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COMMENTARY

# Advancing supportive oncology care via collaboration between psycho-oncology and integrative medicine

Elizabeth L. Kacel[1] · Deidre B. Pereira[1] · Irene M. Estores[2]

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## Abstract

**Purpose** As survival after cancer diagnosis increases, patients are increasingly turning toward integrative therapies (e.g., yoga, acupuncture, massage) to manage acute and chronic concerns related to cancer treatment and survivorship. As such, integrative medicine programs devoted to combining conventional Western cancer care with complementary treatments such as yoga, acupuncture, botanicals, and homeopathy are increasingly common in cancer communities around the world. However, few integrative medicine programs have included psycho-oncology providers in order to systematically evaluate and treat psychological and behavioral health factors affecting adjustment to cancer.

**Methods** A pilot program was initiated at a large academic medical center to explore benefits of a collaborative clinic visit conducted with psycho-oncology and integrative medicine within an existing supportive oncology clinic. Collaborative medical and psychological interventions were provided to enhance patient quality of life and reduce symptom burden.

**Results** Forty-nine patients were seen via the dyadic consultation model. Sixty-eight percent of patients rated their emotional distress at or above clinical cutoffs, indicating unmet supportive care needs. The majority of patients seen were White, non-Hispanic, and female.

**Conclusions** Many cancer patients and survivors report persistent emotional distress and chronic physical problems associated with their diagnosis and treatment. The types of patients seen in this pilot program raise concern about ongoing inequalities in access to integrative medicine and psycho-oncology services, which may contribute to downstream health disparities and poorer clinical outcomes. Future directions will explore billing practices, financial sustainability, and methods to increase access to this type of program for demographically diverse individuals across cancer populations.

**Keywords** Psycho-oncology · Supportive oncology · Integrative medicine · Integrative therapies

## Introduction

Cancer survivors are increasingly turning toward integrative medicine to address unmet supportive care needs. A recent meta-analysis found that across 148 published articles worldwide, 40% of cancer patients reported using integrative therapies, with the USA having the highest proportion of use [1]. Integrative medicine combines Western conventional medicine with complementary therapies such as yoga, meditation, acupuncture, botanicals, and homeopathy. The field of integrative medicine emphasizes the provider-patient relationship and the body's natural capacity for healing [2]. Integrative cancer care combines these supportive treatment modalities with conventional antineoplastic interventions.

A systematic analysis of NCI-designated comprehensive cancer centers indicated the number of online resources and on-site services for integrative medicine increased significantly between 2009 and 2016. The most common topics were exercise, acupuncture, meditation, yoga, massage, music therapy, and consultations on dietary supplements and herbs [3]. Following this trend, the non-profit Society for Integrative Oncology, founded in 2003, recently published a working

✉ Deidre B. Pereira
dpereira@phhp.ufl.edu

Elizabeth L. Kacel
ekacel@phhp.ufl.edu

Irene M. Estores
Irene.Estores@medicine.ufl.edu

[1] Clinical and Health Psychology, College of Public Health and Health Professions, University of Florida, Gainesville, FL, USA

[2] Integrative Medicine Program, Division of General Internal Medicine, College of Medicine, University of Florida, Gainesville, FL, USA

definition of Integrative Oncology, which clarifies this growing specialty in cancer care [4].

Among integrative medicine programs at NCI-designated cancer centers, few include a psychologist or psychiatrist, although most offer psychological services in the broader cancer center. This represents a significant opportunity for increased collaboration, given that cancer patients referred to integrative medicine often experience psychological distress in addition to physical problems.

## Integrating psycho-oncology and integrative medicine

We sought to integrate psycho-oncology and integrative medicine services by facilitating collaborative visits with providers from these two specialties from within supportive oncology. These collaborative visits emphasized a shared value of caring for the patient as a "whole person" as well as a biopsychosocial model of health [5] which includes biology, psychology, and sociocultural factors in conceptualizing adjustment to cancer diagnosis. Consider the case of a woman with recent diagnosis of ovarian cancer who endorses symptoms of fatigue, depression, trouble sleeping, and weight gain. Biological influences to consider include surgically induced menopause, chemotherapy-related effects, polypharmacy, and/or new onset of hypothyroidism. Social influences to consider include support network, cultural attitudes toward illness, and access to resources. Psychological factors to explore include psychiatric history, trauma, and recent onset psychopathology.

