

| <b>MANAGEMENT IN HEALTH CARE SERVICES</b><br>A Handbook for Teachers, Researchers and Health Professionals |   |
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| <b>Title</b>   | <b>COMPLEMENTARY AND ALTERNATIVE MEDICINE: SOME PUBLIC HEALTH VIEWS</b>   |
| <b>Module: 3.6</b>   | <b>ECTS (suggested): 0.5</b>  |
| <b>Authors</b>   | <b>Marjan Premik, DMD, PhD, Assistant Professor</b><br><b>Lijana Zaletel-Kragelj, MD, PhD, Assistant Professor</b><br>Chair of Public Health, Faculty of Medicine, University of Ljubljana, Slovenia  |
| <b>Address for correspondence</b>  | <b>Lijana Zaletel-Kragelj</b><br>Chair of Public Health, Faculty of Medicine, University of Ljubljana, Slovenia<br>Zaloška 4, Ljubljana, Slovenia<br>E-mail: <a href="mailto:lijana.kragelj@mf.uni-lj.si">lijana.kragelj@mf.uni-lj.si</a>   |
| <b>Keywords</b>  | Medicine, complementary and alternative medicine, traditional medicine  |
| <b>Learning objectives</b>   | After completing this module students should: <ul style="list-style-type: none"> <li>• be familiar with terminology and terminological problems related to complementary and alternative medicine (CAM);</li> <li>• be able to distinguish between medicine (as conventional medicine) and CAM;</li> <li>• be familiar with public health views of CAM.</li> </ul>  |
| <b>Abstract</b>  | CAM is, from the point of view of public health, a phenomenon that should be followed, analysed and controlled. Noxious as well as protective factors which accompany the implementation of CAM methods should be recognised so as to be able to inform the public of the results in a timely and accurate manner.<br>The case study analyses the viewpoints of medical doctors, patients and the state of the phenomenon of CAM in Slovenia. A declinatory attitude of conventional medicine to CAM is present. In contrast, population express a favourable opinion on alternative methods of treatment, and more than a third of them actually make use of them. |
| <b>Teaching methods</b>  | An introductory lecture gives the students first insight in definitions of CAM. The theoretical knowledge is illustrated by a case study of CAM in Slovenia.<br>After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics of CAM in relation to TM, and both of them in relation to conventional medicine with other students.<br>In continuation, they need to find published materials (e.g. papers) on CAM/TM and present their findings to other students.  |
| <b>Specific recommendations for teachers</b>   | <ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>   |
| <b>Assessment of students</b>  | Multiple choice questionnaire and essay.  |

# COMPLEMENTARY AND ALTERNATIVE MEDICINE: SOME PUBLIC-HEALTH VIEWS

Marjan Premik, Lijana Zaletel-Kragelj

## THEORETICAL BACKGROUND

Public health is concerned with the reciprocal influences between the state of health of the inhabitants and the social and environmental factors that impact on it. It is based on a number of scientific disciplines and takes into account the findings of natural, social, political, organisational and other sciences. Public health also deals with various phenomena associated with the implementation of medicine.

Speaking of medicine, we are usually thinking of scientific medicine, which is founded on natural and biomedical science, but along this kind of medicine there exist also, known frequently also as “alternative medicine”. There exist several public health aspects of this kind of medicine, and only few of them could be discussed in such an introductory teaching module. The focus of this module will be on introductory issues of this kind of medicine like definitions and brief description, epidemiology, and some aspects of regulation, and it will not deal with its efficacy.

### Basic definitions and explanation of terms

Before starting to discuss the phenomenon of “the other medicine”, it is necessary first of all to clarify terminological issues concerning it.

#### *Medicine*

Before trying to explain the meaning of terms “alternative medicine”, “complementary medicine” or related terms, we need first to define what the term “medicine” means.

##### 1. Medicine as a discipline.

Among others, following definitions and explanations could be found:

- according to Merriam-Webster Online Dictionary, medicine is the science and art dealing with the maintenance of health and the prevention, alleviation, or cure of disease (1);
- in TheFreeDictionary online dictionary, two definitions could be found being medicine is the art and science of preventing, diagnosing, treating, and managing illness (2), and the diagnosis and treatment of disease and the maintenance of health (2).

But also following more specific definitions and explanations could be found:

- according to Merriam-Webster Online Dictionary, medicine means also the branch of medicine concerned with the nonsurgical treatment of disease (1);
- according to TheFreeDictionary online dictionary, medicine means also the treatment of disease by nonsurgical means (2).

Since this term is used in rather different context it should be supplemented with an adjective, designating more specifically what medicine discipline we are talking about (e.g. conventional).

## 2. Medicine as mean/agent used for treating diseased people.

Among others, following definitions and explanations could be found:

- in Merriam-Webster Online Dictionary, three definitions could be found being medicine is a substance or preparation used in treating disease or something that affects well-being (1), a substance (as a drug or potion) used to treat something other than disease (1), and an object held in traditional American Indian belief to give control over natural or magical forces; also magical power or a magical rite (1);
- according to TheFreeDictionary online dictionary, medicine is any drug or remedy (2).

### *Conventional versus unconventional medicine*

When we (in Europe, North America, and Australia) speak of medicine as a discipline we are usually thinking of scientific medicine, which is founded on natural and biomedical science, which is also known as “conventional medicine”.

#### 1. Conventional medicine.

The term “conventional” according to Merriam-Webster Online Dictionary means something what is formed by agreement (1). In this context, among others, following definitions and explanations of conventional medicine could be found:

- according to TheFreeDictionary online dictionary, conventional medicine is the model of currently established Western medicine. This paradigm was designated as *conventional* because of its prevalence. What is considered conventional is always in flux (2);
- according to Medicine.Net Online Dictionary, conventional medicine is medicine as practiced by holders of M.D. (medical doctor) or D.O. (doctor of osteopathy) degrees and by their allied health professionals, such as physical therapists, psychologists, and registered nurses. Other terms for conventional medicine include allopathy and allopathic medicine; synonyms are Western medicine, mainstream medicine, orthodox medicine, and regular medicine; and biomedicine (3); The same definition is adopted by the US National Institutes of Health, National Centre for Complementary and Alternative Medicine (NCCAM) (4).

The other term for conventional medicine is, among others, allopathic medicine. According to Merriam-Webster Online Dictionary “allopathic” means relating to or being a system of medicine that aims to combat disease by using remedies (as drugs or surgery) which produce effects that are different from or incompatible with those of the disease being treated (1). The term “allopathy” was coined in 1842 by C.F.S. Hahnemann to designate the usual practice of medicine (allopathy) as opposed to homeopathy, the system of therapy that he founded based on the concept that disease can be treated with drugs (in minute doses) thought capable of producing the same symptoms in healthy people as the disease itself (3). Following explanations of what allopathic medicine is could be found:

- according to Medicine.Net Online Dictionary, allopathic medicine is the system of medical practice which treats disease by the use of remedies which produce effects different from those produced by the disease under treatment. MDs practice allopathic medicine (3);

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- according to TheFreeDictionary online dictionary, allopathic medicine is method of medical treatment in which drugs are administered to counter symptoms of the disease (2);

Conventional medicine is sometimes denoted also as “standard medicine”, or “official medicine”. The last term could be misleading since in different countries of the world some methods classified in western countries as “unconventional” are officially recognized as well.

## 2. Unconventional medicine.

Along conventional medicine there exist also the “other medicine” - the “unconventional medicine”, in western countries frequently denoted also as “alternative medicine”. The word “alter” in Latin means “other”. Accordingly the word “alternative medicine” means a “different medicine”. Other terms like “complementary medicine” or “traditional medicine” are used.

### *Basic unconventional medicine terminology*

#### 1. Alternative medicine.

- according to Merriam-Webster Online Dictionary, alternative medicine is any of various systems of healing or treating disease (as chiropractic, homeopathy, or faith healing) not included in the traditional medical curricula taught in the United States and Britain (1);
- in TheFreeDictionary online dictionary, two definitions could be found being alternative medicine are therapeutic practices not considered integral to conventional medicine; used instead of conventional therapies, and alternative medicine is a variety of therapeutic or preventive health care practices, such as homeopathy, naturopathy, and herbal medicine, that are not typically taught or practiced in traditional medical communities and offer treatments that differ from standard medical practice (2);
- according to Medicine.Net Online Dictionary, alternative medicine is healing arts not taught in traditional Western medical schools that promote options to conventional medicine that is taught in these schools... An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a Western physician. Complementary medicine is different from alternative medicine. Whereas complementary medicine is used together with conventional medicine, alternative medicine is used in place of conventional medicine (3);
  - according to Mayo Clinic, alternative medicine is medicine which is generally thought of as being used instead of conventional methods. For example, this might mean seeing a homeopath or naturopath instead of regular doctor (5);

#### 2. Complementary medicine.

- according to Merriam-Webster Online Dictionary, complementary medicine is any of the practices (as acupuncture) of alternative medicine accepted and utilized by mainstream medical practitioners (1);
- in TheFreeDictionary online dictionary, two definitions could be found first of them being complementary medicine are therapeutic practices not considered integral to conventional medicine. Used in conjunction with conventional therapies. Often used interchangeably with the term “alternative medicine”; encompasses the wide array of

therapies not generally offered by MDs and not usually covered by health insurance. Complementary is considered a more accurate term because in practice, patients do not replace allopathic treatment but instead supplement it with complementary medicine (2). The second definition states that complementary medicine is a method of health care that combines the therapies and philosophies of conventional medicine with those of alternative medicines, such as acupuncture, herbal medicine, and biofeedback (2);

