

User survey of Nanny Angel Network, a free childcare service for mothers with cancer

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ABSTRACT

Purpose The purpose of the present study was to determine user satisfaction with Nanny Angel Network (NAN), a free childcare service for mothers undergoing cancer treatment.

Methods All 243 living mothers who had used the NAN service were invited by telephone to participate in an online research survey; 197 mothers (81%) consented to participate. The survey, sent by e-mail, consisted of 39 items divided into these categories: demographics, supports, use, satisfaction, and general comments.

Results Of the 197 mothers who consented to receive the e-mailed survey, 104 (53%) completed it. More than 90% of the mothers were very satisfied with the help and support from their Nanny Angel. Many mothers mentioned that the Nanny Angel was most helpful during treatment and medical appointments, with 75% also mentioning that their Nanny Angel helped them to adhere to their scheduled medical appointments. However, 64% felt that they had not received enough visits from their Nanny Angel.

Conclusions Satisfaction with the NAN childcare provider was high, but mothers wished the service had been available to them more often. Our study highlights the importance of providing childcare to mothers with inadequate support systems, so as to allow for greater adherence to treatment and medical appointments, and for more time to recover.

Key Words Mothers with cancer, childcare, children, Nanny Angel, patient supports

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INTRODUCTION

Many cancer patients with young children struggle with financial pressures, relationship stresses, and household responsibilities on top of their treatment side effects, resulting in negative psychosocial outcomes such as increased anxiety and depression¹⁻⁴. Moreover, when a parent is diagnosed with cancer, children of all ages undergo significant stress, particularly when the parent experiences physical changes such as hair loss or is unable to engage in his or her usual child-related activities⁵. Accordingly, in comparison with other patients, parents of young children experience greater feelings of sadness and guilt while undergoing cancer treatment⁶, often struggling to balance their own needs against those of their children⁷.

More specifically, when mothers with young children undergo cancer treatment, they often struggle with finding the childcare that will allow them to attend medical appointments or to recover from surgery, chemotherapy,

and radiation toxicities. Some women have supportive families or the financial means to pay for outside help, but many single mothers or families with a limited income encounter immense difficulty and stress in trying to find dependable care for their children.

In 2008, a charitable organization called Nanny Angel Network (NAN) was launched in Canada by Audrey Guth, herself a cancer survivor and a mother, to provide free childcare to female cancer patients within the Greater Toronto Area. The goals of NAN are to allow young mothers to attend appointments without the stress of finding childcare and to provide those women with some child-free time to themselves to relax and recover from the rigours of treatment. The privately funded NAN program relies on the generosity of corporations, private foundations, and individual donors. At the time of the present study, NAN was providing services only to mothers with cancer. Since then, NAN has been developing a branch that seeks to provide childcare assistance to fathers with a cancer diagnosis.

Families are initially referred to NAN by community partners such as the Canadian Cancer Society, PYNK^{8,9}, and Gilda's Club. Health care and social service professionals in oncology departments also serve as primary referrers for families. Families are not assessed for financial need by NAN before they are assigned a Nanny Angel. Criteria for participation are

- a confirmed cancer diagnosis in a mother with at least 1 child 12 years of age or younger,
- active treatment that is currently ongoing or was completed within the preceding 3 months, and
- residence in the Greater Toronto Area (because that region is currently the only one that NAN services).

Before becoming a Nanny Angel, volunteers are required to have a minimum of 1 year of experience in caring for children. Many of the volunteers are teachers, nurses, and child life specialists. Some of the Angels are themselves cancer survivors. All potential volunteers must provide two reference letters indicating they are capable and qualified for the position, and must pass a vulnerable-sector police screening that indicates no past criminal activity. Appropriate applicants are then invited for a final interview conducted by the NAN selection committee to evaluate the candidate's sense of responsibility, understanding of the position's requirements, and sensitivity to children's needs. Currently, only women are accepted as Nanny Angel volunteers, because NAN users have mentioned that they feel more comfortable in the presence of another woman when they are ill and not fully dressed. After their acceptance to NAN, each Nanny Angel must be certified in cardiopulmonary resuscitation and first aid, and must complete proprietary training in child safety and dealing with children's experiencing grief and loss. The entire process, beginning with receipt of the application and extending to completion of training, takes approximately 6–8 weeks. To date, NAN has accepted 91 volunteers.

