

Integrating Complementary Medicine and Supportive Care: Patients' Perspectives Toward Complementary Medicine and Spirituality

Eran Ben-Arye, MD,^{1,2} Elad Schiff, MD,³ Haya Vintal, MA,⁴ Olga Agour, MSW,^{1,4} Liora Preis,^{1,5}
and Mariana Steiner, MD¹

Abstract

Objectives: The association of spirituality and complementary and alternative medicine (CAM) in oncology is unfolding as a research theme that may have practical implications in supportive care. The purpose of this study was to explore patients' perspectives regarding CAM and spirituality in order to address their needs in an integrative oncology program.

Methods: A 27-item questionnaire was developed that was administered by research assistants to a convenience sample of patients attending a community-based oncology service in northern Israel.

Results: Of the 509 respondents, 302 (67.4%) were undergoing active oncological treatment and 146 (32.6%) were doing follow-up surveillance. Current and/or previous year CAM use for oncology treatment was reported by 244 of 495 respondents (49%). A logistic regression model indicated that CAM use was associated with younger age, Jewish religion, and higher cancer-related spiritual quest [EXP(B)=2.102, 95% confidence interval for EXP(B) 1.236–3.575, $p=0.006$]. Compared with patients with lower spiritual quest, CAM users with higher spiritual quest expressed more expectations of CAM counseling in the following themes: improving daily functioning and coping with disease, lessening chemotherapy side-effects, and supporting the patient and family emotionally and spiritually. In addition, they expected their social worker to be more involved in building the CAM treatment plan compared to patients with average spiritual quest (35.3% versus 16.3%, $p=0.038$).

Conclusions: Higher degree of spiritual quest is associated with increased CAM use, and higher expectations from CAM providers and social workers in the context of CAM integration within cancer care.

Introduction

THE USE OF COMPLEMENTARY and alternative medicine (CAM) among patients attending oncology care is prevalent in different countries and cultures and often exceeds 40% of patients undergoing chemotherapy.^{1,2,3,4} In Pennsylvania, Vapiwala et al. found that initiation of CAM following cancer diagnosis was reported by 54% of respondents.⁵ Crammer et al. examined associations between CAM use and spiritual well-being among 4000 cancer survivors in the United States and found that subscales of Meaning and Faith, as measured by the Functional Assessment of Chronic Illness

Therapy-Spiritual Well-being, were positively associated with CAM use.⁶ Hsiao et al. examined CAM use among cancer survivors in California and found that a high degree of spirituality (but not religiosity) was associated with the use of nonreligious and spiritual CAM modalities.⁷ In contrast, a study of cancer survivors in Pennsylvania revealed no association between CAM use and unmet spiritual needs.⁸ In Israel, Ben-Arye et al. explored spiritual perspectives of patients during chemotherapy and found that although respondents did not associate CAM use with spiritual concerns, they expected their physicians to attend to their spiritual needs.⁹ In this study, the researchers also

¹Integrative Oncology Program, The Oncology Service, Lin Medical Center, Clalit Health Services, Haifa and Western Galilee District, Israel.

²Complementary and Traditional Medicine Unit, Department of Family Medicine, Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel.

³Department of Internal Medicine, Bnai-Zion Hospital, Haifa, Israel.

⁴Social-Work Service, The Oncology Service and Lin Medical Center, Clalit Health Services, Haifa and Western Galilee District, Israel.

⁵B'Ruach, By Spirit-Spiritual Care and Training, Shaare-Zedek Medical Center, Jerusalem, Israel.

found that the patients' health care providers considered spiritual and psychologic needs as major reasons for patients' use of CAM.

The discrepancy between the findings of different studies examining CAM use and spirituality may be related to diverse definitions of spirituality and CAM, culturally dependent indistinction between concepts of spirituality and religiosity, variety of spirituality assessment tools, and in some studies use of too broad a definition of spiritual practices under the CAM umbrella. Another complexity in the study of spirituality and CAM is that certain CAM modalities are defined philosophically as spiritual practices. For example, Anthroposophic medicine is a spiritually oriented systematic practice attempting to improve cancer patients' well-being in emotional, physical, cognitive-spiritual, and social aspects.¹⁰ In this case, the distinction between spirituality and CAM may be complicated, at least, if not artificial.

