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The Architecture of Support: The Activation of Pre-existing Ties and Formation of New Ties for Tailored Support

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Abstract

This study examines differences in the resources, information, and support parents coping with pediatric cancer accessed from different types of network contacts. Using interviews with parents of childhood cancer patients ($N = 80$ parents), we examine (1) if parents rely on different types of network ties to access tailored information, resources or support; (2) differences in the nature or utility of information, resources, and support offered by different types of network contacts; and (3) the role of health-related professionals in brokering new network ties. Findings show that after a child's cancer diagnosis, parents received support from a broad portfolio of network members, which included preexisting network ties to friends and families as well as the formation of new ties to other cancer families and health-related professionals. Family, friends, and neighbors offered logistical support that aided balancing preexisting work and household responsibilities with new obligations. Parents formed new ties to other families coping with cancer for tailored health-related emotional and informational support. Health-related professionals served as network brokers, who fostered the development of new network ties and connected parents with supportive resources.

Keywords

United States; social support; social networks; coping; cancer

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Introduction

A diverse set of supportive resources flow through social networks, yet individual network contacts commonly offer specific kinds of support (Wellman & Wortley, 1989). Rather than a person receiving a broad array of support from a few network members, most people receive specific kinds of support from a more diverse network of supportive ties (Wellman & Gulia, 1999; Wellman & Wortley, 1989). Due to this functional specificity of network ties, people selectively activate network ties to access different kinds of information, resources, or support (Penning, 1990; Simons, 1983–1984; Wellman & Wortley, 1989, 1990). The type of supportive resources exchanged is in part dependent upon the nature of network ties (Wellman & Frank, 2001). For example, when examining the role of strong versus weaker network ties, strong ties, such as parents and adult children, provide more emotional support and small services (such as household chores) (Wellman & Worley, 1989, 1990).

Support exchanges are also shaped by the social characteristics of the support providers themselves, such as the support provider's level of first-hand experience with a specific life event (Wellman & Frank, 2001; Sutor et al., 1995; Sutor & Pillemer, 2000; Thoits et al., 2000; Thoits, 2011). Therefore, a theoretical distinction has been drawn between support from primary networks of significant others (friends, family members, co-workers, neighbors) and network members with experiential homophily who have direct personal experience with a specific life event (Thoits et al., 2000). Due to their close relationships with the support recipient, significant others are well positioned to offer instrumental support that helps to alleviate the logistical and financial stressors associated with periods of poor health (Thoits, 2011). In contrast, social network members with experiential homophily may be better equipped to offer tailored emotional and informational support (Thoits, 2011).

Research has found that social network members who have direct experience coping with a specific life stress are more likely to offer helpful emotional support than social ties that are demographically similar to the person experiencing the life stress (such as being a similar age or gender) (Sutor et al., 1995; Sutor & Pillemer, 2000). Recent research examining network tie activation in the health context finds that when coping with a mental illness people are more likely to discuss health-related concerns with network members who have also experienced mental illness (Perry & Pescosolido, 2014). Other research has found that cardiac patients who talked with other cardiac patients while in the hospital had improved physical and emotional well-being compared to cardiac patients who did not have support from ties with experiential homophily (Kulik et al., 1996; Thoits et al., 2000).

When coping with a stressful life event such as a serious illness, people may need a stronger and wider social safety net. At times of unanticipated and extremely elevated support needs people may activate pre-existing network members for some forms of support, but also need to form new ties to access tailored information and resources. In this study we examine these processes, and use the case of pediatric cancer to examine which network ties parents of pediatric cancer patients turn to for specific kinds for support. We extend previous research by examining the kinds of supportive resources parents access through their preexisting social networks, as well as the types of support received from new network ties formed in

response to their child's illness. Finally, we examine the role of the health-related professionals as network brokers, fostering the development of new network ties and connecting parents of pediatric cancer patients with supportive resources.

Health-related professionals may serve an important network function by facilitating opportunities for patients and their caregivers to form connections with each other. Health-related professionals may also foster connections between patients and organizations that offer health-related support. In these ways institutions may broker social capital (Small 2009). In previous research on childcare centers, Small (2009) found that characteristics of childcare centers shaped mothers' likelihood of forming new network ties and connecting with new sources of supportive resources. Similarly to employees of childcare centers, health-related professionals may serve as brokers who bridge structural holes in patients' social networks, facilitate the development of new network ties, and increase patients' social capital (Burt 2004).

