

# Videoconferenced Yoga Interventions for Cancer Patients and their Caregivers during the COVID-19 Pandemic: A Report from a Clinician's Perspective

Integrative Cancer Therapies  
Volume 20: 1–7  
© The Author(s) 2021  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/15347354211019111  
journals.sagepub.com/home/ict



Stella Snyder, MS<sup>1</sup>, Rosangela F. Silva, MBA<sup>1</sup>, Meagan S. Whisenant, PhD, APRN<sup>2</sup>, and Kathrin Milbury, PhD<sup>1</sup> 

## Abstract

**Background:** The acceptability of videoconferencing delivery of yoga interventions in the advanced cancer setting is relatively unexplored. The current report summarizes the challenges and solutions of the transition from an in-person (ie, face-to-face) to a videoconference intervention delivery approach in response to the Coronavirus Disease pandemic. **Method:** Participants included patient-family caregiver dyads who were enrolled in ongoing yoga trials and 2 certified yoga therapists who delivered the yoga sessions. We summarized their experiences using recordings of the yoga sessions and interventionists' progress notes. **Results:** Out of 7 dyads participating in the parent trial, 1 declined the videoconferenced sessions. Participants were between the ages of 55 and 76 and mostly non-Hispanic White (83%). Patients were mainly male (83%), all had stage III or IV cancer and were undergoing radiotherapy. Caregivers were all female. Despite challenges in the areas of technology, location, and setting, instruction and personal connection, the overall acceptability was high among patients, caregivers, and instructors. Through this transition process, solutions to these challenges were found, which are described here. **Conclusion:** Although in-person interventions are favored by both the study participants and the interventionists, videoconference sessions were deemed acceptable. All participants had the benefit of a previous in-person experience, which was helpful and perhaps necessary for older and advanced cancer patients requiring practice modifications. In a remote setting, the assistance of caregivers seems particularly beneficial to ensure practice safety.

**ClinicalTrials.gov:** NCT03948100; NCT02481349

## Keywords

yoga, videoconference delivery, patient-caregiver dyads, COVID-19, acceptability, cancer, radiotherapy

Submitted April 25, 2020; revised March 30, 2021; accepted May 3, 2021

## Background

The outbreak of the infectious Coronavirus Disease 2019 (COVID-19) was declared a global pandemic in March of 2020 by the World Health Organization and a National State of Emergency for the United States shortly after. Consistent with the Center for Disease Control guidelines for health-care facilities, academic hospitals have prioritized urgent clinic visits and ceased all on-site research activities that involve direct patient contact. In an effort to control the transmission of the virus, routine clinical visits have either been delayed or transitioned to telemedicine delivery. Similarly, in an effort to continue clinical research, the implementation of behavioral interventions including mind-body medicine such as yoga may have also shifted from an

in-person to a videoconference delivery approach. Yet, it is unclear if this mode of intervention delivery is acceptable to study participants as the acceptability of videoconferencing delivery of yoga interventions is surprisingly unexplored in general and particularly in the cancer setting.<sup>1-4</sup>

<sup>1</sup>The University of Texas MD Anderson Cancer Center, Houston, TX, USA

<sup>2</sup>The University of Texas Health Science Center at Houston, Houston, TX, USA

### Corresponding Author:

Kathrin Milbury, Department of Behavioral Science, The University of Texas MD Anderson Cancer Center, 1515 Pressler Street, Houston, TX 77230-1439, USA.

Email: kmilbury@mdanderson.org



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use, reproduction and

distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

To the best of our knowledge, the yoga literature in cancer includes only 2 videoconference studies—one randomized controlled trial (RCT) examining a mindfulness-based cancer recovery program (which includes gentle yoga exercises) in distressed cancer survivors ( $n=32$  in the intervention arm) and 1 proof of concept trial involving 4 breast cancer patients on active treatment.<sup>3,4</sup> While both trials suggest that videoconferencing is acceptable and feasible, important questions remain. For example, is videoconference delivery a suitable option for patients with advanced disease such as stage III or IV cancer and/or those at high risk for severe physical symptoms while undergoing cancer treatment? Moreover, previously published trials explicitly recruited participants to a telemedicine intervention study. It is unclear if videoconferencing is acceptable to those who consented to a face-to-face intervention participation. Lastly, the perspective of the interventionists including their potential barriers and facilitators to effective delivery remain unexplored.

