Home-Based Reiki by Informal Caregivers

A Mixed-Methods Pilot Study

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This pilot study explored whether Reiki delivered by family caregivers to cancer patients in a home setting was feasible in reducing cancer symptoms and enhancing health-related outcomes. An explanatory sequential mixed-methods study design was applied using pre-/post-Reiki questionnaires and post-Reiki interviews. Six patient-caregiver dyads from an outpatient clinic and cancer support facilities in northeast America performed daily Reiki at home for 3 weeks. Differences with symptoms, mental well-being, health-related quality of life, and satisfaction with at-home Reiki as well as qualitative content analyses were evaluated. Positive feedback was reported after at-home Reiki practice. Large statistical effects were identified for improving fatigue, memory, mood, nausea, and emotional well-being (P < .10, r = 0.51-0.59). All participants were satisfied and 83.3% of them would recommend self-practice home Reiki. High involvement and adherence to the intervention protocol illustrated intervention fidelity. The qualitative data revealed 2 major categories, perceived benefits and barriers. Overall Reiki benefits outweighed barriers in relation to time commitment and place distractions/positioning. Our preliminary findings support that the at-home Reiki protocol had potential benefits and was feasible and acceptable by both community-dwelling patients and their family caregivers in promoting cancer-related outcomes. Further studies with larger samples are warranted to examine the effectiveness of home-based Reiki for a patient-centered cancer care modality. KEY WORDS: cancer symptoms, family caregivers, health-related quality of life, home-based Reiki, mixed-methods design Holist Nurs Pract 2021;000(000):1–13

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INTRODUCTION

Cancer burden is a persistent public health issue worldwide. Cancer-induced burden is not alleviated in parallel with advances in contemporary cancer control. Over the past 2 decades, significant developments in cancer treatment and care have been reflected in recent US epidemiology statistics trending toward attaining cancer-related goals and objectives specified in Healthy People 2020. 1-3 National cancer mortality has been steadily declining, particularly for the most common cancers, including lung, colorectal, breast, and prostate.^{2,4} The decrease in incidence and death rates are accompanied by increased cancer survival due to advancements in treatment modalities for early detection and prevention.^{2,5} According to the American Cancer Society, 4 for all cancers combined and all races in the United States, 5-year relative survival rates improved by 20% from 1975 to 2014. The projected estimate of cancer survivors is predicted to increase from 15.5 million in 2016 to 20.3 million cases by 2026.² Although trends in cancer survival are optimistic, they are not without untoward consequences for patients and their family caregivers.

High symptom burden remains challenging, as patients battle the disease and side effects of cancer treatment therapies. Additionally, cancer-free survivors may experience or suffer from risk of cancer recurrence. 6-11 Van Lancker and colleagues 10 investigated symptoms in hospitalized elderly patients receiving palliative cancer care and reported each participant averaged 14 symptoms. Psychological symptoms were the most intense, such as psychological pain and fatigue, lack of energy, and depression.¹⁰ Higher emotional burden was also evidenced among cancer survivors in comparison with general populations, particularly with symptoms of depression and anxiety. 12-14 As cancer treatments evolve, patients and family caregivers have shifted their focus from patient survival to an increased emphasis on survival with symptom control and quality of life. This change in the manner in which the illness trajectory is viewed and treated exposes a greater need to support patients and their family caregivers, as they journey through cancer diagnosis, illness, treatment and post-disease survival. 6-7,11 Further, family caregivers are impacted by the patient illness journey and may experience deterioration of physical and mental health while caring for their loved ones. Effective symptom management, therefore, is essential and critical for current oncology care to promote a higher quality of long-term cancer survivorship.9,15

Conventional care alone in a real-life oncology journey does not sufficiently address the many stages and types of cancer diseases or the psychological sequela. In recent decades, complementary health care has become a favorable approach in conjunction with conventional treatment worldwide. This approach is used more frequently in the United States than in other countries and is more likely to be implemented to address symptom management, general disease prevention, immune enhancement, lower satisfaction with physicians, and perception of disease severity. 16-19 Using 3-year National Health Interview Survey data, Clarke²⁰ reported that over one-third of American cancer patients (35.3%) used complementary health approaches within the previous year. Among the users of complementary modalities for newly diagnosed cancers, breast cancer patients (43.6%) most frequently used a complementary health approach, followed by those with lung cancer.²⁰ Besides being popularly adapted by individuals with the most common cancer diagnoses, other reasons to

use complementary health approaches vary. A range of modalities focuses on the prevention of untoward symptoms and promotion of relaxation. Often complementary health care is incorporated into palliative and/or hospice care as an integrative care method to manage unpleasant symptoms and enhance health-related quality of life (HRQoL). 21-24 Improving HRQoL and well-being after using a complementary alternative therapy, therefore, is significantly linked with benefits to the patient and family. 25,26

Reiki healing practice is considered an effective complementary health choice to ease the burden of psychological symptoms. It has been used increasingly in western societies, including the United States. Reiki is a noninvasive (no risks and no side effects), nonpharmacological (no harm), and energy-based modality. The practitioner's hands are lightly placed on or above a recipient with the purpose of transferring universal energy to facilitate the recipients' own healing response. 27,28 Simply described, Reiki facilitates exchanging positive energy for negative or low energy to maintain a whole body, mind, and spirit in gentle equilibrium, thereby forming a healing process. ^{27,29} Reiki is a philosophical belief, not a type of religion or medical treatment. It can change, enlighten, and integrate one's attitude and behavior into harmonious alignment with life in health, well-being, and individual wholeness.²⁹ Reiki can be practiced by anyone who is open-minded and interested in learning and accepting this way of healing. Conversely, the effects of Reiki will be limited and not recommended for those who are reluctant or who are unwilling to receive a biofield energy treatment, such as Reiki.²⁸

Reiki is often offered by certified Reiki masters in hospital and clinical settings for cancer patients as a complementary therapy for releasing stress, managing symptoms, and improving patient outcomes. 25,30-34 Nevertheless, its positive effects on patient outcomes remain inconclusive. Therapeutic benefits vary due to lack of rigorous scientific research designs with standardized interventions. Variations of Reiki intensity and practice duration, clear protocols for the training courses, and individual practitioners' qualifications to deliver Reiki can significantly affect the outcomes. ^{24,27,33,35-37} As clinical Reiki is usually provided by institution-affiliated practitioners, therapeutic practice may be provided based on hospital and facility regulations or accessibility, which may or may not meet individuals' needs in seeking effective alternatives. For instance, a short treatment form, 30 minutes or less, is usually performed with

appointments restricted due to limited availability of the master/practitioner, room space, and physician referral. Departing from the practitioner-patient form of the practice, a few studies have involved Reiki self-practice by and for nurses to better understand caring behaviors and reduce work stress. However, the results were not conclusive. 38-40 In a recent study with 81 patient-caregiver dyads, evidence indicated that the physical health of cancer patients was significantly associated with improved emotional well-being and communication behaviors of their spouse, in particular, female caregivers.⁴¹ As symptom burden continues inhibiting long-term cancer survival and relationship/interaction between cancer survivors and their social support, Reiki practice by patients or family members as a self-care skill may have a potential effect but has not been studied. To date, scant empirical evidence supports whether Reiki therapy can be successfully implemented at home as a patient-centered, alternative strategy for cancer self-care. In light of this, Reiki effectiveness outside hospitals or in residential communities is unknown. Specifically, studies are needed to investigate the inclusion of family caregivers in providing regular and daily Reiki therapy for their ill/symptomatic loved ones with cancer; and the extent to which home-based Reiki is effective for symptom remissions.

