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Solicitude toward Complementary Therapy among Oncology Patients

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Abstract

Many oncology patients use complementary therapy (CT) to overcome the side-effects of conventional treatment without informing health care providers. Many studies were done to assess the knowledge and attitudes of health care providers toward CT, but little studies discussed the knowledge and attitudes of oncology patients toward it. The aim of the present study was to assess solicitude (including knowledge and attitudes) toward CT among oncology patients. A descriptive design was utilized to collect the data from a convenient sample of 300 adult oncology patients through a period of consecutive six months. The main findings revealed that 89.7% of the oncology patients used CT, however, 95% had an unsatisfactory level of knowledge about CT; 87.7% of the patients had a positive attitude toward CT. It can be concluded that although oncology patients had a positive attitude toward CT, they had a lack of knowledge about it. Accordingly, it is recommended to include comprehensive patient assessment and professional guidance for CT use.

Keywords: Solicitude, Knowledge and attitude, Complementary therapy, Oncology patients.

Introduction

Cancer is the second leading cause of death worldwide[1]. Globocan estimated that the global cancer cases in 2018 were 18 million cases and the number of deaths from cancer was 9.6 million cases. The incidence rate in Egypt was 314.8 per 100.000[2]. Many treatment regimens were developed to treat cancer such as surgery, radiotherapy, chemotherapy, and others. Those treatments have many serious side effects[3]. Patients with cancer use many methods to overcome these side-effects; one of these methods is complementary and alternative therapy.

Complementary therapy (CT) is a group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine but used alongside with it[4]. The prevalence of CT use in cancer is 35-90% in Middle Eastern countries[5]. Moreover National Center for Complementary and Alternative Medicine [NCCAM] divided CT into five main categories including: (a) Biologically based practices as herbal products and nutritional therapy, (b) Energy medicine as therapeutic and healing touch (c) Manipulative and body-based practices as therapeutic massage and chiropractic, (d) Mind-body medicines as meditation and biofeedback and (e) Whole medical systems as ayurvida and traditional Chinese medicine[6].

Many of CT practices are assumed to be safe. However some natural products may be harmful; some antioxidant herbs such as the herb turmeric, which could be used for reducing inflammation, may inhibit the action of certain chemotherapeutic drugs[7-8]. Furthermore, some dietary supplements may cause skin sensitivity and severe reactions when taken during radiotherapy treatment[9].

Although that, a study[10-11] found that many oncology patients used CT without informing their health care providers believing that if they are “natural, they must be

safe". So oncology patients use CT depending on their knowledge which is mostly gained from people around them and media rather than medical professionals[12-13], and the potential adverse effects of these therapies are minimized or nearly ignored in these sources which increase the risk of those patients[7].

However, there are scanty researches to assess oncology patients' knowledge and attitudes toward CT and most of them were carried out in the developed countries and focused on natural products only. Most studies about attitudes concluded that there was a positive attitude toward CT[14]. While most studies about knowledge concluded that there is a lack of knowledge regarding natural products[15-16]. So hopefully the study results might expand the body of knowledge regarding patients' solicitude of CT including knowledge and attitudes. It also might reveal about their sources of knowledge to evaluate whatever those sources are trusted or not. Therefore the aim of the current study was to assess solicitude toward complementary therapy among oncology patients.

Research Questions

Q1: What is the level of knowledge of the oncology patients about CT?

Q2: What are the sources of patients' knowledge about CT?

Q2: What is the attitude of the oncology patients toward CT?

Methods

Selection and Description of the study sample

A convenient sample consisting of 300 adult male and female patients with a confirmed cancer diagnosis and able to communicate constituted the study sample through a consecutive six months. The study was conducted at Oncology setting affiliated to Cairo University.

Tools for Data Collection

Data was collected using the following tools which were developed by the investigators.

First tool, Personal and Medical Background Questionnaire (PMBQ); which included demographic and medical data and knowledge background.

Second tool, Patients' Knowledge about Complementary Therapy Use Questionnaire (PKCTUQ); it included 19 multiple choice questions. Each question had a score of one if the answer was right and zero if the answer was wrong with a total score ranged from zero to 19 and 60% was adopted as the minimum satisfactory level of knowledge.

Third tool, Patients' Attitudes toward Complementary Therapy Use Questionnaire (PACTUQ); it consisted of 18 statements with three responses which were no with one score, undecided with two scores, and yes with three scores with a total score ranged from 18 to 54. The total scores of the scale were transformed into three intervals as a negative, neutral or positive attitude.

Tools Validity and Reliability

The tools were reviewed by a jury of five experts in the field of Medical-Surgical Nursing to evaluate their content validity and Modifications were carried out. Reliability was tested using Cronbach's Alpha as follow (PKCTUQ; PACTUQ; 0.72 & 0.89, respectively).