### Current Study

To capture the transition from an in-person (ie, face-to-face) to a videoconference intervention delivery approach in response to the COVID-19 pandemic, the current report summarizes the experiences of the videoconference delivery format of participants who were enrolled in a patient-family caregiver dyadic yoga RCT and 2 interventionists who delivered the yoga sessions. More specifically, the interventionists briefly address the experience of changing in-person yoga sessions to remote delivery including a description of the settings, challenges, opportunities, perceived benefit, and participant feedback.

## Methods

### Participants

The participants described were all enrolled in 1 of 3 ongoing parent randomized controlled trials (RCTs). All 3 trials include patient-family caregiver dyads who are randomized to either a dyadic yoga, a patient-alone yoga or a caregiver-alone yoga program seeking to demonstrate whether a dyadic yoga program is superior to a patient-alone or a caregiver-alone program in regard to feasibility and efficacy. To be eligible for 1 of the 3 ongoing dyadic parent trials, participants have to (1) be diagnosed with a primary cancer undergoing at least 20 fractions of radiotherapy (RT) with or without concurrent chemotherapy; (2) be at least ambulatory and capable of all self-care and out of bed more than 50% of waking hours; and (3) have a family caregiver over the age of 18 who is willing and able to consent. Depending on the parent trial, patients are diagnosed either with a thoracic cancer (ie, non-small cell lung cancer or esophageal

cancer) (NCI R37CA231522; NCT03948100); a head and neck cancer (ACS RSG-18-175-01-PCSM), or a primary brain tumor (NCI R21CA218309; NCT02481349).

### Interventionists

Two female yoga therapists, with Certification of the International Association of Yoga Therapists (C-IAYT) and extensive experience working with cancer patients, delivered the sessions before and during the pandemic.

### Procedures

After the protocol modifications to use videoconferencing were approved by the MD Anderson Cancer Center Institutional Review Board (March 16, 2020), the interventionists informed participants that the delivery format would be changed in response to COVID-19 as a safety precaution. Instructors met with the participants in-person (prior to the hospital-wide onsite research suspension) or via phone to identify the modality (FaceTime or Zoom) and assisted participants in accessing the software as needed. If participants did not own a suitable device, Institutional iPads were offered as a loaner device for the duration of the intervention period. Based on the design of the parent trial, participants were randomized to attend the sessions either together as a dyad or as individuals (ie, patient-only or caregiver-only yoga sessions). All participants were randomized and had started the in-person intervention sessions at the hospital prior to the mandate of ceasing onsite research activities. All sessions were audio and video-recorded (participants' permission was obtained during the informed consent process). After each session, as part of our standard yoga intervention protocol, instructors completed a progress note which includes a checklist to ascertain that each component of the manualized intervention was implemented. These notes also include a description of modifications (if any) and reasons, session duration, setting description, feedback, and any other relevant information. Data from the recordings and progress notes are summarized here. Participants described below completed all sessions between March and April 2020.

### Interventions

While the interventions are tailored to the specific needs of the study population, each intervention follows the 4 basic components including (1) joint loosening with breath synchronization; (2) postures (asanas) followed by relaxation techniques; (3) breath energization (pranayama); and (4) guided imagery/meditation. The dyadic yoga sessions are intended to target the needs of both members of the dyad, with a focus on their interconnectedness so that caregivers are considered co-participants. The interventions

**Table 1.** Participant Characteristics and Yoga Sessions Overview.

Dyad	Patient age	Caregiver age	Cancer type	Dyadic yoga	Location	Videoconference sessions	Platform
A	76	75	Lung	Yes	Hotel, home	5	Zoom
B	66	64	Brain	Yes	Daughter's apartment	6	FaceTime
C	55	49	Lung	Yes	Home	10	Zoom
D	74	46	Esophagus	Yes	Hotel, home	9	FaceTime
E	56	60	Head and neck	Yes	Hotel	8	FaceTime
F	41	64	Brain	No	Apartment rental	1	FaceTime

are described in detail in our pilot trials.<sup>5,6</sup> In all 3 studies, the intervention is delivered concurrently to patients' RT schedules following the same dose (3 sessions per week, 60 minutes each, total of 15 sessions).