Social Support Experiences and Adaption to Pediatric Cancer

In the United States pediatric cancer is the number one cause of death by disease in children (Jemal et al., 2005), and coping with a pediatric cancer diagnosis is a stressful event in families' lives (Fletcher, 2011; Trask et al., 2003). After a child is diagnosed with cancer, their parents must quickly adapt to the new demands associated with caring for a seriously ill child (Long & Marsland 2011). Treatment for pediatric cancer commonly includes chemotherapy, radiation therapy, surgical removal of the tumor, or stem cell transplant. These treatment protocols are intensive and can extend for months or years (Trask et al., 2003). Throughout this time parents must balance their preexisting family commitments to integrate the new logistical, financial, and emotional demands of being a caregiver of a sick child (Hoekstra-Weebers et al., 1999; Hoekstra-Weebers et al., 2011; Martin et al., 2011). Parents also experience a steep learning curve in having to become familiar with medical procedures, the hospital infrastructure, interacting with physicians, and administering their child's treatment at home (Landier, 2011). Few parents enter the health care system with these skills, but rather they must be learned and refined throughout their child's care. Parents may turn to their social networks for supportive resources to help cope with the logistical, informational, financial, and emotional demands associated with caring for a child with cancer.

Previous research highlights the important role of social support in shaping families' resilience to stressful life events, such as having a child diagnosed with a serious illness (Jackson et al., 2009). Social support can be thought of as a social 'fund' from which people may draw to help manage stressors (Thoits, 1995: 64), and research consistently finds that access to social support is an important factor in shaping families' abilities to manage the stress associated with caring for a child with cancer (Fletcher, 2011; Hoekstra-Weebers et al., 2011; Manne et al., 2000; Rini et al., 2008; Trask et al., 2003; Wijnberg-Williams et al., 2006). For example, access to social support improves parents' psychological and emotional resiliency throughout their child's cancer therapy (Barrera et al., 2013; Greening & Stoppelbein 2007; Manne et al., 2000). Parents who have discussions about their child's

treatment with health care professionals feel they are better equipped to make decisions about their child's care (Markward et al., 2013).

While previous research has documented that social support improves family adaptation to pediatric cancer, research has not examined which network members offer specific kinds of supportive resources. This distinction is important for developing strategies to increase parents' access to tailored, need-specific, social support. Understanding which types of network ties are most likely to offer specific kinds of support will enable the identification of the network characteristics associated with access to tailored logistical, informational, financial, and emotional support.

When coping with a childhood cancer diagnosis parents may need to form new network ties to connect with individuals with experiential homophily. Due to the low prevalence of childhood cancer, parents' preexisting network ties are unlikely to have direct experience with pediatric cancer. Therefore, parents may rely on preexisting ties to significant others for some forms of support, while also forming new network ties to access tailored health-related information and resources directly relevant to caring for a child with cancer. We hypothesize that parents most commonly receive logistical support aimed to assist managing routine obligations from their preexisting networks of significant others, and that new network ties with experiential homophily are more likely to offer tailored health-related informational and emotional support. We examine these processes through the following research questions: (1) When coping with a pediatric cancer diagnosis do parents rely on different types of network ties to access tailored information, resources or support? (2) Are there differences in the nature or utility of information, resources, or support offered by different types of network contacts? (3) What is the role of health-related professionals in brokering new network ties?

Methods

Participant Recruitment

All parents of children undergoing treatment for cancer at one cancer center in the Northeast US were eligible to participate in the study. To maintain patient confidentiality, the pediatric social worker and psychologist approached families and asked parents' permission to have their contact information forwarded to the study team. We then contacted each parent to invite him or her to participate in the study. Eighty parents agreed to participate (93% of those approached).

