

**THE SOCIAL DEMAND FOR A MEDICINE FOCUSED ON THE PERSON.
THE CONTRIBUTION OF CAM TO HEALTHCARE AND HEALTHGENESIS:
A VIEW ON THE ITALIAN SITUATION.**

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INTRODUCTION

The Author starting from the definition of CAM, pursuant to the statements of NCCAM and WHO, points out that the attribute "unconventional", although the most common expression used in Italy, would seem to place these treatment methods in contrast with academic medicine, considered as conventional. It should be remembered in this respect that in the English-speaking world the term CAM (Complementary and Alternative Medicine) is used, and it is crucial to underline the complementary nature of the different possible diagnostic and therapeutic approaches that fall within this ambit in order to emphasise the integration which is currently widespread in the health system and the possibility of the practical use of all the information provided by the patient.

Concepts like healthcare strictly connected with that of healthgenesis are introduced together with some data concerning CAM in western world in order to focus on the present situation of Non Conventional Medicines/CAM in Italy

PERSON-FOCUSED MEDICINE: THE NEED FOR A NEW MEDICAL APPROACH

The results of numerous surveys on health care quality carried out in the USA, in Europe and more recently in Italy show that, if a patient is asked to assess the quality of the medical treatments, his/her priorities are: humanisation, tailoring of the treatments, the need of attention from Public Institutions and adequate information in a comfortable environment for a free choice of the individual health program (62)(63).

The focus on the patient in the choice of the individual health programs leads to a different social view of the healthcare quality and of the attention given by the Institutions to the social need for the humanisation of the welfare system starting from Medicine, or better from the social demand for a Person-Focused Medicine. The so-called Non Conventional Medicines have a greater social impact and the demand for such treatments of more than ten million Italian citizens (male and female) of all ages and social classes and of thousands of Italian families reveals an interest proving that there is a trend reversal, involving also other sectors of the medical and scientific world, which shifts the focus from the symptom to an idea of more general and comprehensive wellbeing of the person.

Over the last few years the scientific debate on Non Conventional Medicines and their integration with the academic or dominant medicine in our western society has favoured and legitimated an increase in the demand and has activated a cultural transformation process involving the life styles. The focus is therefore shifted to the self-healing capacities, to the reawakening of the individual potentialities which support and amplify the benefits of the treatments and the citizens start pretending to be accurately informed in order to choose freely their own health program. The

human being is not only a mere assembly of physical and molecular realities, but a psychopathobiographical continuum, the result of endless relations, that underlies the listening evaluation and treatment capacities which are the soul and the engine of an approach focused on the person and not on the symptom. Indeed Alexis Carrel warns that: “The suffering man has been divided into several sections, each provided with its own specialist. The specialist devotes himself/herself to study one tiny part of the human body, but he/she is so ignorant of the rest that he cannot know perfectly even that tiny part”.

CAM'S CONTRIBUTION

The educational and therapeutic task of Complementary Medicines is to teach modern medicine how to take advantage of their contribution in an integrated way, including humanisation of medical practices. It is therefore possible to create a diagnostic-therapeutic focus taking into consideration the human being as a whole, the “*olos*”, that is the innate unity of its being, its physical and mental levels as it is on these two continuously interacting levels that each human being finds its spiritual structure, which is to be considered and treated as a *one-thing*. The time has come now for a deep reflection involving all the society levels as it is the society itself, the patients’ and citizens’ associations, as well as the individual citizens (male and female) who demand that the integrity and wholeness of each human being is restored and respected with regards to the diagnostic-therapeutic access. This is the first contribution of Non Conventional Medicines to a medicine focusing on the human being in its wholeness, integrity and full dignity for a suitable and free choice of the individual health program. Health is no longer conceived as absence of illness but it corresponds to the psycho-physical wellbeing claimed by the World Health Organisation. The Person-focused Medicine provides a psychophysical balance to the individual, and this is the stepping stone of any sustainable social balance for current and future societies.

CAM'S DEFINITION

Non Conventional Medicines represent a development of medical knowledge and practice. The evolution of the medical doctrine in the end of the 19th century led to great undeniable medical progresses. The methodological and epistemological approaches of complementary medicines are useful to meet the 21st century requirements, stated in the *Chart of Medical Professionals*, as they widen the diagnostic and therapeutic horizons far beyond the postulates of 130 years ago. CAM is a widely used term, but it has no commonly accepted definition. The definition of Complementary and Alternative Medicine developed at a 1997 conference of the United States Office for Alternative Medicine of the National Institutes of Health (now National Center for Complementary

and Alternative Medicine, NCCAM) and subsequently adopted by the Cochrane Collaboration and the Ministerial Advisory Committee on Complementary and Alternative Medicine is:

Complementary and alternative medicine (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.

The World Health Organisation defines it as follows:

Complementary and alternative medicine (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”.

Nicola Dioguardi accurately remarks that: “Actually the world is not linear. It is irregular, changeable, unstable in its behaviour and uncertain. In a word it is complex. In my opinion the lack of awareness of the medical world on this modern concept, that has brought a revolution in the way of searching nature, is at the origin of the current identity crisis of the physician in the society and of the uncertain position of the medical art among the physical and natural sciences.”

MAIN FEATURES OF NON CONVENTIONAL MEDICINES

The most widespread Non Conventional Medicines in Europe share a holistic view of man and of the world, take into account the complexity of the natural phenomena, the study of the man-environment relationships and of the mind-body interactions, the meaning of man's spiritual integrity and the potential active role of the patient in his/her recovery and in the preservation of good health. One of the many examples is the challenge offered by the remarkable increase of allergic and mycotic diseases: they represent, in a widened view, the result of a distorted relationship between man and his environment in several its aspects. Thus also the prospects offered by complementary medicines, such as anthroposophic medicine, may prove to be very interesting.

