Benefits of a Brief Therapeutic Conversation Intervention for Families of Children and Adolescents in Active Cancer Treatment

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Cancer in children and adolescents differs from adults in that it has unique epidemiology (e.g., lymphoma, leukemia, endocrine tumors) and the treatment itself can have an impact on the child’s physical and relational development (Erickson et al., 2010). These children often are receiving medical treatment at a time when they are developing from childhood into the preadolescent or adolescent years, which requires significant psychosocial support from their families. In addition, because of the effect of radiation and chemotherapy on the central nervous system, childhood cancer survivors or their parents may need assistance from oncology team members to educate school personnel about potential learning problems children can experience as a result of cancer treatment (Quillen, Crawford, Plummer, Bradley, & Glidden, 2011).

Therefore, knowing what impact the cancer diagnosis has on the family and how the family can help the child adapt to the cancer treatment requires interational or relational actions rather than individual actions. In other words, the behavior of each individual family member cannot be considered in isolation but rather in the context of the family situation (Wright & Bell, 2009; Wright & Leahey, 2009). Nevertheless, although research findings have been reported on the impact of pediatric cancer on family members’ well-being and quality of life (Svavarsdottir, 2005; Svavarsdottir & Sigurdardottir, 2005; Tamayo, Broxson, Munsell, & Cohen, 2010; Tanzi, 2011) and on family functioning (Svavarsdottir, Sigurdardottir, & Tryggvadottir, In press; Svavarsdottir, Tryggvadottir, & Sigurdardottir, 2012), little is known about how primary caregivers such as parents can impact their child’s well-being and help them to adjust to the medical treatment. In addition, little is known about how or in what way oncology nurses can support parent caregivers to help them to become well-functioning support persons for their child or adolescent with cancer. To begin to address that gap, a quasiexperimental family-level intervention

Purpose/Objectives: To test the effectiveness of a two-to-three session family therapeutic conversation intervention (FAM-TCI) for primary and partner caregivers of children and adolescents in active cancer treatment on perceived family support and on expressive family functioning.

Design: Quasiexperimental; one group pre- and post-test.

Setting: Inpatient cancer unit and a day treatment cancer unit at the Children’s Hospital in Reykjavik, Iceland.

Sample: 19 parent caregivers (10 primary, 9 partner) of children in active cancer medical treatment.

Methods: The caregivers completed baseline measure questionnaires and were offered the first sessions of the FAM-TCI. About four to eight weeks later, the second session was administered and then the caregivers were offered a third session, if needed, one week later. When the caregivers had finished all sessions, they answered the same set of questionnaires about one week later.

Main Research Variables: The FAM-TCI for primary and partner caregivers, family support, and expressive family functioning.

Findings: Primary caregivers perceived significantly higher family support after the intervention compared to before. Those caregivers also reported significantly higher expressive family functioning and significantly higher emotional communication after the intervention. Partner caregivers, however, reported significantly lower verbal communication after the FAM-TCI compared to before.

Conclusions: Shortening hospital stays in pediatric oncology populations has focused attention on effective short-term psychosocial interventions. The FAM-TCI is promising as an effective short-term intervention but requires additional testing.

Implications for Nursing: The FAM-TCI strengthened pediatric oncology caregivers in their caregiving activities and was found to benefit primary caregivers regarding their perception of family support and expressive family functioning; therefore, the intervention might benefit future families of children and adolescents in active cancer treatment.

Knowledge Translation: The FAM-TCI was brief, easy to provide, and well fitted. Pediatric oncology nurses can offer brief, beneficial interventions to families of children and adolescents with cancer who are in active treatment. Knowing that primary caregivers experienced support and information may result in more effective evidence-based family care.
Background

During active medical treatment, parents of children and adolescents with cancer face many physical, emotional, and psychosocial challenges. That often generates a need for information regarding medical treatments as well as a need for psychosocial support. Parents of children and adolescents newly diagnosed with cancer experience persistent distress and anxiety (Kazak et al., 2005; Stehl et al., 2009; Tamayo et al., 2010; Warner et al., 2011). In addition, these parents need to receive the right amount of information at the right time, not too much or too little, because both extremes can cause distress among the parents (Flury, Caflisch, Ullmann-Bremi, & Spichiger, 2011; Ringnér, Jansson, & Graneheim, 2011a, 2011b). However, few interventions have been developed and tested that focus on reducing stress and anxiety for this parent population.