Study Procedures

The study was Institutional Review Board approved and all respondents completed a written informed consent. Data were collected from August 2009 to May 2011. Data on parents' social networks were collected through semi-structured in-depth interviews. Interviews began with broad questions designed to capture dimensions of parents' experiences caring for their child with cancer (for e.g. "Can you tell me the story of how you found out your child had cancer?" "Can you walk me through the first weeks after your child's diagnosis?") The interview guide also contained questions to solicit parents' experiences coping with

strains identified in previous research for which they may draw upon network members for support (for e.g. “How has it been managing care for your other child(ren) throughout [patient’s name] treatment?” “How have you managed new financial expenses associated with your child’s care?” “How have you balanced commitments to work with your child’s care?” Have their been times when you needed to make a difficult decision related to your child’s care, how did you make that decision?” “After your child’s diagnosis did you do research or ask people for information?” “Have there been any times when it was difficult to follow the doctor’s instructions, what did you do?”). Finally the interview guide included questions about the role of different kinds of potential network members (for e.g. “What role has your family played during your child’s illness? What about friends, neighbors, coworkers?” “Have there been any community organizations (for example charities) that have played any role for you?” “Have you used online websites, social media, or support groups?”). All interviews were conducted in English and were audio recorded and later transcribed verbatim.

Data Analysis

After data collection was complete, the first three authors independently read all interview transcripts and free coded the data, allowing codes to emerge from the data (Charmaz, 2006). We each wrote coding memos that reflected on the codes, patterns among the codes, and early ideas about themes in the data (Charmaz, 2006). At peer debriefing meetings we reviewed and discussed points identified in coding memos, developed a code book, and achieved consensus on the final list of codes (Weis & Fine, 2000).

We then reviewed every data file and identified each mention of exchange of supportive resources. We constructed egocentric network maps for each participant. Using the codebook the first three authors independently coded each network map (Charmaz, 2006). We coded the source of support (for example a grandparent) and the kind of support received (for example childcare). A full list of codes representing the kinds of support parents received is presented in Table 1.

As Table 1 shows, we condensed codes related to kinds of support received into the following themes: (1) emotional support, (2) logistical support, (3) financial support, and (4) informational support. These themes were guided by common classifications of kinds of social support in the literature (House & Kahn 1985; Thoits, 2011). We used the qualitative software package NVivo8 to manage the qualitative data (Weis & Fine, 2000). Coded data was also entered into an SPSS data file for quantitative analysis. For families where two parents participated in the study we combined the parents’ network maps for quantitative analysis as to not count support exchanges twice. Qualitative and quantitative data analysis was conducted concurrently. We used frequencies to examine if parents activated different types of network ties to access tailored emotional, logistical, financial, and informational support. We used qualitative data analysis of themes to examine differences in the nature and utility of support offered by different types of network contacts. All names are pseudonyms and details of the family and child’s illness have been changed to maintain the confidentiality of respondents.

Findings

Sample Characteristics

The final sample included 80 parents of children with cancer, representing 50 households (Table 2). Twenty-one families were represented by one parent, and 29 families were represented by two parents in the study. Sixty-four percent of respondents were women, 79% were non-Hispanic White, and 69% were married. Fifty-one percent of the sample was working full time. Thirty-six percent of the sample was caring for a child diagnosed with a solid tumor cancer (such as Osteosarcoma). The mean time since child diagnosis was 2.4 years.

Differences in Kinds of Support by Source of Support

As shown in Table 3, parents relied on different types of network ties to access tailored information, resources or support. Parents most frequently activated ties to family, friends and neighbors for logistical support, and co-workers and health-related professionals were the most frequent sources of financial support. Health-related professionals were the most frequent source of emotional support. Finally, parents most frequently reported forming new ties to other parents of cancer patients for informational support.

Preexisting Networks of Significant Others: Supportive Ties to Former Routines

Preexisting network ties to friends, family, and neighbors were the most common form of logistical support families received throughout their child's cancer therapy (Table 3). For many families, this logistical support allowed parents to continue to meet the obligations of their daily routines before caring for a child with cancer. For example, Mary Wilson explains, "My sister in law...whenever we would get home from our stay from the hospital, she would always have a meal made for us delivered." In addition to household chores, this logistical support allowed parents to find a balance between their work and household commitments and their new caregiving role. Nancy Collins describes,

My mom lives with us, so she was a huge help because if we had to go to [the hospital], she was there for my older daughter. It's not like we ever put our older one on the backburner because it is very intense and you have to go through all the visits and all the hospital stays.