- according to Medicine.Net Online Dictionary, complementary medicine a group of diagnostic and therapeutic disciplines that are used together with conventional medicine. An example of a complementary therapy is using aromatherapy to help lessen a patient's discomfort following surgery. (2).
- complementary medicine is usually not taught or used in Western medical schools or hospitals. Complementary medicine includes a large number of practices and systems of health care that, for a variety of cultural, social, economic, or scientific reasons have not been adopted by mainstream Western medicine.
- complementary medicine is different from alternative medicine. Whereas complementary medicine is used together with conventional medicine, alternative medicine is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a physician.
- according to Mayo Clinic, complementary medicine is medicine which is thought of as treatments used in addition to the conventional therapies your doctor may prescribe, such as using tai chi or massage in addition to prescription medicine for anxiety (5);
- according to Zollman and Vickers, complementary medicine refers to a group of therapeutic and diagnostic disciplines that exist largely outside the institutions where conventional health care is taught and provided. In the 1970s and 1980s these disciplines were mainly provided as an alternative to conventional health care and hence became known collectively as “alternative medicine.” The name “complementary medicine” developed as the two systems began to be used alongside (to “complement”) each other. Over the years, “complementary” has changed from describing this relation between unconventional healthcare disciplines and conventional care to defining the group of disciplines itself (6);

### 3. Traditional medicine (TM).

- according to WHO definition adopted in 2000, traditional medicine is “the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses. The terms complementary/alternative/non-conventional medicine are used interchangeably with traditional medicine in some countries.” (7);
- according to WHO definition adopted in 2003, traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being (8,9);
- there are many TM systems, including traditional Chinese medicine, Indian ayurveda and Arabic unani medicine. A variety of indigenous TM systems have also been developed throughout history by Asian, African, Arabic, Native American, Oceanic, Central and South American and other cultures. Influenced by factors such as history, personal attitudes and philosophy, their practice may vary

greatly from country to country and from region to region. Their theory and application often differ significantly from those of allopathic medicine (9).

- according to the WHO Traditional Medicine Strategy 2002-2005 document, “traditional medicine” term is used when referring to a broad set of health care practices used in Africa, Latin America, South-East Asia, and/or the Western Pacific (9).

#### 4. Integrated or integrative medicine.

- according to TheFreeDictionary online dictionary, integrative medicine is holistic system of medicine that combines the best treatments and approaches from various disciplines, including traditional medicine, natural healing, phytotherapy, and Eastern modalities, so that treatments complement one another resulting in safer and effective care (2);
- according to Mayo Clinic, conventional doctors are learning more about complementary and alternative medicine because they recognize that more than half of people try some kind of alternative treatment. Many health care institutions have begun integrating therapies that aren't part of mainstream medicine into their treatment programs. A number of medical schools now include education on untraditional techniques in their curriculum. As complementary and alternative therapies prove effective, they're being combined more often with conventional care. This is known as integrative medicine (5);
- according to Osher Center for Integrative Medicine of School of Medicine, University of San Francisco, California, **Integrative medicine** is a new term that emphasizes the combination of both conventional and alternative approaches to address the biological, psychological, social and spiritual aspects of health and illness. It emphasizes respect for the human capacity for healing, the importance of the relationship between the practitioner and the patient, a collaborative approach to patient care among practitioners, and the practice of conventional, complementary, and alternative health care that is evidence-based. (10);

The term “integrated medicine is used in the UK, while in the US, the term “integrative medicine” is used.

#### 5. Complementary and alternative medicine (CAM).

In some parts of the world, being Europe, North America and Australia, the terms “complementary” and “alternative” are used to refer to health care practices that are not part of a country’s own tradition, or not integrated into its dominant health care system. The distinction between these two terms has been already described. To avoid using one or another term, recently the comprehensive term being “complementary and alternative medicine” or in short CAM was adopted. It is a widely used term. The definition of CAM has been developed at a 1997 conference of the United States Office for Alternative Medicine of the National Institutes of Health, now NCCAM, and subsequently adopted by the Cochrane Collaboration, the Ministerial Advisory Committee on Complementary and Alternative Medicine, and WHO (2,6,9,11,12). There exist several different but very similar, definitions:

- as cited by Roberti di Sarsina, and Zollman and Vickers (6,11), the definition, according to NCCAM, which was later adopted by Cochrane Collaboration, CAM is a “broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. CAM includes all such practices and ideas self defined by their users as preventing or treating illness or promoting health and

well-being. Boundaries within CAM and between the CAM domain and that of the dominant system are not always sharp or fixed.”;

- the WHO, as cited by Roberti di Sarsina (11), defines CAM slightly different - “CAM refers to a broad set of health care practices that are not part of a country’s own tradition and not integrated into the dominant health care system. Other terms sometimes used to describe these health care practices include “natural medicine”, “non-conventional medicine” and “holistic medicine”;
- according to TheFreeDictionary online dictionary, CAM is a “large and diverse set of systems of diagnosis, treatment, and prevention based on philosophies and techniques other than those used in conventional Western medicine. Such practices may be described as *alternative*, existing as a body separate from and as a replacement for conventional Western medicine, or *complementary*, used in addition to conventional Western practice. CAM is characterized by its focus on the whole person as a unique individual, on the energy of the body and its influence on health and disease, on the healing power of nature and the mobilization of the body's own resources to heal itself, and on the treatment of the underlying causes, not symptoms, of disease. Many of the techniques used are controversial and have not been validated by controlled studies.” (2);
- also another definitions could be found. According to Ernst, CAM is defined as “diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine.” (12);

#### 6. TM/CAM.

When discussing about health care practices that are not part of a country’s own tradition, or not integrated into its dominant health care system referring in a general sense to all of different regions of the world, the comprehensive TM/CAM term should be used (9).

### **Methods and systems of complementary and alternative medicine**

Like conventional medicine, also CAM is divided into narrower fields, being methods or medical systems. Some of them are listed alphabetically, supplemented with brief description, in Table 1.

**Table 1.** Some of common methods/systems of complementary and alternative medicine (CAM), supplemented with brief description (4, 6, 13-16).

| <b>CAM method/system</b> | <b>Description</b>  |
|--------------------------|---|
| Acupressure              | A type of acupuncture that stimulates specific points on the body using pressure applied by the hands   |
| Acupuncture              | A method, characterized by the stimulation of specific points on the body by a variety of techniques, including the insertion of thin, solid, metallic needles that are manipulated by the hands or by electrical stimulation, through the skin. It is intended to remove blockages in the flow of qi (in traditional Chinese medicine, the vital energy or life force proposed to regulate a person's spiritual, emotional, mental, and physical health and to be influenced by the opposing forces of yin and yang)and restore and maintain health) |

**Table 1. Cont**

| <b>CAM method/system</b>      | <b>Description</b>  |
|-------------------------------|---|
| Aromatherapy                  | The use of essential oils from plants to support and balance the mind, body, and spirit, to promote relaxation, a sense of well-being, and healing  |
| Autogenic training            | One of deep relaxation methods; it consists of imagining a peaceful environment and comforting bodily sensations. Six basic focusing techniques are used: heaviness in the limbs, warmth in the limbs, cardiac regulation, centring on breathing, warmth in the upper abdomen, and coolness in the forehead   |
| Ayurveda (ayurvedic medicine) | A whole medical system that originated in India. It aims to integrate the body, mind, and spirit to prevent and treat disease. Therapies used include herbs, massage, and yoga. It is one of the world's oldest whole medical systems   |
| Biofeedback                   | The use of electronic devices to help people learn to control body functions that are normally unconscious (such as breathing or heart rate). The intent is to promote relaxation and improve health.   |
| Chiropractic                  | A health care profession concerned with the diagnosis, treatment and prevention of disorders of the neuromusculoskeletal system and the effects of these disorders on general health. There is an emphasis on manual techniques, including joint adjustment and/or manipulation, with a particular focus on subluxations  |
| Diet therapy                  | A CAM method, characterized by use of dietary supplements. A dietary supplement is a product that is intended to supplement the diet. A dietary supplement contains one or more dietary ingredients (including vitamins, minerals, herbs or other botanicals, amino acids, and other substances) or their components; is intended to be taken by mouth as a pill, capsule, tablet, or liquid; and is identified on the front label of the product as being a dietary supplement.  |
| Energy medicine               | <p>A group of CAM interventions that deals with energy fields of two types: veritable (energy fields, which can be measured: mechanical vibrations such as sound and electromagnetic forces, including visible light, magnetism, monochromatic radiation, such as laser beams, and rays from other parts of the electromagnetic spectrum), and putative (energy fields, which have not been measured by conventional instruments yet, also called biofields).</p> <p>Therapies involving putative energy fields are based on the concept that human beings are infused with a subtle form of vital energy, known under different names in different cultures (qi in Traditional Chinese medicine, ki in the Japanese Kampo system, doshas in Ayurveda, and in others as prana, etheric energy, fohat, orgone, odic force, mana, and homeopathic resonance). Reiki and qi gong are examples of therapies that involve biofields. Herbal medicine, acupuncture, acupressure, and moxibustion, are all believed to act by correcting imbalances in the internal biofield, such as by restoring the flow of qi through meridians to reinstate health. Some therapists are believed to emit or transmit the vital energy (external qi) to a recipient to restore health.</p> |