Contradictory information has been reported on the benefit of distress-reducing interventions for primary caregivers. In a brief intervention study aimed at reducing parental distress and anxiety related to their child’s cancer diagnosis, a four-session cognitive behavioral intervention decreased parents’ distress, state of anxiety, and depressive symptoms, as well as feelings of burden (Warner et al., 2011). Similarly, Kazak et al. (2005) conducted a randomized clinical trial (RCT) feasibility study of a three-session intervention, focusing on state of anxiety and post-traumatic stress symptoms among 19 families of children newly diagnosed with cancer. Parent caregivers were randomly assigned to either the intervention group or to the treatment-as-usual group, with preintervention and two months postintervention assessments. The findings indicated reduced anxiety and parental post-traumatic stress symptoms for the intervention group. However, in a RCT study on a brief three-session intervention for 81 families of children newly diagnosed with cancer (Stehl et al., 2009), anxiety and post-traumatic stress symptoms were evaluated preintervention and again one-month postintervention. Interestingly, no significant difference was found on the state of anxiety and post-traumatic stress symptoms between the intervention and the control groups. The authors emphasized that conducting an RCT study shortly after pediatric cancer diagnosis is challenging because of difficulties with participant recruitment and retention, which are limitations brought about by the RCT design and the acuity of the child’s illness.

Although emotional strain and coping behavior of caregivers in pediatric oncology is well documented (Svavarsdottir & Sigurdardottir, 2006), less is known about the benefit of good communication with primary caregivers, caregivers’ support, or benefits of interventions focusing on identifying family strengths or on assisting nurses to better deliver information. Tamayo et al. (2010) focused on the quality of life of 194 primary caregivers of adult patients receiving chemotherapy for leukemia and found burden and unidentified needs such as lack of expressing feelings, not having a positive attitude, receiving support or information, or having good coordination of the care could lead to decreased well-being and quality of life. Hildenbrand, Clawson, Alderfer, and Marsac (2011) conducted a study focusing on identifying cancer-related stressors for children, the children’s coping behavior, and how their parents assisted with coping during cancer treatment. The findings indicated the parents applied a variety of different strategies to help their child to cope, such as encouraging cognitive restructuring, promoting relaxation and social support, encouraging use of information, engaging in supportive actions, and using reinforcement strategies.

As active pediatric cancer services have increasingly shifted from inpatient to outpatient settings, with children often receiving complicated treatment at home, resiliency-focused family-level interventions are needed to strengthen primary caregivers in their emotional caregiving activities. According to Grafton, Gillespie, and Henderson (2010), resiliency is defined as an instinctive energy or life force that provides an insight into internal resources that individuals can draw on to motivate, enable, and drive them to cope with...
and learn from stressful and contrary life experiences. In that way, resilient individuals can use their resources to cope more effectively during stressful situations and use their learning experiences to restore and strengthen the bio-psycho-social-spiritual well-being of the self and reduce their vulnerability to future stress (Grafton et al., 2010). Therefore, reinforcing such a positive integration in a strength-oriented family-level intervention would be important when supporting psychosocial functioning in primary caregivers.

Parents of children and adolescents with cancer have indicated that information about the cancer was critical in helping them to cope emotionally with the situation (Ringnér et al., 2011a) and to reduce chaos and create a feeling of control (Ringnér et al., 2011b). Therefore, when designing a brief therapeutic conversation intervention for families of children in active cancer treatment, the relationship between how the information is delivered and in what way parents are offered the emotional and psychosocial support is crucial. Effective nursing interventions are those that patients and family members respond to because of the fit between the intervention offered by the nurse and the biopsychosocial structure of family members. In a systematic literature review on the efficacy of psychological interventions for pediatric chronic illness, Beale (2006) concluded that psychological interventions had a positive influence on a range of outcomes when used in addition to medical treatments. However, according to Beale (2006), many of the reviewed studies could benefit from a better research design (e.g., clearly developed and theoretically based experimental studies), control issues, and monitoring of treatment integrity (e.g., how staff were trained, who engaged with the families, how participants were tracked).