As Nancy Collins's experience illustrates, parents described role strain as they attempted to balance their preexisting family commitments and their child's cancer care. Logistical support from family, friends and neighbors helped parents find a balance while not feeling like they had left their former responsibilities "on the backburner." This logistical support allowed some parents to balance their other household responsibilities with their sick child's care. After their son's cancer diagnosis, Sue and Tom Boyle's family watched their other child so they could be at the hospital with their sick child. Sue explains,

Well we have [my other son] who's three, so [my family] would watch him. My husband and I would go every other night, like I would sleep over at the hospital one night and then he would sleep, so [my other son] would be home. But my mom, my sister in law, or my aunts would watch him.

Through offering logistical support such as childcare, support from friends and family allowed some parents to balance their household and work commitments, despite the many new obligations that their child's cancer care required.

In addition to offering logistical support, family, friends, and coworkers were a primary source of financial support for families (Table 3). This financial support helped buffer the expenses associated with caring for a child with cancer. For example, Ken Wagner's coworkers offered critical financial support that helped alleviate financial stress after his daughter's diagnosis. He explained that his coworkers were "very concerned with [my son], and his diagnosis. They took up a collection for me and presented me with six hundred dollars cash to pay parking." This financial support buffered the financial burden of the new household expenses associated with caring for a child with cancer. For some families, financial support allowed parents to find a new balance in their work schedules as they adjusted to the demands associated with caring for a child with cancer.

New Health-Related Network Ties: Supporting Adaption to a New Caregiving Role

Parents formed new ties to other caregivers of cancer patients for tailored emotional and informational support. Network ties to other families coping with childhood cancer offered emotional support for both children and parents through exposure to other children coping with cancer. Families gained a sense of normalcy from seeing other children who were just like them. Tom Buckley worried that his daughter would feel stigmatized as the outward signs of her cancer made her feel different from her schoolmates. Due to this, he sought out opportunities to expose his daughter to other kids who were also undergoing cancer therapy. He describes,

When [my daughter] was first diagnosed, she was somebody who was extremely active. She played sports. She had a lot of friends. She's always out and about. When you're diagnosed, you have some limitations and you lose your hair, you tend to withdraw a little bit...She actually went to [a pediatric cancer charity event] and that got her out and I do believe it was a turning point for her because she saw kids that were similar [to her].

Support from other parents of cancer patients was distinct from the support offered by friends or family members because other parents coping with pediatric cancer could directly sympathize with the experience of caring for a child with an acute illness. After her daughter was diagnosed with cancer Laura Mann felt isolated from her former life and friends. She describes the role of connections to other parents of cancer patients in offering emotional support,

You just feel so alone, of course you have your family members you can talk to but the family members don't really know what you're going through. They're on the outside looking in. You want somebody who been there that can say 'okay, I know what you're going through. I understand what kind of concerns you're having, what you're feeling.'

In addition to offering emotional support, parents formed new ties to other caregivers coping with childhood cancer for tailored informational support. This informational support ranged

from small tips surrounding the policies and protocols of the hospital to advice on aspects of the child's medical treatment. After his child's cancer diagnosis Sean O'Reilly turned to other parents to learn about how to navigate the new hospital setting. He explains,

You talk about everything, you talk about what's the best way to drop off your kids, what's the best place to park, where's the best place to eat, how you beat the parking at midnight.

In addition to strategies for navigating the new hospital setting, parents exchanged tailored information related to their children's treatment. Parents learned new information about treatment options from each other. When evaluating possible treatment options for his daughter's cancer, other parents reassured John Taylor that the treatment the physicians were recommending was similar to the experiences of other families. He explains,

I feel pretty comfortable with what [the physicians] are telling me because there have been some other people that have been [at this hospital] that have the same [diagnosis that my daughter has]. I've talked to them too. They're all very supportive too and they say 'yeah, well that's what happened to me. You'll be fine.'

Like John Taylor, parents who had network ties to other parents caring for a child with cancer were able to obtain highly tailored information directly related to their child's medical treatment. After her son's cancer diagnosis Michelle Lee learned strategies for providing care for her son from another parent whose child had the same cancer diagnosis. Michelle explains, "Another mom...was telling me about this folding wagon that was the best thing in the world for getting to and from [the hospital] if her son couldn't walk." In this way, parents exchanged small tips for managing their children's cancer therapy. Many parents relied on this support from other parents throughout their children's cancer care. Michelle Lee described, "That's been a lot of help...[talking to] somebody that has already been through this and knows the routine."

