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on Health
Tourism*

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RESPONSIBLE TOURISM

Perspectives on Health Tourism

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Statement of Purpose

The *International Journal of Responsible Tourism (IJRT)* is a publication that aims to offer, through scientific papers, a better understanding of the responsible tourism within the tourism promoter environments, to explain the consequences of applying these principles for the Romanian society and for the entire world and open a communication platform for successful international concepts and practices.

IJRT will include scientific papers submitted to the International Forum for Responsible Tourism program that have passed the peer-review stage and have been debated in the forum, considered to be important documents for understanding and developing responsible tourism.

IJRT intends to become a reference journal in the field, being the first initiative of this kind in Romania, and will be published exclusively online and quarterly by the Amphitheatre Foundation. The Journal will include applicable notes on the meaning of responsible tourism and methods of increasing the touristic potential by preserving cultural and social identity, the natural and anthropic environment, elements to be integrated in responsible tourism, along with an adequate education in the field.

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BALNEARY RESORT – IMPORTANCE OF NATURAL THERAPEUTIC FACTORS RESEARCH

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Abstract

The most expressive form of health tourism is a balneary resort, and its existence can not be reality without the presence of natural therapeutic factors. In this context, research provides the necessary proof of natural factors therapeutic valence, without which it is absurd to talk about their curative properties.

Profiling and functional status of spas represent a decisive action for market success of this offering. While resorts profile is determined by the existent natural factors, for the functional status - specialization may have a temporary flexibility within certain limits and dominant market requirements. Based on these aspects, it should be pointed out that a very good market research and trends foreshadow the volume and structure of demand and use research to diversify treatment factors, thus providing increased flexibility of spa products.

Given global trends, profiling and functional status of the spa resorts will be within two broad categories: modern resorts and traditional / classical spas.

Regarding modern resorts, they are based on the new concept of global approach to health, offering products that combine / associate in a spa therapeutic factors with a series of activities to ensure physical and mental balance recovery.

Keywords: fundamental research, natural therapeutic factors, balneary resort.

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Introduction

For many medical problems that people can have like allergies, pulmonary problems, gynaecological, dermal, rheumatismal and many others, but especially for health risks prevention, the use of natural therapeutic factors for comfort and

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treatment of different pathologies is a solution to that the international scientific community has turned on through various experts, medical, environmental and social programs. One problem of interest is an allergic diseases – asthma. For this problem, speleotherapy, the use of underground environmental factors, is a therapeutic solution.

The European Union Balneary system must be open towards a knowledge-based economy and promote scientific research of therapeutic natural factors, thus providing development for a priority area represented by the health tourism, generating premises to increase competitiveness in research and development for this domain. Scientific research of therapeutic natural factors provides a strategic advantage for the development of spas, giving investors the necessary arguments for their business development in this sector.

For medical tourism, the importance of natural resources research is crucial in promoting a spa resort by underlying the therapeutic properties of natural factors, their contribution to health, identifying the biological mechanisms by which they are acting on the body. The publication entitled *Systems of Higher Education, Research and Innovation: Changing Dynamic* - emanating from the outcomes of the UNESCO Forum on Higher Education, Research and Knowledge, 2009, focuses on the role and status of national research systems and international trends in this domain in relation to the challenges posed by the Knowledge Society of the twenty-first century. The UNESCO Forum provided a platform for researchers, policymakers and relevant stakeholders to engage critically with the key elements underpinning research systems: (i) *policy trends*; (ii) *infrastructure*; (iii) *human capacity*; and (iv) *investment*.

The UNESCO Forum believes that it is central to reaffirm the importance of research at the current moment given the rapid developments since 2000 in knowledge production and management, and their ramifications for social change and progress. *Research on research* has become, therefore, even more crucial and is now well recognized as a major field of enquiry for international organizations, charged with advising their Member States about the questions involved.

Balneotherapy at international level

Unique spa resources, such as hot springs, mineral springs, mud, moffets and bioclimate (sedative, exciting or tonic), are successfully used in medical services that are tracked spa action preventive health, rehabilitation and wellness. European Spas offer a diverse range of services. Currently, use of natural factors in the services performed under medical supervision is accompanied by a series of techniques to help patients improve their health (physical therapy, balneal therapy).

Medical act in the health resort may be directed to prevention, treatment or recovery. Every year, European spas generate a turnover of over 20 billion Euro.

Direct employment of over 500,000 people and support a further 1.2 million jobs in related fields makes the business to be one of the largest employers in the EU both in healthcare and tourism.

At the beginning of this millennium in many countries of the world there is an interest and a preoccupation for the limit of negative effects which were created by the economical development on the population health. One of the efficient ways to fight against the modern civilization diseases is offered by the balneary tourism. Due to this fact and favorable effects on the social and economical plans, the countries that have natural cure factors for health resorts and have traditions in the exploiting these, same as Romania, they established for the balneary tourism, strategies for diversification and launching, for development and modernization.

The attention given to health tourism at the international level is point out by the declaration of the 2000 year as “The International Year of Balneology” and the scientific manifestations organized: *The International Congress of Balneology from Rome, 2000*, with the theme “Balneology for the Third Millennium”, where specialists from different countries presented points of view and valuable solutions for the future of European balneology; *The Congress of International Society of Technical Balneology*, from Levico Terme – Italy, 2002, with the theme “The tourism for Health and Medical Treatment in Balneary Resorts”.

The conceptions and the new orientations of the modern medicine that approach the health as a fundamental right of the human being, the introduction on the evaluation criteria of notions as the quality of life, lifestyle, welfare determined a re-evaluation of the medical assistance offered in balneary resorts, of balneology generally speaking, and of traditional tourism. Between the traditional balneology and traditional tourism appeared the welfare tourism, the health tourism and preventive health cures, which have as basis the quality of life, the health protection and a psycho - physical plan valid. The new criteria of evaluation show the impressive leap registered on the therapy with natural cure factors, from the crisis periods when there were no solid scientific substantiation, the methodology used being based more likely on the empiricism, to the multiple studies and scientific examinations which proved the efficiency of therapeutic and rehabilitation cures for different groups of diseases, based on a complex methodology.

The modern evaluation of the health, the welfare, and the quality of life imposes the continuation and development of scientific study for the establishment of action mechanisms and curative effects of the natural therapeutic factors. There are considered as a priority the studies on the methodology and effects of “health cures”, which represent the most important domain of the primary prophylaxis of the major diseases from the pathology related to the life style of civilization from the new millennium. Due to these conditions and reflecting on the principal elements of the balneary cure in the modern health resorts, the president of the International

Federation of Balneology and Climatology – Prof. Dr. H. Pratzel defined the balneary cure as being: “balneo-therapy, dietetic regimens, complex therapy, motivation for an healthy lifestyle under the supervision of experimented and qualified medical experts in a pleasant environment, accepted by the patient, closed to the nature and culture”.

Spa treatment is a method of treatment developed with intuitional use in treatment of various diseases by mainly the agency of bathing in spas, which are places where thermal and mineral (“Therapeutic”) waters naturally come to surface on earth, and reached to present by becoming a tradition. Modern spa cure, especially in European countries, is in the condition of a complex treatment opportunity where some other treatment methods and applications are practiced beside balneotherapy. Methods such as medical and physical treatment are among these and they are especially widespread in Europe.

Forms of Balneotherapy

Quoting from the book of “Balneology and Thermal Spring and Spa Medicine” of Ph. D. M. Zeki Karagülle, president of International Society of Medical Hydrology and Climatology, use of hot springs and spas on the territories of country for purposes of health and treatment is a tradition going all the way for a thousand years and still continuing. In reality this tradition exists in almost all of the civilizations. Today it maintains its existence and spread in all continents mainly South, Middle and Eastern Europe, Asia (Middle East, Japan, China, Turkic Republics) and South America (Argentina, Mexico, Colombia) and North Africa (Morocco, Tunisia). Spa treatment in Romania has advanced to a high quality standard. Spa treatment tradition has also developed the spa tourism phenomenon.

Balneotherapy is stimulation – adaptation treatment method applied in forms of bathing, drinking and inhalation cures performed with natural healers. Natural therapeutic factors used in Balneotherapy are underground sources of natural “therapeutic” waters, mud, seasonal agents and various microclimates (for speleotherapy). “Therapeutic waters”, thermal and mineral waters in other words are the most widely used among natural healing agents. Natural peloides (mud) and gasses (CO₂, radon and H₂S) are also other agents used in spa treatment besides waters.

Natural “therapeutic” waters, which are the most widely used natural healing agents of Balneotherapy, are classified according to their physical and chemical qualities. Therapeutic waters according to classification of internationally recognized German Spa Union are:

- Thermal Waters: waters that have natural temperatures over 20 °C;
- Mineral Waters: waters containing over 1gr. of dissolved minerals in one liter of water;

- Thermo Mineral Waters: Waters that have both the natural temperatures over 20 °C and contain over 1gr of dissolved minerals in one liter of water;

Classification of Special Balneologic Waters containing certain special minerals over specific threshold values is also in question. And according to this they are classified as follows:

- Carbon-dioxide containing waters: waters containing dissolved free carbon dioxide over 1 g/L;
- Sulfide containing Waters: waters containing sulfides in value of -2 over 1 mg/L;
- Radon containing waters: waters containing over 666 Bq/L of radon radiations;
- Salt waters: waters containing over 14 g/L of sodium chloride;
- Iodine containing waters: waters containing over 1mg/L of iodine;
- Fluoride containing waters: waters containing over 1 mg/L of fluoride.

Healing waters having total mineralization under 1g /L that doesn't belong under any one of the group in the above classification yet having natural temperatures above 20 °C are referred to as Akrato Thermal Waters.

Peloides (therapeutic clay) used in peloidotherapy which is one of the unique treatment methods of spa cure are organic or inorganic substances formed as result of geological and/or biological events. They are found in form of grains in nature or they can be turned into grains with certain preparation processes. They can naturally contain water or have no water at all in their structures. They come to appropriate thickness and temperature by adding adequate amount of thermal or regular water during use. They are used in forms of mud baths and mud packages in serious of diseases. Therapeutic effects in certain diseases over human organism must have been proven.

Balneotherapy is stimulation-adaptation treatment applied in form of cure at certain periods of time with repeated and regular use in series in manner of bathing, packaging, drinking and inhaling thermal and/or mineral waters, healing clay and gasses at specific dosages and in specific methods. Main balneotherapy methods are as follow:

a. Baths: Thermo mineral water, peloid and gas baths and regional applications of these agents.

b. Drinking cures: drinking cures made with mineral waters or applied to living areas.

c. Inhalation applications: inhaling applications performed with thermo mineral water drops.

d. Peloidotherapy: applications in method of bathing in healing mud and clay, packaging and padding.

e. Applications of hydrotherapy: Taking shower, bathing, washing and these types of applications performed with thermo mineral waters.

Baths are classified as cold (hypothermal; under 34°C of water temperatures, sea baths are included into this classification), warm (isothermal; indifferent; in 34-35 °C of water temperatures), hot (thermal; in 36-38 °C and 38-40 °C of water temperatures). Duration of bathing is usually 20 minutes. While this time is reduced to 10 minutes in hyper thermal baths it can be extended to 25-30 minutes in isothermal baths. Bathing applications can be administered in forms of complete baths, half baths and bathing in sitting position and arm-leg bathing. Bathing is usually administered for the period of 2 to 4 weeks either as everyday bathing (only one day without bathing for week) or once every other day. Bathing frequency can be readjusted towards the end of cure by spa physician.

Other than the carbon dioxide baths; patient must be in a position to be able to move freely especially in full baths. This condition is especially very important for patients who are suffering from rheumatoid arthritis, post traumatic distress or orthopedic discomfort and peripheral neurological disorders. In baths with carbon dioxide containing water; it is recommended for patient to remain immobile during the time of bathing in order not to place an additional load onto the heart and artery system of patient.

Healing mud and clay baths are used in forms of full, half body or arm-leg baths or mostly in forms of packages. Package form application is the method often used. In this method packages are applied to specific areas of the body.

After application the body gets freed of mud with the assistance of a warm shower (taken under the water in temperatures of 37-38 °C). Following this body is freed from mud; patient gets dried of immediately and rests for half an hour to an hour. Afterwards patient either takes a light walk or receives a massage or is taken into a regional exercise program if necessary. Mud treatment is the best preparer for exercise since it brings tissues and muscles into soft and flexible condition.