A modern professional ethics which aims at achieving a satisfying doctor-patient relationship should develop from a renewed listening capacity to a renewed understanding capacity. This implies that the focus on the microscopic and tiniest aspects is to be shifted and the view extended to the natural and social environment in which man lives and falls ill. That is why an integrated medicine based on a true confidence is required. The empathic view of the patient's needs, which is peculiar of complementary medicines, may give rise to the patient's willingness to break out of the "prison of illness", that combination of pain and discomfort filling his/her soul and sometimes preventing him/her from opening to other life experiences. Therefore complementary medicines enable us to give an true moral expression to the ideal of "therapeutic alliance" and to reawaken the patient's inner basic resources in order to reactivate his/her will to recover. In the best case scenario also preventive measures might be taken in order to avoid a relapse of the disease.

ACKOWLEDEGMENT OF NON CONVENTIONAL MEDICINES

The consolidated law currently under discussion contains many indications suggested by the 23 non-government bills deposited at the Chamber of Deputies, undersigned by at least 250 majority and opposition MPs. There are reasons for political-legislative opportunities, starting from the simple establishment that NCM are medical disciplines, as it was stated in numerous sentences of the Court of Appeal and acknowledged by the National Federation of the Surgeons' and Dental Technicians' Associations with the Terni deliberation of May 2002, entitled "Guidelines on Non Conventional Medicines and Practices", in which 9 disciplines were awarded a medical status: Acupuncture, Traditional Chinese Medicine, Homeopathy, Homotoxicology, Ayurvedic Medicine, Anthroposophic Medicine, Phytotherapy, Osteopathy and Chiropraxis. Government and Parliament are invited to pass a law that acknowledges and rules the practice of NCM. Therefore if the practice of NCM is a medical act, then the State should promote the professional training and guarantee information to the students of university faculties such as medicine and surgery, veterinary, dentistry and all other connected faculties, and post-degree training with specialisation courses or masters similar to those already existing in several Italian universities (Milan, Palermo, Rome, L'Aquila, Chieti, Brescia, Florence, Pisa, Verona, Cosenza). Then the State should also acknowledge the training activity carried out over the last years by private associations and schools of the sector.

(To give an example in the UK alone there are 50 university diploma courses on NCM and in the USA 20 Universities offer training courses on NCM and probably by the end of 2005 the National Center for Complementary and Alternative Medicine, NCCAM, will be awarded the status of National Institute for Complementary and Alternative Medicine, and will become an autonomous

institute of the USA National Institute of Health). In 2004 the NCCAM was allotted a budget of 117.8 million dollars. In the year 2000 *The Consortium of Academic Health Centers for Integrative Medicine, CAHCIM* <http://www.imconsortium.org/html/about.php> was founded in the USA in order to promote CAM research and training. is a not-for-profit membership organization comprised of 29 major medical schools in the U.S. and Canada that have existing research, education and clinical programs focused on Integrative Medicine.

The World Health Organisation, with resolution no. WHA56 31 dated 28th May 2003, invites the member states to formulate and implement policies and national regulations on NCM, and to give special attention to personnel training. Another important initiative has been recently taken by many regions after the reform of the title V of the Constitution, stating that the legislative competence of the Regions with regards to “professions” is a joint competence. According to Parliament the most important thing is to guarantee patients the possibility to choose non conventional therapies, by providing them with accurate and complete information, thus allowing a free choice of the individual health program.

INITIATIVES TAKEN BY REGIONAL HEALTH AUTHORITIES IN ITALY

Some regions like Tuscany have included a chapter on NCM in the last three regional health plans and acupuncture is guaranteed with the approval of regional LEA (Livelli Essenziali di Assistenza, that is basic services that the State has to guarantee to its citizens) establishing the payment of only the patient’s contribution for acupuncture and traditional Chinese medicine services, while services offered by other disciplines such as homeopathy and phytotherapy, are available in already 63 regional assistance centres at specially low and controlled prices.

The Campania Region, with resolution no. 3589 dated December 2003 and with the Guidelines on the allocation of the funds for the research development and for the support of the ASL (local health agencies) and of the private centres already operating in the regional territory (D.P.G.R. - Decree of the President of the Regional Executive Board - no. 1182 dated 15/11/2001), allocated a restricted fund of 3,000,000 euros to NCM, later increased to 4,000,000. The fund covered NCM services offered in the Basic Levels of Regional Assistance (LEA) and training activity on NCM. Later on with the Managerial Decree no. 190 dated 21st September 2004, the Region allocated such restricted fund to ASL projects and hospitals involved in the research, updating and training on Non Conventional Medicine and drew a list of acceptable and unacceptable projects for the financing provided for by notice issued with Managerial Decree no. 1209 dated 22/12/2003.

The Emilia-Romagna Region, with resolution no. 297 dated 23rd February 2004, set within the Health Board a Regional Observatory for NCM aiming at outlining and promoting the launch of

experimental projects for the activity plans of the Local Health Agencies, focusing in particular on Acupuncture, Homeopathy and Phytotherapy in order to find solutions for the integration of Non Conventional Medicines with Academic Medicine. On 16th February 2005 the Regional Executive Board of Emilia-Romagna retained the Observatory with resolution no. 334 for two more years and approved the “Experimental program 2005 for the integration of Non Conventional Medicines into the Regional Health Service of Emilia-Romagna”. The Local Health Agencies directly involved will be responsible, upon approval of the individual Ethical Committees, for the implementation of such a program, including the further definition of procedural and operative contextual aspects.