Procedure

Patients were approached individually to conduct a structured interview for 15 to 30 minutes to fill the tool and to record patients' responses.

Statistical Analysis

Data were coded and analyzed using SPSS version 20. Descriptive statistics were used.

Results

Demographic characteristics and background

More than one third of the study sample cannot read and write and aged between 50≤60 years old with a mean of 43.89±12.02 years. The majority was females, married and lives in an urban area.

Table 1

Frequency and Percentage Distribution of patients According to Medical Data (N=300)

Variable	Category	n	%
Cancer diagnosis	Breast	49	16.3
	Respiratory	33	11.0
	Gastrointestinal	107	35.7
	Genitourinary	20	6.70
	Hematopoietic	49	16.3
	Bone	17	5.70
	Head and neck	24	8.00
	Melanoma	1	0.30
Types of Cancer Treatment	Chemotherapy	251	83.7
Received by patients	Radiotherapy	17	5.70
	Surgical treatment	5	1.70
	Hormonal therapy	8	2.70
	Others	19	6.20
Comorbid diseases	Yes	98	32.7
	No	202	67.3
Types of comorbid diseases*	Diabetes mellitus	46	46.9
	Hypertension	44	44.9
	Cardiovascular	8	8.20
	Bronchial asthma	4	4.10
	Liver	6	6.10
	Irritable bowel syndrome	8	5.20
	Arthritis	12	12.2
	Others	22	22.4

*Total number is >98 because each patient could have more than one comorbid disease.

As shown in table (1), more than one third of patients had gastrointestinal cancer. And the majority was receiving chemotherapy.

Table 2

Frequency and Percentage Distribution of patients Regarding CT Use and Knowledge Background (N=300)

Variable	Category	n	%
CT use	Yes	269	89.7
	No	31	10.3
Types of used CT*	Herbs	244	90.7
	Nutritional therapy	153	56.9
	Dietary supplements	36	13.4
	Aromatherapy	24	8.90
	Acupuncture	4	1.50
	Acupressure	1	0.40
	Massage	30	11.20
	Breathing exercise	4	1.50
	Yoga	1	0.40
	Chiropractic	11	4.10
	Cupping	16	5.90
	Bee bites	5	1.90
Purposes for CT use*	Preventing illness	10	3.70
	Treating chronic disease	34	12.6
	Treating cancer	57	21.2
	Promoting health	200	74.3
	Others	105	39.0
Sources of information**	Media	133	78.7
	Educational programs	2	1.20
	Books/journals	20	11.8
	Brochures	7	4.10
	oncology patients	29	17.2
	Relatives/friends	106	62.7
	Doctors	44	26.0
	Nurses	11	6.50
Sufficiency of information sources as reported by patients	No (zero)	126	42.0
	Insufficient (1-3)	45	15.0
	Slightly sufficient (4-6)	74	24.7
	Sufficient (7-9)	36	12.0
	Highly sufficient (10)	19	6.30
	$\bar{X}$±SD 3.06±3.3		

*Total number is >269 because patients could use more than one type of CT for >one purpose.
**Total number is >169 because each patient could have >one source of information.

Table (2) revealed that the vast majority of patients used CT and natural products including herbs are the most common used category, such as; anise (feverfew), peppermint, fenugreek, ginger and black seeds. In addition more than half of them reported that the main sources for information about CT were media followed by relatives and friends. Additionally, less than half of them thought that there were no available sources for information with a mean of 3.06±3.3 out of 10.

Level of knowledge about CT

Table 3

Frequency and Percentage Distribution of patients According to Knowledge Scores about CT (N=300)

Variable	Category	n	%
General information	Satisfactory (2-3)	40	13.3
	Unsatisfactory (0<2)	260	86.7
	$\bar{X}$±SD 0.66 ± 0.75		
Uses of CT in cancer	Satisfactory (6-10)	41	13.7
	Unsatisfactory (0<6)	259	86.3
	$\bar{X}$±SD 3.53±1.78		
Side effects and contraindications	Satisfactory (4-6)	61	20.3
	Unsatisfactory (0<4)	239	79.7
	$\bar{X}$±SD 2.18±1.41		

Table (3) shows that the majority of patients had an unsatisfactory level of knowledge for the general information about CT with a mean of 0.66±0.75 out of 3, its uses with a mean of 3.53±1.78 out of 10 and side effects and contraindications with a mean of 2.18±1.41 out of 6. Furthermore, figure (1) clarifies that the vast majority of patients had an unsatisfactory level of knowledge about complementary therapy with a mean of 6.38±2.98 out of 19.

