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Feasibility of Homeopathic Treatment for Symptom Reduction in an Integrative Oncology Service

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Abstract

Background: Homeopathy has the potential to reduce symptoms related to cancer treatment. The present study examined the feasibility of a homeopathic consultation and treatment program, provided as part of an integrative oncology service. **Methods:** The electronic medical files of patients undergoing a homeopathic consultation in an integrative oncology service clinic were examined retrospectively. Adherence to the homeopathic treatment regimen and perceived response to the treatment were evaluated. **Results:** The files of 124 patient (34 males, 90 females) were examined, of which two-thirds reported acquiring and self-administering the homeopathic remedy as prescribed, and nearly three-quarters reporting a beneficial effect. Adherence to the homeopathic treatment regimen was greatest among patients attending a second visit, as opposed to having only telephone/e-mail follow-up ($P < .005$). An association was found between a perceived beneficial effect of treatment with attending a follow-up visit ($P = .04$), female gender ($P = .02$), younger age ($P = .048$), diagnosis of breast cancer ($P = .014$), and current radiation treatment (vs chemotherapy; $P = .003$). Patients reporting chemotherapy-induced peripheral neuropathy were also more likely to report a beneficial effect ($P = .004$), as were female patients reporting hot flashes ($P = .005$) and those referred by an oncologist ($P = .046$). No adverse effects were attributed to the homeopathic treatment. **Conclusions:** Homeopathy can be successfully incorporated within a supportive care integrative oncology service. In addition to demographic and cancer-related characteristics, as well as symptoms, patients attending a second visit (vs only telephone/e-mail follow-up) were more likely to adhere to and perceive a beneficial effect from the homeopathic regimen.

Keywords
homeopathy, integrative oncology, feasibility, quality of life, adherence

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Introduction

Supportive and palliative care play an important role in cancer treatment, and when introduced early can improve quality of life (QoL)–related outcomes and may even increase median survival rates, as shown in patients with advanced lung cancer.[1] Complementary medicine (CM) is extremely popular among oncology patients, with as many as half of US patients reported using at least 1 CM therapy within the previous year, and as many as 91% doing so during chemotherapy and radiation treatments.[2-4] In order to further advance patient care, many of today's oncology centers have established integrative oncology services, which provide patients with evidence-based CM treatments shown to be both effective and safe in reducing the symptom load and improving QoL-related outcomes.[5,6] In these programs, patients undergo a consultation with an integrative physician (IP) who has extensive training and experience in the field of integrative oncology. The IP provides both guidance on nutrition and the use of supplements, referring patients to a wide range of CM treatment modalities from varying

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disciplines (eg, acupuncture, reflexology, yoga, meditation, etc).

Homeopathy is an extremely popular CM modality, especially in Europe and the Far East (India). Homeopathy teaches that highly diluted and succussed natural substances (organic and inorganic) can restore the body's "vital force," relieving symptoms and restoring health,[7] in accordance with the "law of similars" as described by Samuel Hahnemann.[8] Homeopathy uses both "low potency" (ie, <12C, or a dilution $<10^{-24}$) and "high potency" (ie, >12C, or a dilution $\geq 10^{-24}$), with the former used for acute and physical symptoms, the latter for chronic and psychological symptoms.[9] However, because homeopathy uses highly diluted compounds, as well as its homeopathic approach to patient care (vs the allopathic paradigm of conventional medicine), this complementary medicine therapy remains one of the most debated modalities in integrative oncology.

Still, despite the controversy, a large body of research has been published in the scientific literature supporting the benefits of homeopathy on health and well-being, including in cancer care. Clinical studies have shown homeopathy to potentially reduce many of the toxic effects of oncology treatments, while improving global health and well-being.[10] These include cancer-related fatigue,[11] hot flashes due to hormonal treatment in patients with breast cancer,[12-16] and radiation-induced dermatitis.[17,18] A 2009 Cochrane review on the benefits of homeopathy identified 8 clinical trials that were of adequate quality (n = 664), and though the review did not find any clear evidence for the effectiveness of homeopathy for treatment-related outcomes (ie, survival), it did suggest a beneficial impact in reducing radiation-induced dermatitis and chemotherapy-induced stomatitis. The authors of this systematic review also concluded that homeopathy is safe and without adverse effects, either direct (ie, toxic effects) or indirect (ie, interactions with conventional anticancer agents).[19]

The present study set out to examine the feasibility of a homeopathic consultation and treatment regimen, provided as part of an integrative medicine service located within an oncology institute in central Israel. The characteristics of the patients referred to the consultation, as well as their adherence and perceived response to the homeopathic treatment regimen, were examined as well. The feasibility of incorporating homeopathy into integrative oncology care, alone or in conjunction with other CM modalities, is discussed.