Once a volunteer has completed the requirements to become a Nanny Angel, she is matched with a family based on her experience, desire to work with certain age groups, location of the family, mother's schedule, and her personality, special abilities, and interests. The volunteer is expected to commit to at least 8 hours per month, ideally to the same family. The Nanny Angel arrives at the visit with age-appropriate activities provided by NAN, which are specially selected to encourage engagement and to build trust with the child or children. Ideally, to optimize bonding, a single Nanny Angel is paired exclusively with one specific family; however, if schedules conflict, a second Nanny Angel is assigned.

Because cancer treatment often extends for 1 year or more, Nanny Angels develop intense relationships with their assigned families. A family is entitled to receive care until the mother is 3 months post-treatment. If a mother passes away, NAN continues to provide care for the children for up to 1 year during the bereavement period.

In 2015, 8 years after the launch of NAN, the organization reached a milestone: 10,000 hours of childcare provided to 300 families. At that point, the board of directors decided to formally evaluate NAN to determine whether the organization was meeting the needs of its young mothers, and to

address areas of the program that might require improvement. From a research perspective, it was of interest to the authors of the present paper to assess the extent to which the provision of free and accessible childcare increases a mother's adherence to medical appointments and recovery from cancer treatments. Such an assessment would help to determine whether such a service should be included as a recommended standard of care for cancer patients.

METHODS

Survey Development

The study was approved by the Sunnybrook Health Sciences Centre Research Ethics Board.

Based on a literature review of satisfaction assessments of interventions and support services for cancer patients^{10–13}, a decision was made to create an online questionnaire rather than to conduct telephone or in-person interviews. The online format maintains anonymity and requires the least amount of time from study participants. A committee of researchers and NAN personnel drafted survey categories and objectives from topics that had been discussed by the NAN Board of Directors during a formal review of the organization. Areas of particular importance to the committee were user satisfaction with the number of visits provided and the helpfulness of NAN services at specific stages of the mother's illness.

From January to April 2015, the committee reviewed consecutive drafts of the questionnaire to evaluate it for clarity and breadth, and to eliminate any potential bias. A pilot study was not conducted. The final survey (Table 1) contained 5 categories (demographics, supports, use, satisfaction, and general comments) and consisted of 39 items set up as Likert-scale multiple choice questions, with free-text fields that allowed participants to elaborate on their answers. It was estimated that completion of the survey would take approximately 10 minutes. The anonymous survey was administered online using Survey Monkey (Palo Alto, CA, U.S.A.).

Participants and Study Design

In a telephone call, the NAN program coordinator invited all living mothers who had used NAN's services at any time up to 1 April 2015 to participate in the study. A follow-up e-mail message that included an introductory letter and survey link was sent in May 2015 to mothers who had expressed interest in participating. The introductory letter explained that participation was voluntary and completely anonymous, that survey completion time was estimated to be 10 minutes, and that completion would demonstrate consent. The program coordinator's contact information was provided in case questions arose. The survey remained open for completion until January 2016. E-mail reminders to complete the survey were sent by the program coordinator each month to all eligible mothers (because the identities of those who had already completed the survey were unknown).

Data Analysis

Descriptive statistics are reported using frequencies, percentages, and means with standard deviations. Bivariate

