

Thesis survey results in the field of nursing regarding the use of complementary and alternative medical treatments in Turkey

Gülsah Gürol Arslan,¹ Yildiz Denat,² Yurdanur Dikmen³

Abstract

This descriptive literature review was planned to identify the prevalence of Complementary and Alternative Medicine (CAM) usage, frequency of usage, types/fields of use in master's theses and PhD dissertations based on the CAM methods, which are commonly used in nursing practice in Turkey. Data was collected in Turkey from February to March 2014 through a review of the National Thesis Centre (NTC) Archives at the Chairmanship of the Council of Higher Education and by obtaining the nursing theses/dissertations on CAM done between 1996 and 2013. Data were analysed by distribution of frequencies and percentages for publication year, number in sampling, method, case group, CAM type, and purpose of use/effectiveness. A total of 88 theses/dissertations were located. It was found that a majority of the theses/dissertations investigated were interventional. Investigation of the purpose of CAM use in theses/dissertations showed that the studies examined the effects of CAM on symptom control.

Keywords: Complementary and alternative therapies, Nursing, Master's thesis, PhD dissertation.

Introduction

We have all seen the terms "Complementary and alternative medicine", "complementary medicine", "alternative medicine" and "integrative medicine", but what do they really mean?¹ All types of health services used in place of medical treatments that are not approved by modern biomedicine or treatments are defined as "Alternative Medicine", whereas, treatment and care services provided together with medical treatment are called "Complementary Medicine".^{2,3} These methods that are outside the realm of modern medicine are being practised in increasing numbers and in general are defined as Complementary and Alternative Medicine (CAM).⁴ The National Centre for Complementary and Integrative Health (NCCIH) defines CAMs as healthcare systems, products and applications that are still not regarded as a part of conventional medicine.^{1,5}

The United States National Institute of Health established the

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¹Faculty of Nursing, Dokuz Eylül University, Izmir, ²Aydın School of Health, Adnan Menderes University, Aydın, ³School of Health, Sakarya University, Sakarya, Turkey.

Correspondence: Gülsah Gürol Arslan. Email: ggrolarslan@gmail.com

NCCIH in 1998 to provide research and advice on CAM, share knowledge and news in the field, organise training programmes and provide guidance.¹ In Turkey, the Department of Complementary Medicine was founded at the Istanbul University Oncology Institute in 2001 and the Alternative and Complementary Medicine Advisory Board was established by the Ministry of Health as a part of the Cancer Advisory Board at the end of 2003.⁶

The use of CAM has recently increased in many developed and industrialised countries,^{3,7,8} in Turkey as well as other parts of the world, and is gradually increasing among the general population, especially in cancer patients.⁹ It is impossible to present accurate data on the use of CAM due to a lack of studies in Turkey on the general use of CAM, lack of knowledge about CAM, lack of trust in the practice and a limited number of professional practitioners in the field.¹⁰⁻¹²

The main philosophy of the CAM methods is the belief that human beings are particles of the grand cosmic energy. According to this philosophy, diseases and disturbances in the body are caused by problems in the flow of energy.¹³ 'Disturbed Energy Field' is one of the 167 nursing diagnoses adopted by the North American Nursing Diagnosis Association (NANDA).¹³ Nightingale, Rogers, Watson and other nursing theoreticians have emphasised the importance of energy studies among the physical, emotional, mental and spiritual health approaches in nursing.¹³

The roles and responsibilities of nurses are changing along with technological advances and increased scientific knowledge in the field of health.¹¹ Nurses were regarded as physicians' assistants for many years. This perception started to change with Savege's 1990 description in which the medical model was combined with holistic health approaches, autonomy, professionalism and provision of effective cooperation between the patient and the nurse was emphasised and belief in the therapeutic power of nurses was supported.^{14,15}

A review of the literature shows that CAMs can be implemented as a nursing practice.¹¹ Since the ontological foundations of holism are shared by nursing and CAM, many methods used in CAM (such as deep breathing and relaxation techniques, distraction, massage, etc.) are similar to nursing practices.^{5,14,16,17} In this context, CAMs can be regarded within the framework of independent nursing roles for professional nurses who possess

theoretical knowledge and scientific problem-solving skills.¹¹

Along with the increased scientific power in nursing, studies on CAMs are becoming more and more important in master's theses and PhD dissertations. The current study was planned to identify master's theses and PhD dissertations, which reviewed the prevalence, frequency and methods of CAM commonly used in nursing practices in Turkey.