In 2008, an Integrative Oncology Program (IOP) was implemented within the Clalit Oncology Service (COS) of the Haifa and Western-Galilee district of Clalit Health Organization, the largest Health Maintenance Organization in Israel. The IOP offers a free of charge, research-based service to patients during chemotherapy and in advanced disease state. The service is provided by a multidisciplinary team that includes a family physician, a social worker, occupational therapists, physiotherapists, a nutritional specialist, and a spiritual support therapist. In addition, the COS provides psycho-oncology care via social workers trained in psycho-oncology. Acknowledging the possible inter-relatedness of spirituality and CAM, an attempt was made to explore patients' perspectives regarding these two concepts.

Methods

Study sites and participants

The study was performed using a convenience sample of patients visiting COS of the Haifa and Western-Galilee district of Clalit Health Organization (CHS). CHS is the largest of four health-maintenance organizations in Israel, serving 3,800,000 clients (approximately 60% of the country's population).¹¹ The COS is operated in two ambulatory medical centers in northern Israel and offers oncology treatment (except for radiotherapy) to 1000 new patients per year. The COS is operated as a community-oriented secondary care setting in collaboration with the Carmel Medical Center's oncology services, where urgent hospitalization and surgical procedures take place.

Participation in the study was offered to patients who came to the COS to receive oncology consultation or chemotherapy for active disease or follow-up surveillance. Participants had to be older than 18 years and medically insured by CHS. Prior to initiation, the study was reviewed and approved by the Carmel Medical Center's Helsinki Committee.

Study design

A questionnaire was developed by the authors following a preliminary design phase by the IOP team that included a comprehensive literature review of patients' needs, concerns, and expectations regarding CAM, spirituality, and oncology care. The design phase also included individual semi-structured interviews with 24 patients in different phases of oncology treatment, 22 individual interviews with COS health

care providers (7 oncologists, 7 nurses, 5 social workers, 2 secretaries and one lab technician), 3 focus group discussions with oncologists, social workers, and administrative personnel, 14 individual interviews with other health care providers experienced in cancer care (2 medical directors, 1 palliative care oncologist, 1 gynecologic oncologist, 3 family physicians, 1 nurse, 3 occupational therapists, 2 physiotherapists, 1 clinical dietitian), and 25 CAM-practicing physicians and therapists.

Thereafter, a focus group was used to refine the questionnaire and improve its comprehensibility. The focus group was composed of 5 patients in different phases of cancer treatment. The focus group participants varied in age, sex, education, health status, and CAM use. Based on the focus groups' feedback, the questionnaire was revised, and it was sent for reappraisal to a group of health care providers in oncology care (1 oncologist, 1 oncology nurse, 1 social worker, 1 medical administrator) in addition to 1 family physician, 1 sociologist, and a CAM-practicing physician. Following their comments, the questionnaire was refined accordingly. The final Hebrew version of the questionnaire was translated to Arabic and Russian. Translation accuracy was validated by back translation of the questionnaires to Hebrew.

The authors decided to use a broad and understandable definition of CAM that is commonly accepted in Israel: "Therapies often named alternative, complementary, integrative, natural, or folk/traditional medicine." Added to this definition was a list of CAM modalities (Appendix 1).

The concept of spirituality in relation to cancer treatment was reviewed by a group of 5 health care providers (family and internal medicine physicians, oncologist, social worker, and spiritual consultant) with the aim of finding a simple and culturally accepted definition that would resonate with patients of both religious and secular background. Finally, the concept of spirituality was limited to a spiritual quest defined as "interest in a spiritual (e.g., the meaning of life and its purpose) or religious quest."

The final version of the questionnaire consisted of 11 questions about patients' demographics and 18 questions about patients' use or attitudes toward CAM and spiritual aspects, which included 14 limited-choice questions (yes, no, other, or not relevant), 4 multiple-choice questions, and 11 questions that used a Likert-like scale.

Two (2) research assistants were trained to administer the questionnaire and to present CAM to interviewees as defined in the questionnaire, avoiding the inclusion of natural substances not used for cancer treatment. Patients were given the option of filling out the questionnaire themselves or having the questions read to them with the research assistant recording the answers.

Survey data were entered into a computer database for further analysis.

