gives a vision to me in my head....

Effects on Bereaved Family Members

Fifty-eight percent ($n = 57$) of participants commented on outcomes from purposeful and nonpurposeful reminders, which included both comforting and discomforting effects. When reminders stimulated positive memories about and being with the deceased child, comforting effects resulted, including making the bereaved person feel better. Fifty-eight percent ($n = 57$) of participants described comforting effects from continuing bonds, including 86% ($n = 31$) of mothers, 63% ($n = 15$) of fathers, and 28% ($n = 11$) of siblings. Mothers and siblings differed significantly in reports of comforting effects ($p < .001$). One mother said, "It makes me feel good when I start talking to her...I pick up some of her toys, and then I told her about it, so it helps me." A dad reported, "Keeping her in my mind helps me... [it's] comforting." Some family members conveyed how using deceased children's personal belongings helped them remember, such as one sibling: "He gave me a couple of shirts...so I wear them to help me remember."

Families also found comfort in sensing deceased children's ongoing presence; the focus was on maintaining relationships with deceased children. One father said, "He'll always be a part of our family." One mother said, "I find it's a relief for me...it's like (deceased child) is here with me... When I'm cooking...I feel good when I'm cooking...." Another mother sensed her child's ongoing presence when looking at his sweater: "It was his...I can see him in this... this is (deceased child)'s face right there." A sibling sensed the deceased child's presence after choosing to sleep with her clothes: "I'd be thinking that it was me hugging her."

Ten percent ($n = 10$) of participants reported discomforting effects, which included 19% ($n = 7$) of mothers, 8% ($n = 2$) of fathers, and 3% ($n = 1$) of siblings. Differences among family members were not statistically significant. They found it difficult to be reminded of deceased children. One mother said:

I have spent some time trying to write memories out.... I've actually not been too successful at that.... I sort of had hoped to look at photo albums and stuff and write some of the stories down along with the pictures, but I haven't quite gotten to that.

Discomforting results occurred when reminders stimulated hurt or sadness. In these cases, participants avoided or disengaged with purposeful reminders. One father said, "[We] just kind of put them [keepsakes] away, and nothing that I see daily...." A mother shared:

Her bedroom was very, very hard to go into at first, and I primarily didn't...it's been very hard going through a lot of her stuff.... I would be in there for 30 minutes or an hour and it was just overwhelming and staggering. I just had to get out.

Furthermore, bereaved family members experienced both positive and negative effects from reminders, sometimes at the same time. One mom stated:

At home we made jewelry, and she loved to do that, and I've got the jewelry table set up in her bedroom. And I love to go in there and do that, but sometimes it just gets to the point where I have to leave.

Similarly, another mother noted:

We've had lots of community stuff going on. So, to some degree...it's been great... but they're hard to go to, and you just feel like you're getting over one, and then something else pops up.... We were torn because we wanted him to be remembered, and we wanted to go to these events. But at the same time it was very difficult to go.

Discussion

Limited research has examined the frequency, nature, and process by which bereaved parents and siblings develop and experience continuing bonds (Foster & Gilmer, 2008). This study identified and assessed the frequency of different types of continuing bonds and their perceived effects on a sample of bereaved parents and siblings within the first year of a child's death, using qualitative and quantitative methodology. The majority of bereaved family members maintained connections with deceased children, consistent with the concept of continuing bonds (Klass et al., 1996) and a recent literature review (Foster & Gilmer, 2008). Continuing bonds were both purposeful and nonpurposeful in nature, in addition to prompting both comforting and discomfoting effects for bereaved family members.

There were several important differences between mothers and siblings that should be acknowledged: mothers reported communicating with the deceased, thinking about the deceased, and doing things that the deceased child would have liked more often than siblings. These differences could be explained partly in terms of Bowlby's attachment theory (1982). It is possible that mothers construct bonds based more on a caregiving behavioral system (e.g., communicating with or thinking about the deceased child), whereas siblings may form bonds based more on an attachment behavioral system (e.g., keeping belongings of the deceased child). Because adults generally have social relationships that are more developed and complex, this may explain the multiple ways in which parents connected with their deceased children. Given children's developmental limitations, it is not surprising that siblings remained connected in less frequent and more concrete ways. It is also important to consider siblings' perspectives and ongoing needs. When a child with cancer dies, not only do siblings need to deal with grief, but they must also focus on living and their own growth, adaptation, and learning. Experiencing the deterioration and death of their sibling, having their needs become secondary, and witnessing their parents' suffering may also explain why siblings were less likely to report purposeful bonds compared to parents.

Although bereaved parents and siblings mostly experienced comforting effects from continuing bonds, discomfoting effects occurred for a few individuals. This is consistent with literature that has associated bonds with positive and negative results for the bereaved (e.g., Boelen, Stroebe, Schut, & Zijerveld, 2006; Davies et al., 1998; Field & Friedrichs, 2004; Field, Nichols, Holen, & Horowitz, 1999; Gamino et al., 2000; Meert et al., 2005; Neimeyer, Baldwin, & Gillies, 2006; Ronen et al., 2009). It is important to point out that mothers reported more comforting effects from continuing bonds than siblings. Thus, comforting outcomes may not be universal, and family members may experience effects differently depending on a number of factors, including the previous relationship with the deceased child and, as indicated earlier, the individual's developmental needs. More work is needed to distinguish between helpful versus problematic outcomes from continuing bonds and related factors.

