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SIO COMMENTARY

Advancing Integrative Oncology: The Society for Integrative Oncology Education Committee's Journey and Vision

Ting Bao, MD, MS,¹ Gabriel Lopez, MD,² Terri Crudup, MBA,³ Ana Maria Lopez, MD,⁴ Channing J. Paller, MD,⁵ Kristina Gowin, MD,⁶ Ashwin Mehta, MD, MPH,⁷ Claudia M. Witt, MD,⁸ Suzanna M. Zick, ND, MPH,⁹ and Lynda G. Balneaves, PhD, RN¹⁰

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The Society for Integrative Oncology (SIO) is an international, multidisciplinary, and interprofessional nonprofit organization whose mission is to “advance evidence-based comprehensive integrative health care to improve the lives of people affected by cancer.”¹ Since its establishment in 2003, SIO has been dedicated to facilitating communication, collaboration, education, and research among practitioners from various disciplines who focus on the care of persons with cancer from prevention, diagnosis, and treatment through survivorship. SIO, as a professional organization, uniquely integrates patients in all aspects of its work.

The use of integrative therapies among persons with cancer has increased significantly,² paralleled by major growth in integrative oncology services at NCI-Designated Comprehensive Cancer Centers from 50% in 2009 to 80% in 2016.² This rise is linked to a substantial increase in integrative medicine research, enhancing our understanding of its role in improving cancer care and outcomes. Despite high utilization and growing

evidence, oncology professionals are ill-prepared to advise persons with cancer on evidence-based integrative therapies. A recent survey conducted by the Multinational Association of Supportive Care in Cancer (MASCC) and SIO with approximately 350 health care professionals (HCPs) found individuals were not referred to integrative medicine practitioners due to HCPs' lack of knowledge of appropriate and safe integrative oncology therapies. Limited knowledge and misconceptions among health care teams can lead to ineffective integrative care delivery, potentially eroding the confidence of persons with cancer if referred to complementary HCPs who fail to offer safe, evidence-based treatments. Lacking professional guidance, individuals may seek integrative therapy information from unreliable sources, risking their health by using ineffective or harmful treatments instead of evidence-based care.

Recognizing the need to educate HCPs in integrative oncology to support high-quality, person-centered care and shared

¹Dana-Farber Cancer Institute Zakim, Center for Integrative Therapies and Healthy Living, Boston, MA, USA.

²University of Texas MD Anderson Cancer Center, Houston, TX, USA.

³Evidation Health, San Mateo, CA, USA.

⁴Sidney Kimmel Cancer Center of Thomas Jefferson University, Philadelphia, PA, USA.

⁵Sidney Kimmel Comprehensive Cancer center, Johns Hopkins University, Baltimore, MD, USA.

⁶Division of Hematology and Oncology, University of Arizona, Tucson, AZ, USA.

⁷Memorial Healthcare System, Broward County, FL, USA.

⁸Institute for Complementary and Integrative Medicine, University Hospital and University of Zurich, Zurich, Switzerland.

⁹Department of Family Medicine and Nutritional Sciences, University of Michigan, Ann Arbor, MI, USA.

¹⁰Rady Faculty of Health Sciences, College of Nursing, University of Manitoba, Winnipeg, Canada.

decision-making, the SIO Executive Committee established the SIO Education Committee in 2021.

The SIO Education Committee's focus has been on leading educational efforts for Society members, developing a framework for integrative oncology education with resources for both HCPs and persons with cancer, providing networking opportunities, and facilitating collaborative educational initiatives among members and related professional organizations. The SIO Education Committee has met monthly since September 2021 and has achieved the following four major accomplishments:

1. Surveyed global integrative oncology education programs and presented the findings at the SIO 2022 annual conference. A total of 19 training programs (14 from North America, 2 from Germany, 2 from Israel and 1 from Korea) responded. Training ranged from 3.5 to 1,000 (median 16.5) hours. The majority ($n = 15$) of the programs provided online only training; four utilized a hybrid learning approach. All training programs used the SIO's definition of integrative oncology; half ($n = 9$) focused on physicians only; and six addressed interprofessional HCPs. The survey helped the SIO Education Committee identify the existing education gap, which includes the lack of a standard integrative oncology textbook and a core training curriculum that correlates with the integrative oncology competencies developed by SIO.³
2. Developed interactive and engaging educational modules with self-assessment tools to accompany the SIO/American Society of Clinical Oncology (ASCO) integrative oncology guidelines for cancer-related pain and cancer-related anxiety and depression.^{4,5} Education plays a crucial role in ensuring that HCPs have the knowledge and skills required to make appropriate referrals and adhere to established guidelines, so people with cancer may receive the care they need. By employing various educational approaches, such as education module development, the committee aims to bridge the knowledge gap and promote the implementation of best practices in healthcare. The education modules for pain, anxiety, and depression management educate the audience about the guidelines themselves, the evidence-base supporting them, and bring the SIO-ASCO guidelines into practical focus by using case-based examples of how integrative therapies such as acupuncture, Tai Chi, yoga, mindfulness-based interventions, and other modalities can be applied in an evidence-informed approach to improve symptoms. Moreover, by incorporating referral tools and patient resources, the education modules empower HCPs to connect persons with cancer with needed support and resources. The modules create a unique and effective approach to dissemination and implementation of the SIO-ASCO guidelines. This innovative feature distinguishes the education modules from other available educational materials and positions them as valuable tools for promoting behavioral change and improving patient care.⁶
3. Initiated a comprehensive integrative oncology textbook project. Two members of the SIO Education Committee, Drs. Zick and Bao are serving as editors of "Comprehensive Integrative Oncology," to be published by Elsevier. Intended to be used by integrative oncology