## Results

Out of 7 dyads who were participating in the parent trial, 5 dyads were randomized to attend the yoga sessions together (dyadic arm) and 2 dyads were randomized to the caregiver-only (individual) arm. Of those, all 5 dyads in the dyadic arm and 1 caregiver in the individual arm continued the yoga sessions remotely via videoconferencing in response to COVID-19. The other caregiver in the individual arm (female, non-Hispanic White in her mid-50s caring for her husband with a primary brain tumor) refused to continue sessions via videoconference delivery. This participant cited lacking an appropriate off-site space to participate as her reason for not wanting to continue and withdrew from the study. Regarding software, 3 of the dyads used FaceTime (iPhone-specific video communication modality), as they were familiar with the technology from calls with their adult children and grandchildren. The remaining dyads used Zoom, as they either did not use iPhones or would be attending the sessions from different locations, and therefore separate devices (ie, multipoint connection). Zoom is preferred over FaceTime for sessions with multipoint connection, because the interventionist has the ability to mute and unmute participants, to limit background noise and feedback during relaxation and meditation. All participants used their own device. Table 1 summarizes participant characteristics.

### Case Descriptions

Dyad A, a 76-year-old non-Hispanic White male with stage III lung cancer and his spouse, a 75-year-old non-Hispanic White female, learned to use Zoom technology for the transition. All sessions were completed using their personal laptop computer. The patient had several comorbidities including hypertension, diabetes, and moderate chronic kidney disease and was limited in his physical ability, wearing a pacemaker, using a wheelchair, and experienced chronic dyspnea. The caregiver had also diabetes with

hypertension but was less physically limited. All practices were completed from a seated position, including the relaxation components. This dyad had completed 7 in-person sessions and proceeded to participate in 5 Zoom sessions: 4 from a hotel room while the patient finished treatment, and 1 session from home. This dyad cancelled/rescheduled 4 sessions, mostly due to the patient not feeling well.

Dyad B, a 66-year-old non-Hispanic White male with a high-grade primary brain tumor and his spouse, a 64-year-old non-Hispanic white female, purchased a personal iPad device and learned to use FaceTime for the transition. This dyad completed 9 in-person sessions and participated in 6 videoconference sessions (without cancellations) from their daughter's local apartment while the patient finished treatment. The patient had treatment-related limited motor function and was assisted by his caregiver, who suffered from joint pain and high blood pressure.

Dyad C, a 55-year-old Hispanic White female with stage III lung cancer and her sister, a 49-year-old Hispanic White female, also learned to use Zoom for the purpose of the home yoga sessions. Both live in separate locations and joined the Zoom meetings on separate personal cell phones. The patient lives with her husband, adult children, grandchild, and mother-in-law. The caregiver lives with her husband and young children. This dyad had completed 5 in-person sessions, and proceeded to participate in 10 Zoom sessions, all from home, with 1 cancellation.

Dyad D, a 74-year-old non-Hispanic White male with stage IV esophageal cancer and Parkinson's Disease, had started the sessions with his 71-year-old non-Hispanic White wife, but completed them with his 46-year-old daughter as his alternate caregiver because his wife exhibited COVID-19 symptoms, which created anxiety for the patient. This father-daughter dyad used FaceTime for the sessions on his daughter's personal laptop computer. This dyad had completed 4 in-person sessions, before participating in 9 yoga sessions via FaceTime: 6 from a hotel room while the patient finished treatment, and 3 sessions from home. This dyad cancelled/rescheduled 3 sessions.

Dyad E, a 56-year-old non-Hispanic White male with stage III head and neck cancer and his spouse, a 60-year-old non-Hispanic White female, used FaceTime to complete their sessions from their local hotel room while the patient

finished treatment. This dyad had completed 7 sessions in-person, followed by 8 FaceTime yoga sessions with their personal iPad, from their hotel.

Dyad F, consisting of a 64-year-old non-Hispanic White female caregiver and her 41 year-old non-Hispanic White son with a primary brain tumor. The dyad was randomized to the caregiver-only arm of the parent trial so that the caregiver participated individually in the yoga sessions. She had already completed 14 in-person sessions and chose to complete the final session via FaceTime using her personal cell phone in a locally rented apartment while her son finished treatment.

### *Overall Acceptability of Videoconference Delivery*

Overall, participants expressed a preference to see the yoga therapist in-person, but still enjoyed participating in the remote yoga sessions. Any interruptions during the sessions (ie, poor Wi-Fi connection, disruptive noise) were met with understanding and humor from the participants. Participants' feedback was always positive after sessions, with the most common being that the participants simply felt better after practicing yoga.