Social network ties that had direct experience with pediatric cancer were able to offer specialized support, unlike the support offered by many parents' preexisting network ties to significant others. After her daughter's cancer diagnosis Nancy Dann became frustrated at the unsolicited advice her friends and family offered. She explains,

Everybody at the time thought they were doctors and that they knew it all. They would say 'Oh you shouldn't do this, you shouldn't do that. Make sure you do this, make sure you do that.' But you're not a doctor; you know what I'm saying?

Like Nancy Dann, parents reflected that their preexisting network members often did not know what kinds of informational and emotional support parents needed as they adjusted to caring for their child with cancer. In contrast, other parents who had direct experience caring for a child with cancer were able to offer highly tailored emotional and informational support.

Health-related Professionals – Linking Families with Resources

In addition to new ties to other parents of cancer patients, parents formed new network ties to health-related professionals. Health-related professionals, such as social workers and

charity directors, connected families with emotional and financial support through operating as channels linking families with resources. Many of the new ties parents formed with similar others were fostered by health-related professionals. After their daughter was diagnosed with cancer, the social worker connected Heather and Frank Walsh with other parents of cancer patients. Frank explains,

They gave us a number to call and then you call and talk to somebody. Somebody that their son or daughter that was around the same age as your [child]. My wife talked to one guy, his son had the same thing. He had it when he was 10...and now he's just graduating, getting ready to go to college.

Through fostering connections among families coping with childhood cancer, health-related professionals enhanced the emotional and informational support available to parents. New network ties to similar others and health-related professionals allowed parents to feel a new sense of community, thereby offering emotional and informational support for parents and children. Sarah Meadows felt less isolated after her family became involved in a local charity that offered activities for families coping with pediatric cancer. She explains,

Last night [we] went to the hockey game with [a local pediatric cancer charity]. We've done a few hockey games with them; they have us up in the suite. We did a cooking class that was really fun. The kids plan on going to [a pediatric cancer overnight summer camp]. It really helps a lot.

Through sponsoring events targeted for families of pediatric cancer patients, health-related professionals created contexts that afforded parents an opportunity to interact with similar others in informal settings. In this way, health-related professionals served as network brokers who fostered connections among parents caring for a child with cancer.

Health-related professionals also linked parents with organizations that offered support for families of pediatric cancer patients. For example, the hospital social worker connected Tim Parker with a foundation that offered financial support that was critical in maintaining household expenses throughout his son's cancer therapy. He explains,

[The foundation paid for] regular medical expenses that our insurance couldn't cover. There's a couple foundations in [the area] that help families pay those kind of bills so they gave probably \$2500 to us. We found out about it through the social workers [at the hospital].

As illustrated by Tim Parker's experience, health-related professionals brokered new organizational ties for families that connected parents with supportive resources.

Discussion

Social networks are a primary vehicle through which people gain access to health-related information, resources, and support, and the importance of this support in shaping family adaptation to pediatric cancer is well documented (Fletcher, 2011; Hoekstra-Weebers et al., 2011; Manne et al., 2000; Rini et al., 2008; Trask et al., 2003; Wijnberg-Williams et al., 2006). However, previous research on families coping with childhood cancer has not examined differences in the nature or utility of the information, resources, or support offered

by different types of network contacts. Theoretical advances in the social networks literature more broadly highlight the importance of this distinction and propose that the characteristics of a person's network ties have implications for the types of support received (Suitor et al., 1995; Suitor & Pillemer, 2000; Thoits, 2011; Thoits et al., 2000). We find that after a child is diagnosed with cancer, parents draw support from a broad portfolio of network members, which includes preexisting network ties to friends and families as well as the formation of new ties to other cancer families and health-related professionals. Preexisting ties to significant others offered support in maintaining routines associated with non-health related daily life. In contrast, connections with other families of pediatric cancer patients were most helpful for parents in learning strategies to navigate pediatric cancer care and receiving tailored emotional support specific to their child's illness. Parents also formed new network ties to health-related professionals who served as network brokers, who fostered the development of new network ties and connected parents with supportive resources. The principle theoretical contributions of these findings are (1) documenting key differences in the nature of support received through the activation of pre-existing ties and formation of new ties with experiential homophily and (2) highlighting the role of health-related professionals as network brokers.