Data analysis

Data were evaluated using the SPSS software program (version 15; SPSS Inc., Chicago, IL). Pearson χ^2 test and Fisher's exact test were used to detect differences in the prevalence of categorical variables and demographic data between the participants in various groups. Also, a *t*-test was performed to determine any differences in the continuous variables when normality was assumed. In cases of non-normal distribution, the Mann-Whitney *U* test was used. *p*-Values < 0.05 were

regarded as significant. χ^2 tests and multivariable logistic regression were used to assess univariate associations with the odds ratio of CAM use in various populations.

Results

Participation in the study was offered to 607 patients. Data for statistical analysis were obtained from 509 patients (response rate 83.9%). Of the 509 respondents, 258 (57.6%) reported being pre, during, or up to 6 months following chemotherapy, 44 (9.8%) received other oncological treatment, and 146 (32.6%) were in the process of follow-up surveillance. Of the 495 participants reporting use/nonuse of CAM, 244 (49%) reported CAM use within the past year for oncology treatment. The participants' demographic characteristics are shown in Table 1 comparing groups of 244 CAM users and 251 non-CAM users.

There were no significant differences between the two groups for sex, cancer diagnosis (except gynecological cancer), status of active oncology treatment, rates of cancer recurrence, and degree of religiosity.

Associations of spiritual quest in a regression model

The logistic regression model included the following variables: sex, age, education, self-assessed religiosity, self-assessed spiritual quest, and religion (Table 2). Self-assessed spirituality was defined as interest in a spiritual (e.g., the meaning of life and its purpose) or religious quest, and was assessed on a 1 (very low) to 7 (very high) scale. In the regression model, it appears that higher utilization of CAM was associated with younger age [EXP(B)=0.978, 95% confidence interval (CI) for EXP(B) 0.959–0.998, $p=0.031$], higher spiritual quest [EXP(B)=2.102, 95% CI for EXP(B) 1.236–3.575, $p=0.006$], and Jewish religion [EXP(B)=3.118, 95% CI for EXP(B) 1.39–6.96, $p=0.006$].

Following this analysis, the association between higher spiritual quest (regarded as grades 5–7 on a 7-point scale) and demographic features was studied. Compared with lower spiritual quest (grades 1–3 on the 7-point scale), higher spiritual quest was significantly associated with younger age ($p=0.003$) and being born in Israel ($p<0.0001$). Next, a multivariable logistic regression was performed, which suggested

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Characteristic	Total no. respondents (%) n=509	No. CAM users ^a (%) n=244	No. non-CAM users ^a (%) n=251	p-Value
Sex, ^b male:female (%)	121:366 (24.8:75.2)	55:182 (23.2:76.8)	60:179 (25.1:74.9)	NS
Mean age in years \pm SD (median)	63.8 \pm 12.2 (64)	61.8 \pm 12.12 (62)	65.3 \pm 12.13 (67)	$p=0.002$
Education: ^b				
Elementary school	58 (12%)	19 (8%)	39 (17%)	$p=0.007$
High school	137 (30%)	63 (28%)	71 (32%)	NS
Academic	267 (58%)	143 (72%)	116 (51%)	$p=0.01$
Religion: ^b				
Jewish	426 (88%)	213 (92%)	202 (84%)	$p=0.038$
Muslim	26 (5%)	8 (3%)	17 (7%)	NS
Christian	13 (3%)	5 (2%)	8 (3%)	NS
Druze	13 (3%)	4 (2%)	9 (4%)	NS
Other	6 (1%)	2 (3%)	4 (2%)	NS
Self-assessed religiosity ^b				
Secular	279 (58.6%)	142 (60.7%)	127 (55%)	NS
Traditional	154 (32.4%)	69 (29.5%)	84 (36.4%)	NS
Religious	35 (7.4%)	18 (7.7%)	17 (7.4%)	NS
Ultrareligious	8 (1.6%)	5 (2.1%)	3 (1.3%)	NS
Phase of treatment ^b				
Pre, during, or up to 6 months following chemotherapy	258 (57.6%)	136 (62.1%)	118 (53.9%)	NS
Follow-up surveillance	146 (32.6%)	57 (26%)	83 (37.9%)	$p=0.01$
Other cancer treatments	44 (9.8%)	26 (11.9%)	18 (8.2%)	NS
Cancer recurrence	100 of 379 reported (26.4%)	53 (28.5%)	47 (25.5%)	NS
Leading cancer sites ^b				
Breast	166 (40.9%)	73 (37.4%)	93 (45.8%)	NS
Gyneco-oncology	85 (20.9%)	52 (26.7%)	31 (15.3%)	$p=0.0065$
Gastrointestinal	56 (13.8%)	23 (11.8%)	32 (15.8%)	NS
Prostate	44 (10.8%)	22 (11.3%)	19 (9.4%)	NS
Lung	18 (4.4%)	8 (4.1%)	10 (4.9%)	NS
Other sites	36 (8.9%)	17 (8.7%)	18 (8.9%)	NS

Data analysis was performed by *t*-test, Fisher's exact test, and Pearson χ^2 test.