Material and Method

The descriptive study based on literature review was conducted in Turkey from February to March 2014, and comprised master's theses and PhD dissertations on the CAM methods in Turkey. The review of the National Thesis Centre (NTC) archives at the Chairmanship of the Council of Higher Education based on related key words showed that the first

thesis in the field was undertaken in 1996. Therefore, the sample of the study was composed of the nursing master's theses and PhD dissertations on CAM registered at the NTC between 1996 and 2013.¹⁶

Data was collected through literature review Dissertations were reviewed with the help of the following key words: complementary and alternative therapy, reflexology, relaxation, aromatherapy, massage, acupressure, music, and healing touch.

Data analysis was done with the distribution of frequencies and percentages for publication year, number in sampling, method, case group, CAM type, purpose of use/effectiveness.

Results

A total of 88 theses/dissertations were identified and they

Table-1A: Characteristics of theses/dissertations, which investigated relaxation methods within the framework of the study.

Name of Thesis/Dissertation	Type of Thesis	Year	Sample Scope	Research Design
RELAXATION EXERCISES				
Relaxation techniques, the effect of sleep quality in total hip arthroplasty patients	PhD	2013	70 patients (35 control, 35 experimental)	Methodological model in the first phase of the study, experimental model with experimental-control groups in the second phase of the study
The effects of relaxation techniques, aromatherapy practices and their combination on postoperative pain	PhD	2012	50 patients (25 control, 25 experimental)	Experimental
The effects of progressive relaxation exercises on pain, fatigue and quality of life in dialysis patients	Master	2012	96 patients (48 control, 48 experimental)	Experimental
The effects of relaxation exercises on fatigue, depression and level of quality of life in patients diagnosed with breast and colorectal cancer undergoing adjuvant chemotherapy	PhD	2011	70 patients with diagnoses of breast and colorectal cancer	No information was found in the abstract. It was impossible to obtain the entire article.
The effects of progressive muscle relaxation exercises on pain before the removal of chest tube	Master	2012	94 patients	Randomized, Single Blind, Controlled, Experimental
Progressive relaxation training given prior to surgery on surgical stress responses of the patients who underwent open heart surgery	Master	2011	78 patients (39 experimental, 39 control)	Clinical Study
The effects of progressive relaxation exercises on procedure, pain perception and vital signs in patients who underwent endoscopy	Master	2010	70 patients (35 experimental, 35 control)	Semi-Experimental Model with Control Groups
The evaluation of the impact of progressive relaxation exercises on fatigue and sleep quality in patients with multiple sclerosis	PhD	2009	32 patients	Single Group Pretest-Posttest Model Implemented Prior to Trial
The determination of the effect of relaxation exercises on anger and anger control in haemodialysis patients	Master	2009	58 patients under regular hemodialysis treatment	Single Group Pretest-Posttest Model Implemented Prior to Trial
The effects of relaxation techniques and back massage on postoperative pain and anxiety in total hip or knee arthroplasty patients	PhD	2009	60 patients (30 experimental, 30 control)	Experimental
The effects of relaxation techniques on anxiety levels of pregnant women in labor	Master	2009	60 pregnant women (30 control, 30 experimental)	Experimental
Evaluation of the effects of progressive muscle relaxation exercises in reducing nausea and vomiting after major gynecological surgery using patient-controlled analgesia	PhD	2008	70 patients (35 experimental, 35 control)	Experimental
The effects on pain control of the relaxation techniques taught by the nurses in patients with upper abdominal surgery	Master	2008	60 patients	Descriptive, Cross-sectional, with Self-control
The investigation of the effectiveness of progressive relaxation exercises on sleep and quality of life in dialysis patients	PhD	2005	84 patients	Single Group Pretest-Posttest Model Implemented Prior to Trial
The effects of relaxation training on symptoms of anxiety and depression, sleep quality and fatigue in patients with breast cancer undergoing adjuvant chemotherapy	PhD	2006	27 patients (14 experimental, 13 control)	Repeated Measures, Experimental Design with Control Groups

Table-1B: Characteristics of theses/dissertations, which investigated relaxation methods within the framework of the study (continued).