Some of the participants' feedback was specifically related to COVID-19 issues. The caregiver of Dyad C expressed stress and unease related to COVID-19 and shared that the yoga sessions helped her to remain calm during the pandemic. This dyad preferred to schedule their sessions first thing in the morning, and both women shared that they thoroughly enjoyed starting their day at home with the yoga sessions. Due to the COVID-19 quarantine, Dyad B complained of losing sleep due to neighboring children staying up late and making noise. The patient shared the relaxation and meditation was the only time he could really rest.

Most feedback showed that participants still enjoyed the yoga sessions, even when videoconferenced. The patient in Dyad A repeatedly shared he felt better post-session and stated "I like it better in person, but if we can't have that, this is good, this is nice." The patient in Dyad D and his daughter were enthusiastic for every FaceTime session, and always eager to schedule the next. This patient had to cancel 1 session due to not feeling well and expressed disappointment to be missing his yoga. According to the caregiver in Dyad B, the patient was always looking forward to the sessions, even while using videoconferencing. The patient in Dyad C also shared that videoconferencing the yoga sessions "was still so beneficial, if we couldn't do it any other way, I still would want to do it that way." As mentioned above, the caregiver of Dyad F had already completed 14 in-person sessions. Rather than finishing the program with 14 sessions, the participant chose to complete her final intervention session via FaceTime and still enjoyed the videoconferenced experience.

Some feedback pointed to small benefits of the off-site sessions. The participants in Dyad B requested that the interventionist quietly ends the videoconference session after the final resting pose without formality, so the patient could continue resting. Participants perceived this session closure as a benefit of practicing at home.

### *Technology-Related Issues*

The interventionists reported that encouraging dyads who were less familiar with technology to use Zoom or FaceTime was initially challenging. Dyad A required 4 practice runs to feel semi-comfortable with Zoom on their personal laptop. Dyad C needed an in-person training session (prior to onsite research suspension) to familiarize them with using Zoom on their cell phone. Dyad C had technological issues throughout their videoconferenced sessions, including difficulties with initially connecting and then experiencing frozen images, distorted audio and delays in video and audio transmission. The caregiver in Dyad C was more experienced with Zoom than the patient and offered helpful advice throughout sessions. The patient in Dyad D might have faced potential difficulties, but the caregiver (his daughter) assisted with using FaceTime on her laptop. Dyad E required 1 practice connection with using FaceTime on their iPad.

Although the unfamiliar technology was initially challenging, it seemed to provide all participants with a sense of accomplishment when they were eventually able to access the video calls smoothly. Dyad B initially showed concern about their ability of using videoconference technology, but ultimately managed very well and were proud of their accomplishment of learning a new technological skill. Dyad A was excited to show their adult children that they could use the platform comfortably. This seemed to serve as a method of self-empowerment for the couple in their late 70s, which complements the practice of yoga in its self-empowering principle, as the yoga practitioner serves an active role in his own healing and health.

We have found it helpful to set up at least 1 phone call to assist participants practice using the software. In addition to this practice session, a solution to overcoming technological barriers may be providing participants with a handout that guides them step-by-step through the process with screenshots and communicates frequently experienced problems. Research teams should be prepared to offer basic computer education (eg, adjusting volume, closing windows) to those who are not familiar with the technology.

### *Teaching and Safety-Related Issues*

While the practice of yoga involves breathing practices, gentle movement, awareness, relaxation, and meditation,



verbal processing of participants' experience can also be useful and is considered a common feature of a yoga therapy session. The instructors noted that teaching and facilitating the sessions via videoconferencing made it more difficult to experience a close personal connection with participants. Due to audio breakup, background noise, and difficulty seeing facial expressions, there was less of an opportunity for conversation or the verbal processing of participants' experiences, which also reduced the session duration, by 10 to 15 minutes from the usual full hour.

Throughout the sessions, the interventionists had to increase their voices to be heard, and frequently readjust their device to be viewed in full when changing positions during the joint loosening and postures part of the program. As such, the interventionists felt that instruction via videoconference connection takes an increased amount of effort and energy compared to in-person sessions. We have noted that an external webcam offers higher resolution and better audio quality and allows for easier adjustment of the visual field compared with a standard internal webcam found in laptop/tablets. We are considering providing tablet/laptop stands and/or external webcams to study participants to improve instruction.