^aComplementary and alternative medicine (CAM) use is limited to treatments and/or supplements used in cancer context.

^bData are limited to the number of respondents who reported this information.

NS, nonsignificant; SD, standard deviation.

TABLE 2. LOGISTIC REGRESSION MODEL TO ASSESS MULTIVARIATE ASSOCIATIONS WITH ODDS RATIO OF CAM USE IN THE STUDY POPULATION

Variables	B	Significance	Exp(B)	95.0% CI for EXP(B)	
				Lower	Upper
Sex (male)	0.18	0.50	1.196	0.71	2.02
Age	-0.022	0.031	0.978	0.959	0.998
Education					
Elementary	-0.456	0.233	0.634	0.3	1.34
High school	-0.181	0.468	0.835	0.512	1.36
Religiosity					
Secular	-0.41	0.38	0.66	0.266	1.66
Traditional	-0.72	0.13	0.49	0.19	1.22
Spirituality ^a		0.023			
Average	2.32	0.448	1.262	0.692	2.299
High	0.743	0.006	2.102	1.236	3.575
Religion (Jewish)	1.13	0.006	3.118	1.39	6.96

^aSpiritual quest was defined in the questionnaire as interest in a spiritual (e.g., the meaning of life and its purpose) or religious quest and is assessed on a 1 (very low) to 7 (very high) scales. In this table, attitudes of average and high spiritual quest were compared to attitudes of interviewees with low spiritual quest.

CAM, complementary and alternative medicine; CI, confidence interval.

that higher spiritual quest was associated with non-Jewish religion [EXP(B)=4.571, 95% CI for EXP(B) 1.173–17.814, $p=0.029$] and birth in Israel [EXP(B)=2.962, 95% CI for EXP(B) 1.527–5.744, $p=0.001$]. The interpretation of this regression analysis should be cautious due to the small number of non-Jewish respondents.

Expectations of CAM users from CAM consultation in the oncology department

Table 3 illustrates CAM users' perspectives concerning their main expectations of CAM consultation and treatment

if these were to be integrated within the oncology department. In the table, responses are compared according to the level of spiritual quest. On a 1–7-point scale, 1–3 points were considered low spiritual quest (corresponding to very low, low, or quite low respectively), while 4 was considered average and 5–7 a high spiritual quest (corresponding to quite high, high, or very high respectively). The following expectations were associated with higher self-rated spiritual quest: strengthening the patient's general ability to cope with the disease ($p=0.001$, $r=0.24$); reducing the side-effects of chemotherapy ($p=0.008$, $r=0.23$); supporting the patient emotionally ($p<0.001$, $r=0.24$) and spiritually ($p=0.001$, $r=0.35$);

TABLE 3. COMPARISON OF CAM USERS WITH HIGH VERSUS LOW SELF-ASSESSED SPIRITUAL QUEST OF COMPLEMENTARY MEDICINE CONSULTATION AND TREATMENT INTEGRATED IN THE ONCOLOGY DEPARTMENT (SPIRITUAL QUEST WAS ASSESSED ON A 1 [VERY LOW] TO 7 [VERY HIGH] SCALE)