Most often used method after baths with thermo mineral waters in balneotherapy is “drinking cures carried out by intake of waters containing natural minerals for certain period of time during the day at specific hours and in specific amounts”. Direct effects over the digestive system organs and functions and indirect effects over the kidneys and urinary tracts occur in connection to the chemical compound of mineral water used here. Beside all that has been stated above a general positive effect develops over the organism with drinking mineral waters in specific amount and at specific times in manner of cure. This effect makes itself noticeable with series of positive and meditative changes in physiological and pathological courses.

Inhalation is a method of treatment administered with the inhalation of drops of mineral water. Goal in the inhalation applications is for drops of mineral water inhaled to reach to the desired area of respiratory system and have direct effect by

means of separating from the gas that carries them and be dropped off into the environment. Lung functions are positively affected and blood gas levels becomes normal with the effects of natural inhalation solutions.

Supplementary and alternative treatments in spa treatment on the other hand, more accurately in spa cure (since it is administered with application of certain treatment methods, for certain period of time in a series in form of a cure) are also used in many countries. Especially exercise and massage mainly; acupuncture, herbal treatments and aroma therapies are found among these methods. Finally series of supporting methods are also allowed in spa cure programs in some countries again. For example, health education and social medical preventions are also being added to spa cure in Germany. Other support methods such as regulation of diet and daily living and psychological support may also be used.

Patient coming to spa rests for certain period of time. Following that receives a check-up from the specialist here. Certain additional laboratory analyses get performed if it is considered necessary for diagnosis and treatment. Consequently, Spa and cure medical specialist organizes (prescribes) a cure program to patient. Balneotherapy and other treatments in a spa cure are organized and arranged according to the condition and ailment of patient and according to the natural treatment resources unique to that spa and are modified and changed during cure according to responds they provide to treatment.

Factors affective in spa treatment can be listed as treatment methods applied, change of environment, climatic agents, placebo effect, psychological agents, irregularities in daily life, not having any negative environmental agents and supportive methods.

In addition to all of these various organizations towards patient's body and position education and information can also take place in thermal spring, spa, and cure centers. In illnesses where posture and movement of the body is important especially in terms of quality and quantity (for example, chronic back pain, diabetes mellitus) in order for the correction of function and function disorders by the patients it is a prerequisite for patients feel them knowingly and consciously. A patient suffering from an intervertebral disc disorder will not be able to correct this as long as he/she is unaware of faulty or wrong positioning of his/her body in his daily life. Practices of feeling and understanding the body administered by a specialist who is competent on the subject that he/she teaches form an important portion of patient education programs used in many illnesses at modern cure centers in European countries.

Underwater exercises are intense muscle and circulation system works targeting on minimizing the load of muscle and skeleton belonging especially to back and lower extremities and parallel to this on minimizing the neural load at these areas. In other words, long lasting endurance exercises of limbs and organs having difficulty during exercises performed outside of water due to gravity and lower extremities and

lumbal portion of spine before everything else can be performed in an intense and effective manner in water. Affects of underwater exercises are also being benefited from with purpose of treating neurological illnesses.

These exercises may be practiced much more intensely in a meaningful fashion than exercises performed outside of water and they are especially indicated for patients who are disabled to walk. In addition, it can be used as a unique treatment method in multimorbidity through benefiting from mutual interaction of water environment with active movements.

As a rule, waters inside the exercising pools must be in the same quality of drinking water. By means of cooling the hyperthermal waters or warming the cold mineral waters, pool water temperatures are kept rather near thermo neutral (34-35°C) temperatures.

Existence of additional effects is in question here according to exercises performed outside of water due to physical agents such as water pressure, buoyancy of water and water viscosity. Buoyancy of water is more in waters containing salt and minerals. For that reason, such additional factors in exercise baths can provide significant therapy in the extremities and joints in spine. This on the other hand means that there are special indications for muscle and skeleton system ailments.

In reality, existence of physical treatment and rehabilitation units in spa facilities is in rather optional quality than a prerequisite. Physical treatment measures in spas must be arranged special to the individual and in cases when it is medically necessary and not to fill-up a cure program. Physical treatment methods have began being practiced mostly in European spas as an addition to balneotherapy methods. Certain European cure centers today have earned a special place for themselves in treatment and rehabilitation of ailments primarily associated with rheumatism, orthopedics, neurological, cardiovascular and geriatrics followed by chronic illnesses that receive spa indication.

Finally in connection with the equipments of spas; hydrotherapy means such as Jacuzzis, jet showers, whirlpools, underwater pressured massages, filiform showers, walking tracks, steam showers and baths etc. from the other treatment methods performed with natural therapeutic agents in spa centers must be listed as equipments towards the methods.

Speleotherapy is a relatively new method in medicine, although is well known and appreciated by isolated tribes in caves and salt caves. During the years of 50 and 60 of the XX Century speleotherapy was practiced only sporadically in Germany and later Klutert repeated the method in Poland, in the Wieliczka salt mine, when the first positive effects of salt mine micro-environment were mentioned on respiratory illness (B. Yang, G. Schubert, 1962; M. Skulimowski, 1968). Effective curative results of salt mines and caves on respiratory diseases aroused interest, especially in Europe, where as noted, chronic inflammatory airway diseases and allergies are

growing. Around the years 1870-1875 has been practiced for therapy of patients with rheumatic diseases in Grotta Guisti Monsumano Terme (Italy), the beneficial effect was confirmed years later in 1939-1942. UNESCO – UIS Permanent Commission of Speleotherapy, represented by Dr. Pavel Slavik from Czech Republic as President has an important role in the field and was joining the First Romanina Conference of Speleotherapy hold in Turda, from 6 to 8 October, current year.

Balneotherapy in Romania

The contribution of the Romanian specialists to the scientific substantiation of the therapy with natural factors is remarkable. Since 1949, when the Institute of Balneology and Climatology was founded in Bucharest, the balneo-climatology have made impressive efforts for the complex study of natural therapeutic factors, so much physico-chemical, microbiology, and pharmacology experiments as much as clinical therapeutic. The medical and technical personnel performed systematic researches in clinics, laboratories and balneary resorts. There were organized complex studies and researches; there were discovered, studied and exploited new valuable resources of the cure natural factors. The results of these studies were published in a collection of 11 volumes of “Studies and researches of balneology and physical therapy”, in a monograph of 3 volumes “The mineral waters and mud from Romania” during the 1960-1972 and also numerous “Methodological guide” and “Indications for the treatment in balneo-climatology resorts” published on 1960, 1965, 1975 and 1986.

The contribution of Romanian researchers on the balneology domain is remarkable and permitted the valuing of extraordinary potential of natural therapeutic factors from Romania. From this point of view we have an enviable position compared to other countries from Europe. The boost of balneary tourism from our country and the alignment of our health resorts to the existing standards in other European Union countries depend on a complex set of factors which make the object of this project.

Due to the natural cure factors and the modern equipment from the treatment spas, the balneary resorts from European Union may offer the possibility of diverse disease treatment by the therapeutic and rehabilitation balneology and also solutions to prevent the disease and to maintain the health status through welfare balneology (health cures).

During the last 20 years, in Europe took place an unprecedented reversal of balneary tourism. European Union States with known tradition in natural therapeutic factors such as Germany, Italy, France, Spain have granted special attention and special support to all the investors in this domain. After our admission to European Union, romanian balneology has become an integral part of european market. All these realities create a great challenge ahead. If the romanian offert doesn't fit existing market standards, the costumer will choose another destination. The long period of

transition, falling economy, decreased buying capacity, faulty management, lack of investment and legislation, all of these generate the degradation of resort material base concerning equipments and natural therapeutic factors protection and research.

The relative economic growth recorded by our country after 2000 had a positive influence on Romanian balneary tourism, a tendency to improve and modernize hotel and treatment structures, to diversify the existing offers. These facts are strong indicators that the business factors involved in balneary tourism have a strong conviction that balneary tourism will have increased demands of services. Any future developmental strategy either balneary or regarding general health has a start from natural therapeutic factors. In order to establish the therapeutic value of natural factors, complex research is necessary to offer the scientific foundation of balneary treatment. Any developmental strategies are useless without an investment in research.

Several directions are necessary for balneary development:

- a. Serious analysis to establish a national register of natural therapeutic factors, mineral substances reserves and their degree of usage
- b. Complex research studies to establish the therapeutic potential of natural factors for specific diseases
- c. Specific actions and optimal therapeutic indications as basis for the setting of the degree and the structure of material base development
- d. Finding the best solutions for functional division and specific and general infrastructure development
- e. Development of protective measures for natural environment preservation and protection.

Natural therapeutic factors: mineral and thermal water, salty lakes, therapeutic mud and gases, salt-mines, climate, medicinal plants, represent the fundamental condition to conceive and develop the offers. So, to respond to competitive requirements they must have several characteristics regarding volume, quality, diversity and therapeutic efficiency.

The diversity of natural therapeutic factors is a fundamental condition in order to obtain as many products and to treat as many diseases as possible. These natural factors can be intensified by other natural factors, as a characteristic of a particular resort.

Another important factor is the quality and quantity of natural therapeutic factors that can be appreciated by several quantitative and qualitative criteria with great influence on therapeutic efficiency.

For mineral water qualitative criteria are: global mineralization, minimum content of chemical elements, dissolved gases, emergency temperature, osmotic pressure, radioactivity, therapeutic indications, morbidity incidence; quantitative criteria are: homologated reserves. For therapeutic usage mineral water must be

bacteriologic pure, to have scientific fundamentals, and a regular debit to ensure the therapeutic usage method (internal and external administration, inhalations).

Therapeutic mud, used in different applications, can be evaluated with qualitative criteria: physical indicators: density, pH, rH, specific warmth, texture, slip resistance, organic material content, peat decomposing grade, mineralization and ionic composition of imbibition solution, and quantitative criteria: homologated reserves.

In vitro bioassays are valuable tools for screening environmental samples for the presence of bioactive (e.g. endocrine disrupting) compounds. They can be used to direct chemical analysis of active compounds in toxicity identification and evaluation.

Enzymes are the vital activators in life processes, likewise in the mud they are known to play a substantial role in maintaining soil health and its environment. The enzymatic activity in the mud is mainly of microbial origin, being derived from intracellular, cell-associated or free enzymes. A unique balance of chemical, physical, and biological (including microbial especially enzyme activities) components contribute to maintaining mud health. Evaluation of mud health therefore requires indicators of all these components. Healthy muds are essential for the integrity of terrestrial ecosystems to remain intact or to recover from disturbances, such as drought, climate change, pest infestation, pollution, and human exploitation (Ellert et al. 1997). These enzymes may include amylase (EC 3.2.1), arylsulphatase (EC 3.1.6.1), β -glucosidase, cellulase (EC 3.2.1.4), chitinase, dehydrogenase, phosphatase (EC 3.1.3), protease, and urease released from plants (Miwa et al. 1937). The enzyme levels in mud systems vary in amounts primarily due to the fact that each soil type has different amounts of organic matter content, composition and activity of its living organisms and intensity of the biological processes (Stevenson, 1986).

The occurrence of estrogens in the aquatic environment attracts increasing attention because of their strong endocrine disrupting potency. Estrogenic hormones, also referred to as female steroid hormones, are steroidal molecules structurally based on the phenanthrene ring. They are produced from cholesterol primarily in the ovaries of females in response to signals from the brain or other organs and, albeit in lower quantities, in testes of males. The main naturally occurring estrogens in all classes of vertebrates are 17β -estradiol (β -E2), 17α -estradiol (α -E2), estrone (E1), and estriol (E3).

Estrogens play pivotal roles in sexual development and are e.g. responsible for the development of feminine secondary sexual characteristics, control of reproductive cycles and fertility (Tyler and Sumpter, 1998). In addition, they also have functions in the nervous system, vasculatory system and in the regulation of bone density (Sandberg, 2002). Chemical analyses of the muds were carried out for metals, and natural steroid estrogens.

Therapeutic moffetarian gases can be appreciated by several criteria: CO₂ contain, H₂S contain, other gases contain, radioactivity.

Curative properties of therapeutic salt-mines are evaluated by thermo-hydro-baric indicators, (pressure, humidity, air flow), physical indicators for air quality (aeroionozation, aerosol particles concentration, radioactivity) chemical indicators (CO₂, H₂S, N₂, O₂, SO₂ concentrations, Na, Cl, K, Ca etc. concentrations, microbiology: greenhouse, fungus.

Therewith the high demands and high selectivity of the market influence the choice of consumers in choosing a balneary resort. At the basis of this choice is the proved therapeutic efficiency of natural factors and physical procedures, proved by clinical testing, internationally recognised by OMS.