We pilot tested this collaborative visit model during one supportive oncology clinic per week in the supportive oncology-integrative medicine clinic at our academic medical center in the Southeastern United States. One to five patients (new and return) were seen per session. Visits lasted approximately 60 min. Before meeting with the patient, the psycho-oncology and integrative medicine providers collaboratively conducted a targeted medical record review emphasizing key areas: cancer pathology and treatment, reason for referral, behavioral health (e.g., BMI, substance use, physical activity, sleep, etc), psychiatric history (e.g., current psychological functioning, history of psychiatric treatment), and supportive care needs. Visits were conducted via fluid back-and-forth exchange in which both providers progressively influenced the course of the evaluation and the overall recommendations for the patient. This model was illustrated with the shape of a DNA double-helix in Fig. 1. While the two providers

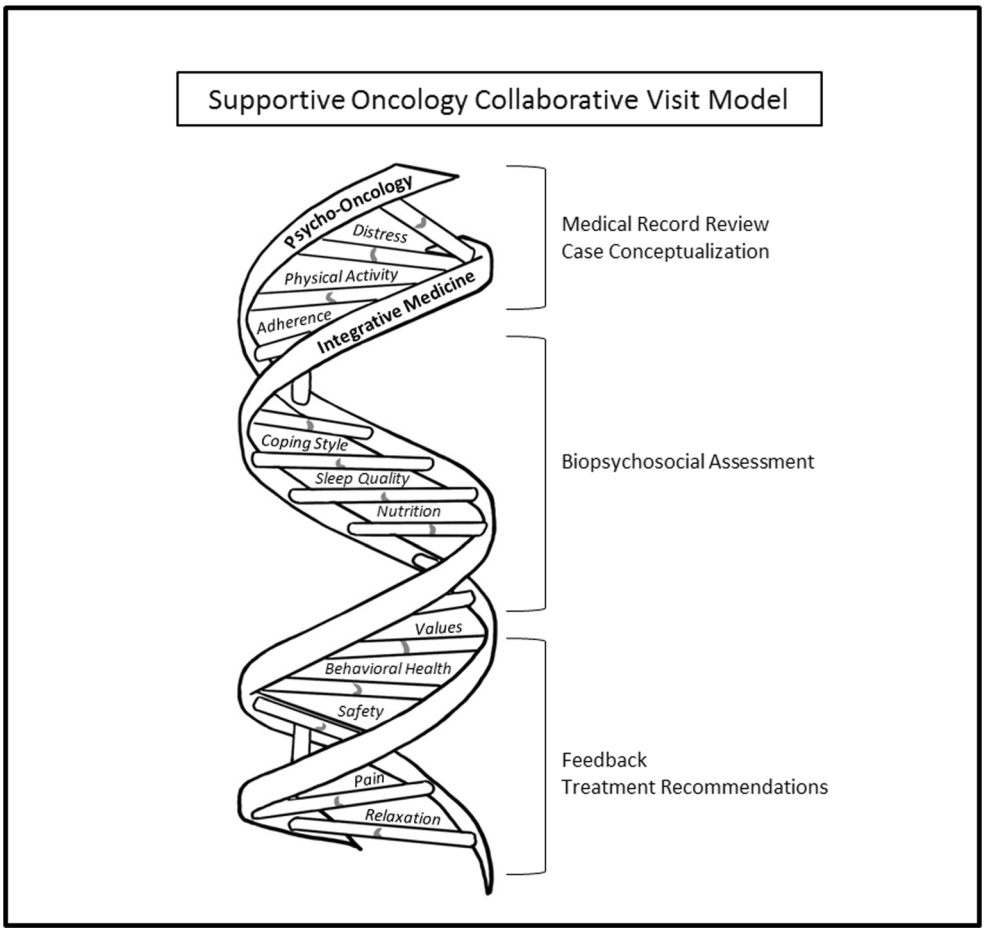


**Fig. 1** Model of collaborative visit with integrative medicine and psycho-oncology. Figure of DNA double helix adapted from U.S. National Library of Medicine, "What is DNA?" at https://ghr.nlm.nih.gov/primer/basics/dna.

represented unique models of health and illness that framed the structure of the visit, shared areas of expertise regarding behavioral health in cancer survivorship were the fundamental foci of the encounter.

Visits began with distress screening or the history and physical exam. When psychological distress was the primary reason for referral, distress screening was completed according to the National Comprehensive Cancer Network guidelines [6, 7]. If physical symptom management was emphasized in the referral, the visit began with the physical exam and history, followed by distress screening. The integrative medicine and psycho-oncology providers were present for each other's portion of the evaluation; information gathered was infused bi-directionally into subsequent recommendations, which were often supplemented by cancer support websites, meditation apps, community organizations, and/or nutritional information. For the purposes of this pilot program, billing was submitted by integrative medicine (under whom visits were formally scheduled); independent billing was not completed by psycho-oncology.