Name of Thesis/Dissertation	Type of Thesis	Year	Sample Scope	Research Design
Relaxation Exercises				
The effects of autogenic relaxation and slow rhythmic breathing in reducing nausea and vomiting after laparoscopic surgical procedures	PhD	2005	96 patients (48 experimental, 48 control)	Prospective Experimental-Control Research
Evaluation of the impact of natural pain control methods, such as relaxing, touching and breathing exercises, used for pain anxiety in mothers who give birth	Master	2004	50 pregnant women who had normal births	Experimental
Determination of the impact of progressive relaxation training on anxiety levels and quality of life in dialysis patients	Master	2002	46 patients undergoing dialysis treatment	Experimental
Investigation on the effectiveness of the comparison of two non-drug methods (massage/healing touch and music/relaxation) in pain control after Cesarean section	PhD	1999	45 pregnant women	Experimental, Descriptive, Cross-sectional and Retrospective Analytical
Effects of walking and relaxation exercises on control of primary and resistant hypertension	PhD	2008	30 patients	Experimental
The effects of massage and acupressure as non-pharmacologic methods used for labour pain control, on perceived labor pain, anxiety of pregnant women and cost	PhD	2013	120 patients (30 massages, 30 acupressure, 30 control)	Randomized Controlled
A study on the effects of leg massage for reducing pain in vaccinated infants	PhD	2011	99 infants (33 control, 33 experimental)	Double Blind, Randomized, Double-controlled Experimental

Table-2A: Characteristics of theses/dissertations, which investigated massage methods within the framework of the study.

Name of Thesis/Dissertation	Type of Thesis	Year	Sample Scope	Research Design
Massage				
Effects of abdominal massage on gastric residual volume and complications in patients intermittently fed with enteral nutrition	PhD	2010	80 patients (40 experimental, 40 control)	Randomized, Controlled
The effects of perineum massage with olive oil on perineum integrity and duration of second period of delivery	PhD	2011	700 pregnant women (350 massage, 350 control)	Experimental
The effects of hand massage on some symptoms in patients with rheumatoid arthritis	Master	2011	60 patients (30 experimental, 30 control)	Experimental
Examination of the effects of back massage with lavender oil on the sleep quality of elderly people	Master	2011	68 seniors	Pretest-Posttest Experimental Model Semi-experimental
The effects of baby massage on mother- infant attachment and breastfeeding success	PhD	2010	117 mothers (57 experimental, 60 control)	Pretest-Posttest Experimental Model with Control Group
The effects of massage on fatigue in hemodialysis patients	Master	2009	60 patients (30 control, 30 experimental)	Descriptive and Case-controlled
Effects of massage in solution of problems experienced by family caregivers of cancer patients	PhD	2008	44 patient relatives (22 trials, 22 control)	Methodological, Cross-sectional, Experimental
The effects on anxiety and cost of hand massage and acupressure therapy in patients undergoing mechanical ventilation support	PhD	2008	70 patients (35 control, 35 experimental)	Experimental (randomized controlled)

were sorted out by name of publication and publication year (Tables-1-2). Of the theses/dissertations, 36(40.9%) were master's theses and 52(59.1%) were PhD dissertations. Distribution of theses/dissertations by years revealed that the numbers increased with passing years (Figure).

Of the theses/dissertations investigated, 41(46.6%) were experimental, 19(21.6%) were randomised-controlled, 8(9.1%) were pretest-posttest, and 18(20.5%) were with control groups). Besides, 2(2.3%) were descriptive.

Investigation of the purpose of CAM use in

Table-2B: Characteristics of theses/dissertations, which investigated massage methods within the framework of the study (continued).

Name of Thesis/Dissertation	Type of Thesis	Year	Sample Scope	Research Design
Massage				
The effects of foot massage on postoperative pain in breast surgery patients	PhD	2009	70 patients (35 experimental, 35 control)	Semi-experimental
Effects of massage practices on fatigue and anxiety levels in chemotherapy patients	Master	2008	40 patients (20 experimental, 20 control)	Experimental
Effects of foot massage on decreasing physiological edema observed in feet and ankles in the last stage of pregnancy	PhD	2007	80 patients (40 experimental, 40 control)	Pretest-Posttest Experimental Model with Control Group
The effects of regular fundus massage on the involution of uterus and lochia rubra during the early postpartum period	Master	2007	60 patients who had normal births (30 experimental, 30 control)	Experimental Model with Control Group
Study on the effects of ice-massage applied to hands of pregnant women for reducing the perceived labour pains	PhD	2006	150 patients (50 experimental, 50 placebo, 50 control)	Randomized, Controlled Experimental Model
The effectiveness of the hand and foot massages on pain management after post-Cesarean section operation	Master	2006	75 patients (25 control, 25 hand-foot massages, 25 foot massages)	Randomized, Controlled, Pretest-Posttest Experimental Model
The effects of perineal massages in vaginal births	PhD	2005		
Investigation of the effects of simple lymph drainage massage and simple lymph drainage massage with aromatic oils for the prevention of lymphedema after breast cancer operations	PhD	2005	100 pregnant women (50 massages, 50 control) 64 patients (23 control, 21 lymph drainage massages, 20 simple lymph drainage massages with aromatic oils)	Randomized, Experimental Descriptive-Comparative Experimental

Table-2C: Characteristics of theses/dissertations, which investigated massage methods within the framework of the study (continued).

