HydroGlobe

Definition of a global framework for hydrotherapy

A **FEMTEC - FoRST** joint project
with the cooperation of **ISMH** and the technical support oh **WHO**

ESSENTIALS FROM THE FINAL REPORT

Edited March 2013

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INTRODUCTION

Millions of people in the world use Hydrotherapy (HT). In view of such widespread use, especially in South America, East Asia and Africa, professional and public debate on HT as a form of health care has been increasing in different countries all over the world.

In the main European Countries, HT teaching is incorporated in medical curricula and the HT cares are dispensed by National Health Care systems.

However, commonly accepted definitions of therapies and products of HT have yet to be established.

FEMTEC (www.femteconline.org) is one of the most representative medical Thermal Hydrotherapy Association, founded in the 1937. It functions in official relations with the World Health Organization (WHO). Together, they develop programs concerning the use of natural resorts for therapy and health. FEMTEC is one of the co-promoter of the international program WHO-GARD (Global Alliance against Chronic Respiratory Diseases) (www.who.int/respiratory/gard/en/). The Federation maintains close contacts with International medical Hydrology Associations like **ISMH** (International Society of Medical Hydrology), (www.ismh-direct.net) Universities and Ministries of Health of different Countries .

FoRST (www.fondazioneforst.it) is the Italian Foundation (established on 2003) for scientific research in hydrotherapy: a research-funding Institution that promotes scientific research in the area of hydrology and balneotherapy by financing scientific projects. FoRST by itself provides virtually all the research money invested in this research area in the Country.

Recently FoRST has re-designed its own system of scientific projects evaluation. To guarantee funding to best-quality projects, it has been decided to follow standard, internationally-recognized project evaluation procedures through external experts as peer reviewers.

Anyway, despite the increasing and wide world diffusion of hydrotherapy (HT), there is still a significant lack of data in this field, and a list of the different types of HT and their definition is not still completed. Besides, the legal status of these therapies and the training programs for operators are very different in the different countries. More, it still locks an international evaluation regarding the use of this kind of therapy.

CHALLENGES IN EXPANDING ACCESS TO AND USE OF HT IN THE WORLD

In Europe many countries are experiencing some difficulty in evaluating the efficacy of HT cares and for this reason in promoting the proper use of them. Furthermore the funding of the therapies ask more and more sound evidences and due to the lack of it the authorities have some difficulties in evaluating if financing or not these therapies. Finally the consumers often find it difficult to obtain advice on how and when to use HT.

Beside, the local health authority finds difficulties in identifying qualified HT providers. The sheer variety of HT exacerbates such problems.

These problems are not restricted to Europe, however. They are also being experienced by governments and health authorities in Russia, Latin America, China, Far East, North Africa where the use of complementary medicine has likewise grown considerably in recen years.

HYDROTHERAPY AND TRADITIONAL MEDICINE (TRM).

Since many years and in several documents HT is mentioned among the therapies related to Traditional Medicine (HONG KONG “2000, Strategy 2002-2005) From the year 2007, HT has been placed as reference in the Team of TRM/CAM, Geneva WHO Headquarter.

WHO TRADITIONAL MEDICINE STRATEGY 2002-2005

The *WHO Traditional Medicine Strategy 2002-2005* had four major objectives: to integrate TRM with national health care systems, as appropriate; to promote the safety, efficacy and quality of TRM by expanding the TRM knowledge base; to increase the availability and affordability of TRM, as appropriate; and to promote therapeutically sound use of appropriate T RM by both providers and consumers.

AIMS OF THIS PROJECT

1. To give a definition of Hydrotherapy
2. To Describe the methodologies used in HT as their mechanism of action
3. To give relevant data regarding the use of HT in several Countries
4. To explore the legal status of HT in several Countries
5. Research of Scientific data on HT concerning the efficacy,safety and proper use of it, from building a global framework regarding the use of HT
6. To give to the World Health Organization monitoring survey and legal status data for evaluating the framework of use of HT

SUMMARY

GENERAL SYNTHESIS AND DISCUSSION

CONTEXT

Hydrotherapy can be classified under the label of traditional medicine (TRM) as clearly specified in the WHO Guideline "General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine" Geneva WHO/EDM/TRM/2000.1, pag. 9[1]

Hydrotherapy is the use of the water in different physical conditions and chemical compositions with many methodologies (traditional and scientific) for the preservation of health, prevention and cure.

Nevertheless it's true that in some countries it could be also classified under the label of complementary and alternative medicines (CAM).[2][3]

The Committing Committee made by FEMTEC and FORST asked a Committee of Experts of several countries to describe the current situation of this practice in order to disseminate, to review or to implement the law and regulations that are present in some countries but not in all the countries.

Support is requested to WHO from the Committing Committee for facilitating the uniformity of the laws and regulations adopted by different countries in order to protect the consumers all over the world.[4][5]

OBJECTIVES AND METHODS

The report aims to respond to the following questions:

- How effective is Hydrotherapy? What are the benefits and harmful effects?
- How can Thermal therapy be defined, and how is it used by the population?
- What is the legal status of these medicines and how are they organised in some Country in the world?
- How are the therapists trained?