Treatment for the patient described above would focus on depressive symptoms, weight gain, poor sleep quality, and fatigue, both medically and psychologically. First, we would recommend evidence-based psychological treatment such as Cognitive Behavioral Therapy or Acceptance and Commitment Therapy. Next, we might encourage the patient to try mind-body interventions like yoga, meditation, or acupuncture. We would also emphasize lifestyle modifications pertaining to diet, physical activity, and stress management. Conventional medications in addition to herbs, supplements, or essential oils may be recommended. The treatment plan would emphasize patient engagement and adherence to optimize improvements in quality of life.

This model of collaborative care also allows for close monitoring of safety concerns, including substance misuse, suicidal behavior, and/or elder or vulnerable adult abuse. Safety concerns were efficiently communicated to the patient's team (e.g., physician, nurses, and/or social work) via a shared physical workspace in the clinic. While some patients require minimal psychological intervention, many patients' impaired psychological functioning and/or limited psychosocial resources have far-reaching implications for their medical care.

This collaboration was registered as a Quality Improvement Project with the UF Health Sebastian Ferrero Office of Clinical Quality and Patient Safety (ID 646). We completed 49 collaborative visits in 1 year. Distress was evaluated using the National Comprehensive Cancer Network's Distress Thermometer [6]. Sixty-eight percent of the 49 patients rated their distress at or above a clinical cutoff score of 4, indicating unmet biopsychosocial needs. Most patients were White, non-Hispanic, and female, which is consistent with trends at the national level regarding integrative medicine use among cancer patients [8]. These trends raise concern for ongoing inequalities in referrals or access to these services among diverse patients, which may contribute to downstream health disparities, including poorer clinical outcomes.

Formal outcome data regarding symptom management or healthcare utilization was not collected due to the preliminary nature of this initiative. However, several patients reported that, as a result of the visit, they learned more about the mind-body connection and more about psychological services available to cancer patients. A few patients reported that they wish they had known about both integrative medicine and psycho-oncology sooner in their cancer journey. A handful of patients reported limited distress and minimal to no interest in further contact with Psychology. Ideal next steps would be to formally assess the impact of this program on patients' quality of life and/or health care utilization.

As collaborators, we have also initiated integrative research projects, such as an ongoing clinical trial examining feasibility, acceptability, and efficacy of a gentle yoga program for distress in women with gynecologic, gastrointestinal, and thoracic cancers (ClinicalTrials.gov Identifier: NCT03385577).

## Conclusions

Biopsychosocial factors impact the quality of life and clinical outcomes in cancer patients. While the mind-body relationship has long been a focus of Eastern philosophy and medicine, some Western medical providers are slower to accept integrative therapies. However, the benefits of collaboration between integrative medicine and psycho-oncology are increasingly relevant as survivorship periods increase. Future program goals include exploring models of care in which both disciplines may bill for services while also ensuring that we reach patients with diversity in age, sex/gender, race, ethnicity, socioeconomic/insurance status, and cancer site/stage. Through increased education and dissemination of research to key stakeholders, we may expand the reach of integrative therapies to support diverse patient needs across the cancer care continuum.

### Compliance with ethical standards

**Conflict of interest** The authors have no conflicts of interest to disclose.

## References

1. Horneber M, Bueschel G, Dennert G, Less D, Ritter E, Zwahlen M (2012) How many cancer patients use complementary and alternative medicine: a systematic review and meta-analysis. Integr Cancer Ther 11(3):187–203
2. Snyderman R, Weil AT (2002) Integrative medicine: bringing medicine back to its roots. Arch Intern Med 162:395–397

3. Yun H, Sun, Lingyun S, Mao JJ (2017) Growth of Integrative Medicine at leading cancer centers between 2009 and 2016: A systematic analysis of NCI-designated comprehensive cancer center websites. J Natl Cancer Inst Monogr 2017(52):29–32
4. Witt CM, Balneaves LG, Cardoso MJ, Cohen L, Greenlee H, Johnstone P, Kucuk O, Mailman J, Mao JJ (2017) A comprehensive definition for integrative oncology. J Natl Cancer Inst Monogr 2017(52):3–8
5. Engel GL (1977) The need for a new medical model: a challenge for biomedicine. Science 196(4286):129–136
6. National Comprehensive Cancer Network. (2018). NCCN Distress Thermometer and Problem List. Retrieved from: https://www.nccn.org/about/permissions/thermometer.aspx. Access 23 April 2019
7. Rozensky RH, Pereira DB, & Whitehead NE (2016). Health psychology assessment. In J.C. Norcross, G.R. VandenBos, & D.K. Freedheim (Eds.), APA Handbook of Clinical Psychology, Volume III. Clinical Psychology: Applications and Methods. Washington, DC: APA Publishing
8. Clark TC, Black LI, Stussman BJ, Barnes PM, Nahin RL (2015). Trends in the use of complementary health approaches among adults: United States, 2002-2012. National Health Statistics Reports; no 79. Hyattsville, MD: National Center for Health Statistics