

The Use of Energy Medicines (EM), Manipulative Body Based Therapies (MBBT), Therapies from Whole Medical Systems (WMS) and Health Related Quality of Life (HRQoL) of Cancer Patients

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Abstract

Objectives: Although Complementary and Alternative Medicine (CAM) use is common among healthy individuals and patients with chronic diseases, there is paucity in data regarding the use of Energy Medicines (EM), Manipulative Body Based Therapies (MBBT) and therapies from Whole Medical Systems (WMS) among Malaysian oncology patients. The study aimed to examine the use of EM, MBBT therapies from WMS and the Health Related Quality of Life (HRQoL) in a group of Malaysian cancer patients.

Methods: This cross-sectional study was conducted among 393 cancer patients at the oncology clinic of Penang General Hospital, Malaysia, using a self-administered questionnaire while the HRQoL of the participants was assessed by using the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQC30).

Results: Out of 393 respondents, 46.8% (n=184) had used CAM for their condition. A total of 73 (39.6%) reported to use different types of EM, MBBT and therapies from WMS. The majority of the EM, MBBT, WMS users were female 52 (71.2%), aged between 48 and 67 years 42 (57.5%), and were Buddhist 35 (49.3%, p=0.007) from Chinese ethnicity 37 (52%, p=0.011). Therapies from WMS such as traditional Chinese medicines 39 (53.4%), traditional Malay medicines 16 (21.9%), Homeopathy 7 (9.5%), Ayurveda 6 (8.2%) were most commonly used by the participants. Only 18 (24.6%) reported to spend between 101-500 Ringgit Malaysia (MYR). Friend and family members 58 (76.7%) were the most important source of information. No significant difference was found in Global health status/quality of life scores between EM, MBBT, WMS users and non users (p=0.763).

Conclusion: Therapies from WMS is somewhat common among Malaysian cancer patients, further research is required to evaluate the effectiveness of these therapies in cancer.

Keywords: Energy medicines; Manipulative body based therapies (MBBT); Whole medical systems (WMS)

Introduction

Complementary and Alternative Medicines (CAM) is defined as "a group of diverse medical and healthcare systems, practices, and products that are not currently part of conventional medicines" [1]. The group is usually divided into five major classes i.e. Energy Medicines (EM), Mind Body Complementary Therapies (MBCT), Whole Medical Systems (WMS), Biologically Based Therapies (BBT), and Manipulative Body Based Therapies (MBBT) [1]. The concept of EM is based on the fact that cause of a disease is due to the disturbances in body energies [2]. The common therapies included under this category are distant healing and therapeutic touch, light and ozone therapies. These methods are believed to reduce negative psychological effects of cancer as well as reducing the effects of chemotherapy induced nausea and vomiting. Mind Body Based Therapies include chiropractic/osteopathic manipulation, massage therapy, Tui Na, reflexology, rolfing, Bowen technique, Trager bodywork, Alexander technique and Feldenkrais methods which focuses primarily on the structures and systems of the body, including the bones and joints, the soft tissues, and the circulatory and lymphatic systems [1]. Whole Medical System (WMS) involves complete systems and practices that have evolved independently or parallel to allopathic medicines [1]. These systems have originated from different cultures and traditions and are in practice in many countries as different methods for care. It includes Traditional Chinese Medicine (TCM), Traditional Malay Medicines (TMM), Homeopathy

and Ayurveda. Homeopathy was first described nearly 200 years ago by the Germans as a system to cure disease. Homeopathic interventions are reported to be clinically useful in the management of oestrogen withdrawal symptoms in women with breast cancer and improves mood disturbance [3]. TCM and Ayurveda are considered as the most ancient methods of healing. Ayurveda system is established on the basic principles of nature. The therapeutic approach of Ayurveda is based on health maintenance, disease cure, restoration of normal function and spiritual approach [4]. Thus this system claims to cure cancer as well as improving the quality of life of cancer patients.

It is evident that CAM therapies are commonly used by cancer patients to reduce the side effects of chemotherapy and radiotherapy as well as for psychological well being [5]. Though studies have attempted

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to quantify the use of CAM among Malaysian cancer patients, to date no study specifically addressed the issues related to CAM therapies such as EM, MBBT and WMS. The aim of this study was to investigate the prevalence and types of EM, MBBT and WMS therapies used, monthly expenditure, source of information and differences in Health Related Quality of Life of EM, MBBT and WMS users and non users.