**Table 1. Cont**

| <b>CAM method/system</b>                  | <b>Description</b>  |
|---|---|
| Herbal medicine (herbalism, phytotherapy) | A system of medicine which uses various remedies derived from plants and plant extracts (herbal products; a herb, also a botanical, is a plant or part of a plant - flowers, leaves, bark, fruit, seeds, stems, or roots - used for its flavour, scent, or potential therapeutic properties) to treat disorders and maintain good health  |
| Homeopathy (Homoeopathic medicine)        | A whole medical system that originated in Europe, in Germany; seeks to stimulate the body's ability to heal itself by giving very small doses of highly diluted substances that in larger doses would produce illness or symptoms (an approach called "like cures like")  |
| Hypnotherapy                              | The use of hypnosis in treating behavioural disease and dysfunction, principally mental disorders. Hypnotic techniques induce states of selective intentional focusing or diffusion combined with enhanced imagery. They are often used to induce relaxation and also may be a part of cognitive-behavioural therapy. The techniques have three phases: the presuggestion (involves intentional focusing through the use of imagery, distraction, or relaxation; subjects focus on relaxation and passively disregard intrusive thoughts), the suggestion (characterized by introduction of specific goals; for example, analgesia may be specifically suggested), and the postsuggestion phase (involves continued use of the new behaviour following termination of hypnosis) |
| Joint manipulation                        | A manual procedure involving directed thrust to move a joint past the physiological range of motion, without exceeding the anatomical limit   |
| Magnetotherapy                            | An energy medicine therapy in which practitioners use magnets, which produce a measurable force called a magnetic field. Static magnets have magnetic fields that do not change, unlike electromagnets, which generate magnetic fields only when electrical current flows through them. Magnets are usually made from metals (such as iron) or alloys (mixtures of metals, or of a metal and a nonmetal). Static, or permanent, magnets are widely marketed for pain control  |
| Manipulative and Body-Based Practices     | A heterogeneous group of CAM interventions and therapies, which include chiropractic and osteopathic manipulation (an example is spinal manipulation), massage therapy, reflexology, Alexander technique, Feldenkrais method, and many others   |
| Massage therapy                           | A group of practices and techniques, which uses pressing, rubbing, and moving muscles and other soft tissues of the body, primarily by using the hands and fingers. The intent is to relax the soft tissues, increase delivery of blood and oxygen to the massaged areas, warm them, and decrease pain. A few popular examples of this therapy are Swedish massage, deep tissue massage, trigger point massage, and shiatsu massage. In some instances, massage therapy is sometimes part of conventional medicine (for example, in reducing a type of swelling called lymphedema), in others, it is part of CAM (for example, in enhancing immune system functioning)  |

**Table 1. Cont**

| <b>CAM method/system</b>                      | <b>Description</b>  |
|---|---|
| Meditation                                    | A conscious mental process using certain, such as focusing attention or maintaining a specific posture, to suspend the stream of thoughts and relax the body and mind. It can be practiced for various reasons, for example to increase physical relaxation, mental calmness, and psychological balance, to cope with one or more diseases and conditions, and for overall wellness   |
| Mind-Body Medicine                            | Practices that focus on the interactions among the brain, mind, body, and behaviour, with the intent to use the mind to affect physical functioning and promote health. It typically focuses on intervention strategies that are thought to promote health, such as relaxation, hypnosis, visual imagery, meditation, yoga, biofeedback, tai chi, qi gong, cognitive-behavioural therapies, group support, autogenic training, and spirituality   |
| Moxibustion                                   | In traditional Chinese medicine, the use of heat from burning the herb moxa on or near the skin at an acupuncture point. Intended to stimulate the flow of qi and restore health  |
| Naturopathy (Naturopathic medicine)           | A whole medical system, rooted in health care approaches that were popular in Europe, especially in Germany, in the 19th century, but it also includes therapies (both ancient and modern) from other traditions. It aims to support the body's ability to heal itself through the use of dietary and lifestyle changes together with CAM therapies such as herbs, massage, and joint manipulation. The emphasis is on supporting health rather than combating disease.   |
| Nutritional medicine                          | Use of nutritional methods to address and prevent disease. Uses diets and nutritional supplements. Often used to address allergies and chronic digestive problems. The difference between nutritional medicine and dietetics is that nutritional therapists work independently in accordance with naturopathic principles and focus on disorders which they believe can be attributed to nutritional deficiency, food intolerance or toxic overload. They believe these three factors are involved in a wide range of health problems. Dieticians usually work under medical supervision, using diets to encourage healthy eating and tackle a narrower range of diseases. Nutritional therapists often use exclusion diets and herbal remedies to tackle patients' problems. |
| Osteopathy (osteopathic manipulative therapy) | A type of manipulation practiced by osteopathic physicians. It is combined with physical therapy and instruction in proper posture  |
| Qi gong                                       | A component of traditional Chinese medicine that combines movement, meditation, and controlled breathing. The intent is to improve blood flow and the flow of qi  |

**Table 10. Cont**

| <b>CAM method/system</b>     | <b>Description</b>   |
|------------------------------|--|
| Radiesthesia                 | A <u>paranormal</u> or <u>parapsychological</u> ability to detect "radiation" within the human body. According to the theory, all human bodies give off unique or characteristic "radiations" as do all other physical bodies or objects. Such radiations are often termed an " <u>aura</u> ". Radiesthesia is cited as the explanation of such phenomena as <u>dowsing</u> by rods and <u>pendulums</u> in order to locate buried substances, diagnose illnesses, and similar |
| Reflexology                  | A system of massage of the feet based on the idea that there are invisible zones running vertically through the body, so that each organ has a corresponding location in the foot. It has also been claimed to stimulate blood supply and relieve tension  |
| Reiki                        | An energy medicine therapy in which practitioners seek to transmit a universal energy to a person, either from a distance or by placing their hands on or near that person. The intent is to heal the spirit and thus the body   |
| Spinal manipulative therapy  | Includes all procedures where the hands or mechanical devices are used to mobilize, adjust, manipulate, apply traction, massage, stimulate or otherwise influence the spine and paraspinal tissues with the aim of influencing the patient's health  |
| Spirituality                 | An individual's sense of purpose and meaning of life beyond material values. Spirituality may be practiced in many ways, such as through religion  |
| Shiatsu                      | A massage technique in which the therapist applies varying, rhythmic pressure from the fingers on parts of the body that are believed to be important for the flow of a vital energy qi  |
| Tai Chi                      | A mind-body practice that originated in China as a martial art. A person doing tai chi moves his body slowly and gently, while breathing deeply and meditating (tai chi is sometimes called "moving meditation"). It is believed that tai chi helps the flow throughout the body of a proposed vital energy qi   |
| Traditional Chinese medicine | A whole medical system that originated in China. It is based on the concept that disease results from disruption in the flow of qi and imbalance in the forces of yin and yang. Practices such as herbs, meditation, massage, and acupuncture seek to aid healing by restoring the yin-yang balance and the flow of qi   |
| Therapeutic touch            | A therapy in which practitioners pass their hands over another person's body with the intent to use their own perceived healing energy to identify energy imbalances and promote health  |
| Yoga                         | A mind-body practice from Ayurvedic medicine that combines breathing exercises, physical postures, and meditation. It is intended to calm the nervous system and balance the body, mind, and spirit. The various styles of yoga that people use for health purposes typically combine physical postures, breathing techniques, and meditation or relaxation  |

Detailed description of many of them could be found at web pages of NCCAM (14) and UK Complementary and Alternative Medicine Specialist Library (17). Also, many of them are described in a series of papers published in British Medical Journal in 1999 (18-24).

### *Categorization of complementary and alternative medicine methods/systems*

TM/CAM methods are very heterogeneous but could be classified in some major areas. Two categorizations are presented.

#### **NCCAM, US, categorization**

In the US, National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health uses following classification (4):

1. Whole medical systems (25).  
TM/CAM systems are complete sets of theories and practices. A system isn't just a single practice or remedy, such as massage, but many different practices that all centre on a philosophy or lifestyle, such as the power of nature or the presence of energy in your body. Many healing systems developed long before the conventional Western medicine. Examples of complementary and alternative medicine treatment/healing systems are ayurveda, homeopathy, naturopathy, and ancient medicines (traditional Chinese medicine, traditional Asian medicine, traditional Pacific Islander medicine, traditional American Indian, and traditional Tibetan practices).
2. Mind-body medicine (26).  
Mind-body techniques strengthen the communication between mind and body. It is believed that these two systems must be in harmony for you to stay healthy. Examples of mind-body medicine techniques are meditation, yoga, biofeedback, hypnosis, and relaxation therapies, as well as art therapies, such as poetry, music and dance.
3. Biologically based practices (27).  
These practices use substances found in nature, such as herbs, foods, and vitamins. Examples of biologically based practices are herbal medicine, and diet/nutritional therapies.
4. Manipulative and body based practices (28).  
These methods use human touch to move or manipulate a specific part of your body. Examples of manipulative and body based practices are chiropractic or osteopathic manipulation, massage, and acupressure.
5. Energy medicine (29).  
Energy medicine practices use energy fields. Unblocking or re-balancing energy force is the goal of these therapies. Examples of energy therapies are acupuncture, Reiki, qi gong, therapeutic touch, magnet therapy, polarity therapy, and light therapy

The distinctions between therapies aren't clear-cut. Some techniques may fit in more than one category. For example, acupressure could fit either in the category of manipulation and touch or in the category of energy therapies. Also, there exist TM/CAM treatment/healing systems which use techniques from more than one category.

## **House of Lords, UK, categorization**

In the UK, the House of Lords Select Committee on Science and Technology report on Complementary and Alternative Medicine (15) took a different line by categorising specific approaches and therapies into 3 groups:

1. Professionally organised alternative therapies.

This group includes what may be called the principal disciplines: osteopathy, chiropractic, acupuncture, herbal medicine and homeopathy. Two of them, osteopathy and chiropractic, were in 2002 already regulated in their professional activity and education in UK by Acts of Parliament. These methods are seen as the principal methods by most of the CAM world.