**Theoretical Framework**

The theoretical frameworks that guided the research were the Calgary Family Assessment (CFAM) and the Calgary Family Intervention (CFIM) models (Wright...
The models are multidimensional and based on theoretical foundations such as systems, communication, and change theory, as well as the biology of cognition. The CFAM consists of structural, developmental, and the functional categories. After assessing a family, Wright and Leahey (2009) recommend identifying the family members' strengths, problems, and weaknesses rather than making these diagnoses. In the model, problems are seen as a possible opportunity for nurses and family members to intervene. However, identifying the strengths of a family also is emphasized to present a balanced view of the family health situation.

According to Wright and Leahey (2009), the CFIM is a resiliency-based intervention model where nurses ask therapeutic questions and simultaneously develop interventions with families to enrich their psychosocial functioning. Families are generally in contact with nurses when coping with an illness or health situation. A nursing intervention needs to include direct and indirect care. The intervention can be defined as any nursing action or response that occurs in the context of a nurse-client relationship to affect individual, family, or community functioning and for which the nurse is accountable (Wright & Bell, 2009). A nursing intervention focuses on the nurse's behavior and the family's response, where the intent is to effect change. The interventions used in the model focus on changing the cognitive, affective, or behavioral domains of family functioning. As family members' perceptions about each other and the illness in their family change, their behaviors also change. This model helps nurses to aid families in promoting, sustaining, or improving effective family functioning and well-being. According to the model, nurses need to shape or adapt interventions to the family and its domain of family functioning. In that way, nurses' interventions will maintain or increase family functioning, decrease suffering, and enhance family members' ability to cope with their illness experience. Each therapeutic conversation between the nurse and family regarding the family system shapes that system; that process of interaction is the core of clinical practice with families (Wright & Leahey, 2009). However, nurses should remember that families' judgment about their functioning level is the most important outcome in family interventions. The CFAM and CFIM can be used with patients and families from diverse cultures because they emphasize the appropriateness of specific interventions with particular cultural viewpoints.

Based on the literature review and the conceptual frameworks that guided the current study's research, the primary and partner caregivers of children and adolescents in active cancer treatment who received the two-to-three session FAM-TCI were hypothesized to perceive significantly higher family support and similar or significantly higher expressive family functioning after the intervention compared to before. The following research question was asked: What are the differences postintervention in perception on family support as reported by the primary and partner caregivers of children and adolescents in active cancer treatment?

**Methods**

**Sample**

Data for this quasiexperimental study were collected from caregivers (N = 19; 10 primary biologic caregivers and 9 partner biologic caregivers, or 10 total families) of 10 children and adolescents newly diagnosed with cancer. The families, who all had a child in active cancer treatment, were receiving healthcare services in 2010 at an inpatient cancer unit or at a day treatment cancer unit at the Children's Hospital at Landspitali University Hospital in Reykjavik, Iceland. Potential caregiver participants, who all were parents of children or adolescents in active cancer treatment, were introduced to the study by the clinical staff on the cancer unit about eight weeks after the child had been diagnosed with cancer. The eligibility criteria for the caregivers were (a) being parents or a legal guardian of a child in active cancer treatment (both the primary caregiver and the partner, with the exception of single parents), (b) having a child with cancer younger than 18 years of age who had been diagnosed with cancer about eight weeks prior, (c) being able to read or write Icelandic at a minimum fourth-grade level, and (d) the willingness of at least one caregiver to participate in the study. Caregivers were excluded if they (a) were participating in another study of their child’s cancer situation during the current study’s data collection, (b) were participating in another study of their own health, and (c) were being treated for any major physical or mental health problems, because dealing with one’s own illness situation can color caregivers’ experiences as a primary or partner caregiver. However, none of the parents introduced to the study needed to be eliminated because of the exclusion criteria. Study approval was obtained from the Scientific Committee at the Landspitali University Hospital (No. 68/2008). In addition, the study was reported to the Data Protection Committee in Iceland (No. S4118, November 13, 2008). The authors used the Outcome electronic survey program to collect data in 2010.