This pilot study investigated whether a protocol for delivering Reiki through training family caregivers to use with patients in their homes was feasible and beneficial in reducing cancer symptoms and enhancing overall well-being and HRQoL. Intervention fidelity and patient and family caregiver perceptions of at-home Reiki were also explored. Research questions included: (1) Were there differences in patient cancer symptoms after at-home Reiki?; (2) How did patients perceive the efficacy of at-home Reiki in relation to diminished cancer symptoms?; and (3) What were the experiences of family caregivers administering Reiki to patients at home?

METHODS

Design

This pilot study used a mixed-methods explanatory sequential design to determine the feasibility and intervention fidelity of at-home Reiki provided by family caregivers for patients with cancer symptoms. The study applied a quantitative design methodology followed by a secondary qualitative approach.⁴² A quasi-experimental method was employed to ascertain

differences before and after the intervention in a group of patient-caregiver dyads. Qualitative procedures using purposive sampling explored experiences and perspectives among patients and their caregivers who practiced Reiki at home. The total number of qualitative samples obtained from participants represented a range of positive and negative outcomes.

Theoretical research framework

Symptom management theory (SMT) was adapted to illustrate and broaden our understanding of individual experiences following at-home Reiki therapy and the possible impact (adhesive effect) on cancer health outcomes. SMT includes 3 major concepts: symptom experience, symptom management strategies, and outcomes. 43,44 Our study focused on using at-home Reiki therapy, a symptom management strategy, and assessing the impact on the symptom status of cancer patients. Study outcomes pre- and post-Reiki intervention included cancer symptoms, HRQoL, and well-being, as well as experience, perception, and satisfaction with Reiki therapy. We tailored the integrative care approach to the study model by engaging family caregivers as an important component in delivering the intervention protocol to cancer patients. We also evaluated whether or not family caregivers' efforts could influence the relationship between symptom experience and outcomes. Data design included collecting self-reports of individual experiences and perceptions with at-home Reiki to alleviate patients' symptoms, along with self-response to changes in symptom frequency, severity, or clusters or related distress. When symptoms occur progressively, symptom status is negatively affected. 45,46 However, unpleasant symptoms and outcomes can be improved if effective strategies for symptom management are undertaken.

Setting and participants

Study enrollment took place at an outpatient clinic and cancer support facilities in northeast Ohio. Patients at each recruiting site were screened and approached for study participation if they met the eligibility criteria. Eligibility criteria for study enrollment included: (1) 18 years or older; (2) cancer survivor with active, cancer-related symptoms post-treatment; (3) agreed to follow the study protocol to receive the Reiki intervention at home during the study period; (4) had an available adult caregiver 18 years or older willing to attend the training and administer the Reiki

intervention; and (5) understood and communicated in English. Patients were excluded from this pilot if they were: (1) unable to understand or answer the questionnaires; or (2) recipients of hospice care (excluded because of their anticipated high attrition for outcome measures)⁴⁷; and (3) actively involved with another cancer-related research intervention project (to avoid contamination of the study intervention effect). Institutional review board approval by all involved institutions was obtained and maintained throughout the study.

Study recruitment is depicted in the Figure. A total of 91 potential patients were initially screened for the study. The majority (n=74) were not approached due to patients' critical condition or the oncologists' disqualifying them for other reasons. Of the remaining 17 patients approached, 9 were ineligible or not interested and 8 consented. The study eventually included 6 dyads of participants (N=12) who completed the study protocol. The other 2 dyads withdrew from the study early due to personal and health-related issues.

Variable measurement

Baseline demographics for patients and family members were obtained using the Personal Profile

Form created by the investigator. The outcome measures of 4 study variables included cancer-related symptoms, mental well-being, HRQoL, and satisfaction with Reiki. Cancer-related symptoms were evaluated using the M. D. Anderson Symptom Inventory (MDASI). 48,49 A mean score for each of the subset core symptoms (the common 9 of 13 symptoms) of the MDASI was calculated. Established validity, high internal consistency, and treatment sensitivity have been reported ($\alpha = 0.82$ -0.89 for the symptoms measured). 48,49 Patients' mental well-being was assessed using the Emotional Well-Being (EWB) and Distress Thermometer (DT) scales. The EWB, a subscale of Functional Assessment of Cancer Therapy General Scale (FACT-G) with good validity and reliability,⁵⁰ and the DT (NCCN Guidelines version 2.2013)⁵¹ were used to screen patients' degree of perceived distress during the past week. The DT displays a numerical thermometer (0-10) and patients circle a number closest to their levels of distress. The FACT-G7, a rapid index with 7 items from the FACT-G, was used to measure HRQoL. The internal reliability, convergent validity, and known-groups validity were supported. 52,53 Single items from the Functional Assessment of Chronic Illness Therapy-Treatment Satisfaction-General (FACIT-TS-G) scale⁵⁴ were administered to evaluate

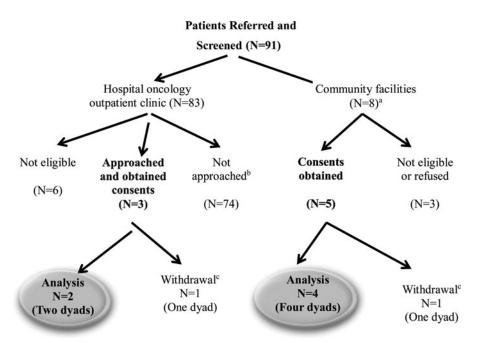


FIGURE. Study participant recruitment flowchart.

^aOf the eight patients referred from community facilities, four were from a private physician office and four from a non-profit cancer support facility.

^bNot approached due to patients' critical condition or oncologists' disqualification.