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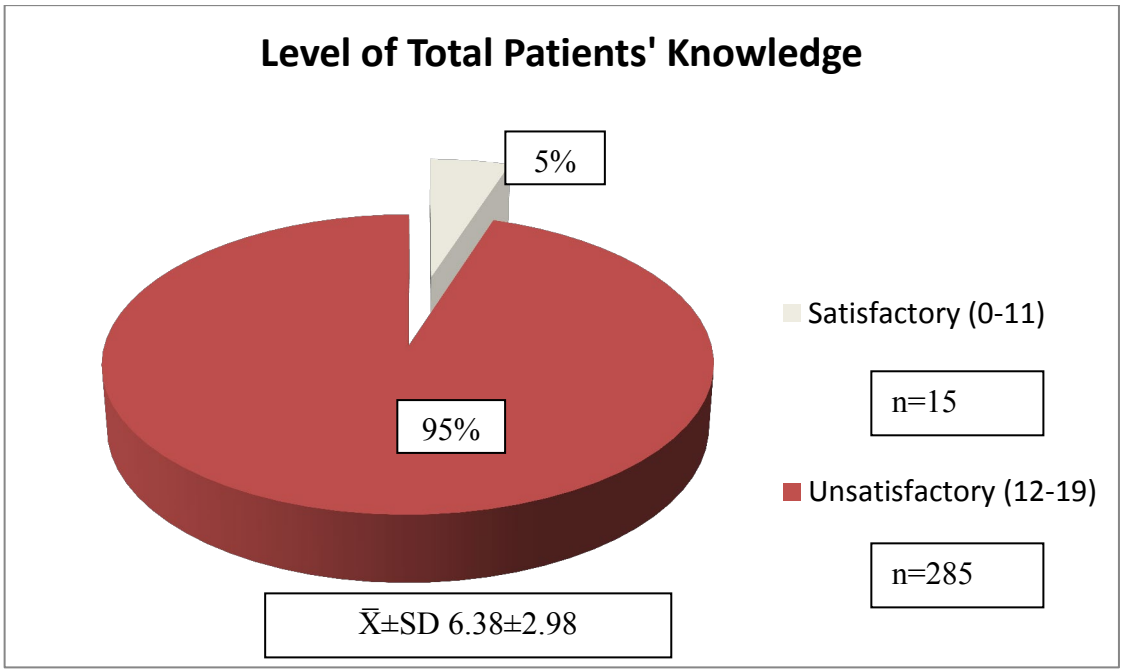

Fig. (1): Percentage Distribution for Patients' Knowledge about CT (N= 300).

Attitude toward CT

Table 4

Frequency and Percentage Distribution of patients regarding Attitudes Scores toward CT (N=300)

Statements	Negative (30% ≤ 55%)		Neutral (>55% < 80%)		Positive (≥80%)	
	n	%	n	%	n	%
Patients' opinion	14	4.70	33	11.0	253	84.3
			X̄±SD 10.65±1.75			
Health care system	4	1.30	38	12.7	258	86.0
			X̄±SD 16.65±2.14			
Treatment perspective	3	1.00	70	23.3	227	75.7
			X̄±SD 20.77±2.60			

In reference to table (4), the majority of patients had a positive attitude in their opinion about CT with a mean of 10.65±1.75 out of 12, health care system with a mean of 16.65±2.14 out of 18 and treatment perspective with a mean of 20.77±2.60 out of 24. Additionally, figure (2) confirms that the vast majority had a positive attitude toward CT with a mean of 48.07±5.20 out of 54.

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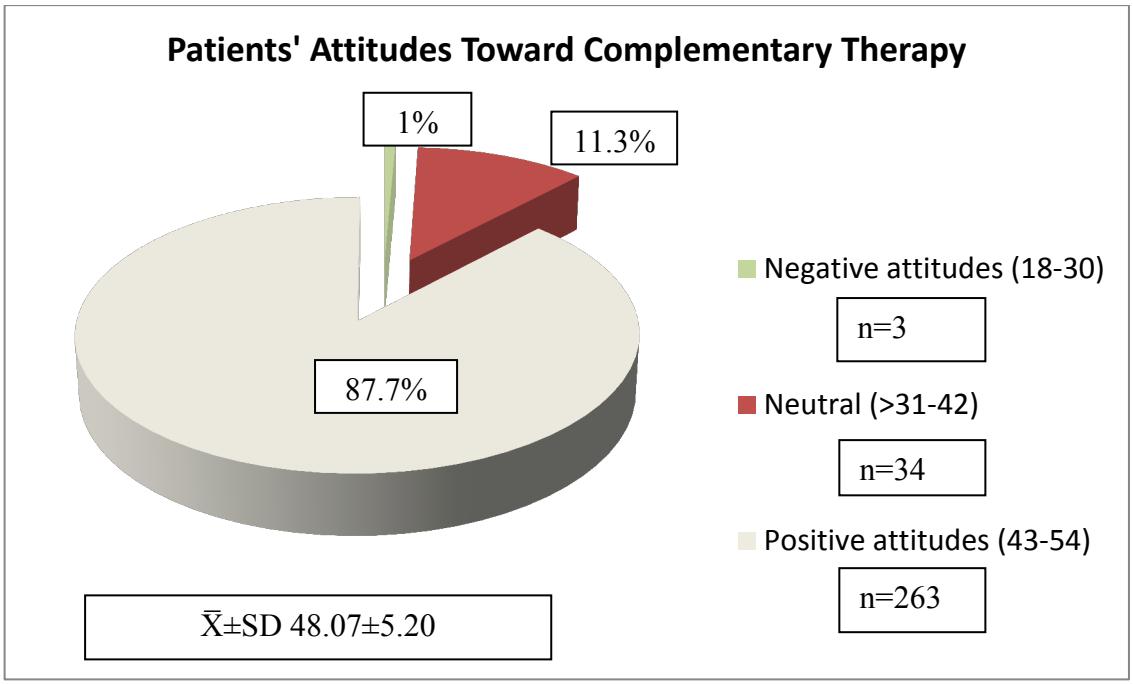