**Tools**

To evaluate the effectiveness of the intervention, two questionnaires were used: the Iceland Family Perceived Support Questionnaire (ICE-FPSQ) and the Iceland Expressive Family Functioning Questionnaire (ICE-EFFQ). In addition, information on the demographic status of
The family, as well as on the health conditions of the children and adolescents from the caregivers’ perspective, was collected.

The sociodemographic questionnaire included questions about the caregivers’ ages, the caregivers’ relationship to the child (e.g., parent), marital status, education, and family income. The instrument also included questions for the caregivers regarding the child’s gender, type of cancer diagnosis, and current age.

The ICE-PFSQ is a 14-item instrument with two subscales, cognitive support and emotional support (Svavarsdottir & Sveinbjarnardottir, 2009b). The questionnaire uses a Likert-type scale ranging from 1–5, with higher scores indicating a perception of better family support. The ICE-PFSQ is based on the CFIM (Wright & Leahey, 2009), was constructed and developed in Iceland and proven to be valid and reliable (Leahey & Sveinvarsson, 2009), and has been psychometrically tested (Sveinbjarnardottir, Sveinvarsson, & Hrafnkelsson, 2012b). According to Sveinbjarnardottir et al. (2012b), the Cronbach alpha is 0.953 for the total scale, 0.874 for the cognitive support subscale, and 0.937 for the emotional support subscale. In the current sample of Icelandic families, the Cronbach alpha for the total scale ranged from 0.688–0.933 (at time 1 and time 2). For the subscales in this sample, the Cronbach alpha ranged from 0.68–0.84 for cognitive support and 0.628–0.924 for emotional support over time.

Session Two and Session Three

- The nurse started by asking if the family had any specific questions from the last session and how the children themselves and other members of their family had been doing since the last section. Both the primary and partner caregivers were invited to speak.
- The caregivers also were asked whether anything specific was on their minds and how the next weeks and even months looked to them.
- The nurse put the genogram and the ecomap on the table in front of the family and herself to provide a visual image of the family while they were having the therapeutic conversations.

Therapeutic questions focusing on cognitive, emotional, and/or behavioral domains of family functioning

- What has been most and least helpful to you in similar situations?
- If there were one question you could have answered now, what would it be?
- How do other members of your family handle the situation?
- How do the siblings handle the situation that the family is dealing with now?
- What beliefs do you have toward the disease?
- What beliefs do other members of the family have toward the disease?
- Does anyone in your family have constraining beliefs toward the illness or the situation the family is now in?
- What core beliefs have you and your family found helpful to rely on when dealing with the illness on a daily basis?
- What do you believe the future holds for your family and your child with cancer?

Some specifically tailored questions also were asked based on the child’s health condition.

Offering recommendations

- When appropriate, the nurse offered recommendations to both the primary and the partner caregivers.

Offering commendation/drawing forward family strengths

- When appropriate, the nurse offered commendation and drew forward the family strengths.
- At the end of the interview, the nurse thanked the caregivers for their participation and emphasized that they were welcomed to contact the research team if they had any questions or concerns regarding the intervention.
- The caregivers also were told that they could approach the nursing staff at the unit with questions or concerns.