Consistent with existing literature on social support we find differences in the kinds of support parents received from their preexisting network ties (Wellman & Wortley, 1989, 1990). Parents most commonly activated ties to family members for logistical support, while coworkers were the most frequent source of financial support. This highlights the importance of the relationship between parents and their preexisting network members in determining the kind of support received from different types of network contacts. Parents were more likely to rely on more intimate ties to family for help with tasks such as child care and household chores. These support functions require more coordination and involvement with parents' daily lives, and parents may feel most comfortable receiving this support from strong intimate ties such as close friends and family members. In contrast, less intrusive support such as sending a gift card is a way for weaker network ties, such as coworkers, to show support and concern with little coordination from the parent of the sick child.

When articulating the distinction between support from significant others and network members with experiential homophily Thoits (2011) contends that the utility of the same kind of support may vary depending on the type of support provider. Significant others may offer well-intentioned advice or empathy that is less helpful than the emotional and informational support offered by network members with experiential homophily (Thoits 2011). Our findings show that parents coping with pediatric cancer sometimes felt frustrated that their friends and family members did not adequately understand their emotions and concerns. Due to this, they turned to other parents of cancer patients for tailored emotional support. Similarly, due to a lack of first-hand experience caring for a child with cancer significant others sometimes offered advice that parents' perceived as unhelpful or unwarranted. In contrast, network ties to other parents of cancer patients afforded parents an opportunity to ask questions and compare their experience to similar others who had direct experience caring for a child with cancer.

These findings also highlight the important role of institutions in brokering social support. We find that health-related professionals played an important role in connecting parents with new sources of support. In a study examining the social support mothers' accessed through their child's childcare center, Small (2009) found that the childcare center served as a context for mothers to form new network ties to others with experiential homophily and fostered connections to other organizations. Employees of the childcare center brokered social capital by facilitating opportunities for parents to form new social network ties and fostering organizational ties (Small, 2009). Our findings show that health-related professionals, most commonly social workers and charity directors, often facilitated networking among parents. Health-related professionals also facilitated the development of organizational ties (Small, 2009). For example, the hospital social worker linked parents with charities that offered financial assistance to help cope with pediatric cancer. This highlights the important network function of health-related professionals, both in facilitating network ties among individuals with experiential homophily and in offering organizational ties that link parents with supportive resources.

While these findings show that parents coping with pediatric cancer relied on different types of network contacts for specific kinds of support, some data limitations should be noted when interpreting these results. First, the experiences of this sample of parents coping with pediatric cancer may not be generalizable to families coping with other pediatric illnesses. The important role that health-related professionals play in connecting families with resources may not be similar to the experiences of families coping with other types of illnesses or stressful life events that have fewer formal support organizations. For more common pediatric health issues, such as ADHD or autism, families may have more people within their preexisting networks who have experiential homophily.

Within the context of pediatric cancer, the specific diagnosis a family is coping with may shape both their support needs as well as their opportunities to connect with other parents of childhood cancer patients. Our sample included 80 parents coping with 14 specific pediatric cancer diagnoses. Due to the numerous diagnoses included in our sample we did not have a large enough sample to examine how the child's specific cancer diagnosis shaped social network experiences. Future research that compares the experiences of families coping with different diagnoses would further refine the understanding of parents' support needs, activation of existing network ties, and opportunities to form new ties. Our data also do not permit examination of parents' social network experiences before their child's cancer diagnosis. This limited our ability to examine if parents who already had access to extensive support felt less of a need to create new network ties to other families coping with pediatric cancer or health-related professionals. Examination of how prior access to social support shapes the types of support that are utilized is an important direction for future research. Understanding how social characteristics such as parental age, SES, race, and gender shapes access to social support is another important direction for future research. Finally, future research should examine if parents who form new network ties to other parents caring for a child with cancer and health-related professionals have greater access to tailored health-related information, resources, and support compared to parents who do not form new network ties.