During the past “legislature”, the Lombardy Region undertook more than ten experimental and observatory studies and clinical audits on NCM, promoted both by public services and private institutes, which have now reached the operating stage.

Tuscany, as said before, has recently approved the third Regional Health Plan by which NMC are introduced in the Regional Health Service Program. With Tuscany’s new Regional Health Plan, Homeopathy, Acupuncture, Phytotherapy and Manual Medicine have become part of the regional LEA and budget items have been allocated to NCM. New NMC service centres are being created and the three reference centres appointed by the Region have been reinforced. They are Lucca’s ASL no. 2, Empoli’s ASL no. 11 and Florence’s ASL no.10. The latter is the reference centre for Acupuncture and TCM and has a coordination task (cfr.<http://www.salute.toscana.it/parliamodi/med-non-convenzionali/medicine-non-convenzionali.shtml>).

Over the whole Tuscany territory the SSR (Regional Health System) centres providing NCM services have increased from 31 in the year 2001 to 63 on 31st January 2005. In the years 2002-2004 the Tuscany Region allocated 520,000 Euros/ year to NCM, later increased to 600,000 Euros/year for the years 2005-2007. The Regional Executive Board decided with resolution no. 1391 dated 27.12.2004 to allocate specific economic resources (486,957 Euros) to NCM for the third year of the Regional Health Plan 2002-2004. After the creation of Tuscany’s NCM reference centres, provided in the Regional Health Plan 2002-2004 and set up by resolution no. 1384/2002 of the Regional Executive Board, the Tuscany Region introduced Acupuncture, Homeopathy, Phytotherapy and Manual Medicine in the regional LEA with the new PSR (Regional Health Plan) 2005-2007, approved by the Regional Council with resolution no. 22 dated 16.02.2005.

The goals of Tuscany’s new PSR are:

1. To guarantee financing and support to NCM
2. To open at least 1 centre providing acupuncture, homeopathy, phytotherapy and manual medicine services in each health unit and in each hospital
3. To launch a permanent information and communication campaign on NCM in order to propagate them

The general goals of Tuscany's new PSR are:

- a) development of the reference Centres
- b) monitoring of NCM with reference to: population, professionals, training, scientific publications, health units, hospitals
- c) management of the telematic regional space for NCM within the web site of Tuscany Region
- d) improvement of the quality standard of NCM professional services
- e) training of the professionals by NCM experts
- f) updating courses for NCM physicians, dental technicians and veterinaries and other NCM professionals
- g) collaboration and accreditation of medical training private schools
- h) accreditation of professionals/structures
- i) definition of tariffs nomenclature for SSR services
- j) collaboration with WHO/international and national institutes
- k) NCM cultural and scientific initiatives
- l) NCM information material / regional journal issued by the reference Centres
- m) Safety for the patient and lower clinical risks
- n) Effectiveness assessment
- o) International cooperation
- p) Information network for the NCM Regional Committee at the "Fior di Prugna" Centre, responsible for the coordination of all the centres
- q) Theme consensus conferences and guidelines

Both Tuscany and Lombardy Regions have set up since years the Technical-Scientific Regional Committees for NCM holding their office for the time of the Health Plan. Those who criticise NCM state that their therapeutic efficacy is not proved despite the fact that, for instance, in May 2004, the number of published studies on acupuncture in the magazines registered by Medline were 8792: of which 7112 dealt with studies on men and 1680 with experimental studies on animals. The research is focusing both on the basic mechanisms activated by acupuncture point stimulation and on the assessment, through Evidence-Based Medicine (EBM) criteria, of the positive results achieved by acupuncture physicians in their daily practice. The biological mechanisms activated by acupuncture mainly depend on the release of endogenous opioids (endorphins, enkephalins, dynorphins) by the cells of tissues which regulate many functions of the human body such as the pain perception, the levels of several hormones, the cardiac and respiratory rhythm, the lymphocyte activity and so on. With regards to the audit of the clinical effectiveness there are pro and con studies as it normally

happens with academic medicine. Nonetheless the most widespread phenomenon is that, unlike in the past, more and more works match a correct scientific methodology to a correct application of acupuncture. One of the most recent examples is a controlled, randomized study published on 16th March 2004 by the prestigious British Medical Journal, where the efficacy of acupuncture is proved in the treatment of chronic headache. Also the National Institute of Health, with the Consensus Conference of 1997, where the efficacy of acupuncture was acknowledged for some pathologies, had shown interest for a safe and effective therapeutic methodology, to be used alone or in combination with classical treatments.

eCAM JOURNAL

The newly born "Evidence-Based Complementary and Alternative Medicine Journal" was presented in Italy during the immunology seminar held by prof. Edwin Cooper at Bologna University on 14th February 2005. It is the first and up-to-now only "*peer-reviewed full access-web-based*" international journal, exclusively created in order to propagate the EBM research of Non Conventional Medicines, called by the international press "Complementary and Alternative Medicines", to which the World Health Organisation adds the acronym TM, standing for "Traditional Medicine" in order to respect those nations and culture for which several kinds of Medical Knowledge are conventional and traditional.

The "eCAM Journal", the short name normally used by the insiders, focuses in particular on eastern medical care systems. The journal deals with aspects of the basic research, clinical studies, methodology of the research and epistemology with regards to NCM in the different areas of biomedical sciences.

Oxford University Press was the founding promoter of the journal and asked Edwin Cooper, UCLA psychoneuroimmunologist, to become the managing director. One of the first choices of the Founding Editor in Chief was to provide a completely free online access to each section of the website www.ecam.oupjournals.org and offers specific assistance service for the authors' contributions to be sent by e-mail. The journal logistics is divided between Great Britain, California and Japan and the Scientific Committee is made of 71 peers from the five continents.