Name of Thesis/Dissertation	Type of Thesis	Year	Sample Scope	Research Design
Massage				
The investigation on the effects of baby massage on sleep-time and growth-development of babies and on maternity state-trait anxiety level	Master	2004	60 babies (30 control, 30 massage)	Experimental
Effects of position change and back massage on arterial blood gas, pulse rate and blood pressure in intensive care patients	Master	2004	60 patients (left lateral to 30 patients, right lateral to 30 patients)	Clinical Prospective
The investigation of the impacts of back massage on sleep in elderly persons residing in rest homes	Master	2004	33 seniors	Clinical Experimental
Effects of regular baby massage on growing, mental and motor development of healthy full-term babies	PhD	2003	104 newborns (52 experimental, 52 control)	Experimental
The effects of massage applied by mothers on the growth and development of premature low birth weight babies	Master	2002	30 babies (15 control, 15 experimental)	Semi-experimental
The effects of massage on pain and the blood endorphin levels	PhD	1997	20 patients	Experimental
The effects of aromatherapy, music therapy and vibration applications on neonatal stress and behaviors	PhD	2013	80 preterm newborns (20 aromatherapy, 20 music therapy, 20 vibration exercise, 20 control)	Randomized-controlled Experimental

theses/dissertations showed that 26(29.5%) examined the effects of CAM on pain, 14(15.9%) studied the effects of CAM on vital signs, 13(14.8%) investigated the effects of CAM on fatigue, 12(13.6%) on sleep and 10(11.4%) on nausea/vomiting (Table-3).

Besides, 37(42%) studies were conducted at university hospitals. The distribution of methods used in the studies investigated showed that 72(81.8%) theses/dissertations assessed the effectiveness of a single method, whereas, 16(18.2%) investigated the effectiveness of two (such as, aromatherapy and relaxation) or three methods (such as,

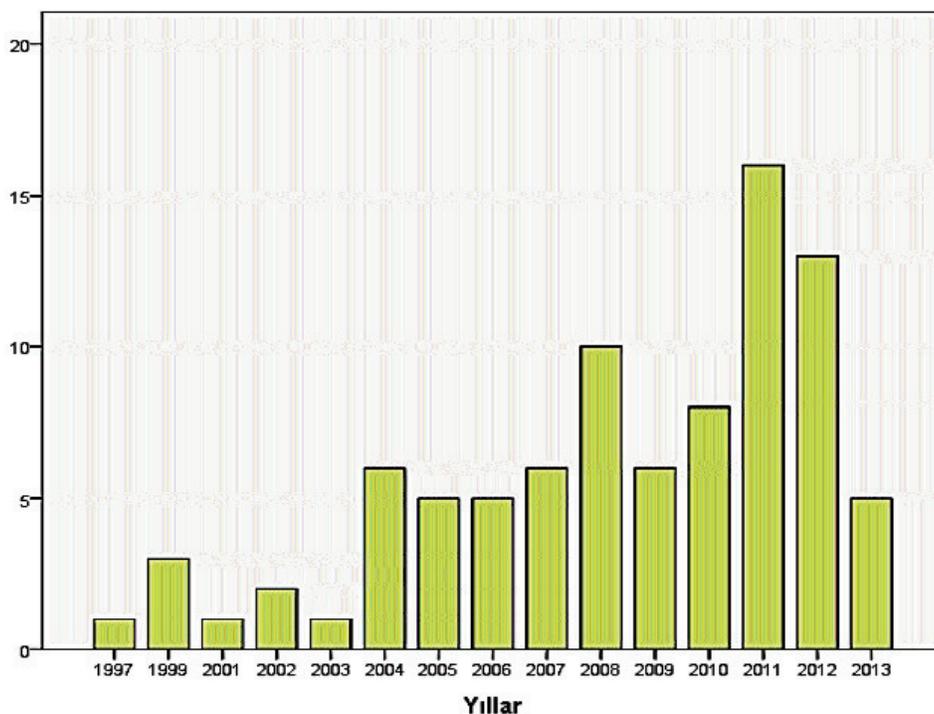


Figure: Distribution of theses/dissertations according to years.