In order to grasp these medicines in their complex and multidimensional nature, a range of methods were used:

- the medical literature was analysed to assess the clinical effectiveness and safety of the therapies under study;
- a survey of the general population gave a view on the scale of the consumption of these therapies;

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[1] 2.1 Types of traditional procedure-based therapies
Traditional procedure-based therapies are therapies that use various techniques, primarily without the use of medication, to provide health care. They include, for example, acupuncture and related techniques, chiropractic, osteopathy, manual therapies, qigong, tai ji, yoga, naturopathy, thermal medicine, and other physical, mental, spiritual and mind–body therapies.

[2] In 2007 the National Center for Complementary and Alternative Medicine (NCCAM) of the National Institute of Health (US) defined these medicines as a "group of diverse medical and healthcare systems, practices and products that are not currently considered to be part of conventional medicine". These therapies are referred to as 'complementary' where they are used jointly with conventional treatments, and as "alternative" where they are used instead of conventional treatment.

[3] Int. J. Biometeorol 2010 Sept; 54(5): 495-507 A proposal for a worldwide definition of health resort medicine, balneology, medical hydrology and climatology

[4] WHO, WHO-TRM Strategy 2002-2005, WHO Ginevra, 2002, WHO/EDM/TRM/2002.1

[5] WHO, Guidelines on Developing Consumer Information on Proper Use of Traditional, Complementary and Alternative Medicine, WHO Ginevra, 2004

- a socio-anthropological interview-based survey gauged the perceptions of regular users and therapists;
- an online survey among practitioners describe their characteristics and those of their practices;
- a detailed analysis of the legal and organisational framework helped to understand the Colla law, the hold-ups and issues;
- consultation with the professional associations and experts gave an insight in how these professions are organised and how their practitioners are trained.

Together they draw a picture of the current state in same Country but they cannot provide a complete answer to the initial research questions because of the limitations of each method and the resulting limitations of the material collected.

In order to give this general overview, we did a triangulation of the results of the different studies.

LIMITATIONS

Despite the range of methods that were mobilised, this study has several limitations; the most important are listed hereafter.

- The literature search was limited to a review of reviews, i.e. excluding findings from more recent primary studies. The quality of the reviews was variable, but above all, the studies included in the reviews were predominantly of low quality, and very little information on safety was found. Given the focus on systematic reviews, the literature study is biased towards subjects or studies for which a systematic review was published.
- The sociological part is exploratory, and the users survey, focuses on a small purposive sample of regular users, likely to be quite convinced of the value of the therapy and, hence, not representative of the entire user group, and certainly not representative of the whole population. The findings could nevertheless shed a light on the results of the population survey and give indications on the perception of acupuncture and the way consultations take place.
- Likewise, therapists who accepted an interview may not be representative of all therapists.

WHO ARE THE PARTECIPANTS?

- **China**: Cao Wen Fu
- **Cuba** Florana Menéndez Camporredondo
- **France** -Christian-François Roques Latrille
- **Hungary** -Thamas Bender
- **Italy** -Antonella Fioravanti
- **Poland** -Irena Ponikowska
- **Portugal**, Pedro Cantista
- **Romania** -Olga Surdu, MD, PhD
- **Russian Federation** - Nikolay Storozhenko;
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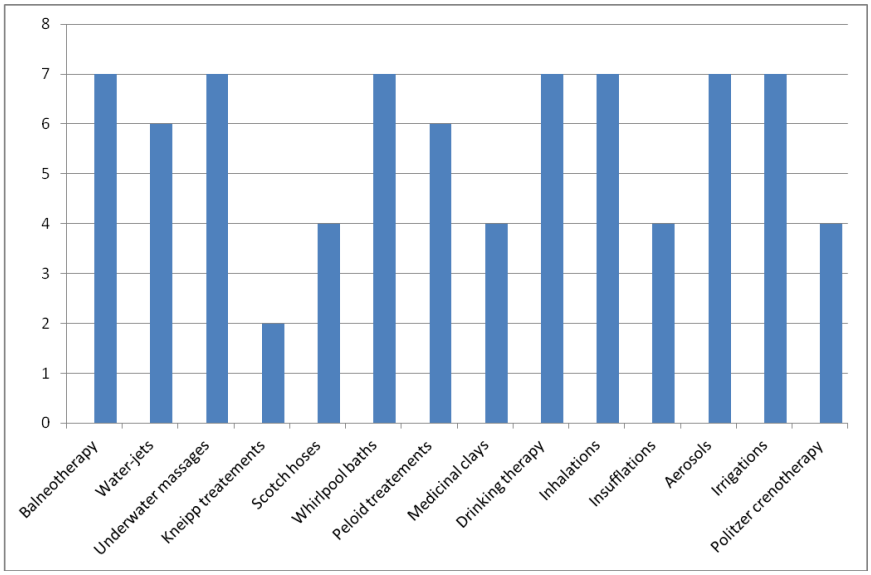
- **Tunisia** -Taoufik Khalfallah

Every Experts has identified the referents centers for hydrotherapy treatments, a questionnaire which included multiple responses.

The figures and tables below refer to statistically significant data reported on the questionnaires of the monitoring survey.

1A) WHICH TYPES OF HYDROTHERAPY PRACTICES THERE ARE?