We believe that the free access strategy has a key role in propagating the studies of this EBM new trend, specifically created to apply the scientific accuracy to NCM without upsetting the paradigms of each discipline registered amongst Complementary and Alternative Medicines.

EFFECTIVENESS OF HOMEOPATHY: QUESTIONS AND ANSWERS

In Italy the discussion on the research of NCM, and in particular on homeopathy, is often hampered by preliminary (prejudicial) questions: are NCM scientific? How can homeopathy be plausible considering that it uses extremely diluted substances? Homeopathy is considered not scientific because it does not use controlled clinical studies. As a matter of fact, since from the origins of homeopathy remedies have been studied with experimental methods and homeopaths were the first to use the controlled clinical studies and blind studies. With regards to plausibility, it is important to remember that the preparation of homeopathic remedies requires a chemical-physical combined methodology called dilution-dynamization. The remedy contains a progressively diluted substance and a solvent (water). Does the dilution-dynamization process modify the properties of water? Recent studies have confirmed that the behaviour of “extremely diluted and dynamized solutions is different from the behaviour of control solutions” (they produce heat which can be measured with a micro-thermometer and have a higher electric conductivity (69)). On the contrary “it is important to remark that the solutions, that have been diluted but not dynamized, do not show any difference from the reference solvent”.

The action of homeopathic remedies depends on their special production procedure which is not to be mistaken for the mere dilution. With regards to the research a limited number of studies are available up to now, but the lack of evidences does not mean that homeopathy is scarcely effective. Despite the above, there are nonetheless several positive results: the randomized studies carried out up to now have proved with three consecutive meta-analyses (135) that homeopathy as a whole is more effective than placebos and that it has a stronger effect in the treatment of flu, pollinosis, child diarrhea and pain for undesired breast feeding. Besides, observational studies have proved that homeopathy has positive effects in the treatment of child otitis media, upper and lower respiratory infections, allergies, child hyperactivity syndrome, cephalgia, hot flashes. Eventually, a recent study has reported a 95% satisfaction level with patients treated with homeopathic remedies against a mere 20% satisfaction with the same patients treated with conventional remedies.

Two GIRI (International Group for Infinitesimal Research) members (www.giriweb.com), Madeleine Bastide (Montpellier University) and Agnes Lagache (Philosophy Chair, Paris) have been studying for 16 years the theoretical system which enables us to explain the effects of homeopathic dilutions. A new paradigm of medical science is required to explain some facts and to formulate in the future more accurate research models. A GIRI work group made of 7 members applied this new paradigm to the analysis of the experimental results. “When the observed fact does not correspond to a well known theory, the fact must be accepted and the theory rejected” (Claude Bernard, *Introduction à la médecine expérimentale*).

Madeleine Bastide explained that homeopathy and the research models are based on the observation of the “symptoms”. There are asymptomatic pathologies which cause “biological scars” as a proof that the organism has cured itself without showing the symptoms of the disease (Charles Nicolle, Nobel Prize 1929, Life and death of illness).

Symptoms and biological modifications are not equivalent and act at different body levels. A symptom might be an expression of the body being unable to find an answer in whichever situation (infection, stress, strong emotions). Let’s take the following example: German measles in a healthy person: no manifest disease; German measles in an immunodeficient person: manifest disease.

In the experimental allopathic approach the symptoms are pathognomonic, that is specific of the disease and are used to diagnose a pathology. Once the diagnosis is made the conventional therapy will fight the symptoms. In the experimental homeopathic approach the symptoms are idiosyncratic, that is peculiar of each patient. They are the individual expression of that patient’s disease and help choose a specific remedy on the basis of the similarity with the observed symptoms, during the proving, in a health person. A living body is involved in a constant and irreversible learning process; it communicates with the environment at all levels. It can receive and process semantic and material information and is not an inert object (17).

The scientific report of GIRI 18th Symposium held in Brussels as part of the ECH General Assembly (European Committee for Homeopathy) in November 2004, draws up the following conclusions:

- a) It is proved that homeopathic high dilutions perform a biological activity.
- b) In highly diluted homeopathic preparations it is possible to identify the mark of the starting substance.
- c) There is a new paradigm of the medical science to explain the observed phenomena.
- d) Veterinary studies confirm the clinical efficacy of homeopathy.
- e) The studies carried out on human beings reveal a remarkable 70% improvement of the patients’ conditions (higher percentages in paediatric patients); the placebo effect is not the only positive effect of homeopathy; indeed there are aspects for which homeopathy has reached a high level of statistical significance.
- f) New studies are required in order to evaluate the preventive action of homeopathy in Paediatrics and chronic diseases. The financing of homeopathic research is a key question.

Quoting Bellavite: “A fundamental criteria telling the scientific knowledge from any other form of knowledge is the use of the experimental method, that is the need to carry out for whichever theory an empirical assessment in arranged conditions “aiming at” identifying the specific

properties to be assessed. The experimental method is easier to use and gives clearer and more convincing results when it is applied to properties which can be easily isolated from the others. It is now established that in many complex systems (and the human organism is undoubtedly a complex system) there are properties of the system as such which cannot be referred to the properties of its individual components. This implies that it is clearly more difficult to plan and carry out the required experiments and that the results are more uncertain. Nonetheless it does not mean that they are less scientific, but simply more difficult to be investigated” (23).

