

Yoga for Young Adults With Noncurative Cancer: A Brief Report

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Abstract

Background: The practice of yoga has been shown to improve disease- and treatment-related side effects in the noncurative cancer patient.

Objective: This user experience study aimed to examine the feasibility and usefulness of a DVD-based yoga program for young adult cancer patients with a noncurative diagnosis.

Methods: Participants were asked to partake in a 7-week DVD-based yoga program and complete measures of program use and usefulness.

Results: Nine patients expressed study interest and 5 consented to participate. Four completed the full study protocol. Participants reported being satisfied with the program and described that it provided an opportunity for self-care. Improvements in functional, physical, and spiritual well-being and overall quality of life were found. Barriers included competing time demands and feeling unwell. No adverse events were reported.

Conclusion: The program was viewed as an accessible and useful activity option; however, a desire for greater social support from relatable others was highlighted.

Keywords

young adult, noncurative cancer, yoga, quality of life, home-based, feasibility study

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Introduction

A cancer diagnosis at any age can be life-altering, and a noncurative diagnosis brings a resounding change to one's expectations of life forcing adjustment to a life with a shortened end.^{1,2} For young adults (YAs), this can mean not only a loss of an anticipated future but also altered social roles, social isolation, and the loss of a sense of identity, control, and independence.² Physical activity interventions help manage or improve the physical (eg, functional decline) and psychological burdens experienced by the noncurative cancer patient as well as establish routine and foster a sense of normalcy.^{3,4}

Yoga can improve disease- and treatment-related side effects in cancer survivors by addressing physical, psychological, and spiritual needs. Although limited, research supports quality of life benefits in YA childhood cancer survivors⁵ as well as in adult, noncurative

cancer patients.⁶ To date, no study has explicitly explored the potential benefits of yoga for YAs with a noncurative cancer diagnosis. The present study examined the feasibility and perceived usefulness of a 7-week DVD-based yoga intervention in YAs with a noncurative cancer diagnosis.

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Methods

Design

A single-arm feasibility study of a 7-week instructive DVD-based yoga program⁷ was conducted. Pre- and postprogram appraisals included program feasibility and perceived usefulness. Participants were recruited via social media and physician referral. Participants were (a) English speaking, (b) diagnosed with a noncurative (ie, terminal) cancer, (c) between 15 and 39 years, and (d) had oncologist/physician consent to participate. Research ethics board approval and participant consent was obtained before the conduct of any study-related procedures.

Intervention

A DVD-based, instructive yoga program⁷ with progressive weekly sessions was used. Weekly contact was made to track adherence and to discuss strategies to overcome identified barriers to participation. Participants were asked to complete a minimum of one 75-min yoga session per week. Participants unable to complete the full 75-min class in a single bout were encouraged to complete the session over the course of the day, several days, or the week (suggested minimum of 20 min/session). Although the program has been designed to gradually increase in difficulty over a 7-week period, participants were informed that they could choose to complete the level that best fit their needs on any given day.

Measures

Feasibility was ascertained through measures of recruitment (ie, number of individuals who contacted the research team), retention (ie, number of participants who completed all study procedures), adherence (ie, number of full/partial 75-min yoga sessions completed, duration of incomplete sessions, number missed sessions, reasons for missing sessions), and adverse events.

Usefulness was ascertained through measures of quality of life and perceived program satisfaction. Quality of life was assessed using the self-administered Functional Assessment of Cancer Therapy—General questionnaire⁸ and Functional Assessment of Chronic Illness Therapy—Palliative Care and Spiritual Well-Being subscales.^{9,10} Program satisfaction was assessed using 3 exit questions administered by phone within 30 days of completing the program. Participants were asked to shed light on what motivated them to join the study, barriers/facilitators to participation, perceived benefits, and if they would recommend the program to others in a similar situation.

Data Analysis

Descriptive analyses were performed to describe the baseline demographic, medical, and feasibility data. Given the small sample, effect sizes (η^2) are reported and interpreted as small (0.01), medium (0.06), or large (0.14).¹¹ Satisfaction questions were transcribed, and a content analysis was conducted to describe participant motives, barriers, and preferences

Results

Participants ($N=4$) ranged in age from 35 to 38 years of age ($M=35.75$, $SD=1.5$). All participants were female and had breast ($n=3$) or lung cancer ($n=1$). Time since diagnosis ranged from 1 to 5 years. Metastatic sites included the lungs and lymph nodes.

Feasibility

Nine individuals contacted the research team expressing study interest. Of these, 1 did not meet study criteria, 1 declined, and 2 were lost to follow-up. Of the 5 participants who consented (recruitment rate 5 out of 9), 4 completed the full study protocol (retention rate 4 out of 5). The fifth participant was lost to follow-up approximately 3 weeks into the study. Subsequent analyses are limited to the 4 women who completed the full protocol.

Approximately two-thirds of the weekly, 75-min yoga sessions were completed in a single bout (18 out of 28). The reasons reported for shorter durations were not due to the yoga program but rather to distractions within the home (eg, family, pets). All participants exceeded the minimum requested time of 20 min per session ($M=48$ min; range, 35–60 min). Twenty-one of the 28 (ie, 7 weekly sessions \times 4 participants) recommended yoga sessions were completed (75% adherence). Reasons for missing a session included being on vacation, feeling unwell or reporting physical pain, and caregiver responsibilities. No adverse events were reported.