Figure 2. Description of the Family Therapeutic Conversation Intervention (FAM-TCI): Sessions Two and Three
The ICE-EFFQ is a 17-item instrument with four subscales: emotional communication, collaboration and problem solving, verbal communication, and behavior (Svavarsdottir & Sveinbjarnardottir, 2009a). The instrument uses a Likert-type scale ranging from 1–5, with higher scores indicating better expressive family functioning. The questionnaire is based on the CFAM (Wright and Leahey, 2009), was constructed and developed in Iceland and found to be valid and reliable (Leahey & Svavarsdottir, 2009), and has been psychometrically tested (Sveinbjarnardottir, Svavarsdottir, & Hrafnkelsson, 2012a). The Cronbach alpha is 0.895 for the total scale, 0.617 for emotional communication, 0.735 for collaboration and problem solving, 0.796 for verbal communication, and 0.808 for behavior. In the current sample of Icelandic families, the Cronbach alpha for the total scale ranged from 0.842–0.907 (at time 1 and time 2). For the subscales in this sample, the Cronbach alpha was as follows: emotional communication, 0.753–0.852; collaboration and problem solving, 0.697–0.725; verbal communication, 0.747–0.852; and behavior, 0.914–0.798 at time 1 and time 2.

Data Collection

The primary and the partner caregivers who participated in the study were introduced to the study by a doctoral student acting as the research assistant at the Children’s Hospital who gave them written information about the purpose and the content of the study. If the caregivers agreed to participate, informed consent was obtained (i.e., opportunity for participants to ask questions and indicate that they understood the study procedures). They then completed the questionnaires on a computer (time 1, the preintervention phase). After the caregivers had completed the questionnaires at time 1, they received the first section of the intervention from the nurses at an intervention room at the Faculty of Nursing. After the first session was over, the families were scheduled for the second session of the intervention, which took place 4–6 weeks later at the same location. All the families received two sessions of the intervention. If the families expressed a need for additional sessions after the second session ended, a third session took place about four weeks after the second session. Two of 10 families expressed a need for a third session. When the parents had finished the second or the third session of the intervention, they were given a code to use on their computer at home to answer the same set of questions as they did before the intervention (the ICE-FPSQ and the ICE-EFFQ) (time 2, the postintervention phase). If parents had not responded to time 2 five to seven days after they finished their final session, they were sent an e-mail reminder and asked to respond within the next two or three days.

### Table 1. Caregiver and Family Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Primary Caregiver (N = 10)</th>
<th>Partner Caregiver (N = 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female 9</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Male 1</td>
<td>9</td>
</tr>
<tr>
<td>Age (years)</td>
<td>31–40 6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>41–50 3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>51–60 1</td>
<td>–</td>
</tr>
<tr>
<td>Family structure</td>
<td>Married parents 6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Partnered parents 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Single parent 1</td>
<td>–</td>
</tr>
<tr>
<td>Education completed</td>
<td>Middle school 3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>High school 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>University 6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Missing –</td>
<td>1</td>
</tr>
<tr>
<td>Family income*</td>
<td>Less than 400 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>400–600 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>601 and higher 7</td>
<td>7</td>
</tr>
<tr>
<td>Child’s gender</td>
<td>Male 6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Female 4</td>
<td>3</td>
</tr>
<tr>
<td>Child’s diagnosis</td>
<td>Leukemia or lymphoma 8</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Brain tumor 1</td>
<td>1</td>
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<tr>
<td></td>
<td>Neuroblastoma –</td>
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</tr>
<tr>
<td></td>
<td>Missing 1</td>
<td>–</td>
</tr>
<tr>
<td>Child’s age (years)</td>
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<td></td>
<td>6–10 –</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>11–18 3</td>
<td>2</td>
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</table>

