



Research Article

Patients with Gynecological Tumor Diseases and Their Attitudes towards Integrative Medicine - A Secondary Data Analysis

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Abstract

The present study is based on secondary data analysis with data assessed during routine care about attitudes of patients with gynecological tumor diseases towards Integrative Medicine (IM). The participants were patients with gynecological tumor diseases. From July 2016 to January 2017 147 patients from one university oncology outpatient clinic were asked for participation. A standardized questionnaire was used which evaluates sociodemographic data, lifestyle behavior, complaints and concerns and attitudes towards IM and the communication behavior between physicians and patient about IM. Descriptive statistics were computed. A response rate of 35% (52/147 participants) was observed for the study. More than three-quarters (78%) had breast cancer and a small number had endometrial cancer. More than half of the participants practiced physical activities regularly. Fatigue and mucosal dryness were two of the most complaints during chemotherapy. In general, 69% of our patients were highly interested in IM and 30% of the patients stated that IM was not offered in the past. Of IM using patients, only 6% stated a conversation with their treating physician about

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the alternative therapy methods. As the main reason for the lack of communication, the interviewees said that the doctor had not asked for it and therefore no conversation was concluded. The analyzed survey collected systematically information about the opportunity of IM therapies by patients with gynecological tumor diseases in one university outpatient clinic. Our participants specified that they use IM against the increasing fears of pain and the hope to strengthen the immune system. Furthermore, it can be assumed that patients would like structured support in using complementary therapies. The results of our study contribute to structuring and expanding IM as a support for conventional therapy.

Keywords: Attitudes; Complementary medicine; Gynecological tumor diseases; Integrative medicine

Introduction

The multiplicity of studies on various integrative medical therapies in oncology has been steadily increasing in recent years [1-3]. This development not only reflects the patients' interest in these therapies, which has grown by 25% in German tumor patients in the last 30 years, but also the effort of scientists to investigate these therapies [4]. Despite the ever-growing amount of European data, certain difficulties remain. Common difficulties such as in homogeneity in patient groups, differences between health systems of various states in the international comparison and various cost-acceptance systems need to be considered [5].

In order to create patients group homogeneity, many authors examined the applications of Integrative Medicine (IM) in specific areas of oncology. Among the group of cancer patients, especially women with gynecological tumors like breast cancer have the highest rate of using IM (45% of users) beside conventional cancer therapy. Overall, breast cancer is the most common malignant cancer type by women in Germany [6]. In the European and non-European comparison, the National Center for Complementary and Integrative Health (NIH) classification scheme of IM distinguishes complementary therapies into natural products (e.g. medicinal herbs, vitamins and foods) and mind-body medicine (e.g., meditation, yoga) and other complementary health approaches (e.g. homeopathy and traditional Chinese medicine) [7].

The PASCOE study describes a widespread use of homeopathy, phytotherapy, vitamins and minerals as a therapy for not acutely life-threatening diseases [8]. In contrast to that Huebner et al. list besides minerals and other nutritional remedies also relaxation techniques and prayers as frequently used IM for oncological diseases in Germany and Europe [9]. The German Cancer Registry mentioned there had been an increase in demand for mistletoe therapy and alternative therapies in general for the period 1991 to 2003, whereas from 2003 to 2011 a clear reduction in sales of phytotherapeutics in German pharmacies had been reported [10].

The analysis of various studies on the use of IM in oncological diseases describes similarities to the target group of users. It can

be shown that the major group of patients are female, have higher education and a higher gross income [2,11]. The group of patients with breast cancer shows the highest percentage of users [7]. Most of those patients are of younger or middle age [8,12,13]. Against the background, the aim of the following secondary data analysis was to evaluate the attitudes of patients with gynecological tumor diseases towards IM.

Methods

This study was based on secondary data analysis of patients with gynecological tumors who were asked of attitudes towards IM.