2. Complementary therapies.

This group includes therapies which are most often used to complement conventional medicine and do not include diagnostic skills: Alexander technique, aromatherapy, Bach and other flower remedies, body work therapies, including massage, counselling stress therapy, hypnotherapy, meditation, reflexology, shiatsu, healing, Maharishi ayurvedic medicine, nutritional medicine, and yoga.

3. Alternative disciplines.

This group includes those other disciplines which purport to offer diagnostic information as well as treatment and which, in general, favour a philosophical approach and are indifferent to the scientific principles of conventional medicine, and through which various and disparate frameworks of disease causation and its management are proposed. These therapies can be split into two sub-groups:

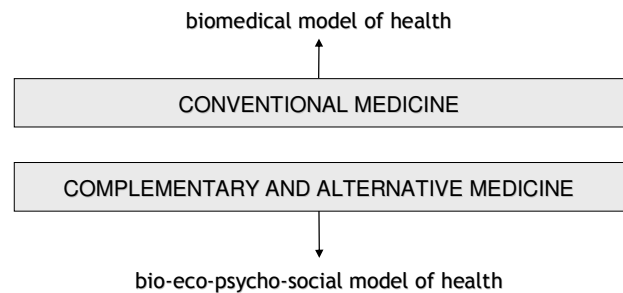
- long-established and traditional systems of healthcare: anthroposophical medicine, ayurvedic medicine, Chinese herbal medicine, Eastern medicine, naturopathy, and traditional Chinese medicine, and
- other alternative disciplines which lack any credible evidence base: crystal therapy, dowsing, iridology, kinesiology, and radionics.

## **Health philosophy differences between conventional and unconventional medicine**

From the public health perspective, we would like to emphasize the philosophical and conceptual differences between conventional medicine and TM/CAM.

There exist two fundamentally different modern models of health: the biomedical and the bio-eco-psycho-social models. The knowledge on of these two models is important for understanding differences between conventional medicine and TC/CAM, as well as for understanding the processes related to the supply, demand and evaluation of conventional and unconventional medicine health services:

1. Biomedicine is a dominant paradigm in the modern conventional medicine health care systems (Figure 1).



**Figure 1.** Health philosophy differences between conventional medicine, and complementary and alternative medicine.

It is based on natural sciences/scientific medical theory and practice focused on the internal operation of the body. Biomedicine verifies its theories which are accepted as fact by using scientifically methods. Accepted facts are not suspicions or deductions but discoveries revealed with the assistance of specific, universally accepted, strict procedures, focused on the integral functioning of the body, including mental processes. Biomedical certainty is founded on the supposition that people can be understood and reconstructed in all their physical, mental and social integrity through the collection of facts about various parts of their body.

Biomedical monitoring has in the last decades of this century been exposed to serious criticism both by medical and non-medical circles due to some of its deficiencies (30-34). Although critics of the existing biomedical paradigm proceed from divergent standpoints and different levels of analyses (which consequently has different implications), they share the conclusion that what are needed are broader and stricter scientific research methods, the promotion of the significance of public health, the strengthening of spiritual values, the recognition of social stratification and differences in communities, and consideration of the personal beliefs of patients. Critics offer a series of different social scientific outlooks and theories which cast doubt on whether biomedicine is the “one and only” medical science and demand a scientific evaluation of the meaning of quality and freedom. The biomedical model is also criticised because of the monopoly of doctors on “medical knowledge” and because of the predominantly unacceptable standpoint regarding everything which could be denoted as a different view of an illness, a health problem or health. The common denominator of all the more important critics is the awareness that healthcare and treatment can end using biomedical technology.

2. The biomedical model of understanding illness and health problems is placed side by side with the bio-eco-psycho-social model of understanding diseases and health. The bio-eco-psycho-social model does not agree with universality, neutrality and the all-round usefulness of the biomedical model and it questions such a principle.

The bio-eco-psycho-social model is based on searching for the cause for disease outside the body, presupposing that disease is a product of life style and specific social circumstances. It is a synthesis of various conceptualizations. It allows us to develop more comprehensive and efficient approach also to health promotion and disease prevention and it is thus of crucial importance also for public health.

## **CAM and international integrations/organizations**

Several international integrations/organizations are dealing with the problem of dialogue between conventional medicine and CAM, as well as different aspects of CAM (e.g. quality, effectiveness, and safety of CAM procedures, education of CAM practitioners, etc.). For European region, response on CAM phenomenon of following international integrations/organizations is important:

1. WHO made a number of policy recommendations and documents concerning TM/CAM, among them:
  - in 2000 the General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine (35) were published;
  - in 2001 the Legal Status of Traditional medicine and Complementary/ Alternative Medicine: a Worldwide Review (36) was published;
  - in 2002 the Traditional Medicines Strategy: 2002-2005 (9) was published;
  - in 2004 the Guidelines on Developing Consumer Information on Proper use of Traditional, Complementary and Alternative Medicine (37) were published;
  - in 2005 the Global Atlas of Traditional, Complementary and Alternative Medicine (38) was published.

The WHO is prepared to help evaluate and study the safety and effectiveness of the TM/CAM methods used (by research), to supplement knowledge in traditional and modern health practitioners (an approach to health in a way which, in individual environments, is passed on from generation to generation), as well as to notify the public regarding the confirmed discoveries associated with the use of unconventional methods. For this purpose the WHO has at the beginning of this millennium already founded several collaboration centres for traditional medicine. Among developed countries which have such centres are for example Belgium, Italy, Japan and the US (8).

2. In European Union a growing demand on CAM among the European citizens also dictated some steps dealing with CAM sphere, but the process is much slower than at the global level (e.g. WHO). Among important steps are:
  - in 1993 COST, European Cooperation in the field of Scientific and Technical Research Action, B-4 project: Unconventional medicine was launched. The main objective of this project was to foster international collaboration in research into the therapeutic significance of CAM, its cost-benefit ratio and its sociocultural importance as a basis for evaluation of its possible usefulness or risks in the public health. In this project 13 parties participated (Belgium, Denmark, Finland, Germany, Hungary, Italy, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, and UK) (39);
  - in 1997 - European Parliament has promulgated on 29/5/97 a resolution (A4-0075/97) on the "Status of non-conventional medicine" (40),
  - in 1998 the final report on COST Action B-4 project: Unconventional medicine 1993-98 (EUR 18420 EN) was published (41).
  - in 1999, the Supplement to this final report was published (42);
  - in 2001, the Directive 2001/83/EC of the European Parliament and of the Council on the Community Code Relating to Medicinal Products for Human Use. Official Journal of the European Communities L 311/67-128 was adopted (43). This directive among other medicinal products regulates also homeopathic medicinal products.

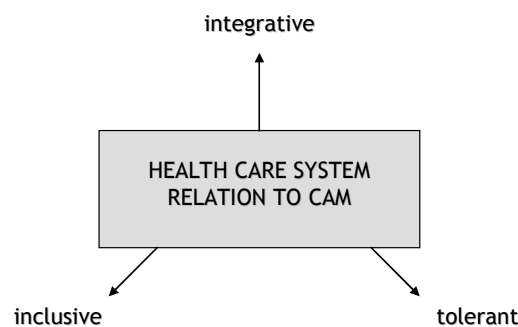
From the public health point of view seems clear, that a tendency towards the integration of different CAM therapeutic procedures in health care systems is inevitable, but there are too many different points of view in EU to adopt common legal base (44);

3. Council of Europe.

- 1999 – Resolution No. 1206 entitled “A European approach to non-conventional medicines” (45) was promulgated. In it the Assembly of the Council stated that it believes that the best guarantee for patients lies in a properly trained profession, which is aware of its limitations, has a system of ethics and self-regulation, and is also subject to outside control.

### **Incorporation of TM/CAM into national health care systems**

WHO has defined three types of health system to describe the degree to which TM/CAM is an officially recognized element of health care, being integrative, inclusive, and tolerant systems (Figure 2) (9).



**Figure 2.** Health care systems classification according to the incorporation of TM/CAM (9) within the system. LEGEND: TM=traditional medicine, CAM=complementary and alternative medicine.

1. Integrative health care systems

In an integrative system, TM/CAM is officially recognized and incorporated into all areas of health care provision. This means that: TM/CAM is included in the relevant country’s national drug policy; providers and products are registered and regulated; TM/CAM therapies are available at hospitals and clinics (both public and private); treatment with TM/CAM is reimbursed under health insurance; relevant research is undertaken; and education in TM/CAM is available (9).

In 2002, only China, the Democratic People’s Republic of Korea, the Republic of Korea and Viet Nam were considered to have attained an integrative system (9).

2. Inclusive health care systems

An inclusive system recognizes TM/CAM, but has not yet fully integrated it into all aspects of health care: health care delivery, education and training, or regulation. TM/CAM might not be available at all health care levels, health insurance might not cover treatment with TM/CAM, official education in TM/CAM might not be available at university level, and regulation of TM/CAM providers and products



might be lacking or only partial. Work on policy, regulation, practice, health insurance coverage, research and education, are in process or will be prepared (9).

Countries with an inclusive system in 2002 included developing countries (Equatorial Guinea, Nigeria, Mali) which had a national TM/CAM policy, but little or no regulation of TM/CAM products, and developed countries (Canada, the USA, the UK, Germany, Norway) which in 2002 did not offer significant university-level education in TM/CAM, but which were making efforts to ensure the quality and safety of TM/CAM (9).

### 3. Tolerant health care systems

In countries with a tolerant system, the national health care system is based entirely on allopathic medicine, but some TM/CAM practices are tolerated by law (9).