Expectation of integrative oncology consultation	No. respondents with low self-rated spiritual quest (n=102)	No. respondents with average self-rated spiritual quest (n=37)	No. respondents with high self-rated spiritual quest (n=72)	p-Value
To strengthen the patient's general ability to cope with the disease ^a	5.74 ± 1.27 (6)	6.14 ± 0.91 (6)	6.35 ± 0.81 (7)	$p=0.001^b$ $r=0.24^c$
To reduce the side-effects of chemotherapy	5.85 ± 1.36 (6)	5.87 ± 1.20 (6)	6.45 ± 0.95 (7)	$p=0.008^b$ $r=0.23^c$
To support the patient emotionally	5.47 ± 1.57 (6)	5.68 ± 1.32 (6)	6.21 ± 1.18 (7)	$p<0.001^b$ $r=0.24^c$
To support the patient spiritually	4.54 ± 1.96 (5)	5.42 ± 1.52 (6)	5.81 ± 1.47 (6)	$p=0.001^b$ $p=0.048^d$ $r=0.35^c$
To support the patient's family	4.60 ± 1.88 (5)	5.06 ± 1.50 (5)	5.65 ± 1.53 (6)	$p=0.001^b$ $r=0.29^c$
To cure the disease completely	3.97 ± 2.16 (4)	4.97 ± 1.98 (5)	5.51 ± 1.74 (6)	$p=0.001^b$ $r=0.34^c$

^aData are presented in mean ± standard deviation (median).

^bComparison between low versus high self-rated spiritual quest by analysis of variance with *post hoc* test (Bonferroni).

^cCorrelation between self-rated spiritual quest and specific expectation by Spearman ρ correlation.

^dComparison of groups with low versus medium self-rated spiritual quest by analysis of variance with *post hoc* test (Bonferroni).

supporting the patient's family ($p=0.001$, $r=0.29$); and curing the disease completely ($p=0.001$, $r=0.34$).

Expectations of the oncology social worker regarding integrating CAM

The study participants were asked of their expectations of the oncology staff members regarding establishment of a complementary medicine clinic integrated within the oncology service. Table 4 summarizes perspectives of 235 of the 509 respondents who reported their expectations of the oncology social workers regarding CAM integration. Analysis of the responses revealed that patients rating their spiritual quest as high were more inclined to expect their social worker to participate in building the CAM treatment plan, compared to patients with average spiritual quest (35.3% versus 16.3%, $p=0.038$).

Discussion

During the last 2 decades, the context of CAM in the arena of cancer care has evolved from *alternative* (opposition to conventional care) to *complementary* (side by side and pluralistic view) and progressed to a third level of an *integrative* paradigm, where CAM is integrated within the supportive oncology care and CAM practitioners are added to the health care providers' team. This integration is not theoretical but extremely practical and can pose considerable uncertainty: Is CAM supportive care different from other palliative and psycho-oncology approaches? Might CAM providers overlap with the daily work of social workers and psychologists in the oncology department? Should mind-body modalities (e.g., guided imagery, breathing exercises, and meditation) practiced by some CAM practitioners and psycho-oncologists be tagged as "CAM", "psycho-oncology" or be perceived as a bridge between the multifaceted integrative supportive care? How do patients perceive this integration and what are their expectations of CAM providers? Do patients expect their psycho-oncologist to be actively involved in CAM referral or in CAM treatment plan construction?

In this sample of patients, the prevalence of 49% cancer-related CAM use and its association with young age resembles data reported in previous studies.⁹ This study, however, adds to existing literature the novel finding that

CAM use is associated with the patient's spiritual quest. The concept of "spiritual quest" that was used to assess spiritual dimensions is a potential limitation of this study. Indeed, definitions of spirituality and spiritual well-being are varied and subject to considerable cultural and religious influences. Muldoon and King defined spirituality as "the way in which people understand their life in view of their ultimate meaning and value."¹² Other scholars may argue that a change in the patient's cancer diagnosis-related outlook is not necessarily "a sense of meaning and purpose in life, faith, and comfort with existential concerns" as defined by McClain et al.¹³ Vespa et al. viewed spirituality in terms of interpersonal, transpersonal, and intrapsychic processes and concluded that the presence of a spiritual dimension may be indicative of patients with good adjustment to cancer treatment.¹⁴ In Israel, Paltiel and her colleagues studied 1027 patients attending hematology or oncology facilities in Israel and found a correlation between recent CAM use and a change in their outlook or beliefs since the diagnosis of cancer.¹⁵ This change in outlook may be interpreted in a spiritual context and may be also related to Henderson and Donatelle's suggestion that perceptions of control over the cause and the course of cancer are related to higher CAM use in patients diagnosed with breast cancer.¹⁶ On the basis of these interpretations of spirituality, a question was used in our study to focus on the extent to which patients are "interested in a spiritual (e.g., the meaning of life and its purpose) or religious quest." The authors estimated that this question suited the rich spectrum of sociocultural perspectives of patients in Israel in regard to religion and religiosity. It was also presumed that secular patients could relate to this question by avoiding tagging spiritual quest as a religious-related theme. Nevertheless, spiritual quest, as defined in this study, may represent only one component of spirituality and should be cautiously generalized to other societies. Thus, the phrasing of the question used to assess spirituality needs further validation of its reliability and reproducibility in further studies. Another important limitation of spiritual assessment is the hypothetical overlap between searching for purpose in life following cancer diagnosis versus an active coping process that may involve "meaning" and "purpose." It is suggested that further studies are warranted to better understand the "passive" gesture of "being" versus the more