Our findings on how bereaved parents and siblings experienced continuing bonds with deceased children are similar to other studies on different types of loss. Bereaved children who experienced the death of a parent reported communicating with the deceased, sensing the presence of the deceased, reaching out to the deceased to initiate a connection, remembering the deceased, and keeping linking objects (Normand, Silverman, & Nickman, 1996; Silverman & Nickman, 1996; Tyson-Rawson, 1996). The frequency of those continuing bonds may vary, again, depending on the nature of the previous relationship with the deceased. Bereaved spouses have reported keeping bonds with the deceased through cognitive and behavioral efforts such as reminiscing, having inner conversations with the deceased, visiting the cemetery, keeping photographs and/or possessions, and searching for ways to meet/feel the deceased (Asai et al., 2009). Future research needs to examine

associations among continuing bond categories, type of loss (e.g., death of spouse/parent/child), and adjustment.

Our findings should be considered in the context of several limitations. Findings may not generalize to all bereaved individuals as our sample was primarily Caucasian and included families whose children died of cancer. Data were cross-sectional, and reports of helpful aspects of continuing bonds may not persist over time. Conclusions could not be drawn about the prevalence of different types of continuing bonds due to the interview question's free response methodology. Despite these limitations, this mixed-method study addressed a gap in the literature by examining similarities and differences between bonds phenomena reported by bereaved mothers, fathers, and siblings. Strengths included multiple data collection sites and good recruitment rates.

Although more evidence is needed to determine who finds continuing bonds helpful and what promotes purposeful continuing bonds as a healthy coping strategy, healthcare professionals can open the door for families to discuss continuing bonds and provide support during this difficult time. For example, professionals can help families create memory books, photos, or artwork as a means of processing the impending death and initiating continuing bonds. Annual "times of remembering" can be facilitated to remember and celebrate children's lives. However, family members who do not wish to maintain purposeful reminders may need reassurance that continuing bonds are not necessary for all individuals or universally helpful. Professionals can offer these family members a sense of normalcy and reduce possible guilt felt by those who do not wish to voluntarily maintain connections with the deceased.

Certainly, more research is needed to further our understanding of continuing bonds, including more integration of qualitative and quantitative methods. Current measures, such as the Continuing Bonds Scale ([CBS], Field et al., 2003), focus primarily on purposeful reminders and comforting effects. Additional measures are needed to study purposeful and nonpurposeful aspects of continuing bonds, as well as comforting and discomforting consequences. More work should examine bonds phenomena for different types of loss, as well as associations with adjustment. "The question of how humans both hold on and let go of those who have died is a worthwhile, and a grand problem in science. To a great extent, it still lies before us unsolved" (Klass, 2006, p. 857). Overall, findings from this study contribute to current knowledge of continuing bonds and suggest directions for further research.

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Table 1

Frequency of Participants Reporting Continuing Bonds and Effects*

	All Participants (N=99)	Siblings (n=39)	Moms (n=36)	Dads (n=24)
Purposeful reminders	96 (97%)	36 (92%)	36 (100%)	24 (100%)
Visual representations	42 (42%)	11 (28%)	19 (53%)	12 (50%)
Communicating to deceased	36 (36%)	7 (18%) ^a	21 (58%) ^a	8 (33%)
Personal belongings	36 (36%)	17 (44%)	12 (33%)	7 (29%)
Thinking about deceased	33 (33%)	6 (15%) ^b	17 (47%) ^b	10 (42%)
Locations children occupied	23 (23%)	7 (18%)	8 (22%)	8 (33%)
Activities honoring deceased	21 (21%)	5 (13%)	9 (25%)	7 (29%)
Doing things children liked	16 (16%)	3 (8%) ^c	13 (36%) ^{c,d}	0 (0%) ^d
Visiting cemeteries	15 (15%)	2 (5%)	6 (17%)	7 (29%)
Keeping ashes	3 (3%)	0 (0%)	2 (6%)	1 (4%)
Nonpurposeful reminders	14 (14%)	3 (8%)	8 (22%)	3 (13%)
Deceased children's presence	9 (9%)	1 (3%)	7 (19%)	1 (4%)
Signs/visits from deceased	7 (7%)	2 (5%)	3 (8%)	2 (8%)
Dreams	5 (5%)	2 (5%)	3 (8%)	0 (0%)
Other	2 (2%)	0 (0%)	2 (6%)	0 (0%)
Effects/Outcomes	57 (58%)	11 (28%)	31 (86%)	15 (63%)
Comforting	57 (58%)	11 (28%) ^c	31 (86%) ^c	15 (63%)
Discomforting	10 (10%)	1 (3%)	7 (19%)	2 (8%)

^bSibs vs. Moms, $p < .001$ * Unless noted, differences were not statistically significant using a Bonferroni-corrected alpha, $p > .017$.^aSibs vs. Moms, $p = .004$ ^bSibs vs. Moms, $p = .003$ ^cSibs vs. Moms, $p = .001$ ^dMoms vs. Dads, $p = .016$