Here authors need to stress that beside listed types of systems, also exist or existed in the near past, the intolerant systems. In these systems, CAM methods were legally not allowed. Slovenia could be classified in this group until 2008.

## Users of CAM

### *How many people use CAM and which methods?*

Only partial answer to this question could be attained since in different countries CAM methods are differently treated, and different methods are included under the term CAM.

1. For the US, the most comprehensive and recent data on use of CAM were presented in 2004 by experts from National Center for Health Statistics, Centres for Disease Control and Prevention, and NCCAM (46). They came from the 2002 National Health Interview Survey, an annual cross-sectional study in 31,044 adults aged 18 years or older responded. It included detailed questions on CAM.

The results of this survey showed that 35.1% of adults used some form of CAM therapy (excluding megavitamin therapy and prayer) during the past 12 months. The 10 most commonly used CAM therapies, excluding use of prayer, natural products (18.9%), deep breathing exercises (11.6%), meditation (7.6%), chiropractic care (7.5%), yoga (5.1%), massage (5.0%), and diet-based therapies (3.5%).

If megavitamin therapy and prayer are included, according to this survey, 62.1% of adults used some form of CAM therapy during the past 12 months.

2. The UK Science and Technology Sixth Report (15) is summarizing results of two surveys in the UK, and England which give us a rough impression about how many people use CAM methods in developed countries:
  - in a telephone survey of 1204 randomly selected UK adults, conducted for the BBC in 1999, 20% of respondents declared that they used any of CAM methods in past 12 months (herbal medicine 34%, aromatherapy 21%, homeopathy 17%, acupuncture/acupressure 14%, massage 6%, reflexology 6%, osteopathy 4%, and chiropractic 3%; some individuals used more than one therapy);
  - in a postal survey of 5010 randomly selected adults (response rate of 53%), conducted about the same time in England, 13.6% of respondents had visited a CAM practitioner in the preceding 12 months (osteopathy 4.3%, chiropractic 3.6%, aromatherapy 3.5%, a reflexology 2.4%, and acupuncture: 1.6%; some individuals used more than one therapy), and overall 28.3% of respondents had either visited a CAM therapist or had purchased an over-the-counter remedy;
3. For some other countries in Europe, following data could be found:

- in 1994, Fisher and Ward in their review article reported that percentages of public reporting use of complementary medicine (any form of it) was (47): Belgium 31%, Denmark 23.2%, France 49%, Germany 46%, Netherlands 20%, Sweden 25%, United Kingdom 26%;
- in 2001, Nilsson and co-workers reported that in 1999 MONICA survey in Sweden 30.5% of 5794 respondents reported that they had taken a CAM product (vitamins, minerals or biological CAM remedy) in the preceding 2 weeks. Vitamins/minerals only had been taken by 11.7% and other CAM remedies (dominated by fish oil, ginseng and Q10) with or without vitamins/minerals by 18.8% (48);
- in 2003, Biocca et al. reported that in Italy in general, the percentage of people who turned to at least one non-conventional medicine therapy in the period 1997-1999 was 15.6% (from 6.5% in southern Italy to 24.1 in northeastern Italy) (49);
- in 2007, Rössler and co-workers reported results of their longitudinal community Zurich Study in Switzerland (50). They showed that CAM use in the last 12 months was reported by 21.9% of the participants in 1993 and by 29.5% in 1999.

### *Why people use CAM and who are the users?*

People who use CAM methods usually have chronic conditions for which conventional medicine has not provided a satisfactory solution, either because it is insufficiently effective or because it causes adverse effects. On general, they have already consulted a conventional healthcare practitioner for the problem, and many continue to use the two systems concurrently:

1. In US, according to the 2002 National Health Interview Survey (46), CAM was most often used to: treat back pain or back problems 16.8%, head or chest colds 9.5%, neck pain or neck problems 6.6%, joint pain or stiffness 4.9%, arthritis, gout, lupus or fibromyalgia 4.9%, and anxiety or depression 4.5%.

The same survey showed that Cam is more frequently used by females (females: 39.7%, males 30.2%), middle-aged participants (18-29 years: 32.9%, 30-39 years: 37.8%, 40-49 years: 39.4%, 50-59 years 39.6%, 60-69 years: 32.6%, 70-84 years: 25.1%, 85 years or more 14.9%), and participants with highest education (less than high school 20.8%, high school graduate/GED12 recipient 29.5%, some college-no degree 38.8%, associate of arts degree 39.8%, bachelor of arts or science degree 45.9%, masters, doctorate, professional degree 48.8%).

2. The UK Science and Technology Sixth Report (15) is also summarizing results about the main reasons for accessing CAM medicines or therapies of the BBC survey of CAM use in the United Kingdom in 1999 being: helps or relieves injury/condition 25%, just like it 21%, find it relaxing 19%, good health/well-being generally 14%, preventative measure 12%, do not believe conventional medicine works 11%, doctor's recommendations/referral 11%, to find out about other ways of life/new things 11%, way of life/part of lifestyle 8%, cannot get treatment on NHS/under conventional medicine 7%.

Zollman and Vickers in their series of “ABC of complementary medicine” reported that about 55-65% of those who consulted complementary practitioners were female, what was a similar proportion to users of conventional healthcare (51). They also reported that highest users were those aged 35-60. On the contrary, users of conventional healthcare services tended to be the very old and the very young.

Also, users of complementary medicine tended to be in higher socioeconomic groups and had higher levels of education than users of conventional care.

3. For Sweden, in 2001, Nilsson and co-workers reported that among 1999 MONICA survey in Sweden use of CAM remedies was more frequent in women than in men and more frequent in people with high than with low level of education. The prevalence was unrelated to a history of severe cardiovascular disease or diabetes but significantly more common in subjects with poor self-perceived health, particularly so in women.

In all environments people use different CAM methods for the preventive purposes.

### **CAM practitioners**

The data on structure of CAM practitioners are scarce, what is the reflection of situation of CAM. Nevertheless, there exist some of them. We have found some data on CAM practitioners in UK:

- Zollman and Vickers in their series of “ABC of complementary medicine” report that the number and profile of complementary practitioners is changing rapidly - in 1981 about 13,500 registered practitioners were working in the UK, and by 1997 this figure had increased to about 40,000 (51).
- few years later, the UK Science and Technology Sixth Report (15) reports the results of the Centre for Complementary Health Studies at Exeter University which was commissioned by the Department of Health to conduct a study of the professional organisation of CAM bodies in the UK. The results of this study suggested that there in 1997 there were approximately 50,000 CAM practitioners in the UK, and that there were approximately 10,000 statutory registered health professionals who practise some form of CAM.

### **Some perspectives on and attitudes towards CAM**

It is typical for all socio-cultural groups of people to form standpoints, relations, convictions, behaviour and standards for conventional as well as CAM. Two groups are interesting from the public health point of view, being medical doctors, and lay people as users of conventional medicine and CAM.

#### **1. Medical doctors.**

Medical doctors as dominant representative and implementators of conventional medicine gain most of their discoveries from the biomedical field of science and have their relations formally defined in the codes of practice of their medical organisations. Thus, it is not surprising that their attitude towards alternative medicine is in many countries negative. Their attitude towards CAM is a reflection of attitude of the country towards CAM, and their education.

For UK, for example, Zollman and Vickers reported in 1999 that surveys of doctors' attitudes to complementary medicine showed at that time that physicians in UK believed CAM is moderately effective, but low response rates make some studies unreliable. Although hospital doctors and older general practitioners tended to be more sceptical than younger doctors and medical students, most respondents believed that some of the more established forms were of benefit and should be available on the National Health System. Younger doctors and medical students were also more likely to perceive their knowledge of complementary medicine as inadequate and

wanted be more educated in the subject (52). Qualitative research showed also that many doctors wanted to be supportive of patients' choices and would welcome further information, although they generally regard CAM therapies as scientifically unproved (52). Their main concerns were that the patients (52):

- may see unqualified complementary practitioners,
- may risk missed or delayed diagnosis,
- may stop or refuse effective conventional treatment,
- may waste money on ineffective treatments,
- may experience dangerous adverse effects from treatment,
- the mechanisms of some complementary treatments are so implausible that they cannot possibly work.

## 2. Lay people.

In contrast, many lay people express a favourable opinion on alternative methods of treatment, and a lot of them actually make use of them. We have already discussed the possible reasons - contemporary user of health care services wants to be treated in more holistic way, and wants to be more actively involved in the process. This is well known more than a decade. For example, Zollman and Vickers in their series of "ABC of complementary medicine" reported that According to the surveys of users of complementary medicine in UK, about 80% of them were satisfied with the treatment they received (53). This was not always dependent on an improvement in their presenting complaint. For example, in one UK survey of cancer patients, changes attributed to CAM included being emotionally stronger, less anxious, and more hopeful about the future even if the cancer remained unchanged (53). Furthermore, a Community Health Council survey found that over two thirds of CAM users returned for further courses of treatment and that over 90% thought that they might use complementary medicine in the future (53). This indicated high level of satisfaction of CAM users. Zollman and Vickers claim that the specific effects of particular therapies obviously account for a proportion of patient satisfaction, but surveys and qualitative research show that many patients also value some of the general attributes of CAM (53). They discuss in details several aspects of satisfaction of users of CAM with CAM methods and practitioners, being (53):

- amount of time available for consultation and continuity,
- attention to personality and personal experience,
- user involvement and choice,
- hope,
- touch,
- dealing with ill defined symptoms,
- making sense of illness, and
- spiritual and existential concerns.