^cTwo dyads withdrew from the study early due to personal and health issues.

levels of patient/caregiver satisfaction with Reiki by percentage. All instruments are brief and easily self-administered with supported psychometric properties. 48-54

At-home Reiki intervention

The intervention protocol focused on a Reiki practice administered by family members at home for patients with cancer. The premise of the protocol design was to empower patients and caregivers to assist in symptom management using a complementary therapy. Introductory Reiki training sessions were implemented for 3 cohorts of family caregivers based on the availability of each participant and the Reiki educator. Each training session was led by an experienced Reiki educator certified as a level III Reiki master who regularly practiced in an outpatient clinic. Training consisted of a total of 8 hours of practice in two 4-hour sessions with a week in between. The first session focused on performing Reiki on themselves followed by a week of practice at home. The second training session included time for asking questions, providing comments, and sharing their practice journeys, and practicing Reiki on others. The session design was meant to promote an individual caregiver's skill, confidence, and experience prior to administering Reiki to the patient. Upon completing the training sessions, each caregiver became a level I Reiki practitioner, earned the First Reiki Degree certificate, and provided daily Reiki for their loved one at home for the next 3 weeks to build efficacy. This 21-day "purification period" enabled Reiki beginners to more deeply connect their own body with universal energy and strengthen their skills through daily practice.²⁹ Complying with the traditional instructions of full body treatment, 27,29 our study intervention requested Reiki practice at least once per day for 60 minutes, using 12 basic hand placements from head to foot. The required 1-hour practice was flexible and could be broken down to 2 to 3 times a day as individuals' time allowed. Daily Reiki performance (frequency/duration) was recorded on a diary sheet; meanwhile, the study's Reiki educator conducted follow-up calls once per week for 3 weeks during the home intervention as a strategy to track the status, respond to questions, and ensure the consistency of home Reiki delivery, performance, and adherence to the protocol. The intervention protocol was adapted from the 5 fidelity elements of design,

training, delivery, receipt, and enactment to ensure and evaluate the intervention fidelity.⁵⁵

Enrollment and data collection procedures

Potential patients were identified and approached by the research nurse and/or facilitator at the outpatient clinic and cancer support facilities. After the study was introduced, written informed consents were obtained for both patients and their caregivers. Patients and caregivers completed study questionnaires pre- and post-intervention, along with a Reiki satisfaction survey. The home Reiki intervention was provided by caregivers to the study patients immediately after the training courses. At the end of the 3-week intervention, face-to-face interviews were conducted at patient and caregiver homes in the community to gather their feedback and perceived experience regarding the study measures and intervention. Each interview lasted 30 to 60 minutes. depending on the patient's stamina. Interviews were digitally recorded and transcribed verbatim.

Data analyses

Ouantitative data were analyzed using the Statistical Package of the Social Sciences (SPSS), version 24.0. Descriptive statistics (median, interquartile range, and frequency/percentage) were used to present participants' baseline and study variables. Data screening uncovered that statistical normality was not met due to the small sample; thus, Reiki efficacy was calculated by the Wilcoxon signed rank test for detecting paired measurement differences before and after Reiki. Effect sizes (correlation ratio; $r = z/\sqrt{N}$)⁵⁶ were reported for each study variable and interpreted using Cohen's criteria.⁵⁷ In addition, their Reiki's dose (recorded on the diary sheet) was descriptively summarized and compared by subgroup analysis. The statistical significance level was set at <.10 applied to align with the purpose of exploring and gaining preliminary evidence in this pilot feasibility study. For qualitative data, transcripts were organized and examined using content analysis. During the analytic process, written scripts were coded, categorized, and quantified.⁵⁸ Three study researchers analyzed the data individually and jointly until consensus was reached. Additionally, descriptive analysis was performed to summarize daily practice data recorded on each participant's diary sheet.

	Patient	Caregiver
Characteristics	(n = 6)	(n = 6)
Age, mean \pm SD (range), y	71 ± 12 (57-87)	67 ± 9.7 (57-83)
Gender: male	4 (66.7%)	2 (33.0%)
Ethnicity		
Caucasian	3 (50.0%)	3 (50.0%)
African American	3 (50.0%)	3 (50.0%)
Education, mean \pm SD (range), y	$12.4 \pm 3.4 \ (8-18)$	$13.7 \pm 2.3 (12-17)$
Relationship to patients		
Spouse		4 (66.7%)
Significant other		1 (16.0%)
Relative		1 (16.0%)
Employment		
Employed	0	2 (33.3%)
Not employed	2 (33.3%)	1 (16.7%)
Retired	4 (66.7%)	3 (50.0%)
Cancer type		
Lung cancer (stage IV)	5 (83.0%)	
Breast cancer (stage II)	1 (17.0%)	
Health insurance: Medicare	5 (83.0%)	
Previous use of complementary therapies: yes	2 (33.3%)	3 (50.0%)

RESULTS

Sample characteristics

Baseline demographics for the 12 participants (6 dyads) are summarized in Table 1. Most study dyads (83%) were married couples or partners, except one dyad consisting of a nephew caregiver and uncle patient. Compared to their family caregivers, study patients (n = 6) were older males (66.7% vs 33%; mean age: 71 vs 67 years) with a high school education (mean 12.4 vs 13.7 years), and not employed/retired (100% vs 66.7%). All study patients had a diagnosis of cancer, including 5 (83%) with advanced lung cancer and 1 with breast cancer. The interval from the first cancer diagnosis varied from 9 to 60 months. All patients had recently completed or were enrolled in ongoing cancer treatments; 66.7% received at least 2 or more types of cancer therapies. Over one-third of study participants (41.7%; 2 patients and 3 caregivers) had used complementary therapies in their lives previously, including tai chi, massage, and Reiki.

Cancer symptoms and other health-related outcomes

Patients perceived decreased cancer symptoms after the 3-week Reiki intervention (pre-/post-MDASI score [median]: 3.8 vs 1.9, respectively) with the exception of dyspnea (median score: 2.5, see Table 2). Among the core symptoms evaluated in the study, the most commonly reported symptoms were fatigue (50%-83.3%), drowsiness (50%), pain and lack of appetite (33.3%-50%), dyspnea, and sleep disturbance (33.3%). Significant symptoms that improved with a large effect included fatigue, nausea, being upset, and remembering things (r = 0.51-0.59, P = .04-.08). Three symptoms demonstrated moderate improvement in pain, disturbed sleep, and drowsiness (r = 0.31-0.37). Accordingly, the remaining symptoms, dyspnea and lack of appetite, showed a small effect after the intervention (r = 0.12-0.15). However, symptoms with moderate and small effects did not reach a statistical significance (P > .10). Although no change was seen on the median score before and after the intervention, the post-Reiki dyspnea range was narrower than that in pre-Reiki (interquartile range = 8.50 vs 4.75, respectively). Descriptive data indicated that all study patients reported less or no dyspnea post-Reiki in comparison with 66.7% pre-Reiki. The overall subset MDASI core symptoms improved with a medium effect size (r = 0.45) after Reiki but did not reach statistical significance (z = -1.57, P = .12; Table 2).