Yet, even when using external webcams and adjustable stands, it is difficult to see the participants' entire bodies hindering the instructor's ability to adjust the alignment in certain yoga postures. In such incidents, the dyadic sessions are advantageous as the patient and caregiver can serve as an "extra eye" for the interventionists. For instance, the caregiver in Dyad E placed her hands on the patient's shoulders to keep them still during head and neck movements. In Dyad D, the caregiver helped adjust the patient's knee in the balancing "tree" posture, as well as adjusted his posture in the seated spinal twist posture. For Dyad B, the interventionist guided the caregiver to check the alignment and offer modifications for patient's leg movements and standing postures. Having a partner present for participants with comorbidities, such as Dyad A and B, felt safer to the interventionist than the patient-alone sessions.

As the mind-body interventionists use non-verbal cues such as facial expressions and changes in breath to better understand and navigate the participant's experience, the video connection can create difficulties in picking up on such subtle nonverbal cues of discomfort or enjoyment. To ensure safety when delivering the intervention remotely, the interventionist allowed longer rests in between movement and postures when working with the patient who had chronic dyspnea—a common symptom among lung cancer patients. Additionally, the interventionists continuously reminded all participants to keep a breath rate that felt comfortable to them, as instructors were unable to detect respiratory rate through videoconferencing.

### *Location and Setting-Related Issues*

It was difficult for participants to find a quiet, suitable space for the sessions. The 4 dyads who were not from the local area stayed in hotels or apartments throughout the patient's RT treatment. For these situations, space was a larger issue. Dyad A had to push furniture together to create room and ended up sitting on the edge of a coffee table for their session. This made practices such as guided relaxation difficult, as well as limited joint loosening movements in which arms were extended out to the sides. These movements were modified to arms bent, with forearms perpendicular to the floor. Dyad B modified their practices according to their environment, using kitchen countertops and benches for support in balancing postures, and practiced meditation laying on the sofa. Dyad E was sharing their rented room with their 2 dogs. Sessions were interrupted a few times so that the caregiver could guide the dogs away from their yoga space, allowing the patient an undisturbed experience. However, the dogs barking also disrupted the sessions twice, one of these times during relaxation. Dyad B had a similar issue and shared, "we had the space in the room where we were staying, but the biggest issue was the pets, the dogs bothering us."

When the sessions were done from participants' homes, the issue was finding quiet, private space for sessions. Both the patient and caregiver in Dyad C seemed to have difficulties finding privacy from their husbands, children, and grandchildren. The patient in this dyad shared, "At the hospital, we could turn off lights, it was a quiet space, and it was easy to let go and be in that moment." The yoga interventionists also led sessions from home, due to COVID-19 shelter-in-place orders. Finding a quiet space for the practice was challenging on this end as well, due to family disruptions in shared spaces, and urban noise pollution. It was a less professional setting than accustomed to, but it was responded to with humor and understanding from participants. New technology such as the Krisp noise cancellation application (Krisp.ai) serves as an AI-powered audio filter for video calls that eliminates background noise in real time and may be a solution in future sessions to solve issues of noise pollution during sessions.

Internet connection was sometimes an issue with the videoconferenced sessions. Whether participants were in a hotel setting or at home, occasionally the connection would lead to a frozen screen, interrupted audio, or simply a dropped call. Dyad B said sometimes "the connection would black out, and we could hear her, but couldn't see her." Such interruptions were frustrating to the participants. Yoga therapy is best experienced in a peaceful, calm environment, such frustrations may disrupt full benefits of the session.

Some aspects of using videoconferenced technology made the interventions easier, and increased compliance. Before remote participation, though patients' appointments

were scheduled closely to their radiotherapy appointments for convenience, there was still the small commute from the treatment area to our clinical research space. Reduced travel between buildings was particularly beneficial for Dyads A and B, who both had mobility issues. The caregiver in Dyad B appreciated that she “could wear more comfortable clothes and didn’t have to get dressed up to go to the [clinical] space.” Interventionists also did not have to commute, relieving the stress of driving to and from work during heavily trafficked hours. . Scheduling became easier, as sessions could be scheduled in the evening and on the weekends and had no longer be scheduled based on space availability and medical appointments. If appointments were cancelled, due to not feeling well or unexpected schedule changes, the session was easily rescheduled. The interventionist also had more flexibility in terms of time available for sessions as no physical space restrictions applied.