Table-3: Distribution of the CAM methods used in theses/dissertations according to purpose of use*.

Impact	n	%
Quality of Life	8	8.0
Nausea/Vomiting	10	11.4
Sleep	12	13.6
Fatigue	13	14.8
Vital signs	14	15.9
Pain	26	29.5
Other (Anxiety, stress, etc.)	19	21.6

*More than one method was used in the studies.
CAM: Complementary and Alternative Medicine.

Table-4: Distribution of the CAM methods used in theses/dissertations*.

Method	Number	%
Reflexology	5	5.7
Relaxation	19	21.6
Massage	27	30.7
Acupuncture	1	1.1
Acupressure	12	13.6
Aromatherapy	15	17.0
Music	18	20.5
Reiki / healing touch	8	9.1

* More than one method was used in the studies.
CAM: Complementary and Alternative Medicine.

massage, healing touch and music therapy). The most often used methods were massage 27(30.7%), relaxation 19(21.6%) and music 18(20.5%) (Table-4).

Discussion

CAM, whose use is increasing in the developed Western countries, is a social concept that is not fully comprehended.¹⁶ Why is CAM, whose "scientific characteristics" are open to discussion, progressing so rapidly in a period where some branches of medicine are displaying crucial advancements? The increase in the demand for CAM is thought to be related to the rise in chronic diseases among the aging population and the growing impact of lifestyles on these diseases.^{8,11,19-21} Other reasons for the increase may be related to a decrease in the belief that science and technology can solve life's problems, a desire to have more control and influence on one's own life, health service movements that support the right to choose, increase in education, environmental problems, feminism, personal development movements and migration, which have increased in the past few decades.^{9,16,19}

CAM use seems to be a worldwide phenomenon that is not limited to a specific geography, ethnic group, social or economic status.^{20,22,30} Results of studies conducted in Turkey and other countries revealed the fact that patients with chronic diseases especially resorted to the use of CAM methods along with modern treatment methods or used these methods alone before or after they were diagnosed or in both periods.^{7,8,19-21,23}

When the theses/dissertations in our compilation were examined for sample characteristics, it was found that groups with chronic diseases (25%), groups in post-op period (19.3%), in pregnancy (14.8%), and cancer patients (8%) were the subjects in most of the studies. In literature indicated that individuals with chronic diseases (such as cancer, cardiac diseases and diabetes) resorted to CAM use more often.^{3,9,20,21,24} Turan et al.¹¹ reported that increases in chronic, degenerative and malignant diseases in which care and treatment are hard and costly raised interest in the CAM methods. A systematic review by

Karadağ²² showed that 7-64% of cancer patients, 27% of patients who visited gastroenterological clinics and 20% of the patients with inflammatory bowel diseases used CAM, while 29% of individuals in physiotherapy polyclinics in New York chose to use CAM.

According to Rogers, the science of nursing is a humanist science, which presents individuals with a holistic approach, and examines the development and nature of human beings.¹³ Although the holistic health approach was defined recently in the 1990s, but nurses have used this approach for many years in their practices. Though not included under the CAM headings, many of the nursing practices correspond to CAM.^{5,17} It is stated in literature that the complementary therapies used by nurses are separated into three groups. The first group includes the therapies that can be implemented directly by nurses, such as massage, reflexology, aromatherapy and therapeutic healing touch.^{4,10} In this context, CAMs can be regarded within the framework of the independent nursing roles of professional nurses who possess theoretical knowledge and scientific problem-solving skills.^{4,11} The CAM fields in which nurses took part in the compilations of theses/dissertations also pointed to massage (30.7%), aromatherapy (17.0%) and acupressure (13.6%). In their study, which examined the frequency of CAM use, Araz et al.²⁵ found that 33.4% of the participants used massage, 4.1% used aromatherapy, 9.9% used music therapy, 4.9% used reiki and 6% used acupuncture once or twice in their lives. It is stated that the CAM methods specified in the literature differ according to geographical location of the country, ethnic origin, education, socioeconomic factors, beliefs, lifestyles and culture.^{3,22,30}