TABLE 4. COMPARISON OF RESPONDENTS WITH LOW VERSUS AVERAGE AND HIGH SELF-ASSESSED SPIRITUAL QUEST OF THEIR EXPECTATIONS OF THE ONCOLOGY SOCIAL WORKER REGARDING COMPLEMENTARY MEDICINE TREATMENT

<i>Expectation of the oncology social worker regarding CAM</i>	<i>No. respondents</i>			<i>p-Value</i>
	<i>No. respondents with low self-rated spiritual quest (n=107)</i>	<i>with average self-rated spiritual quest (n=43)</i>	<i>No. respondents with high self-rated spiritual quest (n=85)</i>	
To refer me to CAM treatment	40/107 (37.4%)	17/43 (39.5%)	36/85 (42.4%)	$p=0.78$
To participate in building the CAM treatment plan	34/107 (31.8%)	7/43 (16.3%)	30/85 (35.3%)	$p=0.07^*$
To be updated with the CAM treatment results	38/107 (35.5%)	20/43 (46.5%)	32/85 (37.6%)	$p=0.45$

*Further analysis using Fisher's exact test was performed between patients with low versus average spiritual quest ($p=0.06$) and between patients with average versus high spiritual quest ($p=0.038$).

CAM, complementary and alternative medicine.

active “doing” by patients experiencing cancer diagnosis and treatment. Also, in this study the authors did not compare between the status of religiosity and spirituality of patients before and after cancer diagnosis. This limitation can be taken into consideration in future studies.

Another significant finding in our study is that spiritual quest is not only associated with CAM use but also influences CAM users’ expectations regarding integrative oncology consultation. In general, a higher degree of spiritual quest was associated with higher expectations from the CAM provider consultation. These higher expectations included aspects that are closely related with the psycho-oncologist’s realm of activity: supporting the patient emotionally and spiritually, reinforcing coping with disease, and supporting the patient’s family. While some of the patients’ expectations may be interpreted as overlapping with the psycho-oncologist’s role and activity, patients also express considerable interest in the social worker’s involvement with regard to CAM integration within the oncology service. The degree of social worker involvement varies on a passive-to-active scale starting from relative passivity (to be updated with CAM results) to more active behavior (referring the patient to CAM) and a higher degree of activity (participating in building the CAM treatment plan of involvement). Interestingly, the higher degree of activity is significantly related to patients rating their spiritual quest as high compared to patients with average spiritual quest.

The association of CAM and psycho-oncology domains has previously been established by social workers and psycho-oncologists who studied CAM modalities that included healing by gentle touch,¹⁷ body–mind–spirit interventions,¹⁸ hypnosis,¹⁹ music therapy,²⁰ Chinese herbal medicine,²¹ and acupressure.²² CAM and psycho-oncology also share a holistic patient-centered approach that includes a spiritual dimension. The commonality of these two domains is particularly noticeable in psychotherapeutic schools that emphasize the spiritual realm, such as Jungian-based transpersonal psychology.²³ It is suggested that the shared prospects of psycho-oncology and CAM may inform findings of patients’ expectations regarding social workers’ involvement in CAM integration. It is further suggested that patients in this sample support collaboration of CAM providers and social workers. Such collaboration may be limited to the *update* level or extended to *referral* and shared treatment plan construction. A higher level of collaboration may also be achieved by social workers who have had dual training in psycho-oncology and CAM (e.g., psycho-oncologist trained in guided imagery and Reiki). Dual-trained social workers joining multidisciplinary teams of CAM providers and supportive care specialists may enrich the therapeutic psycho-oncology spectrum by combining psychotherapy and less-verbal CAM modalities (e.g., breathing and relaxation techniques) directed at patients reluctant to receive conventional psychologic modalities.