TABLE I Nanny Angel Network (NAN) survey

1.	Have you ever used a childcare service provided by Nanny Angel Network?
2.	Is English your first language?
3.	If English is not your first language, what is?
4.	How well do you understand written English?
5.	How well do you understand spoken English?
6.	Is someone helping you complete this survey?
7.	Who is helping you complete this survey?
8.	Which race/ethnicity best describes you?
9.	What is the highest level of education you have completed?
10.	What is your current age?
11.	At what age was your diagnosis?
12.	What was your approximate average household net income after tax at time of diagnosis?
13.	Which cancer were you diagnosed with?
14.	Did you have (surgery, radiation, chemo, other):
15.	What was your marital status at the time of diagnosis?
16.	How many children did you have at time of diagnosis?
17.	What was the age of your oldest child at time of diagnosis?
18.	What was the age of your youngest child at time of diagnosis?
19.	During the diagnosis and treatment for your cancer, aside from the issues directly related to the cancer and treatment, did you feel overwhelmed by any of your other responsibilities?
20.	Which obligations did you find most overwhelming at the time of diagnosis and treatment?
21.	At the time of diagnosis and treatment, were you able to rely on family members or friends to alleviate responsibilities?
22.	How was this individual related to you?
23.	At the time of diagnosis, was your spouse or significant other physically available as much as you needed him/her to be, or was he/she bound by other responsibilities (such as work, etc.)?
24.	At the time of treatment and recovery, were your children attending a daily program?
25.	Have you ever missed an appointment, including treatment and follow-up, because of childcare issues?
26.	Please feel free to elaborate on any of the questions from this section.
27.	How did you hear about NAN?
28.	How many times did you use NAN services?
29.	Over what time period did you use NAN services? (diagnosis, treatment and appointments, rest and recuperation)
30.	How would you rank the helpfulness of your Nanny Angel at the time of diagnosis?
31.	How would you rank the helpfulness of your Nanny Angel at the time of treatment and appointments?
32.	How would you rank the helpfulness of your Nanny Angel during treatment recovery?
33.	Did you find that the Nanny Angel allowed you to rest and recuperate while she was taking care of your child(ren)?
34.	Did you feel that your Nanny Angel was well prepared with activities for your child(ren) upon arrival to your home?

35.	Did having an Nanny Angel to assist you with childcare encourage you to adhere to your scheduled appointments?
36.	When did you find the Nanny Angel most helpful?
37.	Was your Nanny Angel visiting as much as you would have liked?
38.	Overall, what was the most helpful aspect of NAN?
39.	Overall, how do you think NAN can improve? Please provide some suggestions.

analyses—using the chi-square and Fisher exact tests for categorical variables, the Wilcoxon rank-sum test for continuous variables, and Spearman correlation for ordinal variables—examined the relationships between various family characteristics and use of childcare services. The significance level for statistical tests was set at $p = 0.05$ (two-tailed). All statistical analyses were performed using the SAS software application (version 9.3: SAS Institute, Cary, NC, U.S.A.). All questionnaires with unanswered questions were included in the analysis, but the sample size for each question was adjusted accordingly. Comments in the free-text fields were grouped according to themes using standard qualitative data analysis techniques¹⁴.

RESULTS

At the time the study was conducted, NAN had provided services to 300 families. Of the 243 living mothers, 197 (81%) expressed interest in participating after the initial telephone call made by the NAN program coordinator, and of those 197 mothers, 104 (53%) completed the questionnaire. Eight women were excluded, because although they had registered for NAN, they had not used NAN childcare services within the specified study period.

Demographics

Table II summarizes participant demographics. Mean age of the participants at diagnosis was 38.4 years (range: 26–52 years), and their mean age at the time of the survey was 41.3 years (range: 30–53 years). Mean age of the youngest child in the family at the time of diagnosis was 2.8 years (range: 0.08–11.5 years), and mean age of the oldest child in the family was 5.8 years (range: 0.17–27 years).

English was named as the first language of 83% of participants. The remaining 17% of participants spoke 10 distinct first languages other than English. A very good understanding of spoken English was reported by 90% of participants; another 9% reported that they understood spoken English well, and only 1% reported that they understood spoken English somewhat well. With respect to written English, 92% of participants reported that they understood it very well; the remainder indicated that they understood it well. All but 1 participant completed the survey without assistance.

Upon comparing the demographics of all mothers within the NAN database with those of the mothers who completed the survey, no significant differences in language proficiency, education, age of children, treatment, and relationship status were noted.