*Income listed in Icelandic kronars

Intervention

The FAM-TCI is comprised of four key elements based on Wright and Leahey’s (2009) family interview framework: (a) drawing a family genogram, family tree, and an ecomap in collaboration with the families; (b) using therapeutic questions; (c) offering recommendations; and (d) offering commendation and drawing forward family strength. The therapeutic conversations were introduced to the caregivers as an opportunity for them to engage in a therapeutic relationship with the nurses. Each family received two or three therapeutic conversation interviews, depending on the caregivers’ needs. The therapeutic conversations ranged from 45–90 minutes (an average of 60 minutes). After the caregivers had signed the consent form, the study nurse (a doctorally educated nurse in family system nursing), in collaboration with the pediatric oncology nurse, conducted the interviews. The ultimate goal of the FAM-TCI was to have the primary and partner caregivers reflect on their experiences as caregivers for children and adolescents in active cancer treatment. They
were asked relevant circular therapeutic questions, encouraging, empowering, and pointing out in what way the families were handling their situations well. The nurses also listened to the caregivers’ stories of their experiences, pointed out differences between them, and answered specific questions asked. In general, the nurse had to create a context in the interview where families could make small or significant changes by recognizing their problem-solving abilities and by realizing that interventions are focused on cognitive, emotional, and behavioral domains of family functioning. The nurses used questions as interventions, empowered and supported the families, and expressed confidence in their problem-solving abilities when appropriate. The elements of the FAM-TCI are described in Figures 1 and 2.

Treatment integrity was ensured by intensive training through lectures, seminars, role playing, and observations. The principal investigator met with the intervention team once a week for three to four hours each time during a four-week period to review intervention protocol and practice intervention delivery. In addition, the intervention team met weekly during the one-month training period, as well as during the data collection period, to discuss issues regarding the intervention protocol, documentation, and family issues that arose during the sessions. The principal investigator, who also was a family nurse, attended those meetings to support the advanced study nurses and to ensure that no care needs of the families were being overlooked.

Participants

In this quasieperimental study, all of the caregivers were assigned to the experimental group (one group pre- and post-test design). The primary and partner caregivers answered all the questionnaires independently of each other, but received the intervention together. Twelve families were introduced to the study, and 10 families (19 individual parental caregivers) consented to participate (83% participation rate).

Analyses

The study data were summarized with descriptive analyses (e.g., means, standard deviations, frequency distributions). The data met the assumption for normal distribution of the main study variables of family perceived support and expressive family functioning between the two time periods, which allowed the use of the paired samples t test. Data analyses were conducted using SPSS®, version 18.0, and p < 0.05 was used throughout.

A post hoc power analysis was calculated for the paired samples t test. Based on the number of participants in this intervention study, the alpha level was set at 0.05; by calculating the effect size from the means and the standard deviations, the effect size was 0.881, signifying that the test identified only large effects. The power was 0.698, indicating rather low probability of type two error, or a 30% chance of not finding a true difference between the two data collection time points.
Results

Participants

Of the caregivers (N = 19), 10 were primary biologic caregivers (9 biologic mothers and 1 biologic father) and 9 were biologic partner caregivers (all fathers). The primary caregivers ranged in age from 31–50 years and the partner caregivers were aged 30–50 years. The children and adolescents had been diagnosed with cancer, on average, for 5.5 months (range = 2–16 months; range for 9 of the 10 children = 2–7.5 months). Illness characteristics and caregiver variables are described in Tables 1 and 2.

Effects of the Intervention on Primary and Partner Caregivers

Based on the paired samples t tests for primary caregivers (N = 10), a significant difference was found on perceived family support after the intervention compared to before, as well as on the two subscales of cognitive and emotional support (see Table 3). Primary caregivers perceived significantly higher family support and significantly higher cognitive and emotional support after the intervention compared to before. However, when the partner caregivers were evaluated, no significant difference was found after the FAM-TCI compared to before the intervention. Therefore, a difference did not exist on the total perceived family support scale or on the subscales of cognitive or emotional support, only partly supporting the hypothesis.

When the primary caregivers’ expressive family functioning was evaluated, a significant difference was found after the intervention compared to before on the total ICE-EFFQ and on the emotional communication subscale of the ICE-EFFQ. Primary caregivers reported significantly higher family functioning and emotional communication after the intervention compared to before, as well. Nevertheless, partner caregivers of children in active cancer treatment reported significantly lower verbal communication on the ICE-EFFQ after the intervention compared to before, indicating that partner caregivers perceived communication in their family to be worse after the intervention.