The natural environment extremely beautiful surrounding the balneary resorts from mountains, hills or seaside is a powerful argument for balneary tourism. In these area the patients benefit also from all the natural factors: The effect of negative air ions or sea climate (air, water, sun, ozone) increase or are in addition to other natural therapeutic factors.

But all these factors can not be valued without a touristic arrangement of the resort, on scientific bases, with modern infrastructure, well developed and a highly trained staff.

Touristic arrangement of the resort on scientific bases, considering complex relations between environment and human and all the factors which influences these relations has an important part in tourism development and optimal exploitation of theritory, in implementation of tourism in local economy and integration of development plans in social economic strategy.

In touristic arrangement of the resort several conditions are requested::

- Establishing profile and functional status of resorts on the basis of developmental directions;
- Choosing the right environment for balneary resorts;
- Functional mapping of balneary resorts in order to ensure optimal exploitation of natural factors and environment protection;
- establish the optimal dimension for resort related to resouces quality, volume and diversity;
- the structure of equipments in a unitary conception to allow in the same time free spaces or therapeutic arrangements, parks, sport field, field cure area.

Establishing profile and functional status of resorts is a decisive action for the market succes of these offertts.

Profiling and determining the functional statute of touristic spa resorts represents a decisive step for market success. While resorts' profile is defined by the nature of therapeutic factors, the functional statute – the specialization could have

a major temporal flexibility according to market necessity. Based on these issues, be noted that a very good market research and a prediction of trends in volume and structure of demand are necessary, as well as using research to diversify cure factors, thus ensuring the flexibility of spa products.

Considering the actual global trends, there are two main categories for the profile and functional statute of spa resorts: modern and traditional/classic.

Regarding modern resorts, they have a new background concept about the global approach of health status, offering products which can mix/associate creatively balnear cures with therapeutic factors and a number of activities for regaining physical and mental balance of the patients.

In traditional/classics resorts the cures are mainly based on improved medical treatment and rehabilitation which can exploit the rich tradition of our country in balneology. Functional rehabilitation programs are achieved in strictly specialised medical units.

For spatial perimeters establishments, the size of resorts and choosing the most efficient sites are of major importance. It implies a global valuation of natural therapeutic factors, total area as possible to arrange, establishing procedure for use of resources, internal and external cure and the necessary for every procedure: bathroom tub, packings, inhalations, buvete.

Another important aspect which has left its mark on the therapeutic natural factors is the quality of the environment as well as its protection and preservation. Therefore it is necessary to take action in this regard to not allow the contamination of therapeutic natural factors, chemicals, noxious wastes and pollutants. For instance, it is necessary to stimulate organic farming practice (without using chemicals), that would not affect the quality of spa resources and which is an asset for offering organic food. It is also required to avoid pollution by noxious wastes. There shouldn't be any polluting factories close to such resorts, and the flow of not ecological vehicles should be restricted. At the entrance of the resort there should be a special parking area.

Periodic certification of the quality of natural therapeutic factors used in spa resorts represents a way of assessing the preservation of environment, directly reflected in therapeutic efficiency. Thus, the development of the researching capacity of National Institute of Rehabilitation, Physical Medicine and Balneoclimatology has also the argument of improving the environment by monitoring balnear resorts.

National strategy in the field of research-development and innovation (RDI) for 2007 – 2013 is based on a Romanian society of knowledge, where the economic and social progress is actively sustained by the science, technology and innovation. Taking into account the fact that Romania is a member of European Union from 2007, RDI Strategy assures the coherence with the main politic Community documents.

Actually, the main challenges the UE faces for increasing the innovation capacity are the insufficient concentration on the excellence poles able to concur

on a global scale, the weak integration of knowledge elements, the poor trans- and interdisciplinary research focused on innovation needs, the lack of research and education management and organization models, the high costs of patenting and poor mobility of researchers.

Romanian system of RDI crossed an extremely difficult period after 1989; underfinancing and delayed restructuring did not give any chance to attach to global tendencies of the science and technology but scarcely, and the still fragile domain of Romanian enterprises could not have any realistic demand on innovation. Isolated as it was, the RDI system fragmented, its components struggling to survive with a minimum of resources, mainly public finances, in the frame of formal and self-sufficient subsystems.

The National Institute of Rehabilitation, Physical Medicine and Balneoclimatology is an exception from this point of view. It included, through the Government Decision 1014/10.09.2002 the Institute of Normal and Pathologic Physiology D. Danielopolu. These two formal and self-sufficient systems worked together and, with the competitiveness and surviving spirit formed a new research sector which overpassed the transition difficulties, being today prepared to assume its role of balnear research pole.

Under the effect of chronic underfinancing, the number of researchers declined dramatically in the 1990 – 2010, together with their aging. The low attractiveness of a research carrier lead to qualitative decline of human resources and made difficult the cooptation of young researchers. Many of them left abroad. The poor salarization in RDI sector is a determinant for the scarce activity, but in reality the situation is more complex, including the slow institution reform, the low quality of the RDI infrastructure, the lack of a evaluation system for the stimulation and awarding performance.

The level of financing had also a bad effect on maintaining and development of research infrastructure which is important for valuable results at a international level and for solutioning national complex economic and social problems. The negative impact was seen also in the field of international collaboration, of participation in european projects and networks, leading to isolation and alienation from the main european objectifs, to restraining the access to products and performant technologies necessary to Romanian industry and services. Management incapacities and lack of minimal institutional resources to sustain research laboratories determined an inefficient functioning even when the infrastructure was good. The low degree of utilisation was due also to poor capacity to offer interesting services, especially for economic agents.

RDI system offers real opportunities for the on-coming years. Integration in the European Union makes pression on competition for innovation, making possible the swich of private sector interests to this domain. The politic commitement of 1%

of PIB of public expenditure for RD is an important step of Romania facing the Lisabona Strategy.

Beginning from the national situation and the international context, the RDI evolution on a large scale contains answers to many challenges: human capital development to face the need for RDI competitiveness, increasing the attractiveness of a research carrier in the universities and public research institutes, in the doctorate programs, reducing fragmentation through stimulation of competitive cooperation, focusing finance in research, and further on results, solving national socio-economic problems, developing a RDI infrastructure and improving its use, increasing the rate of success in international projects, together with funds attraction, development of international cooperation.

The Science of services is the field that identifies and manages the relationships of need that are at least as numerous as the needs of material goods, but with a more complex and heterogeneous character. The knowledge of the essence and structure of these needs is of great interest to the science of goods and services, being an important aspect for research.

The Détente Consultants company made the Master Balnear Tourism Development Plan available to the Institute and to the Ministry of Regional Development and Tourism, as beneficiary, plan completed in 2009-2010. This public document is very useful for our project and we propose to focus our efforts to add to this vision, built in terms of tourism, a complementary approach, represented by scientific research. We would like to specify that the document states that: „Balnear Scientific research has ceased”.

Consumption of tourist services in Romania, studied in three waves in August, October and November by the Institute of sounding INSOMAR, publicly presented the Ministry of Regional Development and Tourism and accessible on the page: <http://www.mdrl.gov.ro/index.php?p=4402> reveals a share of the intention to use spa services 20%, compared with the intention of going on a seaside resort - 30.7% or a mountain resort - 27.6%. Studies conducted by INSOMAR will be useful in basic documents of interest in the field of spa services and will be incorporated into the analysis of the current state of quality spa services.

Medical tourism, as practiced in Hungary, Thailand, Tunisia and as practiced in Romania with the help of the treatments by Dr. Aslan, refers to medical or surgical procedures performed in specialized institutions and for which customers are motivated because of the lower price than in their home country. Balneotherapy uses the natural therapeutic factor with recognized curative qualities (chemical, thermal and mechanical effects). General, balneotherapy is practiced in a particular natural environment, characterised by the absence of pollutants. Being an activity with a medical profile, it must follow strict health regulations on thermal waters (mineral

water sources protection, administrative authorization for resource exploitation, compliance with bacteriological and physical-chemical quality of water and mud).

Seawater therapy uses sea water with recognized curative qualities (chemical and mechanical effects). Practiced on sea shores in a refreshing climate (the ocean more than the Mediterranean and Black Sea).

Between the 4th and 7th of May, 2010, the XV edition of the Annual Congress of the European Balnear Resorts Association (ESPA) was held in the Baile Felix spa, organized by the ESPA and the Employers Organisation of Romanian Balnear Tourism, with the support of the Ministry of Regional Development and Tourism. This is the first edition of ESPA European Congress held in Romania. In the event, representatives of European health tourism gave several presentations about European health tourism development, factors needed for prevention in each EU country, but especially about the importance of scientific research in the future development of this area.

International Society of Medical Hydrology and Climatology, represented by Chairman Prof. Dr. M. Zeki Karagülle, expressed, following discussions, the interest to collaborate in various projects on balneotherapy with the National Institute of Rehabilitation, Physical Medicine and Balneoclimatology, accepting the invitation to visit Romania in October 2010.

The strategy of the International Society of Medical Hydrology and Climatology raises the insufficient scientific evidence for the use of balneotherapy and the need for a holistic approach to balneology, medical hydrology and climatotherapy, with a major interest in promoting the use of scientific research as a tool for marketing, promotion and development of the balnear resorts. The National Institute of Rehabilitation, Physical Medicine and Balneoclimatology creates the internal and external context to overcome this barrier.

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EFFICIENCY MEASUREMENT AMONGST MEDICAL TOURISM SERVICE PROVIDERS IN INDIA

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Abstract

The purpose of the present study is to develop an appropriate construct to benchmark Medical tourism service providers in India for formulating strategies through understanding deficiencies for improving their performance. This paper applies a non-parametric technique known as Data Envelopment Analysis (DEA) as a performance assessment tool for benchmarking of Medical tourism in India. A total of thirty nine medical tourism service providers in India are chosen for benchmarking purpose. The average score of efficiency is found 0.95 with a standard deviation of 0.084 when Charnes, Cooper and Rhodes (CCR) model is used. Similarly, when the Banker, Charnes and Cooper (BCC) model is used the average score is found to be 0.975 with a standard deviation of 0.06. In order to check for existence of significant difference between medical tourism performance scores calculated using DEA models (CCR and BCC), a paired sample t-test is carried out. It is found that there is a significant difference between efficiency scores obtained through CCR and BCC models. The study identifies the parameters in which the inefficient DMUs lack for formulating necessary strategies to improve upon them. This method, being a generic one can be adopted by the managers to assess Medical tourism performance in any environment provided the DMUs are homogenous in nature. The study alleviates the inconsistent methods of benchmarking practices using a simple but comprehensive methodology.

Keywords: Medical tourism; Benchmarking; Data envelopment analysis (DEA); Decision making units (DMUs)

JEL Classification: F 68

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Introduction

India is a preferred medical tourism destination in the world due to availability of best healthcare services at substantially less cost. The growth in foreign patients' arrivals to India has usually been pegged at 25% annually (Debata et al., 2011). The study conducted jointly by McKinsey and Confederation of Indian Industry in 2004 reveals that gross revenue generated from medical tourism was worth USD 40 billion worldwide. The report projects that the medical tourism industry may achieve a mark of USD 100 billion by 2012. However, the Indian medical tourism sector faces various challenges viz. an image of poverty and poor hygiene, inefficient consumer redressal forum, safety of the patients (Kalshetti and Pillai, 2008; Begde, 2008). These challenges threaten the sector's survival and financial viability. The primary focus of medical tourism is to capitalize on returns and identify the best business practices for establishing quality standards. In this context, the decision makers are actively involved in determining the operational effectiveness of medical tourism sector. However, it is difficult to compare the performance of various entities in the sector due to existence of complex multiple input-output relationship. Therefore, the major concern of healthcare managers is to evaluate medical tourism performance and identify weaknesses for deciding upon subsequent improvement measures. The present study proposes Data Envelopment Analysis (DEA) technique, for performance evaluation in Indian Medical tourism sector.

Literature Review

DEA has been extensively used for efficiency analysis of health care organizations due to its ability to handle multiple inputs and outputs (Chang, 1998; Shroff et al., 1998; Linna et al., 2003; Hollingsworth, 2003). DEA has been successfully used to study healthcare issues such as public policy efficiency (Coppola et al., 2003), pharmaceutical industry (Key et al., 2005), Health Maintenance Organizations (HMO) industry (Brockett et. al., 2004), long term care (Bjorkgren et al., 2001). The applications of DEA to measure hospital efficiency have also been reported in literature (Retzlaff-Roberts et al., 2004; Osei et al., 2005). Salehzade and Ketabi (2011) have evaluated the relative efficiency of public and private hospitals in Qatar using CCR and BCC models. In Indian context, application of DEA for measuring the hospital efficiency is limited. Shetty and Pakkala (2010) have analyzed technical efficiency (TE) based on health outcomes such as reduced infant mortality and increased life expectancy at birth to measure the performance of health system.