“The most widespread form of medicine developed over the last centuries in the Western countries has a mechanistic theoretical setting and considers the disease as a nosological entity revealing a) a direct specific and removable “cause”, b) a specific and dominant organic, molecular or functional “pathogenetic mechanism”, c) specific biochemical and/or anatomopathological “lesions”. The mechanistic model was used in most of the main successes of science, including modern medicine, and is therefore a useful and extremely powerful model. New investigation and action methods are available today allowing to treat sometimes for good, but more often as simple palliatives, focusing on the removal of the pathological and pathogenic mechanism. Thus, when the disease is well defined from a mechanistic point of view, in particular in case of acute symptoms and/or possible serious prognosis, it is necessary as a good practice to give priority to the conventional mechanistic and pharmacological therapy rather than to the complementary one.

In many other cases, the mechanistic medicine is basically disarmed and can cause more serious damages if improperly used. Besides it is important to remember that most of the patients recur to complementary medicine today because they are not satisfied with the answers of the official medicine. Therefore it would not be scientifically correct, on account both of the scientific achievements described above, and of the critical aspects and limits of current therapies, to maintain that the mechanistic and official therapy is always the first choice. Indeed, the first choice therapy for a person with health problems which cannot clearly be treated in a mechanistic way, might be a complementary approach and only after useless attempts the mechanistic approach might be taken into consideration as a second choice (informing the patients of all the risks and benefits) as anti-inflammatory, surgical, hormone therapy etc. The important thing is that the disease does not present a serious prognosis and a rapid evolution and that there is time enough to try a regulatory approach before any suppressive or substitutive one. That is why it is necessary to inform all the physicians (but also other health operators) on the potential benefits, limits and risks of complementary therapies in addition to those of the conventional ones. A preliminary assessment before deciding whether to adopt a non-conventional therapy requires the ability to understand the degree of ductility of the organism’s homeodynamic systems at the time of the therapy

administration. Instead of talking of “serious” or “non serious diseases” it would be better to talk of “stages of the disease”, thus reserving to act with natural therapies on the systems whose equilibrium can still be restored and with a mechanistic approach on the systems with no capacity to restore a balance. Homeopathy but also acupuncture and other complementary approaches, on account of their conceptual setting aiming at reawakening the homodynamic reactions of the organism as a whole, can represent, at least as a principle, an aid to the patient also “independently” of the organic disease. The traditional concept is that of curing the “ground”, not only the organ, the cell or the molecule” (23).

Actually, the scientific research operates in a well defined area, named by Thomas Kuhn “*scientific paradigm*”, intended to mean “*an entire constellation of beliefs, values, techniques and so on shared by the members of a given community and used within the community in order to define acceptable problems and solutions*”.

Quoting Niels Bohr: “Isolated material particles are abstractions, because their properties can be defined and observed through their interaction with other systems”.

SOME ECONOMETRIC DATA ON NCM

All over the world the expense for NCM amounts to 60 billion dollars per year and is constantly increasing.

USA

In the USA over 47 billion per year are expended on CAM. Almost three out of four Americans over 50 years of age (71%) use some non conventional medicine, such as acupuncture or phytotherapy: ten percent more than the population in general.

In the United States one hospital out of six offers services, or better has whole wards destined to alternative and complementary medicine. The figure has doubled compared to 1998, according to a survey carried out by the American Hospital Association in 2003.

In the USA more than 50% of children and more than 30% of teenagers use phytotherapeutic products. In particular, a survey published on the Paediatrics Annals, showed that out of 145 interviewed families 45% admitted to have used non conventional vegetal remedies for their children. Most parents do not believe, or are not completely sure that such products might have side effects or interaction with other drugs used; only 27% was able to mention one possible side effect. Besides 45% of the parents treating their children with complementary medicines have informed their paediatrician.

Data collected by Archives of Paediatrics & Adolescent Medicine for a study on American Insurance Companies further confirm that such practices are so widespread. Out of the nearly 190

million insured children in 2002, 83.6% applied for a refund for medical expenses. 6.2% of them had adopted non conventional therapeutic solutions, accounting for 1.3% of the total expenses and 3.6% of expenses for professional out-patients services. The general trend, at least in America, is that in the families in which adults use complementary medicine, also the children are cured in the same way.

According to a recent report on “*Complementary and Alternative Medicine in the United States*”, more than 1/3 adults in the USA use some form of NCM. The total number of accesses to NCM is higher than the number of accesses to the general practitioner. It is estimated that about 15,000,000 adults in the US matches phytotherapeutic remedies or high doses of vitamins with other drugs prescribed by the general practitioner (with an overall cost of over 27 billion dollars at their expense), thus risking bad effects. The same article also revealed that 42% of the population in the United States has used at least one of the disciplines belonging to CAM; less of 40% of these people inform their general practitioner about it.

The Conference Report of the “*2nd International Scientific Conference on Complementary, Alternative and Integrative Medicine Research*”, held in Boston in 2002, gives us some interesting data: the crossways use of CAM by the overall population in the USA passed from 25% in 1990 to 42% in 1997, accounting for a total of 21 billion dollars; the use of phytotherapeutic remedies increased of 380% in the same period. In 1997 in the USA 629 million CAM services were registered out 386 million overall accesses to first access medical services.

According to the WHO *Fact sheet* no. 134, issued in May 2003, 70% of Canada population have used NCM at least once. In Germany instead 90% of the inhabitants have used NCM at least once in their life and the number of doctors that between 1995 and 2000 went into specific NCM training courses doubled involving up to 10,800 medical practitioners. The Fact Sheet also reports that in the year 2000 158 million people in the USA made use of NCM accounting for an expense of 17 billion dollars.

EUROPE

With regards to Europe other sources report an expense for NCM of 700 million euros, an increasing figure. We nowadays number 120,000 homeopaths, 50 million patients, 60,000 chemist shops a section for homeopathy.