Fig. (2): Percentage Distribution for Patients' Attitudes toward CT (N= 300).

Discussion

Background about CT

The study delineated that the vast majority of patients used CT and herbs are the most common used category as a natural product. These results are supported by a study[17] which reported that more than half of patients used CT before cancer diagnosis and the majority used it after diagnosis, also natural products are the most commonly used category. Despite, Sait[18] reported that less than quarter of patients used CT, Sait[18] supported that herbs are the most commonly used type. While Gonzalez[13] reported that the top five used herbs by oncology patients were cinnamon, chamomile, Aloe Vera, garlic and arnica. These differences could be interpreted that there is a difference of the popularity and the availability of plants in countries.

The current study illustrated that more than two thirds of CT users used it for promoting health. This finding was contradicted by Bockover[11] who highlighted that the primary reason for CT use was to relieve treatment side-effects. This contradiction

could be interpreted by the variation of culture and level of knowledge between the subjects of the two studies.

The current study depicted that more than half of patients reported that the main sources for information were media (television, internet and radio) followed by relatives and friends. From the investigator point of view, this could be attributed, in part, to the widespread, availability and accessibility of the internet and on the other hand to the faith of patient in the family and friends' opinions. These results are approximately in harmony with a study[12] which stated that about three quarters of oncology patients reported that their sources of information were media, friends and other patients.

Level of Knowledge about CT

The current study denoted that the vast majority of patients had an unsatisfactory level of knowledge. This finding is approximately near from a study[16] which concluded that the mean of the total knowledge scores was 45.9%±2. However, this result is contradicted with Prince[15] who reported that the majority of patients had average and above average levels of knowledge. This incongruity could be explained by the difference of used tools and methodology in both studies.

The current study revealed that the majority of patients had an unsatisfactory level of knowledge for the general information, uses, side effects and contraindications. However these results are incongruent with the study[12] which reported that more than one quarter of patients were aware of the general information about CT, more than one third were aware of its benefits, while about one eighth were aware of the side effects. This discrepancy could be explained by the difference of used tools.

Attitude toward CT

The current study depicted that the vast majority of patients had a positive attitude toward CT. This result is in agreement with Cobb[18] who reported that the majority of

the general population had a positive attitude toward CT with a mean of 55.48±9.83 out of 76.

Moreover, the current study delineated that the majority of patients had the highest scores in the health care system related statements and the lowest were in the treatment perspective related statements. These results are congruent with a study[19] which concluded that the highest mean score was observed for health care system reported statement, while the lowest was observed for treatment perspective related statement.

Conclusion and Implications

The results of the current study revealed that the majority of patients use CT and natural products are the most common used category. The main purpose for CT use was for promoting health. Although the study denoted that the vast majority of patients had an unsatisfactory level of knowledge, most of patients had a positive attitude toward CT. The main sources of information were media followed by relatives and friends.

The study suggested the following implications and recommendations;

- Include patients' assessment for CT use as a part of general assessment.
- Accurate documentations of CT use
- Establish a clinic in oncology settings for instructing patients about CT.
- Prepare brochures with scientific information about CT for patients.
- Replications of the study using a larger probability sample selected from different geographical areas in Egypt.
- Conduct further studies to evaluate the impact of educational program regarding CT on patients' outcome.

Ethical Clearance

The research approval was obtained from the Research and Ethics Committee at Faculty of nursing, Cairo University and an official permission was obtained from the administrators at study setting. Written informed consent was obtained from each patient.

Conflict of interest: the authors declare that there is no conflict of interest.

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