TABLE II Participant demographics

Question	Respondents (<i>n</i>)	Result [<i>n</i> (%)]
Race or ethnicity	88	
White		49 (55.68)
Asian		7 (7.95)
African Canadian		9 (10.23)
Filipino		9 (10.23)
Latin American		3 (3.41)
Arab		3 (3.41)
Unknown		1 (1.14)
Other		7 (7.95)
Highest level of education	88	
Some high school		2 (2.27)
High school diploma		1 (1.14)
Trade or vocational diploma or certificate		7 (7.95)
University or college undergraduate degree		56 (63.64)
Postgraduate degree		22 (25.00)
Household after-tax net income	71	
\$0–\$49,000		23 (32.39)
\$50,000–\$99,999		28 (39.44)
\$100,000–\$149,999		13 (18.31)
\$150,000–\$190,999		4 (5.63)
\$200,000+		3 (4.23)
Marital status at diagnosis	88	
Single and never married		11 (12.50)
In a relationship		1 (1.14)
Engaged		1 (1.14)
Married or common law		65 (73.86)
Separated or divorced		9 (10.23)
Widowed		1 (1.14)
Number of children	88	
1		28 (31.82)
2		43 (48.86)
3		14 (15.91)
4+		3 (3.41)
Cancer diagnosis	88	
Brain cancer		1 (1.14)
Breast cancer		68 (77.27)
Colon and rectal cancer		5 (5.68)
Endometrial cancer		1 (1.14)
Leukemia		2 (2.27)
Non-Hodgkin lymphoma		1 (1.14)
Ovarian or cervical cancer		3 (3.41)
Pancreatic cancer		1 (1.14)
Thyroid cancer		2 (2.27)
Other		4 (4.55)
Treatment ^a	96	
Surgery		79 (82.29)
Radiation		65 (67.71)
Chemotherapy		79 (82.29)
Other		16 (16.67)

^a Multiple responses allowed.

Support System at Diagnosis and Treatment

When participants were asked whether, aside from issues related to their cancer and treatment, they felt overwhelmed by their other responsibilities, 85% of the 85 responders said yes, 13% said somewhat, and 2% said no. According to more than half the participants (58%), the most overwhelming responsibility at the time of their cancer diagnosis, treatment, and recovery was childcare; much smaller percentages of the respondents reported that household duties (12%), finances (12%), employment (10%), and relationship with spouse or partner (8%) was the most overwhelming responsibility.

When asked if they could rely on family members or friends to help with their responsibilities at the time of diagnosis and during treatment, 19% of the 85 respondents replied that they did not require outside help; 64%, that they could somewhat rely on family and friends, but that it was not enough; and 18%, that they had no assistance and needed outside help. When asked to specify who assisted, 54% of respondents said that they received help from a friend; 52%, from a parent; 24%, from in-laws; 28%, from siblings; and 13%, from other family members. The help received from “others” (as reported by 8% of respondents) included stepchildren, hired nannies, churches, and community support groups.

Of 68 respondents, 32% replied that their spouse or partner was available as much as they needed at the time of diagnosis and during treatment; 58%, that the partner was somewhat available, but not enough; and 10%, that their significant other was not available at all, with several participants attributing their spouse or significant other's unavailability to having to work longer hours because of financial difficulties since the cancer diagnosis. Some of the mothers did not have family living in Canada. Participants also discussed the difficulties of asking for help and the challenge of connecting to their peers who were not battling cancer.

In 28% of cases, the responding mother had all her children enrolled in a full-time program; in 6% of cases, the children were enrolled in a half-day program; in 11%, the children were in a program some days of the week; and in 56% of cases, 1 or more children were at home all day, every day. Childcare issues had caused 17% of respondents to miss appointments for treatment or follow-up. The exact number of missed appointments was not collected. However, the need to miss medical appointments was not significantly different for mothers who indicated that they had adequate assistance from family and friends than for mothers who needed outside supports ($p = 0.21$). Similarly, women who ranked childcare as the most overwhelming obligation and women whose children were not in daily programming did not miss more appointments than their counterparts ($p = 0.25$, $p = 0.15$). There was also no significant difference in Nanny Angel use between those two groups ($p = 0.14$). However, many women commented that they were not forced to miss medical appointments because they could rely on their Nanny Angel for childcare. That sentiment was also reflected in the quantitative data, because 87% of mothers indicated that the childcare assistance from their Nanny Angel encouraged them to adhere to their medical appointments. Respondents also mentioned in the comments that,

when their Nanny Angel was unavailable, finding childcare became stressful, and at times, children were brought to medical appointments.