From the public health perspective we should stress that, for the lay people's good, in the triangle lay people - medical doctor - CAM practitioner should exist a communication, but Zollman and Vickers report that there exist evidence that most people who have used complementary medicine did not tell their doctors about it (52). Medical doctors can have and should have an important role in identifying their patients who use CAM, to minimize as much as possible the risk of harm of using CAM treatments, and, as far as possible, ensuring that their choice of treatment is in their best interests. To achieve such a situation, medical doctors should first be well

informed about different aspects of CAM, and to establish appropriate communication with patients about using CAM, and sometimes with CAM practitioners as well.

### **Public health and its role in building bridges between conventional medicine and CAM**

From the public health perspective, in countries with predominant conventional medicine, CAM cannot be overlooked any more. It is more and more clear, that conventional medicine has become dependent on medical equipment and pharmaceutical industry which provides expensive technological solutions to health problems, even when they are not particularly effective. But this is only one problem. The other is, that under the umbrella of scientific evidence based practices, it has turned its back on holism and simple methods of intervention, and much more, it treats the common user of health care services as an object. On the contrary, contemporary user of health care services wants to be more actively involved in the process. On account of its comprehensive philosophical perspective on health, which covers several dimensions of population health need, and not almost exclusively physical dimension, what is a dominant characteristic of conventional medicine CAM, is widely accepted by the lay people. We could even speculate that the consultation process and holistic approach adopted by practitioners of CAM make patients feel in more control of their illness.

All this does not mean that the bio-eco-psycho-social model wishes to or should be replace the biomedical model of health. The concern is more that the stress on the need for biomedical scientific facts is only one special method of understanding illness and health. To depend only on biomedical facts denies historical and cultural depth. Conflicts between specialists from various professions have to be understood in the context, and here public health has the role of building a bridge between them, to contribute to the mastering of the bio-eco-psycho-social model of health, which is the standpoint of various projects for the promotion of health throughout the world as well as in Slovenia (54, 55).

What is relevant for the patient does not necessarily have to be relevant for the medical doctor and *vice versa*. Models of health beliefs (56) help us to understand to what degree a certain person is prepared to undertake medical activities with respect to his own understanding of health and disease and with respect to the consequences of not taking any medical action when being ill. The way and the time an individual will attempt to satisfy his needs for health care/treatment also depends to a large extent on his/her integration into the social network surrounding him/her (57). Amateur reference systems (meaning the social network through which individuals pass before they turn to professional counselling) in essence adopt the social cultural standpoints, knowledge and standards of the patient's contemporaries regarding healthcare, so it is often the patient's social network which influences his/her choice of what, where and when the patient begins to seek conventional or unconventional medical help. Those seeking help from unconventional medicine practitioners in Slovenia were not protected by law or medicine. There is the possibility of abuse of the searcher's trust through the exploitation of his health problems and illness to make a profit, and even worse, through the intentional or unintentional waylaying from professional help which could have been successful, and through direct threats to health with the use of harmful methods.

CAM is a phenomenon which has to be monitored, analysed and influenced through the prism of the biomedical and bio-eco-psycho-social theoretical models, in order to be able to recognise both the dangers and the safety factors involved in its practice. Potential user should be informed about potential dangers in order to make an informed decision. They also need reliable information on standards to be expected in relation to good CAM

practice, as well as to know where they can find a competent and qualified therapist; how they can check that this therapist is currently registered in the register of CAM therapists. But how this could be reached, if not regulated? Even in countries with inclusive health care system like UK, there exist enormous problems in reaching these goals (58).

## **CASE STUDY: COMPLEMENTARY AND ALTERNATIVE MEDICINE IN SLOVENIA**

CAM in Slovenia has officially more than 200 years long tradition (59), but its way towards recognition was and still it is thorny. This case study reviews some important public health issues concerning alternative medicine in Slovenia and then, in the discussion, with the assistance of various theoretical models, comments upon the present situation and the possible steps to be taken.

### **Basic unconventional medicine terminology in Slovenia**

According to the new Alternative Medicine Act (in Slovene language *Zakon o zdravilstvu*) (60), the official term for CAM in Slovene language is “zdravilstvo” what could be translated into English as “healing”. In Slovenia, avoiding of the term “medicine” to designate other methods than conventional medicine is very strongly present. The practitioners of unconventional medicine in Slovenia are designated as “zdravilci” what in English language means “healers”. But, one could note that in the English translation of the title of the act the term “alternative medicine” is used. Thus, we nevertheless could conclude that official term for CAM used in Slovenia when referring in English language is “alternative medicine”.

However, there are many other terms used like “unofficial medicine”, “unconventional medicine”, “holistic medicine”, “additional medicine”, and “complementary medicine”. In certain spheres, also some contemptuous terms like “quackery”, “dabbling”, and “bungling” are used.

### **Some perspectives on and attitudes towards CAM in Slovenia**

#### *Attitude of the State*

#### **Prior 2007**

Prior the adoption of the Alternative Medicine Act in 2007, there was a legal confusion in the field of CAM in Slovenia. Some of laws and which are still in force deal also with CAM issue in the period after independency of Slovenia (44):

- the Health Services Act, adopted in 1992, states in Article 58 that “healthcare workers are permitted to use only verified and professional undisputed supplementary traditional and alternative forms of diagnostics, treatment and rehabilitation which do not harm the health of people and which are approved by the ministry responsible for health with the agreement of the medical ethics committee.” (44,61-63). According to Planinsec (44), from the legal point of view, it was important that legislator classified “supplementary traditional and alternative forms of diagnostics, treatment and rehabilitation” in the Chapter VI, Health Care Practice, of the Health Services Act, what automatically mean that CAM was classified as health care service. But According to Article 45, health care could be practiced only by health care workers (among them medical doctors) “according to the adopted health care doctrine and Medical Deontology Code or other professional and ethical codes”. Permission to medical doctor to perform CAM from the

article is issued and revoked by the Ministry of Health, which also prescribes the procedures for approving such activities;

- the General Practitioners Services Act, adopted in 1999, in its Article 3 lays medical doctors an obligation that “they should by their otherwise independent work follow methods which are professionally and scientifically recognized and verified (44,64). Medical doctors are obligated to do so also by Medical Deontology Code (Article 3) (44,62,63,65), which will be discussed in details later on. Additionally, Rules on medical licences, adopted in 1999, in its Article 9 lays medical doctor an obligation that if he/she wants to have a licence, he/she “must subscribe a statement that he/she would not practise healing and quackery” (44,66);
- in the Medicinal Devices Act (67), adopted in 1999 (later replaced with the Medicinal Products Act, adopted in 2006), homeopathic medicines/products are included. According to this law, homeopathic product could be produced and sold (only in pharmacies), but only after adoption of appropriate executive regulation. According to the EU Directive 2001/83/ES this regulation, being Rules on homeopathic products (44, 68), was adopted in 2004 (first version was adopted in 2001). But this sphere was regulated only on principle, and legally could not be practised, since homeopathy was not legally recognized as health activity.

It is obvious, that prior 2007 CAM was regulated only on principle (for medical professionals only), but legally could not be practised, since there was on one side a lack of executive regulations dealing with “supplementary traditional and alternative forms of diagnostics, treatment and rehabilitation” in details, and on the other side there were other legal regulations, being acts or executive regulations, which contained articles which were incompatible. All this resulted in a magic circle of admissibility/non-admissibility of CAM practice in Slovenia (44).

### **Present situation**

At the present, characteristics of attitude of the Republic of Slovenia towards CAM are:

- in early autumn 2007, the new Alternative Medicine Act (60) was adopted;
- for Slovenia we could say, that after adoption of the Alternative Medicine Act, it could be classified in the group of countries with tolerant system;
- the national health care system is still based entirely on allopathic medicine, but some CAM practices are now tolerated by the law;
- the classification of CAM methods/systems is basing on NCCAM classification, and according to the Alternative Medicine Act (Article 4) (60) methods/systems of CAM (healing activities) presented in Table 2 are allowed to be practised in Slovenia;
- According to the Act, detailed definition of healing systems and healing methods is to be regulated by the Minister of health.
- the Healers Chamber is authorized for recognition and acknowledgement of healing systems and healing methods, as well as for control/inspection (Article 5 of the Alternative Medicine Act) (60);
- CAM could be practised only by healers which are according to the Alternative Medicine Act (Article 6) (60) adult physical subjects with at least secondary health education and passed exam, regulated by the Minister of health, with valid licence of healer, prescribed by the Alternative Medicine Act (Article 35). Irrespective to this, homeopathy, chiropractic and osteopathy could be practised only by physical subjects with diploma of medical faculty, and supplemented by corresponding knowledge on CAM methods, with valid licence of healer.

**Table 2.** CAM methods/systems that are allowed to be practised in Slovenia according to the Alternative Medicine Act (60).

| Group           |   |
|-----------------|---|
| Healing systems | <ul style="list-style-type: none"> <li>• traditional Chinese medicine,</li> <li>• ayurveda, traditional Indian medicine,</li> <li>• homeopathy, and</li> <li>• other healing systems.</li> </ul>                    |
| Healing methods | <ul style="list-style-type: none"> <li>• mind-body interaction methods,</li> <li>• biologically based practices,</li> <li>• manipulative and body based practices,</li> <li>• energy medicine practices.</li> </ul> |

But despite this enormous move forward, we are facing fundamental information problems – there is informational asymmetry – and lay people, in shortage of conventional medicine health care, are »buying almost everything« what CAM is offering them to restore or preserve/maintain their good health.