Material and Methods

Study Setting

The study took place at the Tal Center for Integrative Oncology at the Institute of Oncology, Sheba Medical Center, Israel. The Institute of Oncology at Sheba provides state-of-the art medical and radiation oncology therapies, and houses the Institute of Hemato-Oncology. The Tal Center provides integrative medicine treatments to patients with cancer during active treatment, as well as during survivorship and end-of-life care. Treatments are provided both on an individual basis (eg, acupuncture, reflexology, Shiatsu, homeopathy, macrobiotic nutritional guidance, etc) and in groups (yoga, Chi Kong, meditation, etc). The study was approved by the Research Ethics Board at the Sheba Medical Center.

Homeopathic Consultation

All patients treated with homeopathy at the study center are referred by either an IP or by their oncologist. At the first visit, the homeopath examines the patient's medical history and addresses their expectations from both the integrative oncology service in general and the homeopathic therapeutic process in particular. The homeopath then conducts an in-depth examination of the patient's "story", in which the various "stations" of their "journey", from the initial diagnosis to the surgical, medical and radiation treatments are addressed. The patient's concerns regarding general and specific QoL-related concerns are addressed, and together with the homeopath external and internal factors which may relieve or worsen their symptoms (eg, heat/cold, time of day, etc) are identified. The homeopath also evaluates the patient's mental and emotional state, dietary preferences (eg, sweet vs salty), as well as other lifestyle-related factors.

At the end of the first homeopathic consultation patients are given a prescription for a remedy, to be prepared and dispensed by a Ministry of Health–certified pharmacy. A follow-up visit is scheduled in a month's time, when the symptoms described and new ones that may have appeared in the interim are addressed. At the follow-up visit patients are asked about their adherence to the suggested treatment regimen (ie, acquiring and self-administering the remedy). During the treatment process patients are contacted by the homeopath, either by phone or via e-mail. All follow-up visits—whether by phone/e-mail or in person—are recorded in the patient's electronic medical file.

Data Retrieval

Patient files were retrospectively examined for demographic information (gender, age, country of birth); cancer-related parameters, which include the site of primary tumor, tumor stage (localized/metastatic), treatment modality (chemotherapy/radiotherapy/other), and therapeutic setting (neoadjuvant/adjuvant/curative/palliative).The files were also searched for patient-reported symptoms, which included fatigue and/or weakness, upper gastrointestinal (GI) symptoms (nausea/vomiting/retching, anorexia, disturbed taste);

Table 1. Characteristics of the Study Group: Comparison of Patients Who Were Adherent to the Homeopathic Treatment Regimen With Those Who Were Nonadherent.

	Total Cohort (n = 124)	Adherent (n = 82)	Nonadherent (n = 42)	*P*
Gender				
Male	34	25	9	
Female	90	57	33	.285
Age (years)				
Total cohort	57.0 ± 13.3	57.8 ± 13.4	55.4 ± 13.0	.344
Male	60.5 ± 16.2	59.8 ± 16.9	62.4 ± 14.6	.656
Female	55.6 ± 11.8	56.9 ± 11.6	53.5 ± 12.1	.193
Referred by				
Oncologist	39	30	9	
Integrative physician	85	52	33	.085
Primary tumor site				
Breast	60	37	23	
Other	64	45	19	.309
Tumor stage				
Localized	94	64	30	
Metastatic	30	18	12	.415
Treatment				
Chemotherapy	24	20	4	.047
Radiotherapy	44	33	11	.122
Biological/immunotherapy	15	8	7	.264
Endocrine (hormonal)	38	26	12	.720
Main symptoms				
Fatigue/weakness	68	44	24	.712
Pain	53	33	20	.432
Gastrointestinal	35	23	12	.951
Emotional	35	25	10	.480
Hot flashes	29	21	8	.414
Disturbed sleep	28	19	9	.826
Peripheral neuropathy	26	16	10	.578

lower GI symptoms (constipation/diarrhea); pain (localized/diffuse; joint/muscle); symptoms associated with peripheral neuropathy (sensory/motor); emotional concerns (depression, anxiety, other); sleep disturbances; and other disease- or treatment-related concerns. In addition to the above information, each patient file was examined for the referring healthcare professional, adherence to the homeopathic treatment regimen, and self-perceived effect of the homeopathic therapeutic process.

Statistics

The collected data were examined using SPSS software program (version 20; IBM, Armonk, NY). Pearson's chi-square and Fisher's exact tests were used to identify variations in demographic data and the prevalence of categorical variables in the 2 groups of patients (adherent vs nonadherent; effect on symptoms—improved, worsened, no effect). A *t* test was used to evaluate differences between continuous variables when normality was assumed. A Mann-Whitney *U* test was used for cases of nonnormal distribution. Paired tests were used in order to evaluate the mean differences between groups; the Mann-Whitney *U* test evaluated the difference between the median values. A *P* value of ≤.05 was considered to be of statistical significance.