In 2002 homeopathy world sales amounted to 1,000,000,000 euros, that is 0.5% of the world pharmaceutical sales, 500 million patients and 150,000 homeopathic doctors. 75% of the world population has used some type of NCM. In the USA the percentages go between 40% and 70% .

In the UK 50% of the population uses NCM and the average price for a tube of granules 4,35 euros. An English survey reports that NCM are used also for oncological paediatrician patients. Out

of 49 cases registered in a big English hospital, 32.7% used non conventional treatments: the most common were multivitamin compounds, aromatherapy, massages, music-therapy, often also combined.

42% of the population in France with peaks of up to 75% for some NCM disciplines. Homeopathy has a turnover of 260,000,000 euros and since 1936 it is included in the French Pharmacopoeia. Homeopathic remedies are partially covered by the national health system up to 30CH; the average price for a granules tube is 1.81 euros.

More than 60% of the population in Australia uses NCM accounting for a total yearly expense of 2.8 billion Australian dollars, of which 800 million for the remedies; 2,8 million dollars a year for Traditional Chinese Medicine, including acupuncture which accounts alone for 84 million Australian dollars. The import from China of the traditional pharmacopoeia has increased by 100% per year since 1993.

More than ¾ of medical clinics in Germany provide acupuncture. Homeopathy is registered in the German Pharmacopoeia. There are 6,000 homeopathic doctors and 20% of the population uses homeopathic, anthroposophic and homotoxicological remedies. Private medical insurance companies refund the money spent on homeopathic remedies. The market of phytopharmaceuticals, homeopathic remedies and aromatherapy oils registered a yearly increase of 10% to 15% in the '90s and a decrease between 2002 and 2003, likely due to various changes in the European regulations. It is estimated that in the year 2006 they will register an increase of 6.9% and in 2007 of 6.5%.

In the Netherlands the percentage is between 50% to 60%, in Switzerland 40%, Belgium 30%, Sweden 25%.

The phytopharmaceuticals market in Europe reached in 2003 a peak value of 5 billion dollars; with Germany specifically accounting for 2.06 billion dollars, France for 1.13 billions and Italy for 543 million dollars. In Germany in 2003 medical insurance companies refunded 283 million dollars for phytopharmaceuticals therapies, whereas in France the refund amounted to 196 million dollars. In Switzerland there are: 270 homeopathic doctors, 300 to 400 physicians recur to the traditional Chinese medicine (not including acupuncture); 250 doctors are specialised in phytotherapy; 106 in neural therapy; 105 are anthroposophic doctors.

In 2003 in Switzerland NCM represented 0.2% of the expenses reimbursed by health insurance companies (30 millions).

CAM PUBLICATIONS, NETWORKS AND DATABASES

Toby Murcott states in his recently issued book that the most important scientific publications on NCM are 29.

In 2004 the above mentioned “peer-reviewed” journal dedicated to the new EBM discipline was founded with the name "Evidence-Based Complementary and Alternative Medicine Journal” or “eCAM Journal”, published by Oxford University Press.

The “Research Council for Complementary and Alternative Medicine”, RCCAM, <http://www.rccm.org.uk> of London, through its “Centralised Information Service for Complementary Medicine, CISCOM”, made a census of 401 NCM journals, of which: 316 in English; 173 “peer-reviewed”; 148 peer-reviewed in English; 283 “indexed-journals”; 251 with regular issues; 139 “peer-reviewed” with regular issues; 116 “peer-reviewed”, with regular issues in English; 103 “peer-reviewed, “indexed”, in English, with regular issues.

The RCCAM identifies the following NCM networks:

- a) Alternative & Complementary Healthcare Research Network
<http://www.users.globalnet.co.uk/~duerden/achrn>
- b) The Scottish Complementary Medicine Research Network (CAMRen)
<http://www.man.ac.uk/rcn/scotland/camren.htm>
- c) Canadian Interdisciplinary Network for Complementary & Alternative Medicine Research (IN-CAM) <http://www.incamresearch.ca/index.html>
- d) The Complementary and Alternative Medicine Education and Research Network of Alberta ("CAMera Network")
<http://www.cameraresearchnetwork.ab.ca>
- e) Consortium of Academic Health Centers for Integrative Medicine (CAHCIM)
<http://www.imconsortium.org/html/about.php>
- f) International Society for Complementary Medicine Research (ISCMR)
<http://www.iscmr.org>
- g) Rocky Mountain Herbal Institute Network
<http://www.rmhiherbal.org/ai/rmhinetwork.html>

In addition to its own database, that is the “Centralised Information Service for Complementary Medicine, CISCOM”, the RCCAM points out the following NCM databases:

- a) ACUBRIEFS <http://www.acubriefs.com>
- b) ARCAM and CAMPAIN <http://www.compmed.umm.edu/Databases.html>
- c) CAIRSS <http://imr.utsa.edu/CAIRSS.htm>

CAM on PubMed (Complementary and Alternative Medicine (CAM) subset of PubMed.)
<http://www.nlm.nih.gov/nccam/camonpubmed.html>

- d) Cochrane Collaboration CM Field <http://www.compmed.umm.edu/cochrane/index.html>
Essential Oils Research Database <http://www.essentialorc.com/databases.htm>
- e) IBIDS <http://ods.od.nih.gov/showpage.aspx?pageid=48>
- f) MANTIS <http://www.chiroaccess.com/MANTISAbout.html>
- g) HerbMed <http://www.herbmed.org>
- h) Hom-Inform <http://www.hom-inform.org>
- i) QiGong Database <http://www.qigonginstitute.org/Database.html>

On 2nd May 2001 the National Center for Complementary and Alternative Medicine and the National Library Medicine created “CAM on PubMed” a free access web site for CAM references in the biomedical literature. The Urls are:

<http://www.nlm.nih.gov/nccam/camonpubmed.html>

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed>

At the end of 2004 around 40,000 quotes on CAM could be found on this website.