### *Attitude of health professionals*

#### **Medical doctors**

The attitude of Medical Chamber of Slovenia, the highest professional association of medical doctors in Slovenia, is strictly negative towards CAM. In the Code of Medical Deontology of Slovenia (65) there are several articles which express this negative attitude:

- the Code lays medical doctors in Slovenia an obligation to refuse to cooperate with people who are “illegally or unprofessionally concerned with the practice of medicine” (Article 2), and
- “to practise only those therapeutic methods that have a scientific basis and have been accepted by the profession“ (Article 3);
- according to Code, medical doctors are free to select their methods and ways of patient treatment, but they are obliged to consistently follow the achievements of medical science (Article 14);
- according to Code, medical doctor “can practise medical service only if hi/she is registered in the Register of medical doctors, has licence for certain professional sphere and has appropriate education and qualification” (Article 10);

Also a lot of medical doctors themselves have negative attitude towards CAM. At its annual meeting in 1989 the Slovene Medical Society devoted all its professional debates to alternative medicine (the meeting was entitled “Alternative Medicine is not Medicine”). At this meeting the doctors distanced themselves from non-standard methods of work, demanded suitable measures to be taken against members of the Medical Society who ignore ethical provisions and are using unverified methods, and also addressed a warning to responsible people that suitable action must be taken when “healing” has bogus effects and when people are duped (69).

However, despite the formally negative attitude of the medical profession, greater and greater interest is being shown by medical doctors and pharmacists, especially in primary health care, in some forms of treating patients that could be called alternative (70). Interest is not only being shown in acupuncture (71) and acupressure, which official medicine has already placed into the list of permitted health services (72), but also in methods which are being introduced into practice in some parts of the developed world,



such as meditation, homeopathy (73) and chiropractics. Acupuncture was, for example, introduced in Slovene health care services at the end of seventies and early eighties (72). Proof that medical doctors in Slovenia are constantly showing increasing interest is shown by the founding of professional medical associations such as the Acupuncture Association (developed from the previously formed Section of the Slovenian Medical Society for Acupuncture and Traditional Medicine) (74), the Society of Homeopathy (founded in 1991), and INTA - Initiative Committee for Open Dialogue of Medical Doctors on Integrative Medicine INTA, founded in 2002, as well as various professional meetings discussing alternative medicine (75).

The attitude of medical doctors towards CAM has an interesting characteristics - it seems that they tolerate alternative methods more readily if they are used for prevention (e.g. healthy diets, sufficient exercise, care for mental health, etc.), while stronger conflicts arise when a very sick patient desires alternative treatment and the doctors themselves do not believe in such treatment. For instance, Debevc recommends (76): "Everything which a doctor knows which might be harmful must be unequivocally and decisively rejected. If the patient's dilemma is strong and the hope for successful treatment (of cancer) is questionable to such a degree that the patient wants to try one of the alternative methods of treatment, then the doctor should tolerate this in order to be humane, but on condition that the patient does not relent from, postpone or neglect his standard treatment, and that the patient does not pay too high a price for alternative treatment with respect to his means".

In conclusion we need to stress that Slovenia is beside Sweden, still only EU country in which there is a risk for medical doctors of being struck off the Register of medical doctors if practicing CAM (11). On the contrary, in almost all EU countries medical doctors are allowed to practise any CAM method, even without any substantial training (11). However, in Slovenia medical doctors that are benevolent to CAM methods are expressing their attitude searching for an open dialogue about this issue for several years now (75,77,78).

### **Other health professionals**

The other large group of health professionals which are searching for an open dialogue about CAM methods being group of nurses (79). Some research work on attitude of nurses to CAM methods was done as well (80-82). The latest study results showed that in Slovenia 89% of nurses that responded to the survey defined properly what CAM methods are (82). Among them 45% declared that they already used CAM methods. This percent is rather low in comparison to the attitude of nurses in other countries, but the fact is, that a major part of herbal medicines, used in 60% of nurses, is perceived as "traditional Slovene art of healing" rather than CAM (82).

### *Attitude of lay people/patients*

Although the prevailing attitude of medical doctors regarding alternative medicine is sceptical, this does not hold for most of the inhabitants of Slovenia. This claim is supported by some studies which will be discussed later.

### **Users of CAM in Slovenia**

There exist only scarce data on users of CAM in Slovenia what is a clear reflection of the attitude of the state institutions towards CAM. Nevertheless, there exist some data on this issue.

1. Reliable data on the characteristics of alternative medicine in Slovenia can be gained from surveys in the frame of Slovene Public Opinion surveys (83, 84). In period

1900-2004, four surveys (in 1994, 1996, 1999, and 2001 respectively) included the question about using alternative forms of support/care for one's own health. The results are presented in Table 3.

**Table 3.** Using different methods of complementary and alternative medicine (CAM) in Slovenia according to the results of Slovene Public Opinion surveys for years 1994, 1996, 1999, and 2001 (83, 84).

| Methods of complementary and alternative medicine | %    |      |      |      |
|---|------|------|------|------|
|   | 1994 | 1996 | 1999 | 2001 |
| Special diets, fasting, macrobiotics              | 30.6 | 24.9 | 23.5 | 26.6 |
| Herbal medicines                                  | 30.7 | 28.1 | 24.5 | 26.3 |
| Acupuncture, acupressure and shiatsu              | 3.4  | 5.3  | 6.1  | 5.7  |
| Bioenergy, radiesthesia                           | 6.9  | 7.8  | 8.9  | 9.1  |
| Massage, chiropractic, reflexology                | 10.8 | 12.6 | 15.8 | 18.5 |
| Meditation, autogenic training                    | 5.8  | 6.0  | 5.7  | 7.1  |
| Yoga, tai chi, dance therapy                      | 3.3  | 3.7  | 3.7  | 5.2  |
| Biorhythm, astrology, numerology                  | 2.6  | 4.7  | 2.6  | 2.0  |
| Homeopathy  |      |      | 2.0  | 1.8  |

- In 1996 Frankic (85) discussed on the basis of a representative sample of 870 adult Slovenes, that 57.3% use alternative methods for self-medication and that the share of women (57%) was typically greater than the share of men. Among the products used two-fifths are medications and three-fifths are bought products: When searching for symptoms that people most frequently treat themselves, high temperature, coughs and Sore throats are first; second are feeling rundown, stress, anxiety, insomnia, and tiredness; third are preventive measures; and fourth are aches in the back, feet and rheumatism.
- An anonymous survey on alternative medicine (86) was conducted in 1996 on an arbitrary sample of 1650 patients registered with the general practitioners of the Celje Health Centre. The most important results of the survey show that: 83% of those surveyed know of alternative medicine but their understanding of this was varied (for 37% this is a method of healing which is not recognised by official medicine, for 30% this is traditional medicine from a different cultural area, 29% are of the opinion that this is treatment with natural healing substances, and for 4% this is something else). 49% were in favour of the use of alternative methods of treatment and 37% used alternative methods of treatment.

When searching for influences on the use of alternative methods of treatment it was discovered that an important role was played by sex (more women than men), age (older more than younger), education (the educated more than the less educated) and purpose (preventive more than curative, especially with people who have completed higher education). Younger (up to 49 years of age) patients frequently opt for alternative methods without consulting their doctor, while 50% of older patients consult their doctor before commencing such treatment or during such treatment. Among those using alternative methods, 37% received recommendations and instructions for its use from literature, 25% from the mass media, 21% at courses and seminars and 17% from other sources.

Alternative treatment is implemented by the patients themselves in 34% of cases, 25% under the guidance of their doctor, 22% with other family members and 19% with friends and colleagues. 60% of the respondents could not say whether their chosen doctor was for or against alternative methods of treatment, 31% were of the opinion that their doctor was in favour of using alternative methods, while 9% responded that their doctor rejected alternative methods. Only 5% of the 604 people surveyed who used alternative methods were of the opinion that treatment was unsuccessful, while 49% assessed their treatment as being successful and 46% as partly successful. Among those surveyed who used alternative methods, 96 (16%) of them abandoned the treatment prescribed to them by their personal physician. 32% of the users of alternative methods of treatment are in favour of these methods being included in a combination of voluntary and compulsory health insurance; nearly the same share (31%) are of the opinion that alternative medicine should be included in compulsory health insurance. For voluntary insurance in this field, 18% are in favour, 9% are for self-payment and only 10% of the users of alternative methods could not make a decision regarding such financing possibilities.

The results of the survey show that people know of various methods of alternative treatment, that they are in favour of such methods of prevention and treatment, and that they also use such methods.

We should also stress in this place, that Slovenia was the member of COST Action B-4 project (39, 70), represented by a BION – Institute for Bioelectromagnetics and New Biology (87).

## **CAM practitioners**

### *Institutions and societies of CAM practitioners in Slovenia*

In the first place BION – Institute for Bioelectromagnetics and New Biology, should be mentioned (87). This institute was founded in 1999. It was acknowledged as a research organisation by the Ministry of Higher Education, Science and Technology. In 2004 it transformed into the limited liability private company. In its first years the aim was to investigate the, as yet not very well understood, phenomenon of the influence of various electromagnetic fields on organisms. On the one hand, this research area covered the influence of weak non-ionizing electromagnetic fields on various living beings and, on the other, the still controversial question of endogenous coherent electromagnetic fields in organisms and their role in the living process. Research in such areas inevitably brought the Bion Institute close to CAM. This was the reason that this institution obtained the status of a COST Action B-4 project national coordinator (from 1993 to 2000).

In the second place we need to mention the Section of Natural Treatment Therapists in the frame of Association of Small Business at Chamber of Commerce and Industry of Slovenia (88). It was founded in autumn 2002 to incorporate business and other legal subjects practising CAM in Slovenia.