The hospital is not only a place for health care delivery, but becomes a context where parents talk with each other and exchange informal advice, information, and support (Gage 2013). Leveraging this exchange of health-related capital offers an innovative avenue for interventions aimed at improving parents' abilities to cope with their child's cancer diagnosis. Findings from this study highlight the important network functions of health-related professionals acting as brokers who facilitated networking among parents and the development of organizational ties. Interventions designed to increase network contact among people experiencing a common health condition have shown promising effects in improving patient self-efficacy, knowledge, support, and health outcomes (Trotter, 2013). Such efforts in prenatal care have increased expectant mothers' pregnancy-related knowledge, utilization of prenatal care, rates of breastfeeding (Icovich et al., 2007; Tandon et al., 2013), and lowered rates of preterm labor and cesarean deliveries (Barr et al., 2011). Increasing interaction among patients has shown similar success in diabetes care (Clancy et al., 2008; Riley & Marshall., 2010). One fruitful policy direction may be to develop interventions that explicitly use health-related professionals as a resource to foster interaction among families of pediatric cancer patients. Cancer hospitals may purposely broker network interactions through formal programs such as support groups. Network interactions may also be brokered through fostering routine activities families engage in, such as family activity spaces on in-patient floors.

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Research Highlights

- We compared the types of support parents received from different network ties
- Family, friends & neighbors offered logistical support that aided daily family life
- Parents formed new ties to other families coping with cancer
- New ties with experiential homophily offered emotional and informational support
- Health care professionals served as network brokers

Table 1

Social Support Coding

Theme	Codes
Types of Support	
Emotional	Emotional Support Hospital Visits Supportive Phone Calls Supportive Conversations Prayers Supportive Gifts
Logistical	Transportation Respite Care Domestic Tasks Tutoring or Homework Assistance Babysitting or Care for Patient's Siblings Home Repairs, Maintenance, or Modifications
Financial	Fundraising Financial Assistance
Informational	Health-related Information Medical Advice

Table 2

Sample Characteristics

	% (n) or $M \pm SD$ $N = 80$
Respondent Characteristics	
Gender	
Women	64% (51)
Men	36% (29)
Total	100% (80)
Race/Ethnicity	
Non-Hispanic White	79% (63)
Non-Hispanic African American	20% (16)
Other	1% (1)
Total	100% (80)
Marital Status	
Never married	20% (16)
Married	69% (55)
Divorced/Separated	11% (9)
Total	100% (80)
Education	
Less than high school diploma	4% (3)
High school diploma or equivalency (GED)	42% (34)
Associate degree (junior college)	10% (8)
Bachelor's degree	21% (17)
Master's degree	19% (15)
Doctorate or advanced professional degree	4% (3)
Total	100% (80)
Percent of Federal Poverty Guideline	
Below the Federal Poverty Guideline	24% (19)
100% of the Federal Poverty Guideline	15% (12)
200% of the Federal Poverty Guideline	10% (8)
300% of the Federal Poverty Guideline	51% (41)
Total	100% (80)
Employment Status	
Working Full Time	51% (41)
Working Part Time	14% (11)
Unemployed	9% (7)
Keeping house or raising children full time	16% (13)
Retired	3% (2)
Other	7% (6)
Total	100% (80)
Home Ownership	
Own Home	65% (52)

	% (n) or $M \pm SD$ $N = 80$
Rented for Money	32% (26)
Occupied without Payment or Rent	3% (2)
Total	100% (80)
Child Characteristics	
Gender	
Male	49% (39)
Female	51% (41)
Total	100% (80)
Diagnosis	
Solid Tumor	36% (29)
Liquid Tumor (Cancer of the Blood)	59% (47)
Don't Know/No Response	5% (4)
Total	100% (80)
Mean Age of Child at Diagnosis ($M \pm SD$)	7.9 $\pm$ 4.6 yrs.
Age at Interview (Current Age) ($M \pm SD$)	10.3 $\pm$ 4.8 yrs.

Table 3

Type of Social Support Received by Source of Social Support

	Type of Support			
	Emotional Support	Logistical Support	Financial Support	Informational Support
Source of Support				
Other Cancer Families	13% (12)	1% (1)	0% (0)	38% (9)
Family	16% (15)	66% (57)	21% (13)	25% (6)
Friends	10% (9)	16% (14)	10% (6)	21% (5)
Neighbors	2% (1)	10% (9)	5% (3)	0% (0)
Coworkers	8% (7)	5% (4)	29% (18)	1% (1)
Health-related Professionals	52% (48)	1% (1)	35% (22)	13% (3)
Total	100% (92)	100% (86)	100% (62)	100% (24)