Methods

Adult patients aged 18 years old and above, diagnosed with any type of cancer between 6 months and 5 years before the study date were recruited from August to November 2011. A total of 393 questionnaires were completed and included for the final analysis. One hundred and eighty four (46.8%) reported to use CAM for their condition. Those reported to use CAM other than EM, MBBT and WMS were labelled as EM, MBBT and WMS nonusers and vice versa. The socio-demographic characteristics and clinical variables such as types and stage of cancer, time since diagnosis and types of conventional therapies received were recorded separately. The HRQoL of EM, MBBT and WMS users and non-users was measured by the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) [6]. The questionnaire comprised of a total of 30 questions with nine multi-item scales: five functional scales (physical, role, cognitive, emotional and social functioning), three symptom scales (fatigue, pain, nausea/vomiting), and a global health status/QoL scale. Six single item scales are also included (dyspnea, insomnia, appetite loss, constipation, diarrhea and financial difficulties). All scores ranged from a minimum of 0 to a maximum of 100 and were computed using linear transformation by referring to the EORTC scoring manual [6]. Higher scores indicated better functioning and global health status, but higher scores for symptom scales indicated more symptoms.

Ethical Approval

The approval to use EORTC QLQ-C30 was obtained from European organization for research and treatment of cancer quality of life. Ethical approval for the study was obtained from the Medical Research Ethics Committee (MREC), Ministry of Health, Malaysia.

Statistical Analysis

The prevalence of EM, MBBT and WMS (those using these therapies after the cancer diagnosis) was calculated, and the respondents were categorized as EM, MBBT and WMS users or non users for subsequent analysis. The Kolmogorov-Smirnov test was applied to determine the nature of response distribution and hence non-parametric analysis was conducted. Categorical variables were measured as percentages while continuous variables were expressed as mean \pm standard deviation. Patients' demographic and disease characteristics were assessed in relation to the dependent variable (use/non use of EM, MBBT and WMS) using Chi-Square test. Inferential statistics (Mann-Whitney and Kruskal Wallis tests) were used to assess the significance among the study variables. Data was analyzed using SPSS version 16.0 (SPSS Inc., Chicago, IL). Variables were taken to be statistically significant at $p < 0.05$.

Results

Demographic characteristics of the WMS, EM, MBBT users and non users

A total of 73 (39.6%) reported to use different types of EM, MBBT and therapies from WMS and were labelled as users while those reported using therapies other than this were labelled as non users.

The majority of the EM, MBBT, WMS users were female (71.2%), aged between 48 and 67 (57.5%), and were Buddhist (49.3%, $p=0.007$) from Chinese ethnicity (52%, $p=0.01$). Most of the EM, MBBT, WMS users were educated up to secondary school level (47.9%), married (80.8%),

Table 1: Demographic characteristic of the EM, MBBT, WMS users and non users.