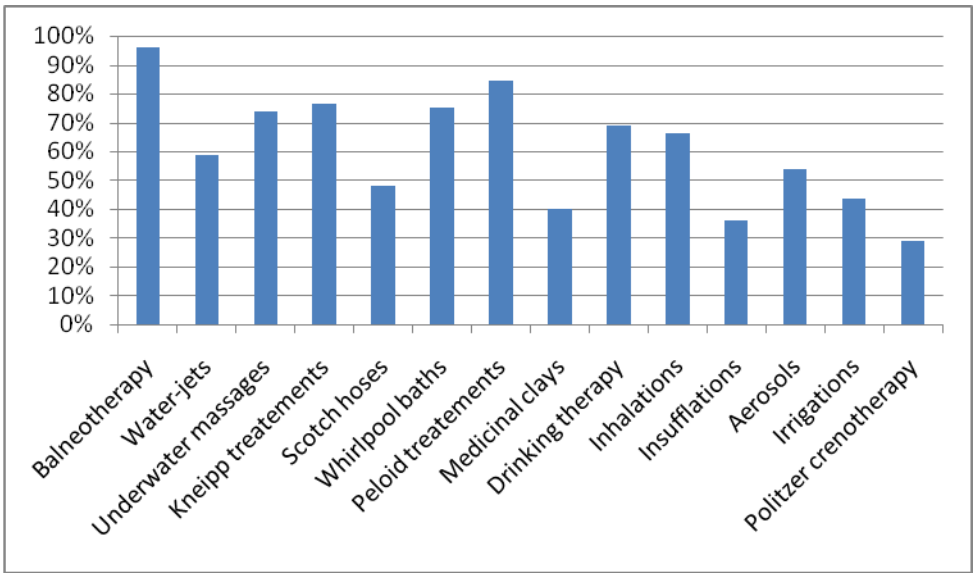
In this section we analyzed various centers in the world, with the aim to identify the services provided by hydrotherapy centers, such as Spas or clinics, home or work such therapies.

Analysis carried out through interviews and a bibliographic survey were traced the main services provided by many states and a description of the service.

From the data reported appear to be the most widespread treatments:

- Balneotherapy
- Underwater massages
- Whirlpool baths
- Drinking therapy
- Inhalations
- Aerosols
- Irrigations

1B) WHICH ARE THE MORE FREQUENTLY USED?



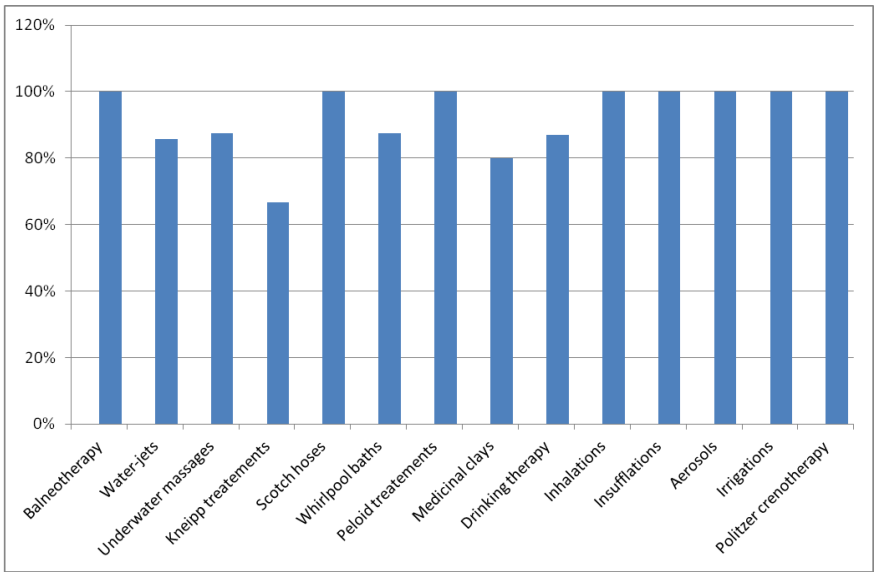
The participating Experts responded by reporting which percentages treatments are most commonly used. Does not analyze each service individually, but merely to provide statistical data and bibliographic in order to identify the types of services can be grouped in categories representing the specific therapy.

From the data it appears that balneotherapy and peloid treatments (not medicinal clays) are the most commonly used for osteo-joint and muscle gaining an important role in the treatment of chronic pain. Between hydrotherapy baths are important ground for vascular disease according to Kneipp's therapy. Always be used with inhalation treatments and with drinking therapy for problems of the respiratory and digestive tract respectively.

1C)WHICH OF THEM ARE PROVIDED UNDER DOCTOR PRESCRIPTION?