Methodology

The proposed methodology uses DEA-CCR and DEA- BCC for benchmarking of medical tourism performance in India. In this study, a DMU refers to hospitals providing medical tourism service. The thirty nine DMUs are selected on the basis of stratified random sampling method. The efficiency of each DMU is calculated

in relation to all other DMUs using actual input-output values is called relative efficiency. DEA also determines the level and amount of inefficiency for each of the inputs and outputs. The magnitude of inefficiency of the DMUs is determined by measuring the radial distance from the inefficient unit to the frontier. DEA makes use of linear programming problem (LPP) to measure the relative performance of DMUs.

Selection of Input and Output Parameters

This paper suggests ten inputs (V) and three outputs (U) as shown in Table I. The customer returns is defined as the medical tourists undergone treatment in a specific medical tourism service provider and revisited the same premises for further checkup or follow-up. The output customer returns (U_1) is the ratio of number of medical tourists revisiting to the total number of medical tourist undergone treatment with a specific service provider in a year. Therefore, customer return is quantified by averaging for three years (during 2008-2011). This indicates tourists' behavioral intention and brand loyalty in availing effective medical tourism service quality. Customer satisfaction (U_2) is expressed as medical tourist's satisfaction captured in a scale between 0 to 100. The medical tourists are advised to provide with their level of satisfaction on the scale and the responses are averaged over last three years. Success rate (U_3) is expressed as the percentage of tourists successfully discharged from the medical tourism service provider after availing healthcare services in a year and averaged over last three years. This indicates the accomplishment in appropriate health recovery over the number of medical tourists admitted to a specific medical tourism service provider.

INPUTS (V)	
	Number of Doctors (V_1)
	Number of Nurses (V_2)
	Ratio of Nurse to patient (V_3)
	Average cost of Treatment (V_4)
	Average Waiting time (V_5)
	Average Treatment time (V_6)
	Tie up with Tour Promoter (V_7)
	Floor Space (V_8)
	Distance from Airport/City (V_9)
	Number of Bed (V_{10})
OUTPUTS (U)	
	Customer Returns (U_1)
	Customer Satisfaction (U_2)
	Success Rate (U_3)

Table I: Inputs and Outputs

Result and Discussion

The general input-oriented maximization CCR-DEA model is used to obtain efficiency score. LINDO 6.1 version is used to solve the DEA model. The result shows that in a scale of 0-1 the mean efficiency score for the medical tourism service providers is 0.95 with a standard deviation of 0.084 when CCR model is used. This means that there exists a large scope for improvement of medical tourism performance in India. Ranking based on relative efficiency scores (Table II.), indicate that twenty seven DMUs out of thirty nine DMUs have emerged as benchmarking units for the other twelve DMUs. The efficiency score for efficient DMUs approach unity while that of DEA-inefficient DMUs show relative efficiency less than unity. The inefficient units can refer the DMUs listed in column four with corresponding peer weight given in column five for the improvement in medical tourism performance.

DMU	Efficiency	Ranking by DEA	Benchmarking	Peers Weight	Peers Count
DMU ₁	1	1	DMU ₁	1	0
DMU ₂	1	1	DMU ₂	1	1
DMU ₃	1	1	DMU ₃	1	0
DMU ₄	1	1	DMU ₄	1	4
DMU ₅	0.851209	34	DMU ₂₃ , DMU ₂₅ , DMU ₃₇	0.1125, 0.911, 0.0515	0
DMU ₆	0.838934	35	DMU ₄ , DMU ₁₅ , DMU ₂₅	0.344, 0.4723, 0.1633	0
DMU ₇	1	1	DMU ₇	1	2
DMU ₈	0.890776	31	DMU ₄ , DMU ₁₅ , DMU ₂₅ , DMU ₃₇	0.3997, 0.4822, 0.1980, 0.1082	0
DMU ₉	1	1	DMU ₉	1	0
DMU ₁₀	1	1	DMU ₁₀	1	0
DMU ₁₁	1	1	DMU ₁₁	1	1
DMU ₁₂	1	1	DMU ₁₂	1	1
DMU ₁₃	0.688619	39	DMU ₇ , DMU ₁₅ , DMU ₃₀ , DMU ₃₆	0.1032, 0.4205, 0.2296, 0.3218	0
DMU ₁₄	1	1	DMU ₁₄	1	0
DMU ₁₅	1	1	DMU ₁₅	1	8
DMU ₁₆	1	1	DMU ₁₆	1	0
DMU ₁₇	1	1	DMU ₁₇	1	1
DMU ₁₈	0.766569	37	DMU ₁₂ , DMU ₁₅ , DMU ₃₆	0.3915, 0.4562, 0.522	0
DMU ₁₉	1	1	DMU ₁₉	1	2
DMU ₂₀	0.739056	38	DMU ₇ , DMU ₁₅ , DMU ₁₇ , DMU ₃₇	0.0375, 0.775, 0.145, 0.4	0
DMU ₂₁	1	1	DMU ₂₁	1	0
DMU ₂₂	0.875	33	DMU ₁₅	1	0
DMU ₂₃	1	1	DMU ₂₃	1	1
DMU ₂₄	0.96847	29	DMU ₁₅ , DMU ₁₉ , DMU ₃₉	0.3042, 0.3004, 0.5703	0
DMU ₂₅	1	1	DMU ₂₅	1	6

DMU	Efficiency	Ranking by DEA	Benchmarking	Peers Weight	Peers Count
DMU ₂₆	0.991945	28	DMU _{11'} , DMU _{19'} , DMU ₂₅	0.2422, 0.7227, 0.1460	0
DMU ₂₇	1	1	DMU ₂₇	1	0
DMU ₂₈	1	1	DMU ₂₈	1	0
DMU ₂₉	1	1	DMU ₂₉	1	0
DMU ₃₀	1	1	DMU ₃₀	1	1
DMU ₃₁	1	1	DMU ₃₁	1	0
DMU ₃₂	1	1	DMU ₃₂	1	0
DMU ₃₃	1	1	DMU ₁₅	1	0
DMU ₃₄	0.882665	32	DMU _{2'} , DMU _{4'} , DMU _{15'} , DMU ₂₅	0.0228, 0.2647, 0.7395, 0.0596	0
DMU ₃₅	0.820351	36	DMU _{4'} , DMU _{15'} , DMU ₂₅	0.0736, 0.838, 0.2224	0
DMU ₃₆	1	1	DMU ₃₆	1	2
DMU ₃₇	1	1	DMU ₃₇	1	3
DMU ₃₈	0.933333	30	DMU _{23'} , DMU ₃₉	0.1363, 0.8181	0
DMU ₃₉	1	1	DMU ₃₉	1	2

Note: Mean Efficiency (CCR) - 0.95, Minimum - 0.689, Standard Deviation - 0.084

Table II: Results of DEA (CCR model)

It is to be noted that DMU₁₃ having efficiency score of 0.688619 is treated as most inefficient unit. The above table also shows the peers and peer weights for the inefficient medical tourism service providers. The inefficient DMUs can identify the parameters in which they lack and take necessary steps for improvement.

The BCC score is based on VRS assumption and measures the pure TE. Ten DMUs are found to be the DEA-inefficient units in BCC model. The average score for the medical tourism service providers is found 0.975 (which happen to be more than that of CCR-model) with a standard deviation of 0.06 when BCC model is used (Table III).

DMU	Score	Rank	Benchmarking	Peer Count
DMU ₁	1	1	DMU ₁	0
DMU ₂	1	1	DMU ₂	3
DMU ₃	1	1	DMU ₃	0
DMU ₄	1	1	DMU ₄	4
DMU ₅	0.9	34	DMU _{25'} , DMU ₃₇	0
DMU ₆	0.87211	38	DMU _{4'} , DMU _{15'} , DMU ₂₅	0
DMU ₇	1	1	DMU ₇	3
DMU ₈	0.98716	31	DMU _{4'} , DMU _{7'} , DMU _{15'} , DMU _{25'} , DMU ₂₈	0
DMU ₉	1	1	DMU ₉	0

DMU	Score	Rank	Benchmarking	Peer Count
DMU ₁₀	1	1	DMU ₁₀	0
DMU ₁₁	1	1	DMU ₁₁	1
DMU ₁₂	1	1	DMU ₁₂	0
DMU ₁₃	0.70136	39	DMU ₇ , DMU ₁₅ , DMU ₂₈ , DMU ₃₀ , DMU ₃₆	0
DMU ₁₄	1	1	DMU ₁₄	0
DMU ₁₅	1	1	DMU ₁₅	7
DMU ₁₆	1	1	DMU ₁₆	0
DMU ₁₇	1	1	DMU ₁₇	0
DMU ₁₈	0.88889	35	DMU ₂₈	0
DMU ₁₉	1	1	DMU ₁₉	0
DMU ₂₀	0.88387	36	DMU ₂ , DMU ₄ , DMU ₂₅ , DMU ₂₈	0
DMU ₂₁	1	1	DMU ₂₁	0
DMU ₂₂	0.875	37	DMU ₁₅	0
DMU ₂₃	1	1	DMU ₂₃	0
DMU ₂₄	0.9786	32	DMU ₁₁ , DMU ₁₅ , DMU ₂₈ , DMU ₃₉	0
DMU ₂₅	1	1	DMU ₂₅	5
DMU ₂₆	1	1	DMU ₂₆	0
DMU ₂₇	1	1	DMU ₂₇	0
DMU ₂₈	1	1	DMU ₂₈	6
DMU ₂₉	1	1	DMU ₂₉	0
DMU ₃₀	1	1	DMU ₃₀	0
DMU ₃₁	1	1	DMU ₃₁	0
DMU ₃₂	1	1	DMU ₃₂	0
DMU ₃₃	1	1	DMU ₁₅	0
DMU ₃₄	0.93453	33	DMU ₂ , DMU ₄ , DMU ₁₅ , DMU ₂₅ , DMU ₂₈	0
DMU ₃₅	0.99496	30	DMU ₂ , DMU ₄ , DMU ₇ , DMU ₁₅ , DMU ₂₈	0
DMU ₃₆	1	1	DMU ₃₆	1
DMU ₃₇	1	1	DMU ₃₇	1
DMU ₃₈	1	1	DMU ₃₈	0
DMU ₃₉	1	1	DMU ₃₉	1

Table III: Results of DEA (BCC model)

Results obtained from CCR and BCC models; it is interesting to note that four DMUs (DMU₁₁, DMU₁₅, DMU₂₃ and DMU₃₉) have become efficient units in both the models. In order to check for existence of significant difference between medical tourism performance scores calculated using DEA models (CCR and BCC),

a paired sample t-test is carried out (Bain and Engelhardt, 1992). The test indicates that significant difference exist between efficiency scores obtained through CCR and BCC models.

Conclusions

The process of benchmarking is useful in identifying the best medical tourism practices. Two approaches of DEA known as CCR and BBC are considered to obtain efficiency of medical tourism service providers. Twenty seven units out of thirty nine DMUs have emerged as benchmarking units for the other twelve DMUs in the CCR model whereas twenty nine units are found to be efficient in BCC model. In total, ten DMUs (DMU₅, DMU₆, DMU₈, DMU₁₃, DMU₁₈, DMU₂₀, DMU₂₂, DMU₂₄, DMU₃₄ and DMU₃₅) have become inefficient units in both CCR and BCC models based on their efficiency scores. The efficiency scores obtained by CRS and BCC models are compared using a paired sample t-test. It has been demonstrated that statistical significant difference exists on ranking of units in both models. Therefore, managers must be cautious regarding use of scale assumption. A thorough understanding of behavior of input and output variables is needed while assuming scale. Further, DEA is quite sensitive to sample size. In future, number of medical tourism service providers can be increased for better insight into the problem.

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GLOBAL HEALTH KNOWLEDGE

Abdolreza Jaberi Aghdam¹

Abstract

The potential to be healthy: physically, mentally and emotionally. The potential to be happy. The potential to live life with purpose. And we believe this journey all begins with good nutrition. Because what you feed your body and your mind, changes the way you feel. The purpose of the Global Health is to give us an opportunity to become familiar with the major problems and policy issues in that area. Participating in this issue will be able to understand and discuss the determinants of global health and global responses to health problems, including health systems. Finally we will be able to demonstrate a basic understanding of:

1) The burden of the most important health problems contributing to excess morbidity and mortality in developing countries and low-resource settings, including their magnitude and distribution and disparities in health status by gender, race, and economic class

2) Major historical, political, social, environmental, and economic determinants of adverse health in developing countries and low-resource settings in rich countries.