Variables	EM, MBBT, WMS users N=73 n (%)	EM, MBBT, WMS non users N=111 n (%)	P-value
Age (Mean \pm SD)= 52.48 (\pm 12.60)			0.711
18-27	4 (5.4)	3 (2.7)	
28-37	7 (9.5)	6 (5.4)	
38-47	13 (17.8)	25 (22.5)	
48-57	24 (31.5)	34 (30.6)	
58-67	18 (26.0)	34 (30.6)	
>67	7 (9.5)	9 (8.1)	
Gender			0.46
Male	21 (28.7)	34 (30.6)	
Female	52 (71.2)	77 (69.3)	
Race			0.011
Malay	30 (39.7)	62 (55.8)	
Chinese	37 (52.0)	32 (28.8)	
Indian	6 (8.2)	14 (12.6)	
Others*	0 (0)	3 (2.7)	
Religion			0.007
Islam	30 (39.7)	65 (58.5)	
Buddhism	35 (49.3)	26 (23.4)	
Hinduism	4 (5.4)	12 (10.8)	
Christianity	3 (4.1)	7 (6.3)	
Others**	0 (0)	1 (0.9)	
Atheist	1 (1.3)	0 (0)	
Educational status			0.477
Primary	21 (28.7)	21 (18.9)	
Secondary	35 (47.9)	56 (50.4)	
Diploma/Matriculation	6 (8.2)	13 (11.7)	
University degree	6 (8.2)	11 (11.7)	
Postgraduate degree	0 (0)	3 (2.7)	
Never go to school	5 (6.8)	7 (6.3)	
Marital status			0.171
Unmarried	10 (13.6)	19 (8.1)	
Married	59 (80.8)	155 (86.4)	
Divorced	3 (4.1)	4 (0.9)	
Widowed	1 (1.3)	6 (4.5)	
Employment status			0.562
Employed	24 (32.8)	37 (33.3)	
Unemployed	19 (26.0)	24 (21.6)	
Retired	13 (17.8)	24 (21.6)	
Home maker	14 (19.7)	25 (22.5)	
Student	1 (1.3)	1 (0.9)	
Others***	2 (2.7)	0 (0)	
Medical Insurance			0.261
Yes	26 (19.1)	27 (33.3)	
No	47 (80.8)	84 (75.6)	
Monthly income in MYR/month			0.961
No income	36 (49.3)	59 (53.1)	
<1000	12 (16.4)	17 (15.3)	
1000-3000	16 (21.9)	23 (20.7)	
>3000	9 (12.3)	12 (10.8)	

*Sikh, Iban, **Sikhism, ***Odd jobs
P value is calculated using Chi-square test

employed (31.5%) having no medical insurance (80.8%). The socio-demographic characteristics of EM, MBBT, WMS users and non users are presented in Table 1.

Disease characteristics of the EM, MBBT, WMS users and non users

Participants' disease characteristics are summarized in Table 2. No significant difference was found between EM, MBBT, WMS use and disease characteristics of the participants.

Table 2: Disease characteristics of the EM, MBBT, WMS users and non users

Variables	EM, MBBT, WMS N=73 (%)	EM, MBBT, WMS N=111 (%)	P-value
Primary cancer site			0.428
Breast	32 (43.8)	47 (42.3)	
GIT cancers*	17 (23.2)	21 (18.9)	
Gynaecological cancers**	8 (10.9)	8 (7.2)	
Lung	6 (8.2)	7 (6.3)	
Naso-pharynx	4 (5.4)	8 (7.2)	
Prostate gland	0 (0)	7 (6.3)	
Bone	0 (0)	1 (0.9)	
Brain	3 (4.1)	2 (1.8)	
Thyroid	0 (0)	3 (2.7)	
Others***	3 (4.1)	7 (6.3)	
Duration of disease			0.626
6 months-1year	26 (35.6)	37 (33.3)	
>1 year-3 years	23 (31.5)	43 (38.7)	
>3 years-5 years	20 (27.3)	23 (20.7)	
Don't Know/Not Sure	4 (5.4)	8 (7.2)	
Cancer stage			0.148
Very advanced	22 (31.5)	37 (33.3)	
Slightly advanced	29 (39.7)	42 (37.8)	
Not advanced at all	17 (21.9)	14 (12.6)	
Undetermined	0 (0)	5 (4.5)	
Don't Know/Not sure	5 (6.8)	13 (11.7)	

*Gastrointestinal Tract cancers include colon, rectum, stomach, and intestine

**Gynaecological cancers include ovarian, cervical, uterine cancers

***Others, include carcinoma of tongue, germ cell, skin, lymphoma
P value is calculated using Chi-square test

Table 3: Types of EM, MBBT and WMS used by study participants

Types of EM, MBBT, WMS	N=73 n (%)
ENERGY MEDICINES	
Light therapy, Ozone therapy	3 (4.1)
MANIPULATIVE AND BODY BASED THERAPIES	
Massage, herbal baths/aromatherapy	2 (2.7)
WHOLE MEDICAL SYSTEM	
Traditional Chinese medicines	39 (53.4)
Traditional Malay medicines	16 (21.9)
Homeopathy	7 (9.5)
Ayurveda	6 (8.2)

Note: Total percentage may not be 100% due to the choice given for multiple responses

Prevalence and types of EM, MBBT, WMS used by the participants

Table 3 summarizes different types of EM, MBBT, WMS used by the participants. Traditional Chinese medicines were most commonly used followed by TMM. A very few patients reported to use therapies such as energy medicines and manipulative and body based therapies.