Use of NAN

Table III summarizes the responses outlining how women first learned about NAN and how many times and over what period of time they made use of NAN services. On average, most mothers used NAN services 1–5 times during their diagnosis, treatment, and recovery periods, with some mothers having more than 20 visits from their Nanny Angel. Use of NAN services was not significantly different when respondents with lower (<\$49,000) and higher (>\$150,000) net incomes were compared ($p = 0.28$). There was also no correlation between lower income (<\$49,000) and the desire for more visits from a Nanny Angel ($p = 0.98$). Women who were single and never married, separated, divorced, or widowed made more use of NAN childcare services ($p = 0.09$). However, in comparing single parents with parents in a relationship, we observed no significant differences in satisfaction with the Nanny Angel at the time of diagnosis ($p = 0.28$), treatment ($p = 0.56$), or recovery ($p = 0.66$). Additionally, use of NAN was not significantly different for families with 2 or more children and for those with 1 child ($p = 0.35$). The ages of the youngest and oldest children within a family were not significantly associated with the frequency with which NAN childcare services were used ($r_s = 0$). Women with breast cancer made use of Nanny Angels less frequently than did women with all other cancer types ($p = 0.01$).

TABLE III Use of the Nanny Angel Network (NAN)

Question	Respondents (n)	Result [n (%)]
Referred to NAN by ...	83	
Medical oncologist		7 (8.43)
Family doctor		0 (0)
Nurse navigator		13 (15.66)
Social worker		22 (26.51)
Friend or relative		12 (14.46)
Online		3 (3.61)
Community centre or program		8 (9.64)
Hospital pamphlet		11 (13.25)
Other		7 (8.43)
Use of NAN	83	
1–5 Times		43 (51.81)
5–10 Times		15 (18.07)
10–15 Times		6 (7.23)
15–20 Times		6 (7.23)
20+ Times		13 (15.66)
Period of NAN use ^a	83	
Diagnosis		9 (10.84)
Treatment and appointments		58 (69.88)
Rest and recuperation		48 (57.83)

^a Multiple responses allowed.

Nearly all users had a positive experience with NAN, with 82%, 87%, and 83% respectively of the 69 respondents to this question indicating that they found the Nanny Angel to be very helpful at the time of diagnosis, treatment, and treatment recovery. Of responding mothers, 86% reported that their Nanny Angel allowed them to rest and recuperate while taking care of their children, and 94% reported that their Nanny Angel was very well prepared for her visits to their home, because activities for the child or children were brought to the visit. When participants were asked about the period during which their Nanny Angel was most helpful, 4% said at the time of diagnosis; 41%, during treatment; 24%, during recovery; and 27%, throughout the whole process; 4% did not find their Nanny Angel to be helpful. The number of visits provided by the Nanny Angel was claimed to be sufficient by 36% of respondents; 64% indicated that they would have liked more visits.

General Comments

When provided with the opportunity to elaborate on the most helpful aspect of NAN, many mothers commented that they felt relieved that childcare was being provided for free at a time when funds were very limited. Participants mentioned that they gained peace of mind knowing that all Nanny Angels are screened and qualified. When asked to comment on ways in which NAN could improve, many mentioned “providing more visits each week,” but did not specify how much more of the service would be needed. One participant recommended that NAN should provide services “in the outskirts of Toronto for friends we know that are battling cancer outside the [Greater Toronto Area].”

DISCUSSION

Although in the past, chemotherapy and cancer treatment required admission to hospital, medical advancements have increased the availability of ambulatory treatments¹⁵. However, a consequence of that change is that the presence at home of young mothers creates an expectation by their families that they will try to maintain a sense of routine and normalcy at home despite frequent medical appointments, often daily treatments, and treatment side effects such as profound fatigue¹⁶.