Difference in Perception of Family Support

When the primary and partner caregivers’ perception on the family support scale before and after the intervention was evaluated further (item by item), the primary caregivers were found to report higher perception on all items of the family support scale after the intervention than before. Specifically, the primary caregivers reported that after the FAM-TCI, a significant increase was found in the nurses looking for family strengths and opportunities (T2 X = 3.9, SD = 0.57, T1 X = 3.1, SD = 0.99, t = –2, p = 0.037); providing ideas, information, and thoughts (T2 X = 3.6, SD = 1.35, T1 X = 2.2, SD = 0.92, t = –2.69, p = 0.025); and providing accessible and easy-to-read literature (T2 X = 3.5, SD = 1.18, T1 X = 2.1, SD = 0.99, t = –3.5, p = 0.007). Interestingly, no significant differences were found by the partner caregivers after the intervention when item-by-item tests were run on the family support scale; therefore, the partner caregivers reported similar outcomes pre- and postintervention when the nurses’ perception on the family support scale was evaluated item-by-item (see Figures 3 and 4).

Discussion

A particular strength of the FAM-TCI is its strong family system theoretical foundation; the Calgary models guided both the content and the process of the intervention. The FAM-TCI, which is a family strength–oriented intervention, focuses mainly on assisting family members to discover new solutions and helping to diminish or ease emotional, physical and spiritual suffering, which

Table 3. Paired Samples t Tests for Primary and Partner Caregivers of Children and Adolescents With Cancer, Pre- and Postintervention

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
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<tr>
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<tr>
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<td>16</td>
<td>2.18</td>
<td>14.33</td>
</tr>
<tr>
<td>Behavior</td>
<td>15.11</td>
<td>1.76</td>
<td>16.44</td>
</tr>
</tbody>
</table>

* Using means of total or sum scores

Note. p < 0.05
can contribute to strengthening or sustaining effective family functioning. Through constructive therapeutic communications between parents and healthcare professionals, caregivers often discover new solutions to their perceived problems and challenges. Therefore, the findings from the hypotheses testing of the current study are particularly promising because they support the benefit for primary caregivers of such a brief two-to-three session therapeutic conversation intervention. In the current study, primary caregivers of children in active cancer treatment reported significantly higher family, cognitive, and emotional support from the nurses after the FAM-TCI compared to before. The originality of that finding rests in helping primary caregivers cope with their own emotional responses to their child’s cancer diagnosis and medical treatment. That can result in primary caregivers being in a better state emotionally to assist their child in coping with the treatment. These findings also are consistent with those reported by Hildenbrand et al. (2011) who found parents of children with cancer promoted social support, encouraged use of information, and engaged in supportive actions to help their child cope with the cancer treatment.

Primary caregivers also reported significantly higher expressive family functioning and emotional communication after the intervention compared to before. Those findings emphasize the importance of giving primary caregivers the opportunity to express their feelings regarding the cancer situation as well as helping them to understand how their emotional response can be related to their child’s cancer treatment or the illness. In addition, these findings are in harmony with the emphasis in the CFIM on sustaining or improving family functioning, where the most sustaining change is seen to occur within the family’s beliefs (cognition), which would include the oncology pediatric nurse’s ability to help family members to reflect on their beliefs regarding their child’s cancer situation and the illness experience.

The brief FAM-TCI can be essential in facilitating healing; decreasing painful emotional experiences, insecurity, and worrying among primary caregivers; and enhancing the well-being and emotional functioning of the family. When caring for a child with cancer, family members need to be given the opportunity to discuss their feelings, express themselves honestly when they talk to each other, and share their perceptions and worries when problems arise. Families who have experienced traumatic life events such as childhood cancer diagnosis and treatment may, therefore, not only benefit immediately from such a brief relational-focused intervention, but also might benefit in the long run from the context of the FAM-TCI. Additional research is needed to evaluate the benefit of the FAM-TCI over time and within experimental research design settings.