Beside above mentioned institute and integration, there exist several other integrations of CAM practitioners in Slovenia, among them being (listed by date of foundation) (62, 89):

- Slovene Acupuncture Association in the frame of Slovenian Medical Association (90),
- Slovene Society of Homeopathy, SHD, founded in 1991 (91);
- Association of bioenergetics of Slovenia, ZBIOS, founded in 1994 (92);
- Slovene Society for Alternative Medicine, D.A.M. founded in 1998 (93);

- Slovene Society for Complementary and Natural Healing, KONAZ, founded in 2000 (94);

There exist also special integrations, aimed at education of CAM practitioners, among them:

- Professional organization for basic and permanent education and qualification on the field of CAM, HIGEA, founded in 2002 (95), and
- Center for Development of Alternative Methods of Treatment, ENOST, with its School of Integrative Biorgonomics (96);

Very interesting is an integration which could not be classified only among CAM practitioners integrations since it is an integration of medical doctors (licensed and those practising CAM) (75). This integration is the Initiative Committee for Open Dialogue of Medical Doctors on Integrative Medicine INTA, founded in 2002, and it is aimed at establishing open dialogue between conventional medicine and CAM.

### *Number of practitioners and their registration*

Owing to the recent legal vacuum in our country, the real number of healers in Slovenia is unknown, as are the types of “health” activities they practise. But as cited by Cerar (89), according to KONAZ estimation, there are about 1500 of them. As cited by Cerar, according to Verdel (89), between 200-300 out of them are qualified, all others are probably seeking good earnings in this CAM chaos in Slovenia, on account of desperate, uninformed and helpless lay population.

Some kind of insight in structure of CAM supply in Slovenia give the results of survey on state of affairs in the field of CAM, which was sponsored by the Section of Natural Treatment Therapeuts in the frame of Association of Small Business at Business Chamber of Slovenia. The methodology was as follows (89, 97):

- time frame: autumn/winter 2005/2006;
- target population: healers (CAM practitioners) in Slovenia (about 1500);
- respondents: 118

The results of this survey are as follows (97):

#### 1. Business status of CAM practitioners.

The results showed that 29% CAM practitioners were practising CAM methods as self-dependent entrepreneurs, 15% as legal subjects, 49% as amateurs, and 7% something else or without answer.

#### 2. CAM methods.

The respondents reported practice of following methods/systems according to NCCAM classification of CAM methods:

- mind-body interaction methods and energy medicine practices: in total 58%; by method within this group following well known methods: bioenergotechnology 26%, Reiki 20%, radiesthetics 14%, psychotherapy 9%, meditation 6%, yoga 4%, regression 3%, hypnosis 3%. In this group also counselling for better quality of life is classified in this survey, with 7% of responders claimed to practise;
- biologically based practices: in total 15%; by method within this group following well known methods: diets 33%, herbalism 14%, bathotherapy 9%, fasting 9%, aromatherapy 6%, Bach flower therapy 6%;
- manipulative and body based practices: in total 21%; by method within this group following well known methods: massage therapy 28%, Shiatsu 10%,

acupressure 8%, osteopathy 6%, reflexotherapy 6%, physiotherapy 6%, chiropractice 4%, lymph drainage 2%;

- CAM systems: in total 6%; by system within this group following well known systems: homeopathy 54%, ayurveda 33%, and traditional Chinese medicine 13%.

The limitation of this study is clear – owing to unregulated CAM sphere in the time of survey, it was not possible to establish actual study population and consecutively the results are hardly representative. Nevertheless, they give first insight in this problem grounded on the scientific methods.

### **On future perspectives of CAM in Slovenia**

From the public health perspective, we welcome, that our country finally adopted clearer stand towards CAM, but certainly this is rather a beginning than the end of a legal CAM story in Slovenia. Due to the undesirable and sometimes even dangerous phenomena associated with CAM, and due to relatively stable use of these methods (Table 2), it is strongly needed to regulate this field much clearer as it is today. Also, CAM is a phenomenon which has to be seriously monitored in a representative manner, on general and in details, and analysed, and influenced through the prism of both, the biomedical and bio-eco-psycho-social theoretical model, in order to be able to recognise both the negative and protective risk factors involved in its practice. This are the reasons that in the near future very important organizational as well as conceptual steps need to be done, comprising many compromises and understanding among actors. Among the reasons that all this need to be done as soon as possible is the standpoint of the WHO (8), which supports and encourages member states to form their own health policies.

Among organizational in the first place, those steps, which the Alternative Medicine Act lays on responsible people, are to be done:

- to found the Healers Chamber and the Register of healers,
- to establish a system for recognition and acknowledgement of healing systems and healing methods, as well as
- to issue licences for practising CAM, and
- to establish competent bodies to control the market of healers in Slovenia.

We believe that these steps will be realized in the near future. When these steps will be accomplished it will be possible to evaluate CAM in Slovenia properly, from more comprehensive and evidence based point of view.

Conceptual compromises will be much harder to attain, and we are well aware that it will take a lot of time to put the CAM field and it's dynamic somehow in order. But all actors should become aware that it is the user of one or another health care practice who is the most important, and for the lay people's good, in the triangle lay people – medical doctor – CAM practitioner a communication should be established. Conventional medicine is responsible for evidence based approach to health problems (including diagnosis and treatment of diseases), but could be in certain situations complemented by other safe and from lay people appreciated approaches. In this frame, public health is among others responsible for clear and understandable terminology. A priori opposition in intolerance to unconventional methods by conventional medicine causes more medical damage and social pathology than if it were offered on an opened scientific basis. Opinion and behaviour change is possible only in the long term via broadly founded health promotion programmes

based on a science which not only takes into account biology but also the social, economic and cultural characteristics of populations.

Now, when CAM in Slovenia is regulated, we sincerely hope that our country will proceed: alternative methods have to be studied, clarified and joined with the measures of modern medicine, when it is not harmful and where there is evidence that healing contributed to the improved feeling and satisfaction of people.

In health promotion and disease prevention, especially in the frame of primary health care, certain already proven CAM methods could be very beneficent, and effective in reducing burden of certain major public health problems. In Slovenia, for example certain body-mind techniques like psychotherapy as an intervention tool for primary prevention could be perspective in reducing mental disorders burden of the population. However, we could understand that also the International Classification of Primary Care (ICPC) used in primary health care since 1987 (98), is recognizing the long-standing observation that patients' problems, concerns, complaints, symptoms, and other conditions a wide variety of social and psychosocial states that are not strictly biomedical.

There is another problem which is certainly not present only in Slovenia. Speaking for developed countries, the demand for health care has changed dramatically over the last 40 years due to changes in demographic structure, increasing of real incomes, improvements in medical technology, and globalization of the world as the main reasons. This is understandable since everybody wants to be healthy. Yet conventional medicine health care systems seem to be in almost permanent crisis and different kinds of waiting lists are longer and longer. We are facing the infinite nature of human wants and the finite nature of resources available to produce health in these systems. One way in which the problem of scarcity can be overcome is to let people buy the health care they want at the free market. This approach on the first sight seems to be like »a magic stick« - all treatments could be available if you want to buy them and have the money to pay for them. This could and it is the case for example in cosmetic surgery. But, what would happen if all health care were bought and sold in the free market? The common sense tells us that there would be an enormous inequity between people in attaining health care. Thus, from the public health perspective, health and health care are special goods, as well as they are goods of especial importance for every country, since good health of the population is its biggest capital, and cannot be treated like other goods. Health and health care cannot be sold and bought like other goods and services on a free market. But where is CAM in Slovenia in this story? The health care system of Slovenia is facing similar situation as the other systems in developed countries. There is a shortage of health care system resources of all kind. People are not treated as they expect to be treated, and here CAM is coming in the position. But, since CAM is constantly rejected by official medicine, it is not treated as being a health care service. CAM response is anticipated, and the direction towards CAM being a »perspective business branch« could be traced (99). This is certainly an extra alarm for public health in Slovenia that CAM must come on the top of the agenda. Yes, it is »a business« but this business should be strictly regulated and inspected since it is dealing with a health of a population, and there need to be a dialogue between conventional medicine and CAM practitioners.

In conclusion, we would like to refer to a remark written just above, being that in shortage of health care system resources, people try to find the best solution for them in searching to fulfill their health needs. This population potential should be, on the basis of integration of old and new cognitions, transformed to a process of health promotion, which has by its activities big potential to suppress harmful and dangerous types of CAM. As stated by Eckenfels (100), building on classic conceptual schemes in social medicine in conjunction with the health care ecology model, effective and efficient health promotion

programmes in the context of “health for all” concept, health for all population structures on all levels could be prepared. In context of this concept especially striving for comprehensive primary health care is important. Active participation of people in comprehensive primary care will be the guarantor that they will take over responsibility, care and behaviours for their health, which corresponds with their specific health needs, and on scientifically recognized cognitions. In the process of re-orientation to comprehensive primary care, big political and managerial engagement is required in all sectors, and on all levels of societal organization. In another words, we need healthy public policy (101). Without changes in this direction, unplanned and partial bumping into CAM is like struggling against windmills.

## EXERCISES

### Task 1

Carefully read the part on theoretical background of this module. If necessary, read recommended readings as well. Critically discuss with your colleagues:

- the terminology in CAM field, and
- characteristics of CAM.

### Task 2

From domestic (e.g. Biomedicina Slovenica, and COBISS-Cooperative Online Bibliographic System of Slovenia in Slovenia), and/or international bibliographic databases (e.g. Medline, PubMed) find out if anything is published from the field of CAM in your country. If yes, then try to find out its characteristics and how CAM is treated in your country (e.g. what kind of health care system do you have in relation to CAM, the attitude of conventional medicine doctors to the CAM, etc.).

### Task 3

If not, try to find an example from other countries in Europe (except for the UK).

### Task 4

Critically discuss with your colleagues how different European countries treat CAM.

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