Recruitment

Patients with gynecological tumors from one university oncology outpatient clinic were invited to participate in a survey about their attitudes towards IM during routine care. Data were collected from July 2016 to January 2017. The participation in the survey was voluntary. A paper-based questionnaire was handed out from the oncology nurses to each participant. By completing the questionnaire patients were not kept from necessary medical care. Excluded were patients in acute life-threatening situations, who were not yet 18 years old or with insufficient German language knowledge making it unable to answer the questionnaire by themselves. These inclusion and exclusion criteria resulted in a sample size of 147 patients.

Measurement

The questionnaire was divided into five themes: characteristics of the study population, lifestyle behavior, complaints and concerns, as well as attitudes towards and experience with IM as well as the communication behavior between physicians and patient about IM. The characteristics of the study population included age, education, family status and children. Of further interest were the type of cancer, whether the cancer was metastasized and the kind of conventional therapy. Lifestyle behavior was assessed by questions on smoking and drinking habits, sports activity and relaxation exercises. Complaints and concerns were addressed with two questions. Patients were given a list of 15 physical and mental health complaints from which they could choose their current complaints. Symptoms in the gastrointestinal, mental, neurological and dermatological range, which are typical for oncological diseases were listed and the patients were also given the possibility to choose side effects of therapy (e.g., mucosal dryness, pain, sleep disorders, loss of appetite, loss of libido, fatigue / chronic fatigue or hair loss) from which they were suffering. The patients could supplement other unlisted symptoms by using free text. The questions about attitudes and experiences with IM asked for complementary therapies applied currently and in the past. It was enquired, whether there is an interest in IM, since when this interest exists or why there is no interest. In addition, they could explain why they had not used IM and which treatment they were especially interested in. The list from which they could choose IM therapies included e.g., physiotherapy, music / art therapy, osteopathy, chiropractic, mistletoe therapy and acupuncture), nutritional supplements (e.g., vitamins / minerals, (healing) herbs) and body treatments such as yoga, tai chi, mediation and breathing exercises. In the communication section, patients were asked if they had already talked to the doctor about IM therapies. The motivations for the conversation and possible inhibition points for communication were raised in two further questions. Finally, there was a free text possibility to leave a comment.

Data analysis

The descriptive analysis was performed with SPSS version 24.0 (SPSS Inc., IBM). Firstly, a descriptive analysis was undertaken to determine characteristics of the study population. Furthermore, descriptive analysis of the five themes: characteristics of the study population, lifestyle behavior, complaints and concerns, and attitudes and experience with IM and the communication behavior between physicians and patient about IM were conducted.

Ethical approval

The secondary analysis of anonymous data was approved by the ethics committees of the University of Luebeck (No. 18-133A).

Results

A response rate of 35% (52/147 participants) was observed for the study.

Characteristics of the study population

Table 1 shows the characteristics of the study population. The average age was 57 years. Three-quarters of respondents had children. A university degree was achieved by 33% of the respondents. More than three-quarters (78%) had breast cancer and a small number had endometrial cancer. Fifty percent of the staging examinations had on metastatic diagnostics no tumor spreads and 12% of the patients did not know if they had metastases. Therapeutically, the majority (61%) received chemotherapy.

Variables#		Mean (SD)
Age, years		57 (11)
		Number (%)
Family status	Single	2 (4)
	Partnership	6 (12)
	Married	32 (62)
	Widowed	5 (10)
	Separated/divorced	4 (8)
Children	Yes	39 (75)
	No	12 (23)
Level of education	Secondary school certificate	31 (60)
	High school certificate	1 (2)
	University degree	17 (33)
Type of cancer disease*	Breast cancer	39 (78)
	Ovarian cancer	6 (12)
	Cervical cancer	3 (6)
	Endometrial cancer	2 (4)
Metastases	Yes	19 (37)
	No	26 (50)
	Unaware	6 (12)
Therapy*	Chemotherapy	39 (61)
	Radiotherapy	4 (8)
	Chemo- and radiotherapy	1 (2)
	A therapy is planned	12 (19)

Table 1: Characteristics of the study population (n= 52).