3) Path physiology of the most prevalent infectious and chronic diseases and medical and public health approaches for prevention and treatment.

4) Current and historic health programs and policies designed to address major health problems in low-resource setting and the roles of global health institutions, recommended levels of resources for implementation of interventions, and key barriers and challenges.

5) How to analyze critically relevant topics in the popular press and in the Global Health literature. By becoming knowledgeable in these core areas of global health, we should also be able to engage actively in efforts to improve health as global citizens. I suppose that revitalizing Sanatorium Industry will help to the 3rd issue in above as much as possible in near future!!!

Keywords: Health, Social, Emotion, Promote, Risk, Determinant, Psychological

JEL Classification: I25

Introduction

Even in the most affluent countries, people who are less well off have substantially shorter life expectancies and more illnesses than the rich. Not only are these differences in health an important social injustice, they have also drawn

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scientific attention to some of the most powerful determinants of health standards in modern societies. They have led in particular to a growing understanding of the remarkable sensitivity of health to the social environment and to what have become known as the social determinants of health.

This paper outlines the most important parts of this new knowledge as it relates to areas of public policy. The most topics covered include the lifelong importance of health determinants in early childhood, and the effects of poverty, drugs, working conditions, unemployment, social support, good food and transport policy. To provide the background, we start with a discussion of the social gradient in health, followed by an explanation of how psychological and social influences affect physical health and longevity. This is why life expectancy has improved so dramatically over recent generations; it is also why some European countries have improved their health while others have not, and it is why health differences between different social groups has widened as social and economic conditions have changed. Major influences on health vary substantially according to levels of economic development, the reader should keep in mind that the bulk of the evidence on which this paper is based comes from rich developed countries and its relevance to less developed countries may be limited. Our intention has been to ensure that policy at all levels- in government, public and private institutions, workplaces and the community- takes proper account of recent evidence suggesting a wider responsibility for creating healthy societies. Given that in this paper the following was put together from the contributions of acknowledged experts in each field, what is striking is the extent to which the section converge on the need for a more just and caring society – both economically and socially. Combining economics, sociology and psychology with neurobiology and medicine, it looks as if much depends on understanding the interaction between material disadvantage and social meanings. It is not simply that poor material circumstances are harmful, the social meaning of being poor, unemployed, socially excluded, or otherwise stigmatized also matters.

I hope that by tackling some of the material and social injustices, policy will not only improve health and well being, but may also reduce a range of other social problems that flourish alongside ill health and rooted in some of the same socioeconomic processes.

1. The social gradient

Life expectancy is shorter and most diseases are more common further down the social ladder in each society. Poor social and economic circumstances affect health throughout life. People further down the social ladder usually run at least twice the risk of serious illness and premature death as those near the top. Nor are the effects confined to the poor; lower ranking staff suffer much more disease and earlier death than the higher ranking staff.

2. Stress

Stressful circumstances, making people feel worried, anxious and unable to cope, are damaging to health and may lead to premature death. Social and psychological circumstances can cause long-term stress. Continuing anxiety, insecurity, social isolation and lack of control over work and home life, have powerful effects on health.

Why do these psychosocial factors affect physical health? In emergencies, our hormones and nervous system prepare us to deal with an immediate physical threat by triggering the fight or flight response: raising the heart rate, mobilizing stored energy, diverting blood to muscles and increasing alertness.

3. Early life

A good start in life supporting mothers and young children:

The health impact of early development and education lasts a lifetime. Observation research and studies show that the foundations of adult health are laid in early childhood and before birth. Slow growth and poor emotional support raise the lifetime risk of poor physical health and reduce physical, cognitive and emotional functioning in adulthood.

Good health – related habits, such as eating sensibly, exercising and not smoking, are associated with parental and peer group examples, and with good education.

Poor circumstances during pregnancy can lead to less than optimal fetal development via a chain that may include deficiencies in nutrition during pregnancy. poor fetal development is a risk for health in later life.

4. Social exclusion

Life is short where its quality is poor. By causing hardship and resentment, poverty, social exclusion and discrimination cost lives. Poverty, relative deprivation and social exclusion have a major impact on health and premature death and the chances of living in poverty are loaded heavily against some social groups.

Absolute poverty – a lack of basic material necessities of life – continues to exist, even in the richest countries of Europe. The unemployed, many ethnic minority groups, guest workers, disabled people, refugees and homeless people are at particular risk.

Relative poverty means being much poorer than most people in society and is often defined as living on less than 60% of the national median income. It denies people access to decent housing, education, transport and other factors vital to full participation in life. In some countries, as much as one quarter of the total population - and a higher proportion of children – live in relative poverty.

5. Work

Stress in the workplace increase the risk of disease. People who have more control over their work have better health.

In general, having a job is better for health than having no job. But the social organization of work, management styles and social relationships in the workplace all matter for health. Evidence shows that stress at work plays an important role in contributing to the large social status differences in health, sickness absence and premature death. Several European workplace studies show that health suffers when people have little opportunity to use their skills and low decision – making authority.

Having little control over one's work is particularly strongly related to an increased risk of low back pain.

6. Unemployment

Job security increases health, well being and job satisfaction. Higher rates of unemployment cause more illness and premature death. Unemployment puts health at risk, and the risk is higher in regions where unemployment is widespread. The health effects of unemployment are linked to both its psychological consequences and the financial problems it brings – especially debt.

7. Social support

Friendship, good social relations and strong supportive networks improve health at home, at work and in community. Social support and good social relations make an important contribution to health. Social support helps give people the emotional and practical resources they need. Support operates on the levels both of the individual and of society. Social isolation and exclusion are associated with increased rates of premature unhealthy and poorer chances of survival of it.

8. Addiction

Individuals turn to alcohol, drugs and tobacco and suffer from their use, but use is influenced by the wider social setting.

Drug use is both a response to social breakdown and an important factor in worsening the resulting inequalities in health. It offers users a mirage of escape from adversity and stress, but only makes their problem worse.

The causal pathway probably runs both ways. People turn to alcohol to numb the pain of harsh economic and social conditions. And alcohol dependence leads to downward social mobility.

9. Food

Because global market forces control the food supply, healthy food is a political issue. A good diet and adequate food supply are central for promoting health and well-being. A shortage of food and lack of variety cause malnutrition and deficiency diseases. Food poverty exists side by side with food plenty. The important public health issues is the availability and cost of healthy nutritious food.

World food trade is now big business. The General Agreement on Tariffs and Trade (GATT) and the common agricultural policy of the European Union allow global market forces to shape the food supply. Social and economic conditions result in a social gradient in diet quality that contributes to health inequalities. Dietary goals to prevent chronic diseases emphasize eating more fresh vegetables, fruits and pulses and more minimally processed foods, but less animal fat, refined sugars and salt.

10. Transport

Healthy transport means less driving and more walking and cycling, backed up by better public transport. Cycling, walking and the use of public transport promote health in four ways. They provide exercise, reduce fatal accidents, increase social contact and reduce air pollution. Reducing road traffic would also reduce the toll of road death and serious accidents.

Although accidents involving cars also injure cyclists and pedestrians, those involving cyclists relatively few people. Well planned urban environments, which separate cyclists and pedestrians from car traffic, increase the safety of cycling and walking. Further, suburbs that depend on cars – particularly the young and old. Social isolation and lack of community interaction are strongly associated with poorer health.

Conclusion:

This paper cover specific areas and suggest ways of improving health. If policy fails to address these facts, is not only ignores the most powerful determinants of health standards in modern societies, it also ignores one of the most important social justice issues facing modern societies.

a. Life contains a series of critical transactions: emotional and material changes in early childhood, the move from primary to secondary education, starting work, leaving home and starting a family, changing jobs and eventually retirement.

b. Good health involves reducing levels of educational failure, reducing insecurity and unemployment and improving housing standards.

c. In schools, workplaces and other institutions, the quality of the social environment and material security are often as important to health as the physical environment.

d. Governments should recognize that welfare programs need to address both psychosocial and material needs.

e. Increase the general level of education and provide equal opportunity of access to education, to improve the health of mothers and babies in the long run;

f. Provide good nutrition, health education, and health and preventive care facilities, and adequate social and economic resources, before first pregnancies, during

pregnancy and in infancy in order to reduce the risk of disease and malnutrition in infancy.

g. Ensure that parent – child relations are supported from birth, ideally through home visiting and the encouragement of good parental relations with schools, to increase parental knowledge of children’s emotional and cognitive needs.

h. All citizens must be protected by minimum income guarantees, minimum wages legislation and access to services.

i. Public health policies should remove barriers to health care, social services and affordable housing.

j. Labor market, education and family welfare knowledge should aim to reduce a social stratification.

k. There is no trade –off between health and productivity at work. A virtuous circle can be established. Improved conditions of work will lead to healthier work force, which will lead to improved productivity, and hence to the opportunity to create a still healthier, more productive workplace.

l. Government management of the economy to reduce the highs and lows of the business cycle can make an important contribution to job security and the reduction of unemployment.

m. For those out of work, unemployment benefits set at a higher proportion of wages are likely to have a protective effect.

n. Reducing social and economic inequalities and reducing social exclusion can lead to a greater social cohesiveness and better standards of health.

o. Designing facilities to encourage meeting and social interaction in communities could improve mental health.

p. In all areas of both personal and industrial life, practices that cast some as socially inferior or less valuable should be avoided because they are socially divisive.

q. None of these will succeed if the social factors that breed drug use are left unchanged. Trying to shift the whole responsibility on the user is clearly an inadequate response. This blames the victim, rather than addressing the complexities of the social circumstances that generate drug use, effective drug policy must therefore be supported by the broad framework of social and economic policy.

r. The integration of public health perspectives into the food system to provide affordable and nutritious fresh food for all, especially the most vulnerable;

s. Support for sustainable agriculture and food production methods that conserve natural resources and the environment;

t. A stronger food culture for health, especially through school education to foster people's knowledge of food and nutrition and social value of preparing food and eating together.

u. Road should give precedence to cycling and walking for short journeys, especially in towns.

v. Public transport should be improved for longer journeys, with regular and frequent connections for rural areas.

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PUBLIC-PRIVATE PARTNERSHIP, DEVELOPMENT ALTERNATIVE FOR HEALTH TOURISM

Marilena Bogheanu¹

Abstract

In Romania, the capitalization of existing natural resource through public-private projects can lead to sustainable economic growth.

Spas represent an important component of the health tourism, Romania owning 30% of Europe's spa resources. Especially, in the south-west Oltenia region there are 8 areas of interest of national and local importance: Baile Olanesti, Baile Govora' Calimanesti-Caciulata, Ocnele Mari and Ocnita, Sacelu, Bala, Gighera.

Other important components of the health tourism are: wellness, prevention and proper health care services. Thus, health tourism is a concept which combines relaxation, entertainment, health, with beauty medical treatment.

On the regions level, there could be adopted strategies that have the objective of developing public-private partnerships in health tourism and spa tourism in particular, in order to promote projects of mutual interest, such as:

- *Projects implemented by public authorities:*
 - *rehabilitation of roads, mineral springs, rehabilitation of urban infrastructure*
 - *investment in catering and services*
- *Private sector projects*
 - *construction of tourist accommodation resorts, entertainment centers, adventure parks*
 - *investment in staff training*
 - *the creation of a health services portal*
 - *a better marketing of touristic destinations*

Thus, the public-private partnership represents a means of financing interventions in the fields of entertainment, gastronomical tradition, accommodation structures continuing public investments in land improvement and assuring the necessary public utilities.

These interventions can have a leveraging effect on the local economy, developing sectors such as tourism, catering services, construction field, healthcare services.

Keywords: Public- private partnership, spas, travel packages, investment, economic growth.

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1. Creating public-private partnerships in the tourism sector - Expectation

Creating public-private partnerships (PPP) represents one of the biggest challenges on national and international level. Public private partnership (PPP) plays a crucial role in the evolution of any economic system and constitutes one of the foundations of growth and development of all economic sectors.

These partnerships have beneficial effects in the economic and social sectors generating favourable effects whatever sector they are developed in. Public-private partnership may become a successfully tool used in health sector, as well.

Creating and developing public-private partnerships in medical tourism field can lead to a rapid increase of quality and to an optimum use of existing resources.

Investments that can be achieved through public-private partnerships in health tourism can lead to growth and diversification of offers, factor that attracts many advantages. New investment projects will be created through PPP, which will generate additional needs or requests in related sectors.