The NCM website section of the Health Council of Tuscany region contains the presumably most important Selection of WEB resources on Non Conventional Medicines in Italian Websites

<http://www.thinkfree.it/NCM/principale.htm>

THE GLOBAL VILLAGE

Assuming that 100 people live on the earth, 48 are males and 52 females, reflecting to the following ratio:

{	57 Asian	{	30 white	{	30 Christians
	21 European		70 non white		70 non-Christians
	8 African				
	6 American				

{	6 people, all North American, hold 59% of the resources
	80 people live in poverty
	70 are illiterate
	50 starve to death

Two million infants die each year: 904,400 infants survive only a few days because of delivery complications and over one million those dying during the delivery. The data of the WHO World Health Report 2005 indicate that intrapartum deaths represent

the main cause of neonatal deaths, accounting for 27% of the total number. Life expectancy at birth, ranging from thirty-four years in Sierra Leone to almost eighty-two in Japan gives a clear idea of how different are the health standards among the various countries in the world, but also within the same country: in the United States for example, the gap between the life expectancy of those belonging to the highest social class and those belonging to the less favoured class is around 20 years. The social environment influences the psychological processes which, in turn, influence the biological processes according to the well known “*health social gradient*”. The presence of hierarchies in modern societies seems impossible to remove, but its consequences can vary considering that the “health gradient” is not limited to the poorest countries and to the less favoured classes. Thus a person’s position in the social class becomes important and influences health only if the person lacks some possibilities connected to the basic needs for the human wellbeing: the possibility to control one’s life, to take part in the society, to satisfy the basic health needs.

In consideration of the above we can identify some key elements:

1. The integration among different ways of conceiving medicine is unavoidable.
2. The integration among conventional medicine and the so-called non conventional medicine is necessary also with regards to sustainable balance and pharmacoeconomy.
3. A higher presence of migrating populations is registered in the country. They have complex needs which imply different kinds of health knowledge.
4. There is an urgent social demand for: medicine humanisation, less iatrogenic effects, more accurate information and a higher ethicality and reliability of scientific publications considering that only a scarce number of widespread biomedical journals contain relevant clinical information for the physicians: indeed only 5% of the world scientific literary production in the biomedical field is sound and worthwhile; respect of the right to a free choice of one’s health treatments. A survey carried out by the American National Institutes of Health reveals that the results of the studies are often distorted: “*One in three scientists confesses to having sinned*” is written in an article from *Nature* 435, 718-719 (9th June 2005), followed by the editorial *Scientists behaving badly*, *Nature* 435, 718-719 (9th June 2005). The important survey carried out by the prestigious National Institutes of Health consisted of an anonymous test handed to 3,600 researchers who had received financings for the first time and to 4,160 scholarship holders working on research after graduating. The survey reveals an unfair behaviour in 33% of cases. About 50% answered to a series of questions which point out worrying behaviours. For instance 0.3% declared that they have invented or falsified data; 1.4% have used others’ ideas without giving them the due credit; 1.7% have used data obtained in a confidential way in order to carry out

their research; 6% have not published data which were in contrast with the previous researches; 15.5% have changed the form and methodology of the research in order to meet the requirements of the research financiers. 4.7% have published the same results several times; 10.8% have omitted important methodological details in their publications in order to prevent others from reproducing the results; 15.3% have not used all the available results to prove their thesis and 27.5% declared not to have correctly registered the results of their experiments. In total 33% of those who returned the tests admitted to have had at least one of the above listed behaviours.

5. The study of pathogenesis is no longer enough
6. NCM share the commitment to propagate, teach and study the “healthgenesis” which undertakes to study the sources of physical, psychic and spiritual health as ethical and social responsibility with the awareness that a higher responsibility and social emancipation is required.
7. Quality research resources are obviously required in order to provide evidence of efficacy. There is a paradox in that the academic and institutional establishment requires NCM to provide EBM evidences when there are no state funds, except in rare occasions, allocated to this purpose. For instance between 1997 and 2002 Medline, the academic databank par excellence, made a census of 2,940,000 articles, of which only 20,209, that is 0.7% dealt with NCM. About 50% of these articles were published on journals lacking all impact factors; 7.6% focused instead on controlled and randomized clinical studies.
8. There is a lack of communication on NCM by the health authorities.
9. The Health National System must open a virtuous path of Integrated Medicine with the aim to lead at a Person Focused Medicine.

ITALIAN SITUATION

In Italy today there are about 8,000 homeopath practitioners; almost one chemist’s shop out of two is provided with homeopathic remedies; there are 30 homeopathic laboratories offering more and more jobs. The turnover of homeopathic Italian companies amounts to 157.2 million euros, that is 21.2% of the total European turnover. The average price for a granules tube is of 4.77 euros. The market value of phytopharmaceuticals in 2003 was of 543 million dollars.

The geographical distribution of homeopathic remedies in Italy is the following: 50% in the North, 35% in the Centre, 15% in the South and islands. In 1980 2,000 chemist’s shops out of 14,365, that is 14%, had a section for homeopathic remedies. In 2000 7,000 chemist’s shops out of 16,000, that is 43%, had a section for homeopathic remedies.