Conclusions

This study has substantial limitations in addition to the theme of “spiritual quest” discussed above: relatively small sample size and possible cultural and religious limitations in interpreting CAM and spirituality among Jewish and Arab participants. The concept of “integrative” medicine was not intuitively coherent to all of the participants and needed

further explanation. In addition, possible selection bias may have been caused by reluctance of patients to disclose their CAM use in the oncology department setting due to concerns that their opinions would affect their treatment. Thus, in further studies it is recommended to add qualitative in-depth interviews to the quantitative questionnaire methodology. Other limitations that should be considered relate to the characteristics of the COS: (1) The service is ambulatory and offered as part of community care (second-care medical level rather than third-care hospital-based level); and (2) Psycho-oncology in the COS is practiced by social workers that include psychotherapists but lacks other psycho-oncology therapists (e.g., psychologists). Moreover, this study did not assess previous or current experience of respondents with social workers in the COS. Indeed, patients’ expectations of CAM integration may be influenced by their perspectives and experience with psycho-oncologists and other health care providers who provide integrative and holistic care. Thus, it is suggested to interpret these findings with caution regarding generalizability and implementation in other settings.

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Disclosure Statement

The authors declare that there are no conflicts of interest.

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Address correspondence to:

Eran Ben-Arye, MD

Integrative Oncology Program

The Oncology Service and Lin Medical Center

Clalit Health Services

35 Rothschild Street

Haifa and Western Galilee District

Israel

E-mail: eranben@netvision.net.il

Appendix: Sample Questions from the Questionnaire

a. Are you using, or have you used in the past year, complementary medicine treatments related to cancer? 1. No 2. Yes
If Yes, please check (✓) the treatments you have used in the table below:

Complementary medicine treatments related to cancer	I am currently using or have used this treatment in the past year	Did you seek out a practitioner to provide this treatment?
1. Herbs (medicinal herbs)		
2. Nutritional counseling (e.g., what to eat and how to cook it?)		
3. Chinese medicine (acupuncture)		
4. Anthroposophic medicine (e.g., injections of Viscum, Mistletoe, Iscador)		
5. Treatments using relaxation, guided imagery, meditation		
6. Traditional & folk treatment (e.g., traditional Arabic medicine, traditional Jewish medicine, "kitchen remedies," folk/traditional healers, etc.)		
7. Nutritional supplements at health food stores for cancer treatment		
8. Touch and movement therapies (e.g., reflexology, yoga, shiatsu, etc.)		
9. Healing and energy (e.g., magnets, Reiki, Bicombe)		
10. Art therapies (e.g., drawing, music, dance)		
11. Homeopathy		
12. Treatments using naturopathy, aromatherapy, Bach remedies		

b. To what extent are you interested in a spiritual (e.g. the meaning of life and its purpose) or religious quest?

1. Very low interest	2. Low interest	3. Quite low interest	4. Average interest	5. Quite high interest	6. High interest	7. Very high interest
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c. What are your main expectations of complementary medicine consultation and treatment integrated in the oncology department? Please circle the number in the table below that reflects the extent to which you agree with the following sayings:

Expectations from complementary medicine treatment	Very low	Low	Quite low	Avg.	Quite high	High	Very high
1. To improve the patients' daily functioning	1	2	3	4	5	6	7
2. To strengthen the patient's general ability to cope with the disease	1	2	3	4	5	6	7
3. To reduce the side-effects of chemotherapy	1	2	3	4	5	6	7
4. To support the patient emotionally (e.g., reducing stress, promoting relaxation, etc.)	1	2	3	4	5	6	7
5. To support the patient spiritually (e.g., coping with existential questions of pain, suffering, disease, and death)	1	2	3	4	5	6	7
6. To support the patient's family and others who are aiding him/her	1	2	3	4	5	6	7
7. To cure the disease completely	1	2	3	4	5	6	7
8. Other. Please specify:	1	2	3	4	5	6	7

d. The following questions relate to the establishment of a complementary medicine clinic integrated as part of the oncological treatment system.

What is your main expectation of each staff member regarding complementary medicine treatment? Please check (✓) your expectations

	To refer me to complementary medicine treatment	To participate in building the treatment plan	To be updated with the treatment results
1. Your oncologist			
2. The oncology nurse			
3. The oncology social worker			
4. Your family doctor			