Although the caregivers in this study all were parents of children in active cancer treatment, where the majority of the mothers (90%) were the primary caregivers and all the partner caregivers were the fathers, most of these...
caregivers (90%) belonged to a two-parent family. In addition, these families were involved in the medical treatment to a greater extent, all the children were receiving medications associated with the cancer treatment, and a majority of them (90%) had been hospitalized quite often because of the treatment regimens. However, although the caregivers indicated that they had received information about the cancer and its treatment, most (70%) also indicated that they needed support from healthcare professionals. The FAM-TCI was developed to assist pediatric oncology nurses in offering support to both primary and partner caregivers. Therefore, the authors were surprised to learn that the intervention was only found to significantly benefit primary caregivers but not their partner caregivers. Although that result only partly supports the conceptual framework that guided the research, the intervention was found to be of benefit to the primary caregivers who are in the front line of caring for the child.

However, the finding that partner caregivers did not report a significant increase in their perception on family support is of special concern. That indicates that after the FAM-TCI, the partner caregivers did not find they were getting better cognitive or emotional support from the nurses, such as receiving useful information, gaining increased awareness of their family strengths, or having better access to available resources. It might well be that the partner caregivers—all biologic fathers of the children and usually not as involved on a daily basis in the caregiving activities—were not processing the intervention at the same level as the primary caregivers because they were more distant in the caregiving role. For example, these fathers often were working outside the home, whereas the primary caregivers were mostly mothers staying at the hospital with the child. Nevertheless, partner caregivers also reported significantly lower verbal communication on the ICE-EFFQ after the intervention compared to before. That finding is contradictory to the predicted outcome of the benefit of a therapeutic conversation intervention, as presented by Wright and Leahey (2009). Both family members and both of the genders who participate in such a therapeutic conversation intervention are expected to benefit from the intervention, not only one of them. One explanation for this finding could be a lack of fit between the nurse’s ideas and opinions and the family’s illness experience. The intervention may have better fit the illness experience of the primary caregiver (mainly mothers) than the partner caregiver (fathers). The partner caregivers might need more intense intervention regarding expressive communication in the family, or even another type or a modified version of the intervention.

Limitations

The design of the study was one group pre- and post-test with no control group and the sample size was...
small, which limited the generalization of the study. The findings themselves may, therefore, not be suitable for other healthcare situations or cultures. However, the content and process of the FAM-TCI was grounded in a family system theoretical approach and can provide a framework for future research. In addition, this intervention study primarily was a two-parent family study with more highly educated families, which can be considered a bias. Families with higher education might have easier access to information they need through the Internet, other specialists, and other resources, so the effect that is seen from the intervention may not be solely from the intervention itself.

**Conclusion and Implications for Nursing**

Pediatric oncology nurses who are offering advanced healthcare services to caregivers of children in active cancer treatment need guidance regarding how they can, within a brief time framework, offer effective, beneficial, family-level interventions in the clinics. In the current intervention study that aimed at assisting oncology nurses to better support caregivers of children in active cancer treatment, the brief FAM-TCI was found to benefit primary caregivers regarding their perception of family support and expressive family functioning. Unidentified needs such as lack of expressing feelings and not receiving support or information when needed can lead to a worsening of relationships among caregivers, as well as decreased well-being and health. Therefore, the findings from this study from the Landspitali University Hospital Family Nursing Implementation Project are valuable because the intervention was found to strengthen caregivers in their caregiving activities. The delivery did not take too long; it was easy to provide; it was offered 2–5 months after the cancer diagnosis, which seemed to be a helpful time frame for the caregivers; and it fit well within the culture of the clinics. Pediatric oncology nurses can offer brief, beneficial interventions to families of children with cancer; interventions do not need to be lengthy to be effective. In addition, knowing the primary caregivers in the current study experienced much-needed information offered to them by the study nurses as well as their professional opinion regarding their child’s cancer are of great value in clinical practice. Focusing attention on brief interventions, such as the FAM-TCI for families of children in active cancer treatment, may result in a better and more effective evidence-based care for families.

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**References**


Svavarsdottir, E.K., & Sigurdardottir, A. (2005). The feasibility of offering...