In a study conducted by Peters-Golden, healthy women were asked about their perceived supports if they were to one day be diagnosed with cancer¹⁷. Interestingly, most women were confident that, in a time of need, they would have a strong support system. However, in that same study, women with cancer indicated that their support systems did not materialize to the extent they had expected. Thus, it is not surprising that more than 80% of participants in our study felt that they were not receiving enough help and support from family and friends. Most of those women also stated that their significant others were not available to help as much as they would have liked. Many attributed the unavailability to the fact that the significant other was required to work extra hours, an unfortunate familiarity to families with an ill parent, because numerous financial burdens arise with the need to pay medical bills, hire outside help, and make up for the lost income of the ill spouse¹. The additional expenses can become very burdensome

to both the patient and family¹⁸ and can cause strain in a marriage¹⁹. In an effort to fulfil the needs for support, NAN provides a Nanny Angel free of charge. Often the Nanny Angel is also a cancer survivor who can establish a supportive, understanding, and mentoring relationship with the young mother.

In our survey, 58% of mothers indicated that their largest stressor after their diagnosis was childcare. At times, they had to choose either to bring their children along to the hospital or to skip their appointment. In the present study, 17% of mothers chose the latter course. Similar findings were also demonstrated in a study which found that, because of a lack of childcare, women infected with HIV who had children missed a higher percentage of their medical appointments than did men²⁰. However, when free in-hospital childcare was provided to the women, adherence to their scheduled visits significantly improved.

The success of NAN in achieving its goals is indicated by the fact that 87% of mothers said that their Nanny Angel allowed them to adhere to their appointment schedules. Mothers were also grateful to their Nanny Angels for occupying their children with games and activities after treatments, giving the mother time to recuperate and regain her strength. Especially for women who did not have family in Canada (or as those NAN users would say, “automatic support”), the Nanny Angel became the only person on whom they could rely.

Although various studies have concluded that it is essential that support systems for parents with cancer include childcare services^{21–23}, a thorough literature review failed to uncover a description of any services similar to NAN for cancer patients. A meta-analysis completed in 2016 that analyzed various psychosocial interventions and support systems for parents with cancer and their families reported interventions focused on increasing family communication, enhancing child adjustment, improving mood, and reassuring parenting skills, with no evaluation of the services and no description of any childcare services²⁴. Moreover, although interventions were created to provide on-site childcare in clinics for patients undergoing HIV treatment, a home service was never included²⁰. All those observations underscore the uniqueness of NAN.

The survey reported here represents the first formal evaluation of NAN, and the results show that most of the Network’s users were satisfied with the services provided throughout the periods of their diagnosis, treatment, medical appointments, and recovery. Nanny Angels were used mainly while patients underwent treatment, and single women made use of the services more often than did women in a relationship. That finding is similar to reports in earlier publications that single women with cancer have increased illness-related pressures and require stronger support systems²⁵. Interestingly, mothers who were diagnosed with breast cancer used NAN less frequently than did mothers with other types of cancer—likely because they were healthier or were receiving less debilitating treatments.

Nevertheless, more than 60% of users wished that they could have had more visits from their Nanny Angel. We speculate that, in some cases, that desire was the result of a delay in referral to NAN, together with the lag time needed to process the request. However, the number of

NAN volunteers—and particularly volunteers with a large number of available hours—is also insufficient for the number of families that reach out to NAN. Understandably, many of the volunteers are unable to provide a greater number of hours to NAN. In the future, NAN will attempt to provide additional Nanny Angel visits in areas in which volunteers are available to families who require them. Over the next few years, NAN hopes to increase its volunteer database to provide service hours sufficient to ensure that no mother need be turned away. Another important finding from our study is that almost 20% of mothers who use NAN appear to have adequate support from family and friends. Although all young families dealing with cancer could ideally benefit from NAN’s highly skilled volunteers, NAN will make more effort in the future to prioritize services to mothers who do not have available support.