*multiple response; # n varies due to missing data

Lifestyle behavior

A further part of the questionnaire assessed the lifestyle behavior. The results are presented in table 2. It has been shown that half of the respondents are smoking regularly or have done so in the past. In contrast, 50% stated they would never drink alcohol and 15% did not provide an answer concerning their drinking habits.

The question on physical activity showed that more than half of our population practiced sports regularly (55%). Additionally, relaxation using yoga, tai chi and other exercises played a role in 14% of participants. Manipulative therapies or body therapies such as shiatsu, osteopathy, acupuncture / acupressure, neural therapy, massage and foot reflexology were of interest in 10% of participants.

Variables#		Number (%)
Smoking behavior	No, never	25 (48)
	Yes, before	17 (33)
	Yes, currently	9 (17)
Consumption of alcohol	Never	25 (48)
	1-2 times per week	15 (29)
	3-6 times per week	3 (6)
	Every day	1 (2)
Sport exercises	No, never	20 (38)
	Yes, 1-2 hours per week	20 (38)
	Yes, 3-4 hours per week	8 (15)
	Yes, more than 6 hours per week	1 (2)
Relaxation exercises	No, never	36 (69)
	Yes, 1-2 hours per week	12 (23)
	Yes, 3-4 hours per week	2 (4)
	Yes, more than 6 hours per week	0 (0)
Manipulative and body therapies	No, never	46 (88)
	Yes, 1-2 hours per week	5 (10)
	Yes, 3-4 hours per week	0 (0)
	Yes, more than 6 hours per week	0 (0)

Table 2: Lifestyle behavior (n= 52).

*multiple response; # n varies due to missing data

Complaints and concerns

The current complaints and concerns are shown in table 3. As the most limiting complaints fatigue (11%), mucosal dryness (10%) and hair loss (9%) were evaluated. Other complaints like shortness of breath after exertion, bladder irritation, restricted movement, skin rash, itching, swelling, movement restriction in the arms, cough, muteness, depression, feeling of overwork and problems with wound healing were added by the participants.

Concerning fears, pain and nausea / vomiting, each with 15% approval were the most important. In addition, almost 11% were experiencing fatigue / chronic fatigue. In free-text participants added fears of cardiac arrhythmias, high risk of infection, shortness of breath and osteoporosis to the list.

Attitudes and experience with IM

The results of attitudes and experiences with IM are shown in table 4. A general interest in complementary therapies was stated by 69% of the patients. More than one third (35%) had a general interest in IM

already before the diagnosis of cancer. However, almost 70% of the patients currently did not use IM. Of those not using IM at time of the survey, 30% stated that it was not offered in the past and 14% noted that they had too little information to avail themselves of medical treatment. Only 6% sought for a dialogue with their physician about IM. The majority of respondents desired to get further information on IM by personal consultations about complementary therapies (47%). The most used IM were vitamins / minerals (22%), nutritional supplements (14%) and osteopathy (11%). It was also asked why the patients would make use of IM. The most common reasons for making use of IM were the desire to strengthen the immune system (18%). IM had been used in the past by 38% of patients. Especially physiotherapy (12%) and massages (11%), and acupuncture (9%) were employed by these patients in the past.

Variables	Complaints*	Concerns*
	Number (%)	Number (%)
Fatigue / chronic fatigue	23 (11)	20 (11)
pain	12 (6)	26 (15)
Nausea/ vomiting	8 (4)	26 (15)
Mucosal dryness	19 (10)	5 (3)
Hand-foot-syndrome	10 (5)	7 (4)
Diarrhoea	6 (3)	6 (3)
Mucosal inflammation	7 (4)	12 (7)
Constipation	14 (7)	9 (5)
Loss of libido	11 (6)	3 (2)
Malaise	17 (9)	15 (9)
Depressive mood	8 (4)	15 (9)
Hair loss	18 (9)	10 (6)
Menopausal symptoms	7 (4)	2 (1)
Sleep disorders	17 (9)	10 (6)
Anorexia	6 (3)	6 (3)

Table 3: Complaints and concerns with conventional therapy.