The answer choice:

- Balneotherapy/water jets/underwater massage /Kneipp treatments/scotch hose /whirlpool bath/ peloid/ medicinal clay/
- Drinking therapy
- Inhalation/ insufflation/ aerosol
- Irrigation
- Politzer crenotherapy

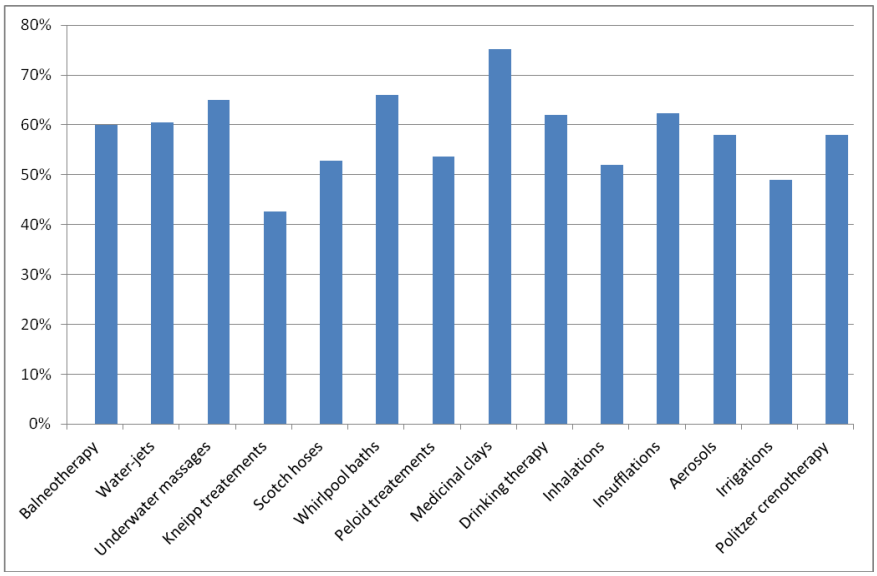


As can be seen from the graph in all participating Experts, individual treatments are prescribed by a doctor.

1D)WHICH OF THEM ARE PROVIDED UNDER DOCTOR SUPERVISION?

The answer choice:

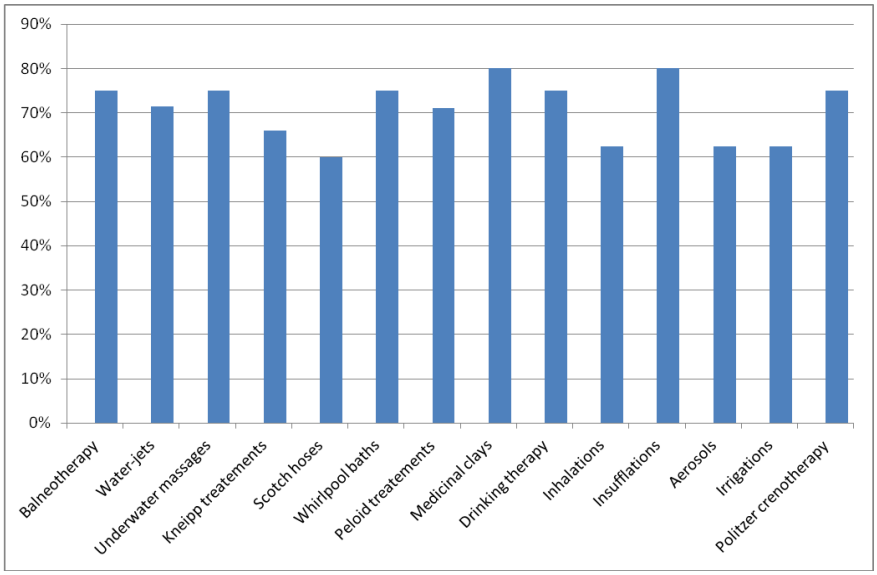
- Balneotherapy/water jets/underwater massage /Kneipp treatments/scotch hose /whirlpool bath/ peloid/ medicinal clay/
- Drinking therapy
- Inhalation/ insufflation/ aerosol
- Irrigation
- Politzer crenotherapy



Useful skills in structuring and management of a hydrotherapy are often highlighted by the need from time to time present themselves in front of a large and varied scenery of demand for specific therapies. Nevertheless, it is possible to draw some of the characteristics and skills of the staff involved in the management and provision of services.

The different types of interventions of a health services' provision, would require a detailed analysis and detailed skills often also build on the field and that there are therefore key solution to the dynamic that must and should have the professionals involved in the management a hydrotherapy center. It is particularly important for the study and shows the attention that this puts Complementary medicine to patients. In all treatments offered the presence of qualified personnel is present.

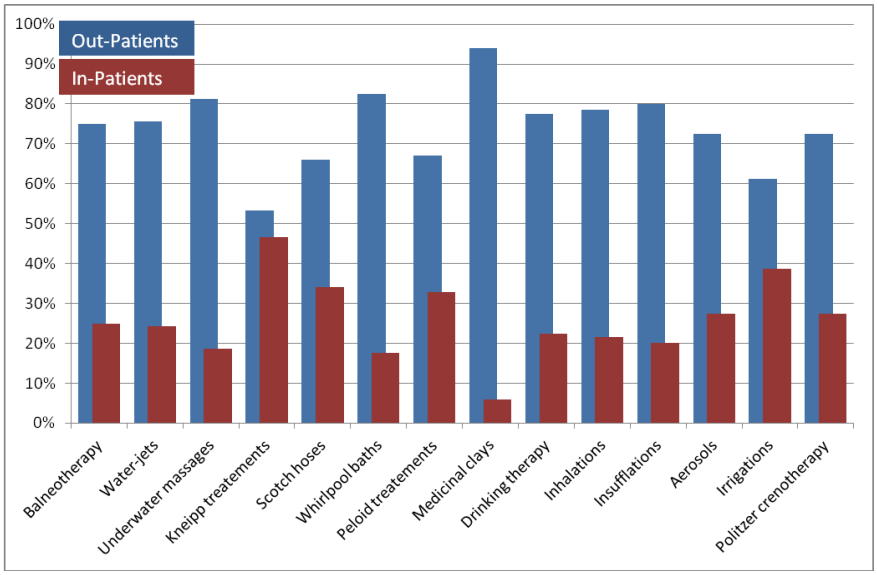
1E)WHICH OF THEM ARE USED ALONG OTHER OPERATIVE MODELS?