Thus, there will be a chain increase in demand for the touristic and health product and Romania will be able to become known and recognized as a true tourism destination that meets all requirements.

By implementing these partnerships, substantial changes will be produced in the labor market, as well, and they will have the effect of reducing the unemployment rate, which will produce benefits to the entire community.

The policy of creation / development of PPPs should be a policy of national interest, meaning that it should be oriented on branches and sub-branches considering the real needs.

The advantages of public-private partnership

- Private funds complete insufficient public funds and facilitate the access to more favorable financing solutions;
- Working in partnership with the private sector, public authorities will benefit from incentives, through which private investors will keep their costs low;
- Investments made after the implementation of partnerships, become property of authorities once private partners achieve a return on invested capital;
- The private sector provides highly efficient services, which come in addition to the services provided by the public sector.

2. Description of the current situation of tourism in the south-west Oltenia region

Tourism is a horizontal industry which attracts implicit development of other sectors such as trade, services and production field, creates jobs, provides visibility, stimulates the development of culture, craft services and human resources.

For capitalization of touristic potential all states, including Romania, are working to implement strategies for tourism development, due to the beneficial effects that it has on economic, social, cultural, environmental and political fields.

Given that Romania holds 30% of Europe's spa resources, health tourism could become one of the main sources of income. Thus, capitalization of these natural resources through public-private projects can lead to sustainable economic growth.

In this region, the development and implementation of PPP projects offer real opportunity to finance tourism and health sectors and could lead to increased tourist traffic.

This goal can be achieved through the promotion and implementation of projects of common interest, such as:

- Projects implemented by public authorities:
 - rehabilitation of roads, mineral springs, rehabilitation of urban infrastructure
 - investment in catering and services
- Private sector projects
 - construction of tourist accommodation resorts, entertainment centers, adventure parks
 - investment in staff training
 - the creation of a health services portal
 - a better marketing of touristic destinations

Framing tourism in the regional, national and even European economical level is not very simple because of the aggregation / disaggregation of economic data. The activities of travel agencies, the entertainment and culture represent important components of the tourism sector together with other activities of the national economy.

In 2010 the turnover produced by the hotel and restaurants sectors in the south-west Oltenia region amounted 553 billion lei, representing, in line with the national average, about 1% of the turnover of all active units in industry, construction sector and services and 5.64% of the turnover generated in this sector nationwide.

The average number of employees in these units was 7,212 persons, meaning 1.98% of the total average number of employees per units, which, compared with national data (2,48%) would suggest a higher productivity of employees in south-west Oltenia region than the national average.

Following the PEST analysis considering the invaluable potential of the area, the tourist flow perspective is in an upward trend estimating growth even up to 60 000-70 000/year, the estimated figure is not only optimistic, but we took into account the contribution of tourists on Danube cruises and in the business tourism, whose segment we wish to be in exponential growth not only numerically, but also qualitatively.

The following categories can be considered as potential tourists:

- Romanians and foreigners passing through the region;
- Those who practice various forms of niche tourism (cultural, mountains, ethnographic, wine, ecumenical, ecotourism, rural, etc.) and especially coming in the region on holiday ;
- Tourists coming for treatment in spa resorts, or those coming for business / scientific tourism in Craiova;
- Young people for whom the Parang Mountains and Mehedinti karst area is an attraction for sports and adventure tourism (in swirling waters of Cerna crews meet rafting, canyoning or flying fox and in Orsova the national team kayaking is present on the Danube river);
- Foreign tourists who come to cruise on the Danube.

Indeed, the touristic potential of south-west Oltenia region, though unexploited on desired capacity, is extremely valuable because it includes extremely broad variety of forms of tourism, from mountain tourism, and Danube tourism to urban and business tourism passing through eco-tourism, health tourism, the religious, sports and other forms of tourism that attract different types of tourists.

In terms of accessibility, the trend is that the south- west Oltenia region improves its position by extending the Pan-European Network TEN-T on the route Craiova-Calafat-Alexandria-Bucharest. Moreover, from the point of view of the conditions of highways, with about 39% of public roads rehabilitated, south - west Oltenia region has a relatively good situation compared to the country average (30%).

Form of tourism in the south-west Oltenia region

The south-west Oltenia region identified several forms of tourism which can be practiced:

- **Spa tourism:** health / social tourism;
- **Ecumenical monastic tourism;**
- **Speleological tourism:** visiting caves, diving (“speleodiving”), underwater photographs in caves;
- **Nature reserves and monuments:** nature tourism (national parks, nature parks, protected areas);
- **Adventure tourism:** rafting with kayak and inflatable boats, canyoning on waterfalls and canyons, rallies by field cars, bungee jumping, scuba diving, flying fox, climbing, paragliding, skydiving, hang gliding;
- **Ecological Tourism** - Ecotourism: bird-watching;
- **Hunting and fishing tourism:** sport tourism (hunting and sport and recreation fishing);
- **Danube Tourism:** Cruise tourism;
- **Rural tourism:** tourism in hostels and rural settlements;

- **Country tourism:** “bio tourism”;
- **Popular Crafts and handicrafts:** pottery, weaving, carving in wood, stone and glass painting, icons on wood / glass, fabrics, furriers;
- **Wine tourism:** wine tasting, visit vineyards, cellars and specialized stores;
- **Traditional gastronomical tourism:** culinary attractions, traditional dishes;
- **Traditional fairs and festivals tourism:** artisan fairs, folk festivals, Oltenian traditional celebrations;
- **Education tourism:** student and school camps, research camps tourism, creation camps, camps for painting;
- **Business tourism:** conferences, seminars, workshops, business forums, trade fairs and exhibitions;
- **Transit tourism;**
- **Historical tourism:** tourism at historical monuments and objectives;
- **Cultural tourism:** art tourism and cultural buildings visiting

Resorts have to offer a wide range of recreational activities for all categories mentioned. These can be organized according to the local (culture and history), the natural (springs, lakes, rivers, hot springs, mountains, sea) specific.

3. Tourism in the south-west Oltenia region - Spas

Valcea County - Govora

Baile Govora is a resort located in Govora Carpathian basin, in northeastern Oltenia, near Ramnicu Valcea. The resort is surrounded by forested hills, where high strength mineral water spring, iodine, bromine, sulfur, chlorine, sodium and hypertonic.

The waters rich in sodium and chloride, iodine, bromine and sulfur, magnesium and calcium in Govora is used in the treatment of various types of rheumatism but mainly in respiratory diseases. Along with traditional methods such as mud packing, external and internal cure with mineral waters, electrotherapy – the balneologists use different methods to treat asthma and other diseases caused by air pollution or workplace.

Baile Olanesti Resort

Baile Olanesti resort ranks first among spa resorts in Romania in terms of the number of spring sources, their total daily flow, the variety of the mineral water composition and concentration. In the resort there are over 35 hydro sources, as natural springs and as well as a result of drilling and mining.

The resort is rich in mineral sulfur, chlorine, iodine, sodium water’ which can be used in the following diseases: gastro-duodenal ulcer, enterocolitis, allergies, diabetes, chronic and allergic rhinitis, kidney disease etc.

Calimanesti - Caciulata

The resort is indicated in the treatment of digestive diseases, hepatobiliary diseases, kidney and urinary system diseases, metabolic and nutritional disorders, in respiratory diseases, in the peripheral nervous system diseases, rheumatic diseases, ENT, dermatology, cardiovascular disorders.

Natural cure factors are represented by climate and mineral springs of sulfur, chlorine, bromine, sodium, calcium, magnesium, mainly hypotonic, with variable concentration, chemical composition and temperature.

The salt water swimming pools from Ocnita and Ocnele and the mud from Ocnita are a true miracles both for adults and children health.

The area is famous for its saline, which is a goal sought not only for its tourist value (underground church), but also for its medicinal virtues, for cures treating various respiratory diseases.

Voineasa

Voineasa resort, situated in the mountains of northern county of Valcea is recommended for people with respiratory disorders or musculoskeletal system. The main natural cure factor is the coniferous forests that maintain clean ozone air.

Other touristic attractions in the area are also Cheile Latoritei located in southwestern Voineasa, with unique landscapes and various lakes and waterfalls: Apa Spanzutata Waterfall, Moara Dracilor Waterfall, Piatra Fetii si Petrimanu, Galbenu, Iezerul, Latoritei and Violeta lakes.

Gorj County - Sacelu

The resort is located in the Southern Carpathian area. The four pools with highly mineralized waters are used for external treatment in rheumatic diseases, locomotion and peripheral nervous system. For internal treatment, the source Sacel provides good results in digestive disorders, renal and hepatobiliary diseases.

The area is known for its touristic objectives: Tg. Jiu (works of great sculptor Constantin Brancusi) Tismana Monastery (monastery sec. XIV), Muierii Cave, Polovragi Cave, Cheile Oltetului, Hobita (C. Brancusi Memorial House), Valea Jiului.

Mehedinti County

Bala is a well-known spa resort because of its sulphurous springs, oligomineral, thermal mud and indicated for the treatment of rheumatic diseases, the locomotor system, digestive system, the liver and kidney disease shortcomings.

The thermal water has been capitalized by building three swimming pools. Besides these specific elements of health tourism, the city includes other elements that enhance the tourism potential and attractiveness: waterfall “Duruitoarea”,

“Bura” from the Upper Bala, the water mill from Molan, nuts forest “Ursoaica”, “Rapa Dracului”, “Scaunul Domnesc The Hills “Mormantul Jidovului”.

Also, in Mehedinti County, there can be organized cruises on the Danube river, visiting Cazanele and stops for the most beautiful hostels with fishing dining, campfire, sports and fishing competitions, etc..

You can visit attractions such as Water Castle, Severin Fortress, ruins of Roman baths, Roman camp, Trajan’s Bridge, ruins of medieval Castle from Trikule, Svinita, the karst complex from Ponoarele with God’s Bridge and the Bridge Cave, St. Ana Monastery from Orsova, Mraconia Monastery or Vodita Monastery, in Gura Valley.

Dolj County

In parallel with the development and modernization of existing spas, creating new resorts is required in order to exploit existing potential - we refer to two places in Dolj County, which were a real success before the Second World War: **Gighera and Baile Ionele**.

Gighera

Mineral springs in southern village Gighera have a significant curative potential evidenced by complex hydrogeological studies. Special therapeutic qualities of these hydro sources are recommended for internal and external use. For internal cure, it treats: chronic gastro lowsecretion, gastrointestinal dyspepsia, chronic enterocolitis, chronic cholecystitis, biliary dyskinesia. Externally, the water treats posttraumatic limb disorders, rheumatic degenerative diseases (spondylosis, polyarthrosis), diseases of the peripheral nervous system, dermatological chronic postoperative sequelae.

In order to revitalize these spa resorts and in order to be exploited to the optimum level, major investments are needed in infrastructure, accommodation, food and treatment sectors.

The waters in this area - **Baile Ionele** were mineralized gradually gaining therapeutic properties in the treatment of rheumatic diseases. The resort was famous for iodine waters, which over time attracted many tourists.

Even if tourists come in for therapy, leisure remains an important component which can increase the attractiveness area / resort in question.

Thus, it is obvious that natural and human resources of the south-west Oltenia region are a very important heritage for tourism development at national level and for increasing the attractiveness of tourist destinations in Romania internationally.

4. Wellness and leisure tourism - Proposals for development

Even if tourists come in for therapy, wellness and entertainment remain an important component of spa touring offer, that may increase the attractiveness of the area / resort in question.

Wellness tourism is a form of tourism that could be practiced successfully in Oltenia region, being one of the most promising niche markets in tourism. SPA and wellness Romanian market promises broader development prospects.

The most important factor for sustainable growth in this market will depend on the extent to which clients understand the need for wellness and own image concern for a healthy life.

Wellness tourism represents a special domain of relaxation and anti-stress therapies and personalized service of facial and body care and beauty. Personalized fitness programs, wellness and beauty are in constant demand. Today, for most of the Romanians, SPA is equivalent to relaxation.

Providing quality health care at competitive prices, combined with accommodation and leisure services is a trend embraced by our country. Besides low cost (three times less than in Western Europe or the U.S.), we have the advantage of highly qualified medical staff and quality medical services.

On one hand, medical cabinets provide the necessary infrastructure for a wide range of interventions, such as dental, aesthetic, ophthalmic, dermatological care and any other genre, all in a treatment resort equipped with modern apparatus on European standards.