*multiple response were possible

Communication behaviour between physicians and patient about IM

Our data showed a discrepancy between the use of IM and the conversation about IM with the attending physician. The reason given for this discrepancy was mainly the problem that the physician had not asked for it. If there had been a conversation about the IM between the patient and the physician, this was mainly due to the patient's initiative, not initiated by the professional. The most common reason for a conversation was the patient's interest in asking the doctor's opinion about IM. The majority of the interviews resulted in a supportive attitude of the physicians to the IM methods performed by the patient.

Discussion

The aim of this study was to evaluate the attitudes of patients with gynecological tumor diseases towards IM. A secondary data analysis was used. The evaluation collected systematically information about the opportunity of IM therapies among patients with gynecological tumor diseases in one university outpatient clinic. Beside different therapy options in IM the availability of clinician-patient-communication is an essential part for patients with gynecological tumor disease.

Variables		Number (%)
Interest in IM	No, never	11 (21)
	Yes, before diagnosis	18 (35)
	Yes, since diagnosis	10 (19)
	Yes, since therapy	8 (15)
Currently using IM	Yes	14 (27)
	No	36 (69)
Which therapy do you use currently?*	Vitamins / minerals	8 (22)
	Herbs	2 (5)
	Nutritional supplements	5 (14)
	Massage	1 (3)
	Chiropractic	0 (0)
	Pilates	2 (5)
	Osteopathy	4 (11)
	Physiotherapy	3 (8)
	Mediation	0 (0)
	Tai Chi	0 (0)
	Acupuncture	0 (0)
	Qi Gong	1 (3)
	Yoga	0 (0)
	Music and art therapy	1 (3)
	Breathing exercises	1 (3)
	Ozone therapy	0 (0)
	Light therapy	0 (0)
	Homeopathy	0 (0)
	Mistletoe therapy	1 (3)
	Hypnotherapy	0 (0)
	Ayurveda	0 (0)
	Hyperthermia	1 (3)
	TCM	2 (5)
Why don't you use IM?*	No offer	25 (30)
	No interest	1 (1)
	Too little information	12 (14)
	Bad experiences	35 (42)
Why do you use IM?*	Improve the immune system	31 (18)
	Be more active	22 (13)
	Miss no chance	27 (15)
	Positive experiences	6 (4)
	Decrease side effects	25 (15)
	Reduce stress	10 (6)
	Increase cancer therapy effect	23 (14)
	Because of personal recommendation of therapists	7 (4)
Improve quality of life	18 (11)	
Conversation about IM with physician	Yes	3 (6)
	No	41 (79)
Use of IM in the past	Yes	20 (38)
	No	24 (46)
Which therapy did you use in the past? *	Vitamins / minerals	8 (8)
	Herbs	4 (4)
	Nutritional supplements	4 (4)
	Massage	11 (11)
	Chiropractic	3 (3)
	Pilates	0 (0)
	Osteopathy	6 (6)

	Physiotherapy	12 (12)
	Mediation	6 (6)
	Tai Chi	2 (2)
	Acupuncture	9 (9)
	Qi Gong	3 (3)
	Yoga	7 (7)
	Music and art therapy	1 (1)
	Breathing exercises	3 (3)
	Ozone therapy	0 (0)
	Light therapy	0 (0)
	Homeopathy	8 (8)
	Mistletoe therapy	1 (1)
	Hypnotherapy	0 (0)
	Ayurveda	0 (0)
	Hyperthermia	1 (1)
	TCM	5 (5)
Which way of information about IM do you prefer? *	Personal conversation	35 (47)
	Flyer	26 (35)
	Information on the website	12 (16)

Table 4: Attitudes and experience with IM.
 IM Integrative Medicine, TCM Traditional Chinese Medicine; *multiple response were possible