The study outcome variable of emotional well-being (EWB) significantly improved over time (median score: 19 vs 21.5; z = -2.032, P = .04, r = 0.59) after Reiki at-home practice. Distress level and

	Pre-Reiki	Post-Reiki	Effect Size	
Items	(Median/IQR)	(Median/IQR)	(r)	z ^a /P Value
Cancer symptoms ^b	3.8/2.48	1.9/3.17	0.45	- 1.57/.12
Pain	4.5/3.25	3.0/5.25	0.37	- 1.29/.20
Nausea	2.5/2.50	0.0/1.25	0.51	- 1.76/.08°
Fatigue	7.0/3.00	4.5/4.25	0.59	$-2.03/.04^{\circ}$
Disturbed sleep	2.5/7.50	0.0/6.25	0.33	- 1.16/.25
Being upset	2.5/3.50	0.0/3.00	0.53	- 1.83/.07 ^c
Shortness of breath	2.5/8.50	2.5/4.75	0.15	- 0.53/.60
Remembering things	2.0/1.75	0.5/1.50	0.54	- 1.86/.06
Lack of appetite	2.5/6.50	2.0/4.75	0.12	- 0.41/.68
Drowsy	3.5/7.25	3.0/6.00	0.31	- 1.07/.29
Emotional well-being	19.0/6.75	21.5/ 6.75	0.59	- 2.03/.04
HRQoL	15.0/7.25	16.0/8.00	0.34	- 1.17/.24
Distress thermometer	1.5/8.25	3.0/4.00	0.24	- 0.82/.41

Abbreviations: HRQoL, health-related quality of life; IQR, interquartile range; r, correlation ratio.

HRQoL were also enhanced but not supported statistically (P > .10). A higher median score for distress level was reported post-Reiki versus pre-Reiki (Table 2). However, we have observed that study patients had relatively low distress scores (100% rated in a score range: 0-4) after Reiki in comparison with the baseline (66.7% rated less than the score of 5; range: 0-9; data not provided). Of the FACIT-TS-G evaluation items, participants rated at-home Reiki as effective (67%), satisfactory (100%), and the right treatment for them (100%). Collectively, their overall responses to Reiki practice were positive and reported as good, very good, or excellent by 75% of participants along with strong recommendation for future use (83.3%).

Study intervention fidelity

Intervention fidelity was demonstrated by the summary of the Reiki practice diary logs reflecting daily Reiki practice intensity. There were 110 episodes of daily Reiki practice at home (87.3%; 110/126) over the 3-week study period. Of these practice episodes, 72% (79/110) were performed for at least 45 minutes or more per day (range: 45-105 minutes), as required by the study; and 28% (31/110) were completed for less than 30 minutes a day. Preferred practice patterns included performing Reiki lying down (81.8% vs 18.2% sitting) and implementing Reiki during the afternoon (61% vs 28% AM vs 11% mixed AM/PM).

Patients' experiences after at-home Reiki therapy

Perceived benefits and barriers emerged from the qualitative data describing at-home Reiki.
Participating in Reiki generally yielded positive outcomes for both patients and their family caregivers.
Content analysis further specified perceived benefits into 4 subcategories—psychological, spiritual, physical, and social. Despite these perceived benefits, time and place were 2 extrinsic factors identified as minor barriers to performing Reiki.

Perceived benefits

After 3 weeks of daily Reiki practice, the primary benefits cancer patients perceived were associated with psychological and physical symptoms and functioning, followed by spiritual restoration/ promotion and social support (36.8% vs 29.0% vs 23.7% vs 10.5%, respectively; Table 3). The most common psychological benefit was stress and tension relief. All participants reported at-home Reiki as an effective stress reduction technique. For example, a 60-year-old male patient shared, "for someone like me who knows they are going to die, it relaxes me, you know? We got a lot of tension. I got a lot of tension because of what I'm putting her through." Patients also described a reduction in several negative emotions, including anxiety, depression, and fear. One patient theorized about the relationship between his

^aWilcoxon signed ranks test.

^bCancer symptoms were calculated based on the mean score of the 9 core symptoms in the M.D. Anderson Symptom Inventory. The median value for the present study is provided in this table.

 $^{^{\}circ}$ Statistical significance: P < .10.

TABLE 3. Summary of Major and Subcategories of Participants' Experiences With At-Home Reiki Practice (N = 12)

Major		Total,	Participant, n (%)		
Category	Subcategory	n (%)	Patient	Caregiver	
Perceived	Psychological ^a	15 (39.5)	10 (41.7)	5 (35.7)	
benefits	Spiritual ^b	10 (26.3)	6 (25.0)	4 (28.6)	
	Physical ^c	9 (23.7)	7 (29.2)	2 (14.2)	
	Social ^d	4 (10.5)	1 (4.1)	3 (21.4)	
Perceived	Time	4 (57.1)	3 (75.0)	1 (33.3)	
barriers	Place ^e	3 (42.9)	1 (25.0)	2 (66.6)	

- ^a Psychological benefits included relief of stress/tension, anxiety, depression, and fear.
- ^bSpiritual benefits included feelings of peace, love, and hope.
- °Physical benefits included released pain and improved sleep, nausea discomfort, and walking.
- ^dSocial benefits included family support.
- ^ePerceived barriers in place included environmental distractions and positioning.

negative psychological symptoms and Reiki as a type of energy exchange, stating, "Because ... anxiety and depression are energies and Reiki would release that and then there would be positive feelings there." He viewed Reiki therapy as capable of eliminating negative energy, which in turn made room for positive feelings.

The most frequently perceived physical benefit was pain relief, followed by enhanced quality of sleep, decreased nausea discomfort, and improved mobility in walking. A 60-year-old male patient explained, "I might have had a little pain before she started, but after she was done, I was more relaxed. It eased the pain somewhat." An unforeseen additional reward was experienced by an 87-year-old male, making him believe Reiki was helpful. He reported, "You know that [knee] pain bothered me ... But you know it's just hurting, and I walk a bit now. But, there wasn't anything I could walk before." For others, sleep and nausea were improved. A 73-year-old woman admitted that "... sometimes, I go into a deep sleep when it's over." Another female patient indicated that "... So I didn't have the symptoms so much that I had in chemo, which was the nausea [after receiving Reiki]." Spiritual benefits were most commonly reported as feelings of peace, followed by hope and love. For example, an 82-year-old patient who experienced peace following Reiki practice shared, "I felt that I was releasing peace because that's what I had in my mind." With respect to feelings of hope, a 57-year-old patient said, "Being hopeful is extremely important when you're going through this. Because if

you're not hopeful, things can really spiral out of control quickly. So, it helped to release those energies in you and put positive energies in there. I was much more optimistic going through this." One patient appreciated the social benefit he gained from participating in Reiki. He said, "I think it makes people closer. You know, this is very important. . . . When you're a caregiver, it's hard."