On the other hand, a strategic role in covering a link which is currently missing from this system, may be provided by tour operators, in mediating and facilitating tourist-patient relationship. Thus, travel agencies could conclude collaborations with healthcare providers and include in their tourist packages, besides medical procedures and standard maintenance, also visits to some tourist attractions for diversification. In addition, operators of such service packages could provide the integrated offer „health & pleasure” extremely attractive:

- 7-10 days specialized programs of relaxation, wellness, physiotherapy, facial aesthetics, sauna, massage, body reshaping, dental / eye care, as appropriate;
- Accommodation in 3 and 4 star hotels;
- Organization of festive evenings for groups;
- Free shipping to visit the main attractions (creation of mini-tours, during the summer sightseeing tour could be organized, in partnership with public authorities, by convertible buses or unconventional lorries - coaches, carriages, and so on - where traffic permitting).

To attract tourists, the services package must include certain facilities and gratuities (eg tour guide during the entire stay, transfer from airport / railway station-hotel-office, first consultation free of charge), discounts on accommodation, shopping sessions, etc.. Throughout the entire stay, which can vary between 7-10 days or more, the patient should be engaged in recreational activities to make him feel more as a tourist rather than a patient.

5. The tourism sector in the south-west Oltenia region - Measures needed for development

Given existing resources, the low level of tourist attraction in the south-west region is due to a rather poor information and promotion of tourism destinations, namely their low visibility both nationally and internationally. To these are added:

- a reduced capacity for innovation and use of ICT in tourism;
- relatively low accessibility, especially to the north-west and south of the region;
- a low level of cooperation between operators in the territory in order to provide integrated tourism products and services.

These items were identified during interviews with relevant public and private actors in the south-west Oltenia region: cultural, arts and crafts schools, NGOs, public institutions, museums in areas such as: environment, local crafts, gastronomy, wine, travel agencies, transport services.

In order to achieve a real development, several measures need to be adopted, to address the following key issues:

- Investment in road and related infrastructure (access) infrastructure for accommodation, leisure and catering services;
- Providing, besides packages for rest and treatment, alternative programs in extra- season;
- Making marketing activities for the region covering all potential markets;
- Designing a legislative framework related to EU legislation and practices;
- Setting up an interdisciplinary group with representatives at several levels to make proposals and to put in place mechanisms for designing the legal framework and touristic packages;
- Training on different fields - investment in training staff performing in tourism and health sectors, in order to increase the quality of services;
- Creation of diverse packages to meet all requirements;
- Providing alternative programs' besides packages for rest and treatment;
- Creating a database (portal) that provides information about hospitals, clinics, tour operators, all providers of health tourism, transport operators, etc..
- Promotion of packages for people of different ages;
- Creating financing schemes to be tailored on institutions demand, acting in health and tourism field, including axes dedicated to these specific sectors;
- Recognition of tourism as an engine of growth in the regional economy;
- Implementation and compliance with quality standards in tourism and health services.

By implementing such measures, Romania can become, in this part of Europe, a landmark in terms of diversity of tourism that can be practiced.

Investments in recreational structures and their management must be urgently optimized in order to remove the current lack of competitiveness compared to the offer the same kind in European countries.

By the contribution they have to the exploitation of resources and spa structures, infrastructure elements are important both in defining spa touring offer, as well as in health tourism development.

The air transport, road and railway network allowing access to the resort by different means of transport, modernization of paths to mineral water pavilions, treatment structures, accommodation, gastronomic structures and promenade areas are more or less developed, depending on the level of economical development of the area where the resort is located and by framing the resort in the national, local or regional interest area.

Other items of general infrastructure, important in unifying the touristic spa offer are generated by the need for the creation of watering parks and green spaces and the existence of a comforting environment.

6. Good practice models- Oltenia Tourism Competitiveness Pole - Innovation and Tradition in Tourism

The competitiveness pole includes a total of 66 members: 9 public authorities, 51 private organizations, of which 29 SMEs active in sectors relevant to tourism (small producers of handicrafts, ceramics, textiles, wood and furniture, travel agencies, companies software, etc.), as follows:

- travel agencies, advertising companies and other companies that provide travel services and assistance to companies in the sector;
- ICT companies;
- manufacturers of wooden furniture, ceramics and traditional fabrics;
- companies in other industries and services (eg, construction, cleaning, production of ornamental plants, etc.).

Private entities include profit and non-profit organizations considered catalysts. They support the main activities of the Pole's members and, in general, business development and economic sectors, as well as territorial and regional development, such as:

- Association of representatives of national and local firms (Association for Information Technology and Communications in Romania, the Romanian Association of Centres of Ceramics, Craftsmen Association Hurez Rooster);
- Associations that support tourism and economic activities in general, on local level (Regional Association for Rural Development, Association for Promoting Genuine Heritage Horezu, A.N.T.R.E.C Mehedinti, Cluster Turinn' Chamber of Commerce, Tourism Association Oltenia);

- Organizations of public interest (Association Horezu Depression, South-West Oltenia Regional Development Agency, Association Dominou);
- Consultancy firms and training providers.

The involvement of so many members in the Oltenia Tourism Pole demonstrates the importance of this sector and the stakeholders' desire to engage in the development of the tourism sector, which is seen as an important opportunity for development and innovation of organizations, public or private, in a sustainable way for people and territory.

By implementing the pole's members proposed projects, an increase of the competitiveness in the south-west region is desired, by building a unified regional brand and touristic product innovation. Pole's strategy states that, by 2020, Oltenia will improve its position as a Romanian touristic destination both nationally and internationally, and the touristic flow will increase by 15% annually (about 50,000 tourists a year).

Pole's members signed consolidated partnerships with various organizations in the country and abroad.

In particular, on national level, private sector organizations have links with these representative organizations nationally' who are also members of the Pole, namely: Association for Information Technology and Communications of Romania, the Romanian Association of Centres of Ceramics. Also, museums and other cultural organizations active in cultural field collaborate with the Ministry of Culture, Ministry of Interior, Union of Artists, Union of Writers in Romania.

Common projects relate especially to tourism development (including eco-tourism and rural tourism), innovation, culture, local, regional and cross-border development, and also environmental protection and support for business in general.

In addition, international visibility of cultural heritage of Oltenia region is an essential component of Oltenia Tourism Pole' Depression Horezu (Valcea County) was awarded in 2008 the theme „Tourism and local intangible heritage” in the initiative undertaken at European Commission promoting European Destinations of Excellence (EDEN http://ec.europa.eu/enterprise/sectors/tourism/eden/index_en.htm).

Pole's visibility will be enhanced by strengthening and expanding existing partnerships at national and international level by developing integrated packages based on close collaboration between public and private institutions in the territory.

For capitalization of natural and cultural heritage - anthropogenic, is necessary to improve transport infrastructure and access to tourist attractions, **business support infrastructure development in the tourism sector through public-private partnerships.**

The development needs identified in the Oltenia Tourism Competitiveness Pole can be summarized as follows:

- Study, consolidation and promotion of regional identity and defining a regional tourism brand, drawing on local particularities;
- Improving the capacity to promote and offer information on travel products and services, including by developing new tourism marketing tools to attract more customers and expand market shares of operators in the region;
- Improving the business environment through infrastructure development and preservation of the built environment, including:
 - Business support infrastructure and management consulting services, such as: conference rooms for events, exhibition spaces, spaces and equipment for small local craft makers and other light industries related to tourism sector
 - Access infrastructure to tourism destinations
 - Museum structures, buildings and historical monuments
 - Traditional rural architecture
- Innovation of tourism products and services:
 - Development of integrated touristic packages
 - Dissemination of using ICT in tourism
 - Upgrade of production process in the traditional crafts field
- Improving and preserving the environment:
 - Combating the environmental degradation
 - Rehabilitation of industrial sites
 - Conservation and exploitation of natural resources for tourism
- Development, improvement and (re) training of staff skills and increase employment opportunities in the tourism sector

In parallel with specific needs identified, a common transversal necessity reveals and deserves to be treated separately, meaning improving the capacity to operate and access public funds for implementing specific projects for development, modernization and innovation of organizations and structures.

The objectives of Oltenia Tourism Pole:

- **Developing, upgrading and maintenance of relevant infrastructure to facilitate the development and promotion of tourism and the companies involved**

The actions needed to achieve this specific objective will focus on the development of investment projects completed to increase existing services and spaces in the territory, which are necessary for the development of various products and services related to existing forms of tourism in the region (business tourism, cultural, ethnographic, ecotourism, rural tourism) for developing tourism products, such as production facilities

for local crafts, exhibition spaces, spaces and services for organizing conferences, facilities and services for production of advertising and promotional materials' storage spaces and services, facilities and services for incubation of catering firms, small access infrastructure to tourism destinations - given the importance of accessibility of natural and anthropogenic resources in defining heritage tourism product.

Due to typologies of interventions, the development of public - private partnerships will be intended and also, in the future, Structural Funds 2014-2020 financing in integrated intervention of urban and rural development.

- **Defining identity and regional tourism brand and promotion of the Pole**

The measures targeting Pole brand building through research, information and promotion activities and strengthening/ development of partnerships by attending relevant events and fairs, shared by Pole's members.

Making these actions, will address the perceived need to strengthen tourism identity of South West region based on specific resources of each area, such as Horezu pottery and other local crafts, as well as mountain area (Valcea County), Brancusi heritage and natural resources (Gorj County), cultural heritage and economic opportunities offered by Craiova Growing Pole (Dolj County); Danube and protected areas (Mehedinti County), tangible rural heritage (vestiges) and intangible (traditional culture) (Olt County and the entire region).

- **Development of innovative marketing tools and creation of tourist products**

Actions meant for marketing innovation and creative process of tourism products and services are an important component, as the growth and competitiveness of the sector and the visibility of the region as a tourist destination directly depend on developing and promoting new ways of tourism marketing and several integrated and innovative tourism products.

Innovation will be, along with the traditions and culture, their joints and common purpose of the activities carried out jointly by Pole's members, so the final product will be new tools, processes and products, to the benefit of all members.

The foreseen actions for meeting this objective will focus on the development of research / studies / analyzes; organizing promotional events, conducting joint actions (seminars, workshops) for developing

tourism packages, designing and testing of tools applied in tourism (software, platform).

■ **Capitalization of natural resources and sustainable tourism development**

Sustainable tourism approach in terms of environment, constructing an integrated tourism package will be monitored by checking the number of protected areas included in the tourist circuit. Medium-term actions to be implemented jointly by Pole's members will cover even the development of green trails, the natural heritage being promoted as touristic resource, but taking into account the precondition of environmental compliance with pre-existing conditions.

■ **Development of training on topics relevant to the tourism sector in terms of stabilizing and expanding labor market in tourism sector**

Improving staff skills through exchange of experiences and best practices, so that in hiring these people they could bring added value to the structures.

Training courses will be organized, primarily meant for persons to be employed in the structures created, and people will be recruited, from associates who have promoted investment in infrastructure.

There will be promoted a training market development in areas relevant to the tourism sector through accreditation of introductory / specialized / skilled / requalified / improved courses, which will help improve skills and employment opportunities available in the tourism sector, especially for people looking for a job, promoting the mobility of workers as active employment measures essential for the future.

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MANGALIA – LONG LASTING HEALTH TOURISM DESTINATION IN ROMANIA

Phd. Laura Maria Condur¹

Abstract

A national and international interest balneo-climatic resort, located on the coast of the Black Sea, on the same latitude with Monaco, San Remo and Nice, Mangalia combines the ancient callatian vestiges (IVth century BC) with the abundance of therapeutical factors.

In Mangalia there is combination of great recovery and therapeutical potential natural balneary factors unique in Europe:

- *Mezothermal sulphurous waters (20 - 26° C) – which due to their composition and therapeutical effects have a character unique in Europe.*
- *Sea water with a total mineralization of 15,5 g/l*
- *Therapeutically mud from Techirghiol Lake*
- *Marine bioclimate reach in saline aerosols*

Therefore, we consider that in balneology, the concept of Health Tourism can be implemented offering development perspectives of the medical tourism, of the national health system, and, why not, of the Romanian tourism, even becoming a national strategy.

As to Mangalia Balneary Sanatorium, the management goals, are to promote the concept of health tourism, with the following components:

- *medical - **Medical Tourism***
- *educational - **Educational Tourism***
- *relaxation - **Relaxation Tourism***

All of the above restrain a major objective, which is the development of the quality of medical services, the attraction of a superior number of “patients- tourists” to Mangalia Sanatorium and the development of the “health tourism” concept.

Keywords: *tourism, health, Mangalia, medical, therapeutical, development, sea.*

JEL Classification: I15

1. Introduction

Situated on the coast of Mangalia, the national interest Balneary and Recovery Sanatorium is a select balneary establishment in the southern area of the seaside.