Our study population was interested in IM which is comparable to other studies [2-4,7]. Particularly dietary approaches and body therapies are of main interest [9]. Although our study contains a small patient cohort, data supports that middle-aged women use IM [2]. The evaluation of lifestyle behavior, like smoking and drinking habits as well as the physical activity, might be a decision-making indicator, which type of IM is used [14]. The patients that were evaluated confirm that they are suffering from symptoms they like to cure with IM [15]. Most users in the study of Legenne et al., stated that they hoped using IM would help them dealing better with everyday problems and coping with side effects of chemotherapy [15]. According to Lewith et al., there was a discrepancy between expectations of the users related to the real effects of the therapies. Patients hoped that they could relieve the side effects of other medications or even cure the cancer disease by using IM [16]. The primary goal of IM application in oncological diseases according to different studies is to treat cancer pain and to achieve stress reduction which is comparable to our study [11,15,17,18]. Huebner et al., complemented the wishes of German tumor patients with strengthening the immune system, becoming more active and gaining control over the disease [19]. However, comparable to other studies, our participants specified that they use IM against the increasing fears of pain and the hope to strengthen the immune system [14]. Meta-analyses and systematic reviews provide information that fatigue, as an important complaint, can be coped with acupuncture / acupressure or massages [20,21]. Massage and physiotherapy were often used in the past by our participants. It was found that physical activity especially physiotherapy could be helpful in treatment of post-cancer disorders [22]. Moreover, a qualitative study with female cancer patients showed that aromatherapy massage had a physical and psychological benefit for these patients [23]. It has been shown that short term effects on anxiety, depression and quality of life can be caused by relaxation practices [24]. Moreover, patients achieve an increase in quality of life by reviewing IM applications in their nursing care [6].

Furthermore, the patients indicated benefits from additional information and personal physician conversations about IM to make

informed decisions [14,15,25-28]. The results of our study assume that patients would like structured support during complementary therapies. The active involvement of patients during clinical decision-making could be important for patient adherence [28]. Our observations indicate improved doctor-patient communication as a crucial factor for the application of IM [14]. It can create a transparent and comprehensive overview on IM measures used by the patient on their own [8,9]. Furthermore, it can create a realistic assessment of the expectations of IM and of actual successes [7,10,19]. It could be helpful for detecting side effects, concerns and complaints while having a conventional chemotherapy [9]. This information lowers the inhibition of patients for active asking about IM offers and informs the attending physicians about already used IM therapies. A review about communication in the use of IM in cancer care shows that process of communication is twofold “how” and “what” are the two parts in communication with patients. It starts with an openness of clinicians to discuss the opportunity of the use of IM and dealing with uncertainty. Furthermore, the clinicians have to support their patients with adequate information about treatment options in IM and help in the decision-making process [29]. The availability of information and knowledge about IM and the effective clinician-patient communication about IM use could improve health outcome and are important for the patient-centered medical care [29]. It has been shown that communication about IM is an essential part of cancer care [30].

Our study has some limitations. The participation in this study was voluntary and only patients from one university outpatient clinic were included in this study. Selection bias is one potential limitation to this study. As a recommendation, further studies should include a larger sample of patients from different outpatient clinics with involving a control group. Moreover, this was a cross-sectional study, and thus, we must be cautious to derive causal links from these findings.

Conclusion

Our study contributes to structuring and expanding IM as a support for conventional therapy. Although many patients use IM, there is still a gap between needed scientific information and the increased interest in discussing the use of IM with the treating physician. A key element for a good doctor-patient relationship is an adequate communication culture and scientific based information on both sides. In our opinion, the reason for not having an informational discussion about IM is the lack of response and inquiries by the physicians. Therefore, more research is needed on the causes of failed physician-patients-communication about IM. A further study is planned including different oncology departments to evaluate systematically what kind of IM are offered and used. Moreover, specific patient requirements towards IM will be assessed to strengthen the offers of IM beside conventional therapy in order to reduce side effects and to increase quality of life.

Author Disclosure Statement

No competing financial interests or potential conflicts exist for this study

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