Monthly expenditures and sources of information

Table 4 summarized the monthly expenditures and source of information of EM, MBBT, and WMS. Although majority (38.3%) of the participants were not able to estimate their monthly expenditure, 26% reported to spend between 501-1000 MYR. Friend and family members (76.7%) were the most important source of information.

Table 4: Monthly EM, MBBT, WMS expenditure and source of information

Variables	N=73 n (%)
Monthly expenditure on EM, MBBT, WMS in MYR*	
Not sure	28 (38.3)
<50	6 (8.2)
50-100	12 (16.4)
101-500	18 (24.6)
501-1000	9 (12.3)
>1000	0 (0)
†Sources of information about EM, MBBT, WMS	
Friends or family	58 (79.4)
Own free will	10 (13.6)
Health care providers	8 (10.9)
Mass media	11 (15.0)
Cancer survivors	6 (8.2)
CAM vendors	3 (4.1)

*MYR: Malaysian Ringgit

†Note: Total percentage may not be 100% due to the choice given for multiple responses

Table 5: Mean of EORTC QLQ-C30 subscale scores of EM, MBBT, WMS users and non users.

SCALE ITEMS	EM, MBBT, WMS USERS (N=73)	EM, MBBT, WMS NON USERS (N=111)	P VALUE
	MEAN (SD)	MEAN (SD)	
Functional scales†			
Physical functioning	68.9 (35.3)	71.8 (25.3)	0.530
Role functioning	69.9 (36.7)	74.5 (28.7)	0.789
Emotional functioning	72.5 (36.7)	78.2 (26.2)	0.381
Cognitive functioning	78.4 (27.3)	85.9 (21.5)	0.092
Social functioning	80.7 (26.7)	84.6 (24.2)	0.433
Symptom scales/items‡			
Fatigue	37.1 (31.2)	30.8 (24.8)	0.374
Nausea and vomiting	21.2 (32.2)	11.9 (21.0)	0.177
Pain	35.9 (35.5)	26.6 (24.4)	0.310
Dyspnoea	25.4 (36.9)	15.7 (25.6)	0.231
Insomnia	38.8 (39.2)	22.8 (31.3)	0.009
Appetite loss	31.4 (35.8)	23.1 (32.8)	0.123
Constipation	12.9 (29.3)	14.2 (29.2)	0.485
Diarrhoea	15.7 (30.6)	8.2 (20.7)	0.230
Financial difficulties	32.8 (33.8)	22.8 (31.6)	0.031
Global health status/QoL*			
Global health status/QoL	57.7 (23.3)	56.2(21.0)	0.763

Note: All scores have a potential range from 0 to 100.

†High score for a functional scale represents a high/healthy level of functioning.

‡High score for a symptom scale/item represents a high level of symptomatology/problems.

*High score for the global health status/QoL represents a high QoL.

P-value is calculated using Mann-Whitney test

Assessment of Health Related Quality of Life (HRQoL)

The comparison of mean scores of multi-item functional, symptom and global health status scales of EM, MBBT, WMS users and non-users are summarized in Table 5. On functional scales no significant

difference was observed between EM, MBBT, WMS users and non-users. However, on symptom scales only sleep ($p=0.009$) and financial difficulties ($p=0.031$) were significantly different among EM, MBBT, WMS users and non-users. No significant difference was found in Global health status/quality of life scores between EM, MBBT, WMS ($p=0.763$).