With regard to the methodology of work we can say that the cross-cutting nature of the requests and needs of hydrotherapy performance requires an attitude of work prepared to advise and assist constant patients also should not be underestimated the diversity of clinical situations.

The answers provide a brief description of the protocols used in individual countries. you can not bring these specifications, since the non-uniqueness of guidelines makes it too heterogeneous sample

1F) WHICH OF THEM ARE USED ON OUTPATIENTS AND WHICH ON INPATIENTS?



For each country have been highlighted in the analysis the type of structure, the manager, as the size of the space available for individual assets and the arrangement of the structure as a whole. Were also tracked during the survey services provided to patients or residents outside the dispensing structure to performance.

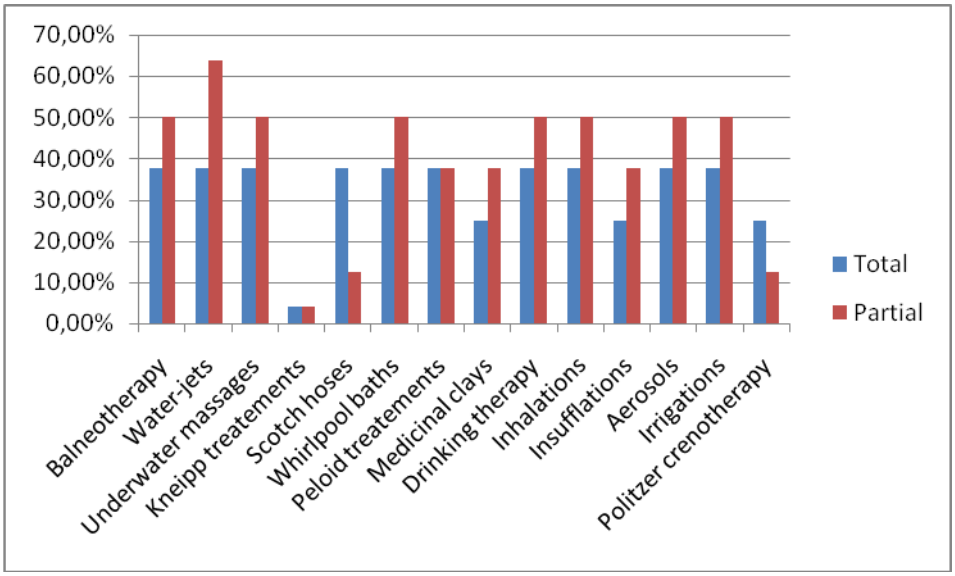
Deepening the type of service offered, participants were asked if they had different types of service delivery: outpatient or inpatient.
The analysis concluded that the majority of outpatient treatment is delivered through the support of hotel facilities and in some cases with the support of public or private clinics specialized.

On the other hand for inpatients is instead a presence of public hospitals or private hydrotherapic clinics.

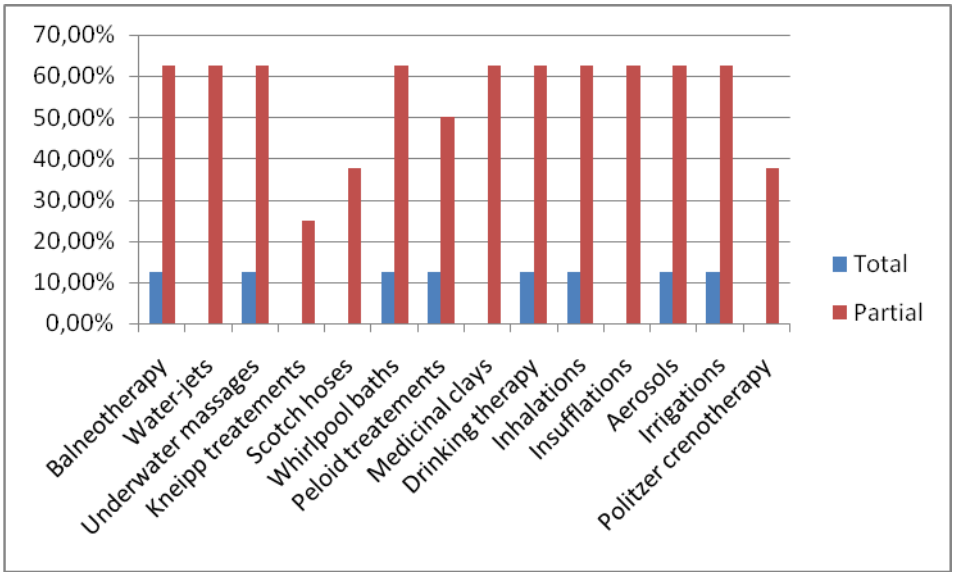
Experiencing this situation was asked if is it official recognition or regulation of these therapies or of part of these therapies by public authorities? And are there a specific local low that regulate the hydrotherapy practices?