¹ Mangalia Balneary and Recovery Sanatorium

Mangalia holds a combination of great recovery and therapeutical potential natural balneary factors unique in Europe:

- Mezothermal sulphurous waters (20 - 26° C) – which due to their composition and therapeutical effects have an unique character in Europe.
- Sea water with a total mineralization of 15,5 g/l.
- Therapeutical mud from Techirghiol Lake.
- Marine bioclimate rich in saline aerosols.

As structure, our balneary treatment facility encloses:

- an accomodation facility structured as follows;
 - 2 hospital sections of 75 places each;
 - 1 sanatorial section of 200 places – 2* Callatis Hotel;
- 2 modern treatment units:
 - the first with a capacity of 450 patients per day serving the in-patients;
 - and the second with a capacity of 850 patients per day functioning as ambulatory.

The Balneary Sanatorium also encloses:

- modern consultation offices;
- investigations sector – functional examinations;
- medical tests laboratory;
- functional examinations;
- radiodiagnosis laboratory;
- guard house- with telemedicine for cardiology;
- psychology- psychotherapy office;
- geriatrics office.

Since 2 years ago, Mangalia Balneary Sanatorium disposes of a modern SPA-wellness-relaxation sector, sanitary authorized, where acupuncture treatments, hydrozonotherapy, aromatic oils massage, vulcanic stones massage, relaxation therapy, melotherapy, sauna, sea water pool, fitness, reflexotherapy are effectuated.

The activity of the Balneary Sanatorium has been authorized in December 2011 followinf the ISO 9001:2008 standards.

2. Activity and Premises

The balneology is an extremely complex medical field which has the virtue to treat with less secondary effects than the medicamentous treatment and to permit the patient to avail himself of a treatment in advantageous conditions, redressing his health condition in a relaxing environment, away from the everyday problems.

In this case, the patient is no longer just a simple case, who has to “bear” a medical treatment, but a person who can enjoy body and soul benefit, always being accompanied by a professional medical team.

Our goal is to engage more patients, of all ages, offering treatment and relaxation possibilities for all categories.

That is why, we consider that in balneology in generally and especially in Mangalia, the concept of Health Tourism can be successfully implemented, offering development perspectives of the medical tourism, national health system and why not, of the Romanian tourism, even becoming a national strategy.

As to Mangalia Balneary Sanatorium, the management goals are to promote and implement the concept of health tourism, with the following components:

- medical - **Medical Tourism**
- educational - **Educational Tourism**
- relaxation - **Relaxation Tourism**

The balneary and recovery treatment enters into a privileged space-time, therefore being necessary the exact description of the profile “patient- tourist”, in order to identify the treatment adequate to the pathology, but also the means necessary for relaxation and pleasure.

In the last years the “patients- tourists” of the Sanatorium have mainly been active persons (45-64 years) coming from the urban medium, but also seniors, as the age average has dropped in the last years, we can develop several strategies.

Therefore, for the active “patients-tourists” (45-64 years), considering the specific treatment given within the Sanatorium, this is a privileged facility for a real health education and for the good use of medication, which actually represents a form of therapeutical education.

In this perspective, the awareness campaigns regarding the risk factors for health, as well as the prevention allowing a prompt intervention against everything that may aggravate a diagnosed pathology, find their place within the Balneary and Recovery Sanatorium in Mangalia.

For the elderly, the Balneary and Recovery Sanatorium can be considered a “timer for a beautiful oldness”. This concept, promoted in the last year in France, worths attention, as the level of persons over 65 years is increasing, the balneary facilities, respectively Mangalia, can offer them a space and a time of relaxation, calm and harmony, but also, the occasion to retrieve their dynamism, confidence and serenity.

Once getting old, the chronic pathologies are hard to bear, but the stay in Mangalia Balneary Sanatorium facilitates the improvement of the health condition and of “good”, without being necessary to increase the drugs “input”, a very important thing for the medical system.

Which are the goals proposed for the implementation of the Health Tourism?

a. Identification of the needs, commodity and expectations of the “patients-tourists” coming to the sanatorium in Mangalia.

- b. Global monitorization of the “patient-tourist” effectuating a balneary treatment - “health cure”.
- c. Presentation of the SBRM (Mangalia Balneary- Recovery Sanatorium) as a complementarity model.
- d. Evaluation of the aspects considering the Balneary Sanatorium a “timer for a beautiful oldness”
- e. Development of the SBRM competence in prevention domain.
- f. Development of the scientific research activity, of applied procedures and therapies:
 - talassotherapy;
 - anti-aging therapy;
 - nutritional therapy;

3. How do we apply all of these

1) Identification of the needs, commodity and expectations of the “patients-tourists” coming for a balneary treatment.

As we have already pointed out, it is very important to correctly define the PATIENT`S PROFILE at the begining of the balneary treatment.

This is made by evaluating the physical and mental condition of the patient and his relatives - which allows the proposition, parallel to the recovery programs, of certain physical activity and diet(nutritional), in order to improve the patient`s global monitorization.

Starting from the relation between the medical approach and the balneary treatment in the case of the pathologies they represent, the “patients- tourists” benefit from the professional experience of the medical team and the means they use to improve the health condition, combining the classic balneary treatment and the spa-wellness procedures in the time off, under strict medical observation (which is extremely important), but who offers a way to spend the spare, relaxation time in a special climate.

2) Global monitorization of the “patient-tourist”

The patient arriving to the Balneary and Recovery Sanatorium in Mangalia, makes an active and participant step being subject and actor of the medical team action, becoming its “partner”.

The global monitorization defines by:

- information
- functional and therapeutical education;
- prevention;

To prevent and especially slow down the aging process or any form of handicap.

Accompanying and assisting patients presenting chronic pathologies, especially of the elderly, is a public health goal, intending to delay the evolution of the pathology and to adapt the treatment to the aging matter.

In this purpose, the balneologist can establish homogenous patient groups, by ages and chronic pathologies.

4. How to monitorize a “patient-tourist” relation

a. *By effectuating a general health balance* – obligatory when coming to the sanatorium. This is interesting for the public health, considering that after the age of 60 years, 3 major health problems occur such as pathologies:

- muscular-skeletal
- cardio-vascular
- neoplastic

For the “patient-tourist”, the balance is important because afterwards in the sanatorium, a real prevention program can be initiated.

b. *By effectuating a medical balance systematically practised within the sanatorium* (at the middle and at the end of the stay). The activity allows the combination of different parameters to track down some ignored infraclinical functional exceptions and their limitation.

Actually, they are effectuated through:

- anamnesis;
- detailed clinical examination;
- general health condition evaluation investigations:
 - walking;
 - cognitive function;
 - balance;
 - psychological condition;
 - perception between the quality of life at individual level;
- paraclinical investigations – if case (laboratory, EKG, radiogram, oscillometry);
- monitorization in the ER whenever necessary;

The efficiency may increase by organizing an interdisciplinary collaboration: house physician- balneologist- cardiologist- orthopedist- psychologist- psychiatrist, to permit the effectuation of well structured general balances which shall also continue after the patient finishes the balneary treatment, but in the same time to have a well defined image about the evolution between the treatments.

5. Presentation of the sbrm competence as complementarity

The treatment effectuated in the Balneary Sanatorium situates in the prolongs the one in the hospital, therefore, the interdisciplinary and interprofessional resources find their place in a complementarity model.

The recovery and readaptation treatment is a privileged moment to convince the “patient- tourist” of the interest of the connection between these institutions in correctly evaluating his health conditions.

For example, in case of muscular-skeletal affections, osteoporosis, fracture risk by falling, patients within the global monitorization, can receive specific information, but also functional education.

Many patients include in the global monitorization of their way of life a part of the medical procedures of the treatment. They can change their perception about illness and health, by applying at home their favourite exercises and diets.

6. Evaluation of aspects concerning the balneary sanatorium as a “timer to a beautiful aging“

The aging process is one of OMS priorities who has set four types of aging:

- well turned;
- adaptated;
- usual, who determines fragility;
- dependent;

As the number of elderly is increasing(the scenario provides a 50% increment between 2000-2040) the concept of a “gentle aging is a new indicator, that can be successfully applied and evaluated within a balneary-type institution.

As for our Sanatorium, the elderly presenting chronic pathologies receive particular attention from the balneologist who permanently keeps in touch with the house physician.

This coordination can be useful to identify the factors leading to dependence.

Therefore, a prevention consultation starting from the age of 65, allows an early identification of the risk factors and postpones the dependence phase.

The prevention consultation becomes a health prevention mean and permits the personalization of a medical transit.

Within the sanatorium, this type of consultation is an early diagnosis mean but in the same time a moment of consultancy/orientation of the patient and must respond to the immediate needs of the patients, so they receive the proper answers regarding:

- the physical activity;
- nutrition;
- therapeutical education;
- functional education.

The prevention and therapeutical education represent at the level of the country, an insufficiently developed potential.

On this line, we have developed a project with an important role in the primary, secondary and tertiary prevention, considering the pluridisciplinary skills of the medical staff.

1) **Primary prevention** - consists in indentifying, pointing out and treating risks before the occurrence of any health problems;

2) **Secondary prevention** - identification of frequent pathologies in the balneary environment (obesity, cardio-vascular risk factors, osteoporosis) with the role of discovering an affection in order to prevent an illness, a psychological or social issue;

3) **Tertiary prevention** - aims the prevention of complications or illness relapse, meaning - medical:

- psychological;
- social readaptation.

Example: In the domain of cardio-vascular risk factors, Mangalia has an important sulphureous waters potential, benefic for the arterial pressure (by the peripheral vasodilator effect, rebalancing of the vegetative tonus, influencing the hypertensive patient in a positive way, balancing the arterial pressure). In this context, the patients can be informed and oriented towards the professional physician in the sanatorium, medical reports being sent at the end of their stay to the house physicians so they ensure a continuous observation of their health condition.

The education of the alimentary habits represents a major concern of the medical team, as a stay in our facility may bring forward some modifications of the patients in this matter and the initiation of a nutritional education program (theoretical and practical), the patient being able to continue it at home.

7. Research perspectives

We mention the moor coal mud as a possible high potential future perspective and novelty. The moor coal mud found in Mangalia, the only maritime turbary in our country has been studied through the acknowledgement of its chemical composition and physical properties for the use in therapeutical purposes, the last research dating from 2007. A local and national policy has been imposed for the continuation of researches.

These studies have indicated that the moor coal mud in Mangalia represents a valued natural resource in balneary treatments - being a moor coal with advanced humification, rich in organic and bituminous substances, soaked with sulphurous water, with a high content of sulphuretted hydrogen.

In the process of preparation of the coal moor with mineral waters the two mineralizations will interfere resulting a mineralization different to the one effectuated by combining fresh water, with antiinflammatory, reduction, sensibilization and

biostimulative effect (MANGALIA CLAY which should be researched and valued for its effects, in other countries being an import income source).

Through the present study we have identified some development perspectives:

a. Thalassotherapy - the name comes from the greek big “thalassa” is a natural therapy consisting in using for therapeutical purposes of sea water combined with sun, marine climate and marine origin products- mud, rich in minerals or sea ore-rich in proteins.

In MANGALIA, the thalassotherapy has been successfully effectuated and diversified in the last period:

- aerosols;
- mud packs;
- mud baths;
- plants bath;
- hydromassage;
- aquagym;
- kinetotherapy in sea water pool;

b. anti-aging therapy - for aging prevention – geriatric examinations, treatments with Gerovital, Aslavital, other cosmetical treatments;

c. nutritional therapy.

8. Conclusions

Following the above presentation we can draw the next conclusions:

1) The balneology is the most at hand solution for the development of the Health Tourism.

2) The traditional balneology can be combined with complementary therapies and spa-wellness procedures, effectuated only under medical observation.

3) The balneary institutions are the ones which through their services can easily maintain a constant number of “patients-tourists” during the whole year.

4) The medical act is complex, performing prevention, treatment and/ or recovery, assuring a holistic approach of the “patient- tourist”, treatment cure providing a physical, mental and social well-being condition both individually and family- becoming a real health cure.

5) The health tourism effectuated by balneology and balneary institutions offer economic resources for the health system, but with an increment of the system’ s quality through a complex medical and professional act, and in the same time an important source to increase the income.

6) The balneology- as presented within and with additional improvements may become an “Excellence pole” in the domain of the actual chronic pathology prevention.

7) MANGALIA – is definitely a long lasting destination for the Health Tourism, where the sea, sun, therapeutical factors, confort and why not, people, make spending a memorable stay and real health cures possible.

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