Perceived barriers

Some patients reported time commitment challenges as a barrier to daily practice of Reiki at home. They described finding time to practice Reiki as problematic because, in addition to patient commitment, "the person that does it has to want to do it ... it's time consuming." To manage this barrier, a 57-year-old patient suggested, "Set a specific time every day . . . you really do have to plan ahead It's a commitment to your health [overall commitment to the time, life, health and Reiki]." The other minor barrier a patient perceived was his position while receiving Reiki. He described, "I can't sit up and do it. ... I tried to concentrate, but I can't because I'm sitting up with no chance to move. ... 'Cause I feel if you lay down, at least you can relax and take the Reiki pretty good."

Experiences of family caregivers after at-home Reiki practice

Perceived benefits

Caregivers described physical, psychological, spiritual, and social benefits from delivering Reiki. Psychological benefits were most frequently described (35.7%), consistent with patient experience. Psychological benefits included caregiver reports of "feeling good," "feeling calm," "enjoying it [Reiki]," "enjoying giving it," and "relaxing and helpful." An 87-year-old woman who provided Reiki to her husband for bone pain described how she herself benefitted from Reiki as a provider:

Yes, I ... I enjoy giving it, and ... the way he was receiving it encouraged me, you know, to keep going. ...

If I can get myself in a comfortable position, I feel the same as he does. The relaxation, the warmth . . . I don't know how to explain it. But there's a feeling that goes with it. I don't know if it's because you're meditating while you're doing it, or what does that for us, but it's a good feeling.

Caregivers described the Reiki spiritual benefits (28.6%) as "a good tool of healing myself" to increase levels of peace, love, and hope. The spiritual benefit was best exemplified by a 74-year-old woman who described her Reiki process noted, "A lot of times I say prayers to myself to envision the source for all that is love, all that is good, all that is whole shining on me—shining on us. It's a gentle but all-powerful light bringing healing, comfort, hope, and wellness experiencing the magnificent, powerful God." Another female caregiver shared her thoughts with the study's Reiki educator, saying that "if the only thing it accomplishes at all is to give someone a moment's peace, and a moment's comfort, how can you say it's not worth it." Furthermore, social support was perceived as a benefit (21.4%). A 65-year-old woman appreciated that she could help her loved one in a hopeless situation: "You know it was a plus for me. He's sick and I can't do anything for him. I'm just here twiddling my thumbs. But at least it gave me the option, a chance to do something special for him. You know, I felt like I was accomplishing something." Finally, physical benefits were described by one 64-year-old woman who used Reiki techniques on herself to manage a debilitating headache which she attributed to living with her husband's cancer diagnosis. She described his cancer as "no walk in the park" for either of them. After applying the Reiki practice, she said, "I just quietly sat there ... and it [Reiki] took care of it [pain]. Took the tension, relaxed me, and it helped so much!"

Perceived barriers

Perceived caregiver barriers included place (environmental distractions and positioning) and time commitment. Environmental distractions were most problematic during hospitalizations. A 64-year-old female caregiver said, "Trying to do Reiki in the hospital is a pain in the hiney." Another female caregiver (aged 83) believed that the sitting position was uncomfortable for her husband during Reiki practice, so she suggested conducting Reiki with patients lying down. Time commitment challenges were also identified as a barrier to regular Reiki practice, especially for patients with advanced disease, because "by the time it gets gone that far, Reiki just becomes one more pain in the butt."

Both patient and caregiver participants commented favorably on the use of at-home Reiki and indicated their support for the procedure. In addition to describing the benefits, one caregiver reported that her experience with Reiki "made a believer out of me." Patients' remarks mirrored those of caregivers with comments that Reiki was "highly beneficial," provided "more than expected" results, and "is a part of my lifestyle now."

DISCUSSION

Using a mixed-methods approach, this pilot study aimed to explore and evaluate the feasibility and fidelity of at-home Reiki practice to gain insight on how the intervention protocol could be performed by a family caregiver for their ill loved one. Consistent with the study's quantitative results, experiences and inputs related to daily Reiki benefits and practical barriers were illuminated by the qualitative responses of home-based cancer patients and their family caregivers. Our study substantiated that Reiki provided by newly trained family caregivers in a home setting had similar effects to the treatment performed by other Reiki practitioners in various clinical and community facilities. Family caregivers demonstrated their capability and acceptance to practice Reiki at home with their loved ones. High involvement and adherence to Reiki training and the intervention protocol have therefore illustrated intervention fidelity.

As low energy levels are usually identified in cancer patients, our results support the belief that Reiki is an energy restoration-based therapy that helps increase patient energy as a natural cure. Favorable patterns were noticed in the improvement of the study variables with mostly moderate-to-large intervention effects, although not all were significant. Patients were more likely to perceive diminished cancer symptoms, enhanced well-being, and HRQoL after 3 weeks of at-home Reiki. The greatest effect of Reiki was significantly observed in promoting less fatigue, remembering things, being less upset, improving nausea, and emotional well-being for those suffering from cancer-related symptoms. The promising effect of symptom improvement for cancer patient participants is congruent with other research in which the Reiki intervention was performed by a Reiki master/practitioner. Nevertheless, the effect magnitude has been reported to fluctuate due to variations in the intervention protocols and recipient populations being studied.33,36,59

Our study findings are consistent with previous work. According to Tsang et al⁵⁹ in a study using a crossover trial design, Reiki significantly improved

cancer fatigue with moderate effect (d = 0.56); also, tiredness, anxiety, and pain were reduced after providing a 45-minute therapy for 5 days in an oncology clinic compared to resting alone. Using non-clinical, non-oncology-focused participants, a recent study conducted in a multisite, real-world practice (99 practitioners and 1411 service sessions) reported robust Reiki effects on symptom reduction and improvement of positive and negative affect, with symptoms of tiredness having the largest effect (d=1.01), followed by anxiety, pain, and negative affect (d = 0.86-1.00). Vergo and colleagues³³ retrospectively compared symptom relief by routine hospital healing care with Reiki versus massage therapy among hospitalized cancer and noncancer patients. In this study, Reiki demonstrated a greater improvement in fatigue and anxiety than massage for hospitalized inpatient adults (pre-/posttherapy net changes—fatigue: -40.3% by Reiki vs -31.9% by massage; anxiety: -59.8% by Reiki vs -53.9% by massage, P < .001). Conner and Anandarajah²¹ also confirmed the most common self-report symptom overcome after Reiki therapy was anxiety, following by pain, nausea, agitation, and sleeplessness, using a qualitative methodology. Generally speaking, Reiki effects on cancer symptom reduction have been favorably demonstrated in the literature but remained discordant in common single symptoms. 30,32-34 With the current study, we have gained an understanding that newly trained family caregivers are able to deliver Reiki to others with cumulative therapeutic effect as uniformly demonstrated by an experienced Reiki practitioner/master.