Nurses are professionals who are responsible for providing high-quality care and improving the quality of life of patients, such as sustaining life and identifying and controlling the symptoms during all phases of illness.^{10,26,30} According to Özdemir,²⁶ many studies point to the important role of nurses in symptom management and symptom relief. The CAM methods were used to handle the symptoms in all of the nursing theses/dissertations investigated. Although the ratio of the theses/dissertations, which investigated the effects of the CAM methods on "Quality of Life" was found to be 8%, all of the other symptoms (pain 29.5%, fatigue 14.8%, sleep 13.6% and nausea/vomiting 11.4%) indirectly affect the quality of life. The concept of quality of life was defined as related to how one feels and to what extent and how one can undertake daily life activities. Symptoms, such as fatigue, pain, sleep disorders, nausea, vomiting and constipation affect all areas of individuals' lives and their quality of life.⁴

According to data obtained from the National Centre for Complementary and Alternative Medicine (NCCAM), one of the leading reasons for the use of CAM is pain.¹ Studies undertaken in developed countries pointed to the fact that pain symptoms affected societies to a great extent and that the use of CAM played a major role in relieving chronic pain.^{8,27,28}

CAM practices which are rather common in many countries have an important place in modern medicine since they facilitate improvement in various diseases that are resistant to known treatments. They are safe and effective due to fewer side-effects than those caused by other medical treatments, can be more easily adopted and are economical.^{7,13} It was found in the literature that many of the patients believed that CAM was beneficial.^{9,10,20} The theses/dissertations selected for the review were found to be related to symptom management and that nurses used CAM methods, which were considered to be related to the nature of many care practices and were identified by the NCCIH.²

It was found in the literature that many of the patients and/or relatives did not provide information about their CAM use to the physicians/nurses for fear of "negative responses".^{7,9,17,19,22} Çaliskan et al.¹⁷ reported that individuals did not share CAM Usage with their physicians. There are no studies about CAM use covering the entire country in Turkey.^{10,13} Studies state that alternative treatments are more widely utilised in the eastern regions of Turkey.¹¹ Özkaptan²³ pointed to the fact that actual CAM use may be even higher considering the fact that patients do not provide information about their CAM use and that they practically hide their use.¹⁸ The importance of assessment of CAM use by health personnel becomes clearer when one considers the potential risks of some of the CAM methods. Theses/dissertations in the field of nursing are also believed to be important from this aspect.

Although patients have the right to select, accept or reject treatment, it is unethical to avoid modern treatment methods or to hide CAM use from health personnel just by overlooking the use of some CAM methods that lack scientific foundations.²³ Among the reasons for preferring CAM are included the fact that it is low-cost, the sharing of popular information related to the activity, negative thoughts about the effects of medical treatments and the anxiety of unsuccessful results. The negative attitudes of health workers towards the use of CAM is the cause of patients hiding its use. The probability of patients not finding answers to their questions makes them prefer the use of CAM despite the side-effects.

The Alternative and Complementary Medicine Advisory Board was established in 2003 as a part of the Cancer Advisory Board by the Ministry of Health in Turkey and the directive on the "Regulation Concerning the Application of Treatment and Private Health Institutions in Which Acupuncture is Applied" went into force in this field.²⁹ It is expected that with these legal regulations, ethical problems concerning the use of CAM may be reduced.²³

As a result of increase in the use of CAM, it is important for physicians and nurses to be a part the CAM implementations and for them to be conscious of these implementations. Consequently, scientific studies should be carried out on the subject of CAM, the benefits and probable side-effects of these methods should be studied and the healthy/ill individuals and/or their families and society should be informed on these subjects.

CAM has not been included within the curricula of medical/nursing education in Turkey. In recent years, CAM has been added as an elective course in the curricula for bachelor's and postgraduate degrees at several nursing schools in Turkey. However, these courses are given theoretically, not practically.

The implementations related to CAM are gradually becoming more widespread, both in Turkey and in the world. This situation has made it imperative to make many regulations on this subject, such as in which professions these implementations could be made and the areas of indication of the minimum educational standards and implementations that the individuals are required to possess. The adoption of definite regulations unique to this field and the regulation of the limitations together with the conditions of implementation would be an important step.

Conclusion

Considering the fact that CAM is based on holistic approach, it is believed that patient care can be enriched with the help of nurses, who have holistic viewpoints, and with patient care planned around the philosophy and conceptual framework of CAM. There are thousands of scientific articles — in favour of or against — CAM in the international scientific databases in recent years. This situation is an indicator that a sounder environment of debate will be formed in the field of CAM.

Disclaimer: The study was presented as a poster at The Complementary and Alternative Medicine Congress in Manisa, Turkey (tat2014.cbu.edu.tr).

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