The questionnaires show that in all Expert there is the recognition by public authorities or regulators of these therapies and in 87.5% there are a specific local low that regulate the practices.

2D)IS IT OFFICIAL REIMBURSEMENT OF THESE THERAPIES OR OF PART OF THESE THERAPIES BY PUBLIC AUTHORITIES?



2E) IS IT OFFICIAL REIMBURSEMENT OF THESE THERAPIES OR OF PART OF THESE THERAPIES BY PRIVATE INSURANCES?



This survey provides an overview of the types of services offered by multiple realities for which it is useful to bear in mind the socio-economic state different characterizations and support policies initiated by individual states themselves.

The mapping carried out also showed a high percentage of hotel logistics support (see late).

With regard to the reimbursement of services provided the data obtained indicate a similarity between states characterized by the presence of government intervention in the financing of therapies. In many cases, it was found public funding and in many other cases of government measures to support the individual services provided. This has led to the finding of services provided free of charge, as included in health projects of individual states and sometimes private individuals with the consequent development regime activities also publicly supported activities from a financial point of view.

This is part of a political-economic and financial programming States aimed at supporting and hydrotherapy treatments on various occasions in the 'Ministerial including financial contribution to such activities. In some cases, public funding structures have been replaced over time by the reorganization viability of the remaining structures themselves autonomously providing paid services.

The tariff varies depending on the geographic region and reference areas in which they operate the service providers and the logistics associated with them (nursing homes, hotels ...).

The prices also vary according to the type of service offered and the specific characteristics of the structure that it provides.

In this context it can be said that the structures hydrotherapy vary their actions depending on the local context in which they are classified and according to the type and evolution of the techniques of administration of the therapies.

For each treatment was asked if the reimbursement by public authorities was full, partial or absent. This question was asked even if it were an insurance reimbursement required by private insurances.

The percentages obtained show that all treatments are reimbursed by the state or by private insurance that evenly. In some states there is a partial refund with a cost-sharing by the patient according to the Welfare's internal rules.

When asked if it should be a doctor prescribing for individual treatments rimborsatbili, the answer was unequivocal.

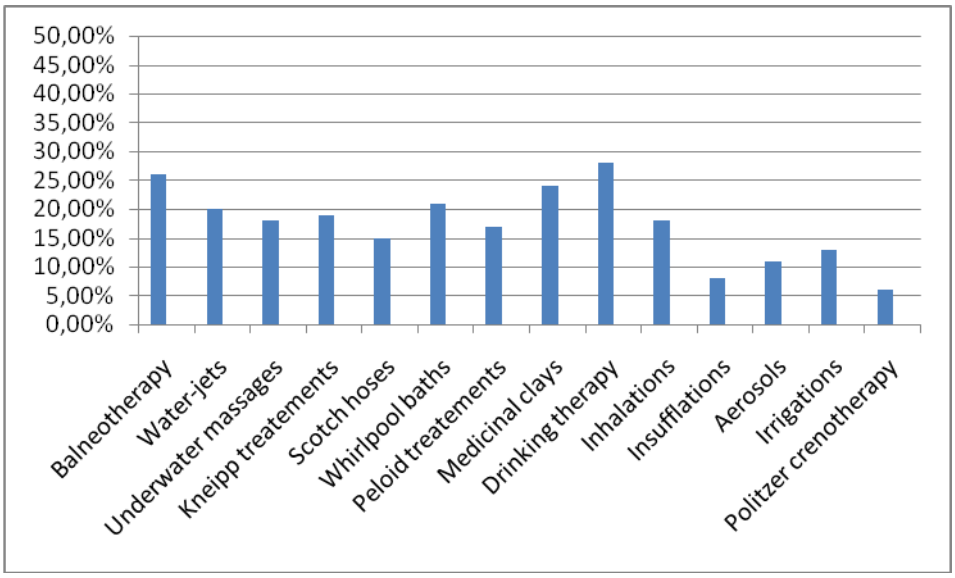
In particular how the percentages may be divided as follows:

- General practice doctor 31.25%
- A specialized doctor 25%
- A doctor specialized in hydrotheraphy 31.25%
- Other 12.5%

Where the hydrological therapy is prescribed?

- At the practice of a generic/family doctor: 26.2
- At the practice of a specialized doctor (es. Pneumologist, dermatologist a.s.o.): 20%
- At the thermal hospital, clinic or thermal center where the treatment will be provided: 33%
- Other: 20%

2L) AMONG THE HYDROTHERAPY PRACTICES THAT DO NOT REQUIRE A MANDATORY PRESCRIPTION, WHICH ARE THE MOST SELECTED BY THE PATIENTS?



As described above in an era of evidence-based medicine, it is necessary to ask the medical and scientific value of these therapies.

Given the quality of the results obtained in our survey, given by their originality and innovation, fundamental is the comparison and evaluation and international distribution with the largest scientific society in the world.