Given that young children of cancer patients are at increased risk for anxiety and stress-related disorders²⁶, one of NAN’s goals is to positively affect the long-term emotional and psychological development and well-being of those children. Of responding mothers, 94% felt that their Nanny Angel came to their home well-prepared with age-appropriate activities. Many commented that the consistency of having the same Nanny Angel come to their home each week helped the children to bond with the Nanny and generally feel more secure. Those findings are consistent with the results of a study conducted in 2006, which demonstrated that children with consistent social support adjust better to the fact that their parent is unwell²⁷.

Our study has several limitations. Our questionnaire, although modelled after questionnaires for similar surveys, was not specifically validated. Given that the survey was completed anonymously, we could not corroborate the collected data against the NAN records. However, when looking at the 96 participants in the study, we observed no significant differences in demographics between the respondents and the 243 living mothers in the NAN database. Despite the anonymity of the survey, there remains a possibility of social desirability bias from respondents who might have felt indebted to the program or who might have to use the program again. It is also possible that, compared with nonparticipants, women who chose to participate in the study might have been more inherently satisfied with NAN. Also, some respondents might have completed the survey up to 8 years after their NAN experience, with the associated potential for recall bias. Another limitation of the study is that the data represent the perceptions of young mothers with cancer who live in an urban area, potentially affecting the generalizability of the findings. It is also important to note that the children’s experiences with NAN services were not analyzed, because the focus of this study was exclusively the experiences of the mothers. The children’s interaction with their Nanny Angel and the Nanny’s ability to provide emotional support to the child is an important area of research that we hope to pursue in the future. The bereavement program that enables Nanny Angels to continue to visit children in their home for 1 year after the parent passes away could be particularly beneficial, although given that our study did not include the spouses of deceased parents, no survey data are available to confirm that hypothesis. Thus, the impact

of NAN on the mental health of the children who receive its services during the bereavement period will be included in the next study.

CONCLUSIONS

In the Greater Toronto Area, NAN has provided service to hundreds of families in the form of free childcare to mothers diagnosed with cancer. As demonstrated in the present study, NAN is fulfilling an important and unique need within the community. Our study specifically sheds light on the importance of providing childcare services that enable mothers with childcare problems to attend appointments and treatments and to have at least one of their many sources of stress significantly reduced. Given the shortage of appropriate volunteers, childcare services might more efficiently be provided at the cancer centre; however, such services would not preclude the need for an organization such as NAN to relieve some of the childcare burden at home for mothers recovering from treatment-related side effects. It could well be argued that provision of childcare to parents dealing with cancer treatment and recovery should be considered part of the standard of care for patients without alternative supports. That recommendation could well extend to other significant illnesses—such as trauma, mental illness, or organ transplantation—affecting young parents.

The outcomes of our study have also outlined important areas for future research, such as the effect of NAN's volunteers on the mental state and development of children seen during the parent's treatment and recovery, as well as during bereavement.

It is hoped that this article will raise awareness of the NAN program, attract donors, and increase the growth of the volunteer database to permit the expansion of NAN's services. Within the next several years, NAN hopes to provide Nanny Angel services to mothers living in remote areas of Ontario. Recently, NAN developed a 2020 vision for the program, which consists of growing the Network nationally. As of January 2016, efforts have also been made to create a proprietary booking system to streamline service delivery, thus allowing the program to grow systematically. Further, NAN is also currently in the process of devising a new sustainable funding initiative called "Angels Spread Their Wings" so that the organization will never have to turn away any mother in need of childcare.

CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

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REFERENCES

- Laccetti M, Vessey J. School health when a school-age child's parent has cancer. *J Spec Pediatr Nurs* 2007;12:297–9.
- Turner J. Children's and family needs of young women with advanced breast cancer: a review. *Palliat Support Care* 2004;2:55–64.
- Manne S, Ostroff J, Winkel G, Goldstein L, Fox K, Grana G. Posttraumatic growth after breast cancer: patient, partner, and couple perspectives. *Psychosom Med* 2004;66:442–54.
- Campbell-Enns H, Woodgate R. Decision making for mothers with cancer: maintaining the mother-child bond. *Eur J Oncol Nurs* 2013;17:261–8.
- Huang X, Lee S, Hu Y, Gao H, O'Connor M. Talking about maternal breast cancer with young children: a content analysis of text in children's books. *J Pediatric Psychol* 2014;40:609–21.
- Semple CJ, McCance T. Parents' experience of cancer who have young children: a literature review. *Cancer Nurs* 2010;33:110–18.
- Zahlis EH. The child's worries about the mother's breast cancer: sources of distress in school-age children. *Oncol Nurs Forum* 2001;28:1019–25.
- Ali A, Warner E. PYNK: Breast Cancer Program for Young Women. *Curr Oncol* 2013;20:34–9.
- Cohen L, Hamer J, Helwig C, *et al.* Formal evaluation of PYNK: Breast Cancer Program for Young Women—the patient perspective. *Curr Oncol* 2016;23:e102–8.
- Drageset S, Lindstrøm TC, Giske T, Underlid K. "The support I need": women's experiences of social support after having received breast cancer diagnosis and awaiting surgery. *Cancer Nurs* 2012;35:E39–47.
- Chino F, Peppercorn J, Taylor DH Jr, *et al.* Self-reported financial burden and satisfaction with care among patients with cancer. *Oncologist* 2014;19:414–20.
- Zafar SY, Peppercorn JM, Schrag D, *et al.* The financial toxicity of cancer treatment: a pilot study assessing out-of-pocket expenses and the insured cancer patient's experience. *Oncologist* 2013;18:381–90.
- McColl E, Jacoby A, Thomas B, *et al.* Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patients. *Health Technol Assess* 2001;5:1–256.
- Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. *BMJ* 2000;320:114–16.
- Shewbridge A, Wiseman T, Richardson A. Working while receiving chemotherapy: a survey of patients' experiences and factors that influence these. *Eur J Cancer Care (Engl)* 2012;21:117–23.
- Griffin AM, Butow PN, Coates AS, *et al.* On the receiving end. V: Patient perceptions of the side effects of cancer chemotherapy in 1993. *Ann Oncol* 1996;7:189–95.
- Peters-Golden H. Breast cancer: varied perceptions of social support in the illness experience. *Soc Sci Med* 1982;16:483–91.
- Delgado-Guay M, Ferrer J, Rieber AG, *et al.* Financial distress and its associations with physical and emotional symptoms and quality of life among advanced cancer patients. *Oncologist* 2015;20:1092–8.
- Passik SD, Kirsh KL. A pilot examination of the impact of cancer patients' fatigue on their spousal caregivers. *Palliat Support Care* 2005;3:273–9.
- Mehta S, Moore R, Graham N. Potential factors affecting adherence with HIV therapy. *AIDS* 1997;11:1665–70.
- Rashi C, Wittman T, Tsimicalis A, Loiselle C. Balancing illness and parental demands: coping with cancer while raising minor children. *Oncol Nurs Forum* 2015;42:337–44.
- Babybrooke JP, Mimoun S, Zarca D, *et al.* Patients' experiences following breast cancer treatment: and exploratory survey of personal and work experiences of breast cancer patients from three European countries. *Eur J Cancer Care (Engl)* 2015;24:650–61.
- Fisher L, Weihs KL. Can addressing family relationships improve outcomes in chronic disease? Report of the National

- Working Group on Family-Based Interventions in Chronic Disease. *J Fam Pract* 2000;49:561–6.
24. Inhestern L, Haller AC, Wlodarczyk O, Bergelt C. Psychosocial interventions for families with parental cancer and barriers and facilitators to implementation and use—a systematic review. *PloS One* 2016;11:e0156967.
 25. Lewis FM, Zahlis EH, Shands ME, Sinsheimer JA, Hammond MA. The functioning of single women with breast cancer and their school-aged children. *Cancer Pract* 1996;4:15–24.
 26. Weaver KE, Rowland JH, Alfano CM, McNeel TS. Parental cancer and the family: a population-based estimate of the number of US cancer survivors residing with their minor children. *Cancer* 2010;116:4395–401.
 27. Pakenham KI, Bursnall S. Relations between social support, appraisal and coping and both positive and negative outcomes for children of a parent with multiple sclerosis and comparisons with children of healthy parents. *Clin Rehabil* 2006;20:709–23.