This pilot study did not find significant changes in pain, shortness of breath/dyspnea, drowsiness, and poor appetite. This may be due to the small sample size, lack of a control comparison, and confounding variables in individual home environments, including amount of time to administer daily Reiki. Qualitative data revealed perceived barriers on adherence to perform Reiki such as time constrains and distractions during practice. Moreover, the intervention was delivered by new Reiki practitioners, who may be less confident in performing the study procedure. Even though overall completion of daily at-home Reiki practice (3 weeks) was satisfactory with 87.3% of sessions completed, instances of incomplete adherence to the intervention protocol might have had an impact on its effectiveness and effect sizes.³⁴ Collectively, these factors may have contributed to the reporting of small or nonsignificant results on

outcome variables, which should be considered in planning future interventions.

In addition to perceived barriers, qualitative data were congruent with quantitative symptom results. Clinical efficacy was illustrated by individual experience and perception, as both Reiki recipients and providers articulated a reduction in stress, anxiety, depression, and pain and reported good sleep. For example, Reiki has been authenticated as a hallmark indicator to alleviate pain, stress, and discomfort. ^{21,23,34,36} In our study, pain reduction, as well as distress/stress relief, had nonsignificant, small/moderate effects. In addition to physical and psychological benefits, patient and caregiver participants perceived higher levels of spiritual benefits represented by their feelings of peace, love, and hope. The enhanced spiritual dimensions support Reiki as a spiritual technique that optimizes the ability to balance one's body, mind, and spirit, reduce cancer-related stress, and support wellness. Reiki contributes to transferring universal life force energy into healing the entire body system when possible. 28,29,37 Transference of this kind of energy restores and realigns balance to the whole body in a deeply relaxing state and calms negative body reactions.

Well-being was the only patient health outcome in addition to cancer symptoms to improve significantly in our study. Consistent with previous studies, 30,33,34,36 positive Reiki effects support well-being in oncology patients. It also corresponds to the proposition offered by Miles²⁷ that Reiki as spiritual healing can be used to improve well-being through achieving balance in the entire human system of body, mind, and spirit. Although not significant in this study, there was a higher score for HRQoL post-Reiki compared to pre-Reiki. Likewise, other studies have linked Reiki with increased OoL or cancer HRQoL.^{25,59} Study results supported the main assumption of SMT that symptom experience and health status outcomes, including effective symptom management strategies like Reiki, were used to improve HROoL. Furthermore, the positive effects of caregivers performing Reiki on cancer patients have exceeded the aforementioned benefits for their cancer patients. Qualitative data confirmed that Reiki delivered by caregivers may produce reciprocal benefits for cancer patients and caregivers. That is, daily practice of home Reiki not only generates immediate responses (eg, stress reduction and relaxation) but also leads to meaningful encounters,

which evolve into a cumulative treatment effect. Family caregivers reported observed improvement in alleviation of distress and back pain and reported increased levels of hope, activity, and perceived informal support. Also, the extent to which caregivers experienced the indirect benefit of "healing myself" via performing Reiki everyday led to an increase in their own well-being, rather than engendering extra physical burden. By understanding the therapeutic mechanisms of Reiki and observed outcomes, the reciprocal responses post-Reiki reflected cumulative benefits on both patients and their family caregivers in our study. Clinical nursing practice should consider at-home Reiki, between patients and their family caregivers, as a holistic self-care modality to manage cancer symptoms and treatment side effects. This could be accomplished through referral to resources for Reiki practice. Involving family caregivers strengthens the connections between patients and family members, provides positive outcomes for both, and serves as a beneficial cancer continuum of care in the community.

Lesson learned

One lesson learned during sample identification and recruitment included access to patients. Many potential patients met our eligibility criteria, but their participation was declined by the primary care oncologists and/or the community cancer support facility. Providers inhibited access due to consideration of the highly distressed and fragile status of patients and their family members. Thus, to gain access to patient/family members, it is important to establish a trust relationship with clinicians. It may be necessary to provide a succinct introduction to the intervention procedure and Reiki benefits, particularly in clinical sites where energy modalities are not offered.

Limitations and future implications

Although several symptoms with large effects were identified in this pilot study, our primary focus was on exploring and comprehending treatment feasibility and fidelity; thus, estimate of statistical power was not deemed to be a major concern. 60 An increased significance level of α equal to or less than .10 with small sample size was desirable for the purpose of pilot research. Our study sought to integrate family caregivers as part of the intervention to evaluate

patient outcomes. In fact, family members played an informal caregiver role as surrogate therapists to deliver Reiki techniques at home to their loved ones. Evaluation of at-home Reiki effects on caregivers themselves was limited in the current study. Future research should be designed with the participation of family caregivers in developing protocol measures to provide holistic health care as well as further understand associated interventional benefits and effects (eg, coupled or accrued effect when Reiki is given by a wife to a husband or vice versa and caregiver resilience with delivery of Reiki therapy). Also, study outcome measures were collected and interpreted through self-reported, subjective data. Adding objective measures (eg, physiologic reactions, medication use for pain and depression, and acute care utilization) in future research would validate the at-home Reiki effects and advance scientific evidence among patient recipients and caregiver providers.

To our knowledge, this study generates the first evidence supporting at-home self-delivery of Reiki practice outside of hospitals and facilities by family caregivers to cancer patients. Additional research is needed to further test the at-home protocol to maximize Reiki implementation and effect for practitioners and cancer recipients. Additionally, a power-estimated sample size with a more rigorous intervention protocol is warranted.

CONCLUSION

Given the overall positive study outcomes and notable patient/family caregiver satisfaction with at-home Reiki, our preliminary data support the research feasibility. The at-home Reiki protocol delivered by family members was perceived as beneficial and feasible for assuaging physical and psychological cancer symptoms and improving emotional well-being among community-dwelling patients. Although daily practice was identified as a barrier for a few study participants, on the whole, Reiki benefits outweighed burden in relation to time commitment and positioning for practice. Future studies with larger samples are warranted to validate and maximize the effectiveness of home-based Reiki for an individualized, patient-centered practice toward establishing an optimal protocol for incorporation into holistic practice standards. Additionally, including family members in energy-based complementary, supportive care becomes relevant and exceptionally

important in promoting holistic nursing and cancer care in mainstream, real-world practice.