In addition to the rigors of a typical research to ensure the scientific quality of the results should be allowed a greater awareness of hydrotherapy treatments guaranteeing international distribution partnerships to expand and ensure the persistence over time of interest on the part of the community.
With regard to the therapies hydrotherapy must also take into account the multiplicity and differentiation of the research topics and interdisciplinarity of treatments.

Scientific research is certainly one of the most important weapons to find and fight any disease, the most common to the most serious

We asked participants if the Member Is Hydrotherapy officially accepted in your country by the scientific medical community (Scientific medical associations, National Medical Association)?

In all states the response has reached 100%

Also **if Is Hydrotherapy officially accepted in your country by the scientific academic comunity (Universities)? And Is it Hydrotherapy a medical speciality in your country? (this means it is praticed by specialized doctors after a specialistic post graduate course).**

The answer to the first question has reached 100%.
To the second question only 75% of States in their own universities specialized doctors after a specialistic post graduate course.

Hydrotherapy in the country of reference is included in other medical specialties for 50%.

Asked if the country of reference there was some medical training program of hydrotherapy, the response was affirmative for 75%

At which level(s) the training is held?

- Pre graduate: 12.5
- Post graduate: 37.5
- Specialization 50%

Asked Is there any standardization for the training programs in Hydroteraphy?

Yes for 75% of the Country.

At which level(s) of training the standardization of the Hydrotheraphy programs is effectively present?

- Post graduate: 66.67
- Specialization: 33.33

When asked if it would be useful some form of standardization among training programs in the various countries in which it's been Hydrotherapies, the answer was unanimous 100%

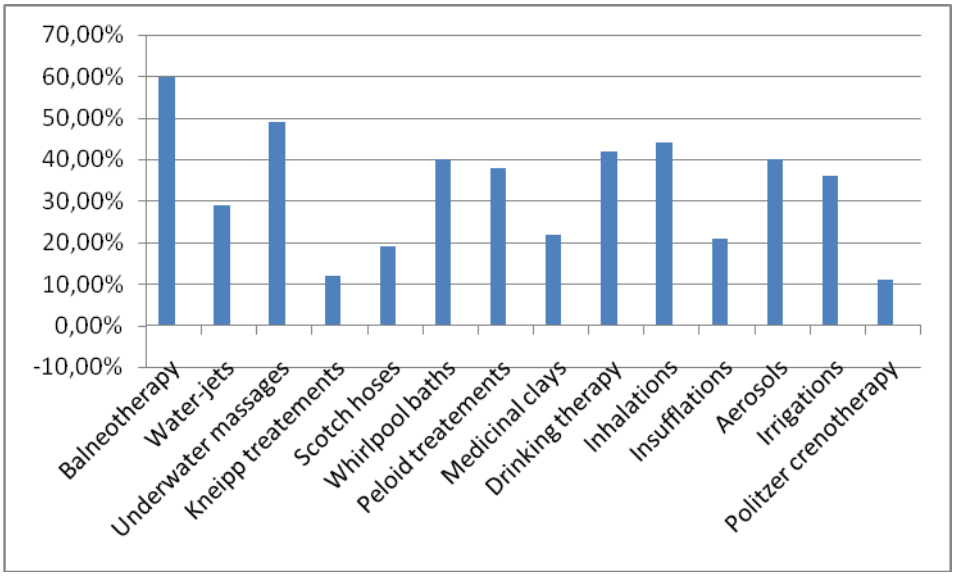
Questions would be helpful if some form of standardization of training programs in the various countries in which it was the Hydrotherapies and if they believed that a high-level program of training, such as that used in many European countries could help to achieve the quality, the safety and effectiveness of hydrotherapy, the answer was unanimous 100%. none of the participants were still willing or able to indicate which program would be the best.

Also with regard to the type of hydrological research, Countries contacted have not been able to answer. At the same time believe it is mainly developed in individual countries: Basic research: 2.88%; Mechanic research: 2.62; Observational research 3.75%; Clinical research: 3.62%.

Wondering what types of institutions are involved in research, we can find:

- Private R&D institutes: 1.75%
- Academic institutes 3.62%
- Public institutes 2.88;
- Private companies: 1.75%
- Others: 1.50%

PLEASE SPECIFY THE HYDROLOGY THERAPIES MOST COMMONLY USED IN THESE THERMAL INSTITUTES



For each country we have been highlighted in the analysis the type of structure, the manager, as the size of the space available for individual assets and the arrangement of the structure as a whole.