## Discussion and Summary

With all participants, previous in-person experience seemed both helpful and for some, possibly necessary. For yoga therapy, it is crucial when working with advanced-stage cancer patients to work through the protocol together in-person, for a full assessment of the patient, and to identify needed modifications and adjustments. Caregivers play an important role within the dyads. For 1, when participating from a shared location, they can assist in ensuring safety during the videoconferenced sessions and adjusting patients’ alignment if necessary. If the dyad participated from separate locations, such as Dyad C, the caregiver still served an important role as a source of motivation, and encouraged the patient to get up early to participate in the yoga sessions. The dyadic nature of the program clearly contributed to the feasibility of transitioning to offsite videoconferenced sessions. Given the unique circumstances, participants were able compare their in-person to the videoconference experience, which was not the case in previous studies using videoconference delivery for the entire intervention duration.<sup>3,4</sup> Here, all participants favored the in-person delivery but also identified clear benefits of the video call.

Yet, a possible benefit of remote delivery may be that the patient will find it easier to create a home yoga practice. In the parent studies, the goal for each dyad or individual is to complete 15 sessions throughout patients’ RT. Then, participants are encouraged to practice at home supported by biweekly and monthly “booster” calls from the interventionist. It can be difficult for the patients and caregivers to make this transition, to create routine in a home yoga practice just as they did in the hospital setting. Participants often cite being too busy and not having instructor-led yoga sessions in their regular routine as reasons that they do not continue the practice at home. When participants create a suitable space for, and create a habit of, practicing

yoga from home, it may be easier to keep a regular home yoga practice.

As the number COVID-19 infections decreases, onsite research participation might be slowly transition back to in-person sessions. However, considering the compromised immune function in cancer patients, mind-body interventions will likely continue to be offered through modalities such as videoconferencing applications at our hospital in the foreseeable future. In these interventionists’ experience, although in-person delivery is favored by both the participants and the interventionists, videoconferenced sessions are still preferable to the alternative of ceasing the practice when social distancing guidelines are necessary. This method of delivery may be useful in other situations where patients are unable to attend in person, such as geographical distance, lack of transportation, comorbidities, and high disease and/or treatment-related symptom severity. Moving forward, a “hybrid-delivery” using an initial in-person followed by videoconference delivery may strike an appropriate balance of safety, efficacy, and scalability. As noted by our participants, a yoga practices is still perceived to be beneficial to cancer patients and their caregivers even when delivered through videoconference modalities. As videoconference delivery may become the new norm, future research that focuses on how to effectively and safely teach yoga to clinical populations via remote delivery may be of great value.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: NCI R37CA231522; ACS RSG-18-175-01-PCSM; R21CA218309.

## ORCID iD

Kathrin Milbury  <https://orcid.org/0000-0003-2605-3592>

## References

1. Donesky D, Selman L, McDermott K, Citron T, Howie-Esquivel J. Evaluation of the feasibility of a home-based TeleYoga intervention in participants with both chronic obstructive pulmonary disease and heart failure. *J Altern Complement Med.* 2017;23:713-721.
2. Schulz-Heik RJ, Meyer H, Mahoney L, et al. Results from a clinical yoga program for veterans: yoga via telehealth provides comparable satisfaction and health improvements to in-person yoga. *BMC Complement Altern Med.* 2017; 17:198.
3. Zernicke KA, Campbell TS, Specca M, McCabe-Ruff K, Flowers S, Carlson LE. A randomized wait-list controlled

- trial of feasibility and efficacy of an online mindfulness-based cancer recovery program: the eTherapy for cancer applying mindfulness trial. *Psychosom Med.* 2014;76:257-267.
4. Addington EL, Sohl SJ, Tooze JA, Danhauer SC. Convenient and Live Movement (CALM) for women undergoing breast cancer treatment: challenges and recommendations for internet-based yoga research. *Complement Ther Med.* 2018;37:77-79.
  5. Milbury K, Liao Z, Shannon V, et al. Dyadic yoga program for patients undergoing thoracic radiotherapy and their family caregivers: results of a pilot randomized controlled trial. *Psychooncology.* 2019;28:615-621.
  6. Milbury K, Li J, Weathers SP, et al. Pilot randomized, controlled trial of a dyadic yoga program for glioma patients undergoing radiotherapy and their family caregivers. *Neuro-oncol Pract.* 2019;6:311-320.