REFERENCES

- Henley SJ, Ward EM, Scott S, et al. Annual report to the nation on the status of cancer, part I: national cancer statistics. *Cancer*. 2020;126(10): 2225-2249. doi:10.1002/cncr.32802.
- National Cancer Institute. Cancer Statistics. https://www.cancer.gov/ about-cancer/understanding/statistics. Updated April 2018. Accessed March 23, 2020.
- Office of Disease Prevention and Health Promotion. Healthy People 2020: Cancer. https://www.healthypeople.gov/2020/topics-objectives/ topic/cancer. Updated August 2020. Accessed August 30, 2020.
- American Cancer Society. Cancer Facts & Figures 2019. Atlanta, GA: American Cancer Society; 2019.
- Siegel RL, Miller KD, Jemal A. Cancer statistics, 2019. CA Cancer J Clin. 2019;69(1):7-34. doi:10.3322/caac.21551.
- Bevans M, Sternberg E. Caregiving burden, stress, and health effects among family caregivers of adult cancer patients. *JAMA*. 2012;307(4): 398-403. doi:10.1001/jama.2012.29.
- Ma Y, Yang Y, Huang Y, et al. An investigation of symptom burden and quality of life in Chinese chemo-naïve advanced lung cancer patients by using the Instrument-Cloud QOL System. *Lung Cancer*. 2014;84(3): 301-306. doi:10.1016/j.lungcan.2014.01.027.
- Langford DJ, Paul SM, Cooper B, et al. Comparison of subgroups of breast cancer patients on pain and co-occurring symptoms following chemotherapy. Support Care Cancer. 2016;24(2):605-614. doi:10.1007/s00520-015-2819-1.
- Lee K, Oh EG, Kim S, Kim SW. Symptom experiences and healthrelated quality of life among non-small cell lung cancer patients participating in clinical trials. *J Clin Nurs*. 2019;28(11/12):2111-2123. doi:10.1111/jocn.14803.
- Van Lancker A, Beeckman D, Van Den Noortgate N, Verhaeghe S, Van Hecke A. Frequency and intensity of symptoms and treatment interventions in hospitalized older palliative cancer patients: a multicentre cross-sectional study. *J Adv Nurs*. 2017;73(6):1455-1466. doi:10.1111/jan.13230.
- Pembroke M, Bradley J, Nemeth LS. Breast cancer survivors' unmet needs after completion of radiation therapy treatment. *Oncol Nurs Forum.* 2020;47(4):436-445. doi:10.1188/20.ONF.436-445.
- Götze H, Friedrich M, Taubenheim S, Dietz A, Lordick F, Mehnert A. Depression and anxiety in long-term survivors 5 and 10 years after cancer diagnosis. Support Care Cancer. 2020;28(1):211-220. doi:10.1007/s00520-019-04805-1.
- Hawkins NA, Soman A, Buchanan Lunsford N, Leadbetter S, Rodriguez JL. Use of medications for treating anxiety and depression in cancer survivors in the United States. *J Clin Oncol*. 2017;35(1):78-85. doi:10.1200/JCO.2016.67.7690.
- Inhestern L, Beierlein V, Bultmann JC, et al. Anxiety and depression in working-age cancer survivors: a register-based study. *BMC Cancer*. 2017;17(1):347. doi:10.1186/s12885-017-3347-9.
- Von Ah D, Brown CG, Brown SJ, et al. Research agenda of the Oncology Nursing Society: 2019-2022. Oncol Nurs Forum. 2019;46(6):654-669. doi:10.1188/19.ONF.654-669.
- Fouladbakhsh JM, Stommel M. Gender, symptom experience, and use of complementary and alternative medicine practices among cancer survivors in the U.S. cancer population. *Oncol Nurs Forum*. 2010; 37(1):E7-E15. doi:10.1188/10.ONF.E7-E15.
- Molassiotis A, Panteli V, Patiraki E, et al. Complementary and alternative medicine use in lung cancer patients in eight European countries. *Complement Ther Clin Pract.* 2006;12(1):34-39. doi:10.1016/j.ctcp.2005.09.007.

- Wode K, Henriksson R, Sharp L, Stoltenberg A, Nordberg JH. Cancer patients' use of complementary and alternative medicine in Sweden: a cross-sectional study. *BMC Complement Altern Med*. 2019;19(1):62. doi:10.1186/s12906-019-2452-5.
- Lee A, Kuczmarska-Haas A, Macomber MW, Woo K, Freese C, Morris ZS. International survey on the use of complementary and alternative medicines for common toxicities of radiation therapy. *Adv Radiat On*col. 2019;4(1):134-141. doi:10.1016/j.adro.2018.09.012.
- Clarke TC. The use of complementary health approaches among U.S. adults with a recent cancer diagnosis. *J Altern Complement Med.* 2018; 24(2):139-145. doi:10.1089/acm.2016.0182.
- Conner K, Anandarajah G. Reiki for hospice patients and their caregivers: an in-depth qualitative study of experiences and effects on symptoms (S720). *J Pain Symptom Manage*. 2017;53:420-421. doi:10.1016/j.jpainsymman.2016.12.230.
- Henneghan AM, Schnyer RN. Biofield therapies for symptom management in palliative and end-of-life care. Am J Hosp Palliat Care. 2015; 32(1):90-100. doi:10.1177/1049909 113509400.
- Thrane SE, Maurer SH, Ren D, Danford CA, Cohen SM. Reiki therapy for symptom management in children receiving palliative care: a pilot study. *Am J Hosp Palliat Care*. 2017;34(4):373-379. doi:10.1177/1049909116630973.
- Zeng YS, Wang C, Ward KE, Hume AL. Complementary and alternative medicine in hospice and palliative care: a systematic review. *J Pain Symptom Manage*. 2018;56(5):781-794.e4. doi:10.1016/j. jpainsymman.2018.07.016.
- Alarcão Z, Fonseca JRS. The effect of Reiki therapy on quality of life of patients with blood cancer: results from a randomized controlled trial. Eur J Integr Med. 2016;8:239-249. doi:10.1016/j.eujim.2015.12. 003.
- Shirani N, Abdollahimohammad A, Firouzkouhi M, Masinaeinezhad N, Shahraki-Vahed A. The effect of Reiki energy therapy on the severity of pain and quality of life in patients with rheumatoid arthritis: a randomized clinical trial study. *Med Sci.* 2019;23(96):205-210.
- 27. Miles P. Reiki for mind, body, and spirit support of cancer patients. *Adv Mind Body Med.* 2007;22(2):20-26.
- Singg S. Use of Reiki as a biofield therapy: an adjunct to conventional medical care. Clin Case Rep Rev. 2015;1(3):54-60. doi:10.15761/ CCRR.1000121.
- Petter FA. Reiki Fire. New Information About the Origins of the Reiki Power: A Complete Manual. Twin Lakes, WI: Lotus Light;
- Birocco N, Guillame C, Storto S, et al. The effects of Reiki therapy on pain and anxiety in patients attending a day oncology and infusion services unit. *Am J Hosp Palliat Care*. 2012;29(4):290-294. doi:10.1177/1049909111420859.
- Chirico A, D'Aiuto G, Penon A, et al. Self-efficacy for coping with cancer enhances the effect of Reiki treatments during the pre-surgery phase of breast cancer patients. *Anticancer Res.* 2017;37(7):3657-3665. doi:10.21873/anticanres.11736.
- Siegel P, da Motta PM, da Silva LG, Stephan C, Lima CS, de Barros NF. Reiki for cancer patients undergoing chemotherapy in a Brazilian hospital: a pilot study. *Holist Nurs Pract.* 2016;30(3):174-182. doi:10.1097/HNP.0000000000000146.
- 33. Vergo MT, Pinkson BM, Broglio K, Li Z, Tosteson TD. Immediate symptom relief after a first session of massage therapy or Reiki in hospitalized patients: a 5-year clinical experience from a rural academic medical center. *J Altern Complement Med*. 2018;24(8):801-808. doi:10.1089/acm.2017.0409.
- Fleisher KA, Mackenzie ER, Frankel ES, Seluzicki C, Casarett D, Mao JJ. Integrative Reiki for cancer patients a program evaluation. *Integr Cancer Ther*. 2014;13(1):62-67. doi:10.1177/1534735413503547.
- Baldwin AL, Vitale A, Brownell E, Scicinski J, Kearns M, Rand W. The touchstone process: an ongoing critical evaluation of Reiki in the scientific literature. *Holist Nurs Pract*. 2010;24(5):260-276. doi:10.1097/HNP.0b013e3181f1adef.