Usefulness

Improvements in functional ($\eta^2=0.78$) and physical well-being ($\eta^2=0.38$), spirituality ($\eta^2=0.77$), palliative specific ($\eta^2=0.62$), and general quality of life ($\eta^2=0.42$) scores were found. During the exit interview, participants described the yoga program as an opportunity to improve their health, discrete from medical interventions. It was viewed as an occasion for self-care and expressed as a time to “do something for me.” Participants highlighted improved range of motion and feeling better as a result of practicing yoga. Although

participants appreciated having a home-based program, they indicated that it was at times difficult to find the motivation to practice yoga on days they were not feeling well. Some were able to overcome this barrier knowing how they would feel afterwards. It was suggested that potentially having reminders, or connecting with others doing the same program, may improve motivation. All participants felt that others in a similar situation would benefit from the program.

Overall, participants enjoyed the flexibility and ease of use the DVD-based yoga. They were able to structure the time and intensity based on how they were feeling on any given day. Upon follow-up, all participants indicated that they were continuing to partake in the program and reap the benefits.

Discussion

The purpose of this study was to examine the feasibility and perceived usefulness of a 7-week DVD-based yoga program for YA noncurative cancer patients. Although recruitment efforts proved challenging, participating YA demonstrated an ability to meet the program demands, with more than 60% of the sessions being completed in a single bout. Moreover, for those participants who were unable to complete the full 75-min session, all were able to complete a minimum of 35 min in a single bout. As competing demands in the home were noted a barrier, future endeavors may implement programming that is shorter in duration.

Preliminary data suggest the potential for meaningful improvements in functional and physical well-being. This is a notable finding as improved functional well-being may permit the YA noncurative cancer patient to more fully participate in their normal daily activities and routines.¹² Consistent with previous research, participants also reported an improved sense of wellness, mental clarity, peace of mind, meaning, and purpose following the yoga sessions.⁶

Although the DVD-based program was viewed as being an accessible and valuable activity option, participants expressed a desire for additional social contact and support from relatable others that they could use as motivation. This could be facilitated by home-based delivery strategies (eg, e-health platforms) that enable supportive social connections.

Limitations

Given the small sample size and lack of randomized design, the results reported are preliminary. Moreover, as all participants reported some previous experience with yoga, there was a risk of a response bias which may limit study generalizability.

Authors' Note

Portions of this manuscript were presented at the Inaugural American Society of Clinical Oncology Survivorship Symposium 2016 in San Francisco, CA, USA.

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Declaration of Conflicting Interests

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References

- Clark JK, Fasciano K. Young adult palliative care: challenges and opportunities. *Am J Hosp Palliat Care*. 2015; 32:101–111.
- Ngwenya N, Kenten C, Jones L, et al. Experiences and preferences for end-of-life care for young adults with cancer and their informal carers: a narrative synthesis. *J Adolesc Young Adult Oncol*. 2017;6:200–212.
- Albrecht TA, Taylor AG. Physical activity in patients with advanced-stage cancer: a systematic review of the literature. *Clin J Oncol Nurs*. 2012;16:293–300.
- Gulde I, Oldervoll LM, Martin C. Palliative cancer patients' experience of physical activity. *J Palliat Care*. 2011;27: 296–302.
- Evans S, Seidman L, Sternlieb B, Casillas J, Zeltzer L, Tsao J. Clinical case report: yoga for fatigue in five young adult survivors of childhood cancer. *J Adolesc Young Adult Oncol*. 2017;6:96–101.
- Carr T, Quinlan E, Robertson S, Duggleby W, Thomas R, Holtslander L. Yoga as palliation in women with advanced cancer: a pilot study. *Int J Palliat Nurs*. 2016;22:111–117.
- Culos-Reed SN. *Yoga for cancer survivors; DVD (Copyright)*. Funded by The Calgary Foundation [DVD]. Calgary, Alberta; 2008.
- 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: 570–579.
- Peterman AH, Fitchett G, Brady MJ, Hernandez L, Cella D. Measuring spiritual well-being in people with cancer: the functional assessment of chronic illness therapy—Spiritual

- Well-being Scale (FACIT-Sp). *Ann Behav Med.* 2002;24: 49–58.
10. Lyons KD, Bakitas M, Hegel MT, Hanscom B, Hull J, Ahles TA. Reliability and validity of the Functional Assessment of Chronic Illness Therapy-Palliative care (FACIT-Pal) scale. *J Pain Symptom Manage.* 2009;37: 23–32.
 11. Cohen J. *Statistical power analysis for the behavioral sciences* 2nd ed. Hillsdale, NJ: Erlbaum, 1988.
 12. Carson JW, Carson KM, Porter LS, Keefe FJ, Shaw H, Miller JM. Yoga for women with metastatic breast cancer: results from a pilot study. *J Pain Symptom Manage.* 2007; 33:331–341.