Results

The study sample consisted of 124 patients (34 males, 90 females) who had been referred to the homeopathic consultation and for whom data were available. The demographic and cancer-related characteristics, as well as the main symptoms reported by participants, are presented in Table 1. The mean age of the study group was 57.0 ± 13.3 years, with no significant difference between genders. Nearly half of participants were diagnosed with breast cancer, and more than three-quarters with localized (vs metastatic) disease. Half of the patients were undergoing active cancer treatment at the time of the consultation, which included chemotherapy, radiotherapy, and treatment with biological or endocrine agents. More than two-thirds reported suffering from fatigue and/or weakness, with just less than half

Table 2. Characteristics of the Study Group: Comparison of Patients Who Felt the Homeopathic Treatment Was of Benefit With Those Who Felt It Was Not (n = 82).

	Positive Response (n = 60)	No/Negative Response (n = 22)	*P*
Gender			
Male	14	11	
Female	46	11	.02
Age (years)			
Male	57.8±19.2	62.3±14.0	.506
Female	55.3±11.2	63.5±11.3	.048
Referred by			
Oncologist	25	5	All: .155
Integrative physician	35	17	Male: .466; Female: .046
Primary tumor site			
Breast	32	5	
Other	28	17	.014
Tumor spread			
Localized	48	16	
Metastatic	12	6	.481
Treatment			
Chemotherapy	13	7	.343
Radiotherapy	30	3	.003
Biological/immunotherapy	5	3	.365
Endocrine (hormonal)	18	8	.583
Main symptoms			
Fatigue/weakness	34	10	.367
Pain	21	12	.110
Gastrointestinal	17	6	.925
Emotional	20	5	.355
Hot flashes	15	5	.717
Disturbed sleep	16	3	.215
Peripheral neuropathy	14	2	.005

reporting pain-related symptoms and nearly one-fourth reporting symptoms from the upper or lower GI tracts, as well as those associated with peripheral neuropathy, hot flashes, disturbed sleep, and emotional concerns.

More than two-thirds of patients had been referred to the homeopathic consultation by an IP, the remainder by an oncologist. Less than half of the patients (43%) attended a second visit with the study homeopath, in addition to telephone or e-mail follow up. Forty percent of the patients were currently being treated with other complementary medicine modalities (acupuncture, reflexology, etc).

Following the first homeopathic consultation, patients were given a prescription for a homeopathic remedy, to be acquired at one of the pharmacies licensed by the Israeli Ministry of Health to prepare and dispense homeopathic preparations. The most frequently prescribed remedies were *Carcinosin* (30C), *Phosphoricum acidum* (30C), *Cadmium sulphuratum* (30 C), X-ray (6C), and *Radium bromatum* (30C). Of the total cohort of 124 patients, 82 (66.2%) procured and self-administered the remedy as prescribed. Adherence to the homeopathic treatment regimen was similar in both genders, and was not found to be related to the age of the patient, primary tumor site, symptoms reported by the patient, or use of other complementary medicine modalities during the study period. A chi-square analysis found a higher rate of adherence among patients undergoing chemotherapy ($P = .047$), though this group was extremely small and further analysis did not support the finding. Patients who had been referred by their oncologist (vs an IP) tended to be more adherent to the treatment regimen, though this finding was also not of statistical significance ($P = .09$). However, patients who attended a second visit with the homeopath were significantly more likely to adhere to the treatment regimen than those whose follow-up was only by telephone/e-mail ($P < .005$).

Of the 82 patients who adhered to the homeopathic treatment regimen (ie, acquired and self-administered the remedy as prescribed), nearly three-quarters (73.2%, n = 60) reported that they felt that the treatment was of benefit (Table 2). The remaining patients felt that the treatment was

either of no benefit, or did not know whether there was indeed an effect. Only 1 patient reported a worsening of symptoms (irritability), though this was not attributed to the homeopathic treatment. Factors that were associated with a perceived beneficial effect included attending a second visit with the homeopath (vs telephone/e-mail follow-up alone; $P = .04$), female gender ($P = .02$), younger age ($P = .048$), diagnosis of breast cancer ($P = .014$), and currently undergoing radiation treatment (vs chemotherapy; $P = .003$). Patients reporting chemotherapy-induced peripheral neuropathy were also more likely to report that the homeopathic therapy was of benefit ($P = .004$), as well as female patients reporting hot flashes ($P = .05$). Finally, female patients who had been referred to the study homeopath by their oncologist were also more likely to report a beneficial effect of the treatment ($P < .005$).