Discussion

In this study, the prevalence of EM, MBBT and WMS use was 39.6%. Therapies under the category of WMS, including TCM and TMM were common among the participants. Traditional Chinese medicines are reported to be commonly used not only by Chinese cancer patients [7] but patients from other ethnic groups as well [8]. However, Maskarinec colleagues in an attempt to evaluate the ethnic differences and CAM use found out that herbal medicines use was common among Chinese patients [9]. In terms of ethnicity and religion Chinese participants practicing Buddhism were reported to use more EM, MBBT and WMS as compared to participants from other ethnic groups. There can be many reasons of this association. Firstly Chinese population in Malaysia are originally the immigrants from China who migrated in large numbers by bringing along their healing systems and therapists [10]. It is also reported that during the early days of Chinese settlement in Malaysia, this community was highly involved in setting up small clinics offering Chinese methods of healing [10]. This could be a probable reason of gaining a boost in popularity and establishing Chinese methods of healing in Malaysian culture. Currently Chinese methods of healing are available widely throughout the country and are utilized by a large number of Chinese populations for cure and health maintenance. This provides an easy access to the therapies for those who strongly believe in Chinese medicines due to their traditions and culture. Secondly Chinese are considerably more stable economically compare to other minorities in the country thus cost of CAM might not be a barrier to the use and thus reported a high use among this population.

Traditional Malay Medicines were the second most common CAM utilized by the study participants. Though Malays are the highest populated ethnic group in Malaysia, traditional Malay methods of healing are not commonly recognised due to the establishment of western medicines immediately after the independence from British colonial rule [11]. During the last two decades, considerable attention is given in recognizing the role of Malay traditional therapies in Malaysian health care system. Malay therapies such as Malay traditional Massage Islamic Malay therapies are offered by Malay traditional healers in most of the government hospitals as complementary to western medicines. Furthermore, diploma and degree courses have been offered in many of the private and government universities to educate new generation with traditional Malay customs of healing to keep the tradition alive [11]. Traditional Indian Medicines (TIM) is originated from Indian culture and is considered as old as mankind. Ayurveda was the third most common therapy used by the study participants. Since Indian ethnic group comprises a very small portion of ethnic distribution in Malaysia as compared to Malay and Chinese, the percentage use of Ayurveda reflects a very little use of these therapies by Malaysian cancer patients. Traditional Indian Medicines are well recognized in the national policy of CAM and are governed by Pertubuhan Perubatan Tradisional India Malaysia (PEPTIM).

Furthermore, we found a very little percentage of the participants using EM, MBBT based on the CAM classification. Therefore, it is evident that there are many overlaps in distribution of specific therapies

into different categories. For example, massage, Tai Chi, Qigong could be a part of MBCTs as well as it can be also included as MBBT. Due to this reason percentage use of these therapies may differ and further research is required to categorize CAM into well defined separate categories in order to evaluate a true prevalence of CAM use among cancer patients. Energy medicine, MBBT and WMS users reported to spend a minimal amount of money on these therapies. In UK, TCM practitioners reported to charge 30-70 £/hour (143-334 MYR/hour) for consultations. Beside that patients have to spend their own money on buying TCM [12]. Taking this into account the participants of this study were reported to spend comparatively very low amount of money on these therapies. This could be due to easy availability of TCM therapies in Malaysia both in private and public hospitals as well as in TCM outlets run by practitioners from China.

The overall global health status scores did not revealed significant difference among EM, MBBT, WMS users and non-users. The only significant difference was observed on symptom scales of insomnia and financial difficulties. The users of these therapies showed significant poor scores on insomnia scale, showing the EM, MBBT, WMS users were having poor sleep pattern than the non users. The result shows that cancer patients suffer from psychological distress which may lead to insomnia and a disturbance in sleep pattern. Though these therapies did not show any improvement in sleep pattern of its users, effective alternatives can be introduced to help patients deal with the psychological symptoms of cancer [12,13]. On the financial scale, the users of these therapies reported to face more financial difficulties than the non users. It is imperative to account that this study was conducted in one of the local hospital in Malaysia which is usually attended by low to middle income group. The financial burden of cancer treatment and additional cost of CAM may add an extra burden on patients thus affecting their HRQoL.

Conclusion

In conclusion, TCM was somewhat common among Chinese cancer patients that reflect their cultural influence to these medicines. Traditional Malay Medicines are getting popularity among cancer patients, however due to a lack of importance given on these therapies more research and education is required to recognize the role of these therapies in cancer care. Energy therapies and manipulative body based therapies were utilized by a very low number of participants that reflects a lack of awareness regarding these therapies in Malaysian culture. These therapies are also not inclusive in the National policy on CAM and not widely offered by integrative medicines unit at public hospitals. Further research is required to evaluate the effectiveness of these therapies in cancer care.

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Competing Interests

The authors declare that they have no competing interests. No funding was received for this study.

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