- Dyer NL, Baldwin AL, Rand WL. A large-scale effectiveness trial of Reiki for physical and psychological health. *J Altern Complement Med*. 2019;25(12):1156-1162. doi:10.1089/acm.2019.0022.
- Vitale A. An integrative review of Reiki touch therapy research. Holist Nurs Pract. 2007;21(4):167-179; quiz 180-181. doi:10.1097/ 01.HNP.0000280927.83506.f6.
- 38. Brathovde A. Teaching nurses Reiki energy therapy for self-care. *Int J Hum Caring*. 2017;21:20-25. doi:10.20467/1091-5710-21.1.20.
- Cuneo CL, Cooper MRC, Drew CS, et al. The effect of Reiki on workrelated stress of the registered nurse. *J Holist Nurs*. 2011;29(1):33-43. doi:10.1177/0898010110377294.
- Plodek JL. The Effects of Daily Usui Ryoho Reiki Self-treatment on the Perceived Stress of Staff Nurses [dissertation]. Oakland, CA: Saybrook University; 2011.
- Reblin M, Otto AK, Ketcher D, Vadaparampil ST, Ellington L, Heyman RE. In-home conversations of couples with advanced cancer: support has its costs. *Psychooncology*. 2020;29(8):1280-1287. doi:10.1002/pon.5416.
- 42. Creswell JW. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 3rd ed. Thousand Oaks, CA: Sage; 2009.
- 43. Larson PJ, Carrieri-Kohlman V, Dodd MJ, et al. A model for symptom management. *J Nurs Scholarsh*. 1994;26:272-276.
- Dodd M, Janson S, Facione N, et al. Advancing the science of symptom management. J Adv Nurs. 2001;33(5):668-676. doi:10.1046/j.1365-648.2001.01697.x.
- Chachaj A, Małyszczak K, Pyszel K, et al. Physical and psychological impairments of women with upper limb lymphedema following breast cancer treatment. *Psychooncology*. 2010;19(3):299-305. doi:10.1002/pon.1573.
- Linder LA. Analysis of the UCSF symptom management theory: implications for pediatric oncology nursing. *J Pediatr Oncol Nurs*. 2010; 27(6):316-324. doi:10.1177/104345 4210368532
- National Hospice and Palliative Care Organization. Facts and Figures. Hospice Care in America. Alexandria, VA: National Hospice and Palliative Care Organization; 2012.
- Cleeland CS, Mendoza TR, Wang XS, et al. Assessing symptom distress in cancer patients: the M. D. Anderson Symptom Inventory. *Cancer*. 2000;89(7):1634-1646. doi:10.1002/1097-0142(20001001)89.
- Sailors MH, Bodurka DC, Gning I, et al. Validating the M. D. Anderson Symptom Inventory (MDASI) for use in patients with

- ovarian cancer. *Gynecol Oncol.* 2013;130(2):323-328. doi:10.1016/j.ygyno.2013.05.009.
- Cella DF, Tulsky DS, Gray G, et al. The Functional Assessment of Cancer Therapy scale: development and validation of the general measure. *J Clin Oncol*. 1993;11(3):570-579. doi:10.1200/JCO.1993.11. 3.570.
- Holland JC, Andersen B, Breitbart WS, et al. Distress Management. J Natl Compr Canc Netw. 2013;11(2). doi:10.6004/jnccn.2013. 0027.
- 52. Yanez B, Pearman T, Lis CG, Beaumont JL, Cella D. The FACT-G7: a rapid version of the Functional Assessment of Cancer Therapy-General (FACT-G) for monitoring symptoms and concerns in oncology practice and research. *Ann Oncol.* 2013;24(4):1073-1078. doi:10.1093/annonc/mds539.
- Mah K, Swami N, Le LW, et al. Validation of the 7-item Functional Assessment of Cancer Therapy-General (FACT-G7) as a short measure of quality of life in patients with advanced cancer. *Cancer*. 2020;126(16): 3750-3757. doi:10.1002/cncr.32981.
- Peipert JD, Beaumont JL, Bode R, Cella D, Garcia SF, Hahn EA. Development and validation of the Functional Assessment of Chronic Illness Therapy Treatment Satisfaction (FACIT TS) measures. *Qual Life Res.* 2014;23(3):815-824. doi:10.1007/s11136-013-0520-8.
- Zauszniewski JA, Bekhet A, Herbell K. Comprehensive evaluation of interventions: eight vital parameters. *Nurse Res.* 2018;26(3):20-25. doi:10.7748/nr.2018.e1603.
- Field A. Discovering Statistics Using IBM SPSS Statistics. Thousand Oaks, CA: Sage; 2018.
- Cohen J. Statistical Power Analysis for the Behavioral Sciences. Hillsdale, NJ: Lawrence Erlbaum Associated; 1988.
- Bengtsson M. How to plan and perform a qualitative study using content analysis. *NursingPlus Open.* 2016;2:8-14. doi:10.1016/j.npls.2016.01.001.
- Tsang KL, Carlson LE, Olson K. Pilot crossover trial of Reiki versus rest for treating cancer-related fatigue. *Integr Cancer Ther*. 2007;6(1): 25-35. doi:10.1177/153473540629 8986.
- Lee EC, Whitehead AL, Jacques RM, Julious SA. The statistical interpretation of pilot trials: should significance thresholds be reconsidered? *BMC Med Res Methodol*. 2014;14(41):1-8. doi:10.1186/1471-2288-14-41.