Discussion

The present study set out to examine the feasibility of a homeopathic consultation and treatment regimen, provided as part of an integrative oncology service located within an oncology institute. We found that the homeopathic therapeutic process was feasible, with two-thirds of patients acquiring and self-administering the remedies as prescribed. Adherence was significantly higher among patients who attended a second visit with the homeopath, as opposed to telephone or e-mail follow-up alone. In addition, a trend for greater adherence was found among patients who had been referred by their oncologist (vs an IP), though this finding was of borderline significance. No difference in adherence was found between those who were treated with homeopathy alone and those receiving other modalities of complementary medicine.

Nearly three-quarters (73%) of patients who adhered to the homeopathic treatment regimen reported that the treatment was helpful in reducing their symptoms. This positive response was more pronounced among female patients, especially those of a younger age, patients with a diagnosis of breast cancer, and those undergoing radiotherapy. Patients reporting symptoms associated with peripheral neuropathy and female patients with hot flashes were also more likely to report a beneficial effect. A perceived beneficial effect from homeopathy was found to be more likely among female patients who had been referred by their oncologist, as well as those who attended a second visit with the homeopath, as opposed to telephone or e-mail follow-up alone. As with earlier research, no adverse effects were associated with the homeopathic treatment in the present study. Research has also shown that homeopathy does not impair treatment outcomes in patients with advanced cancer, and may even have a positive effect on survival rates, though this remains to be proven in large controlled trials.[20]

The demographic and cancer-related characteristics associated with adherence to the homeopathic treatment regimen are similar to those found in other studies examining the use of complementary medicine by patients with cancer. Patients using these therapies are more likely to be female, and with a diagnosis of breast cancer. The lowest rates of complementary medicine use found in male patients with prostate cancer.[21,22] However, the rates of use of homeopathy by adult patients with cancer, alone or in conjunction with other complementary medicine modalities, has been largely uninvestigated. In contrast, a number of studies have examined the use of homeopathy in pediatric oncology, where rates of use range from 1.2% in Canada to 45.2% in Germany.[23,24] A Canadian study published in this journal investigated the feasibility of a homeopathic treatment program in children with chemotherapy-related fatigue. The researchers concluded that the use of homeopathy in this setting was not feasible, primarily due to a lack of interest on behalf of parents, despite the fact that they found the treatment to be easy or very easy to follow.[25]

There are a number of challenges faced when including homeopathy in the integrative oncology setting. Conventional oncology health care professionals may find it easier to accept the allopathic approach of therapies such as acupuncture and herbal medicine. Indeed, there are many conventional chemotherapy agents which originate from plant sources,[26] and many of the physiological effects of acupuncture, such as the release of β-endorphins and adrenocorticotropic hormone (ACTH), have been well documented.[27] In contrast, although there is clinical evidence supporting the effects of homeopathy on reducing many of the symptoms associated with cancer care, the use of highly diluted compounds (with further dilution to increase the "strength" of the effect) make it extremely difficult for conventional medicine to accept. In order for homeopathy to become part of conventional supportive cancer care, there is a need for randomized, controlled trials that will test the effectiveness of this modality in alleviating cancer and treatment-related toxicities.

The present study has a number of limitations which need to be addressed in future research on this subject. First and foremost is the retrospective nature of the study, as well as the generality of the question regarding patients' response to the homeopathic treatment. The use of patient-report outcome measures, for example, would have provided a more accurate and measurable assessment of patients' response to the homeopathy. In addition, the integration of CM in conventional supportive cancer care has been shown to be related to the cross-cultural aspects of care, which need to be addressed in any therapeutic framework, especially integrative oncology.[28] The present study population was comprised almost exclusively of Hebrew-speaking patients residing in central Israel, and may thus not reflect populations from more peripheral areas of the country, where the socioeconomic status is typically lower.

Conclusions

Homeopathy can be successfully incorporated into an integrative oncology service, on its own or as an adjuvant to other complementary medicine modalities. Adherence to the homeopathic treatment regimen can be increased by asking the patient to attend a second visit with the homeopath, as opposed to telephone or e-mail follow-up alone. Demographic (female gender, younger age), cancer-related factors (breast cancer, radiotherapy) and symptom-related factors (peripheral neuropathy, hot flashes) are associated with a perceived beneficial response to the homeopathic therapeutic process, as is a referral to the homeopath by the patient's oncologist. Further research is needed in order to better understand how to best introduce the homeopathic paradigm of care to the integrative oncology setting, along with other therapeutic modalities of complementary medicine in supportive cancer care.

Authors' Note

Yakov Freed is the co-first author for this paper.

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Declaration of Conflicting Interests

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