fellowships and similar educational programs, the textbook may also be a valuable resource for practicing oncology HCPs, people with cancer, and their support persons. The content of the textbook will include evidence-based approaches to specific cancers and symptoms commonly experienced by people with cancer. It will also cover information about frequently used integrative oncology modalities (e.g., acupuncture); special populations (e.g., pediatrics); and overarching issues important to integrative oncology such as practice models and communication strategies. Chapters will also feature concise reviews of the most clinically important information and knowledge checks in the form of review questions.

4. Efforts have also been aimed at raising the profile of integrative oncology at the annual ASCO meeting. Sessions developed by SIO Education Committee members were part of the ASCO 2023 and 2024 annual meetings. Concurrent with these sessions, educational content was created for the 2023 and 2024 ASCO Education Book during these two years. These educational efforts within the larger clinical oncology community are ongoing.

The future direction of the SIO Education Committee will focus on three main areas:

1. Developing an integrative oncology core curriculum and associated supportive material (e.g., integrative oncology interactive modules) to educate all oncology HCPs on the key evidence supporting evidence-based integrative oncology, ultimately helping oncology HCPs obtain integrative oncology board certification. The SIO Education Committee is also creating curricular elements, including the aforementioned integrative oncology textbook mapped to these competencies, and interactive web-based education modules for key topics such as integrative oncology pain management. We are also working towards a consultative model providing advice to oncology professionals on how to implement integrative oncology fellowships and similar programs. Future efforts can include ongoing development of integrative oncology sessions at the ASCO annual meeting and, in partnership with other cancer organizations (e.g., American Society of Hematology [ASH] and MASCC) to explore the development of sessions and educational content relevant to their audience.
2. Addressing the communication gap between persons with cancer and oncology HCPs regarding complementary therapies and empowering individuals to advocate for their needs. Survey data indicates that while many persons with cancer use integrative oncology approaches, they often don't disclose this to their health care team due to fear of judgment or perceived lack of importance.^{7,8} To bridge this gap, the SIO Education Committee will develop educational materials for HCPs to improve their ability to discuss and evaluate complementary therapies. For persons with cancer, we will create resources to encourage self-advocacy and guide conversations with HCPs. Organizations like the National Cancer Institute (NCI) and National Center for Complementary and Integrative Health (NCCIH) have already produced

content to educate both HCPs and patients. SIO education committee will work closely with patients advocates and create more patient centered educational material. Additionally, SIO Education Committee plans to work on a comprehensive database of resources to help address questions about accessing and affording complementary therapies, aiming to improve communication, patient empowerment, and resource availability in integrative oncology.

- Examining our work in integrative oncology education through the lens of diversity, equity, and inclusion, which is critical to supporting implementation of state-of-the-art care for all persons with cancer and their caregivers. The SIO is committed to diversity, equity, and inclusion in integrative oncology. As a global organization, SIO membership reflects diverse backgrounds and perspectives, including patient advocates as active members. The organization has established a Health Equity, Inclusion, and Belonging Committee and engages all committees to advance equity principles. SIO has prioritized supporting a diverse healthcare workforce, recognizing that persons with cancer often receive better care from HCPs who share their background. The SIO has implemented actions to support educational equity, including scholarships for patient advocates and trainees, guidelines for distance learning, and incorporating diverse learning modes and cross-cultural examples in educational materials. These efforts aim to address barriers to access, promote inclusivity, and improve patient care in integrative oncology.

The SIO Education Committee has made significant strides in advancing integrative oncology education and practice. Through developing comprehensive educational modules, initiating a textbook project, and contributing to major oncology conferences, the committee has addressed crucial knowledge gaps among HCPs. Looking ahead, the committee's focus on creating a core curriculum, improving patient-provider communication, and prioritizing diversity, equity, and inclusion in education will be pivotal. These efforts aim to standardize integrative oncology training, empower persons with cancer, and ensure equitable access to evidence-based integrative care. As integrative oncology continues to grow in importance and utilization, the SIO Education Committee's work will play a critical role in shaping the future of cancer care, ultimately improving outcomes and quality of life for all individuals affected by cancer.

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All authors participated in the conceptualization, writing of the original draft, and writing review and editing of the article.

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trial grants from MERCK and AstraZeneca. C.W.: Has received honoraria from Swiss hospitals for scientific presentations on Integrative Oncology. S.Z.: Inventor of and co-holder of the copyright of the mobile apps "MeTime Acupressure" and "MeTime Pain Relief," which are freely available on Google Play and The Apple Store. All other authors have nothing to disclose.

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Address correspondence to:

Ting Bao, MD, MS

Co-Director, Leonard P. Zakim Center for Integrative

Therapies and Healthy Living

Dana-Farber Cancer Institute

Harvard Medical School

450 Brookline Avenue

Boston, MA 02215

USA

E-mail: ting_bao@dfci.harvard.edu