At least 10% of the Italian population uses homeopathic remedies (that is medical remedies produced with respect to the relevant pharmacopeia through dilution and dynamization processes, as described above, independently of the clinical technique applied to choose and prescribe the remedy in Homeopathy, Homotoxicology, Anthroposophic Medicine). The typical Italian user of Homeopathy, Homotoxicology and Anthroposophic Medicine is on average an adult between 35 and 44 years of age with post high school qualifications. 15% of the Italian population as a whole makes use of Non Conventional Medicines: 5.5 million women (18.2% of Italian women), around 3.5 million men (12.9%), 10% of children. 70% of the patients treated admit to have had benefits without side effects from the prescribed homeopathic, homotoxicological and anthroposophic remedies.

A study carried out on a sample of 52,332 families, for a total number of 140,011 people, and published in 2004 by Menniti-Ippolito et Al. on the Annals of the National Health Institute, reports that at least 15.6% of Italian population used NCM in a three years time (Homeopathy 8.2%, Manual Treatments 7.0%, Phytotherapy 4.8%, Acupuncture 2.9%, other NCM 1.3%).

In other countries of the European Union such as Germany, Austria, France, Great Britain there are public and private hospitals in which patients are treated only with Non Conventional Medicines. Such disciplines have also been taught for years in the universities and, in some of these countries homeopathic, homotoxicological, anthroposophical and phytotherapeutic remedies are totally or partially paid by the national health system. This involves great advantages for pharmacoeconomy and a lower number of absence days from work due to illness, on account of the lower number of disease relapses in particular of chronic diseases.

A survey carried out by Format and published on Salute di Repubblica no. 284 of 27/11/2003 on a sample group of 864 people shows that 31.7% of the population used some NCM in the last 3 years (23.4% in the last year) with stable and constant benefits.

Six Italians out of 10 think that Non Conventional products are effective and 45.6% find it right that the National Health System pays for them. Nonetheless only 27.8% of the interviewed people know that nine NCM (homeopathy, phytotherapy, acupuncture, homotoxicology, traditional Chinese medicine, anthroposophic medicine, chiropraxis, osteopathy, ayurvedic medicine) are recognized by the Association of Surgeons and Dental Technicians.

In 2003 a poll was carried out by Tuscany Health Regional Agency to know the opinions of general practitioners and Paediatricians on NCM.

2,228 out of almost 3,500 physicians were interviewed (82% answers registered) with the following results: 15.2 % use NCM; 57.8% advise their patients to use NCM; 11% have been specifically trained for NCM; 29.2% wish to be trained; 65.7% approve that NCM are taught at the university;

23.7% have used NCM to treat one's own health problems. 62% of the patients inform their general practitioner that they use NCM.

Another poll was ordered by the monthly magazine "Natural Style" to S&G Kaleidos of Milan and published on the December 2004 issue dealing with the diffusion of Non Conventional Medicines in Italy. The survey, carried out on a sample of 500 women and men between 18 and 54 years of age, reveals that 40.8% consider them better than the official medicine. The main reasons for choosing the soft therapies are: the lack of side effects (31.8%), the possibility to cure oneself by restoring the physical and psychic balance (27.6%), to live in a healthier way (16.9%) and to go back to nature (12.5%).

A recent survey carried out by Doxa reveals that 23% of the Italian population, that is 11.5 million people, recur to a homeopathic doctor.

The most recent survey was presented during the 2005 Erbexpo edition held in Carrara. It is a web poll coordinated by the team of Professor Benigno Passagrilli, the President of the Scientific Committee of Erbexpo 2005.

The identikit of the Italian NCM user is the following: a woman, 45 years of age, working as an employee and living in the north centre area approaches NCM because she approves their philosophy and tries to convince the whole family to use herbs, infusions, acupuncture and other non conventional techniques.

The survey collected 1,177 answers. The result is that more women (62%) than men (38%) use NCM. The age ranges from 30 and 60. In particular 30% are between 30 and 50 years old and 35% between 50 and 60. The elderly (60-70 years old) are the least interested in the new medicines (15%), whereas the youngest are more enthusiastic users (20% between 20-30 years of age).

With regards to professions, the majority of the 1,177 interviewed people are employees (28%) followed by retired people (27%). Self employed people are 17%, businessmen 11%, craftsmen 10%, other professions 7%. The survey also reveals that the use of complementary remedies involves the whole family: 68% of the people state that all the members of the family use them, in 22% of the cases only the wife, in 7% of the cases only the husband, in 3% of the cases the children. "Such answers - explains Passagrilli - hint that on the one side there is a strong motivation to take part in this type of polls when the family has a specific culture for natural products, and on the other side that neither children are involved when such culture is missing".

The answers however reveal that the results of complementary therapy are considered good (65%), satisfying (20%), not satisfying (15%). "The lack of satisfaction - insists Passagrilli - might indicate a poor preparation of the doctor dealing with the patient (we are waiting indeed for an act

of law to regulate the training of medical and non-medical operators), or too high expectations of the patients, due to wrong information".

How does anyone get to complementary medicines? Mere curiosity (21%), sharing of the same philosophy (48%), will to escape from the official medicine (31%). "Also this figure – underlines Professor Passagrilli – might be read as the result of a bad doctor-patient relationship, or as anxiety about the chemical world and the statistical assessments which determine the application protocols". With regards to the information given by the mass-media 60% of the interviewed think it is enough, 25% would like to have more, 15% considerate it inadequate. Eventually with regards to the question of the product labelling, which should have been settled by the new laws: 60% think that labels are not very clear, 25% reject them and only 15% approve them.

FINAL CONSIDERATION

The above implies that it is neither scientific nor correct to ignore or even condemn these old, but for many aspects new medical disciplines.

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