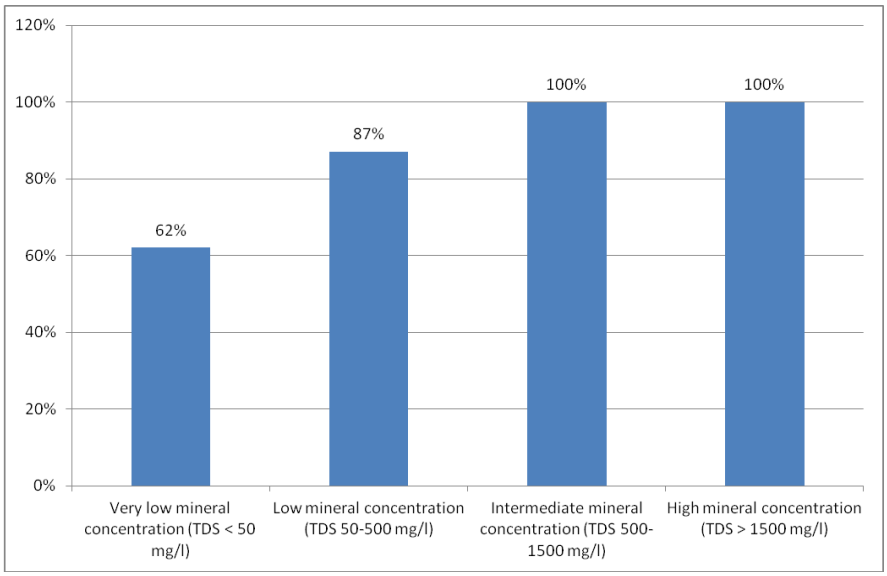
The services offered are summarized in the following main categories shown in the graph and vary from property to property depending on the specificity. In the graph of detail are the services offered for each therapy taken into consideration. From the graph of the services offered in detail shows a detailed overview of special offers from each of the service for service

How many SPA Institutes there are in the reference country? And specify the hydrology therapies most commonly used in these SPA institutes

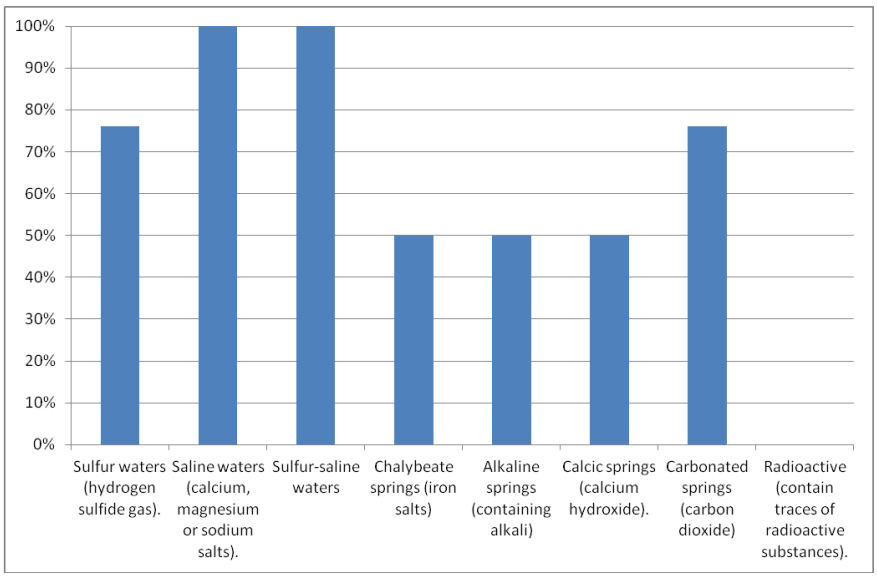
China	~300
Cuba	~30
France	~250
Hungary	~120
Italy	~400
Poland	~120
Portugal	~50
Romania	~130
Russia	~1300
Tunisia	~70

Questions **is there any other type of public or private structures that use Hydrotherapy? Yes 75%**

Which type of thermal water are used by the different hydrotherapy structures ?



Which of the following characteristics of thermal waters are used by the different hydrotherapy structures ?

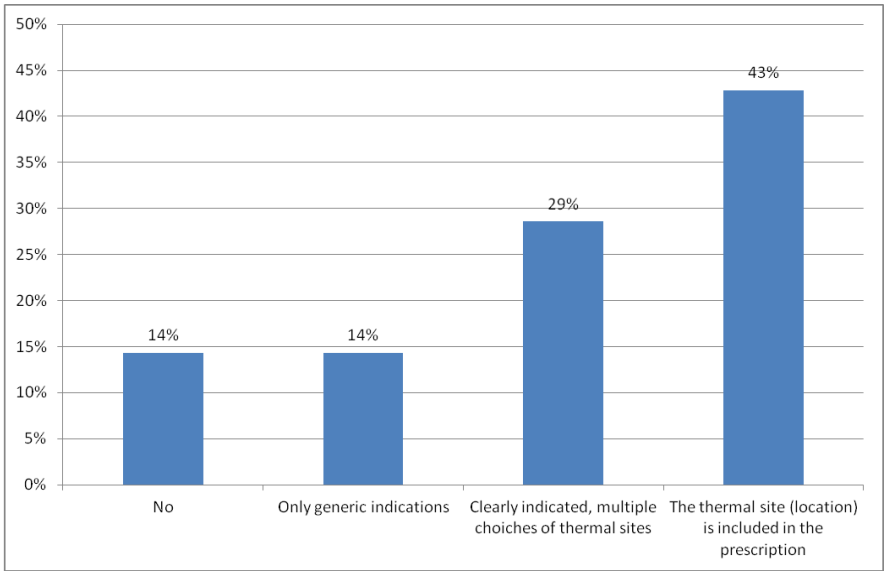


The contacted Spas are often made by private companies or managed by private agreement and must be taken into account also the possible business aimed at supporting the development of the sector at local and regional level.

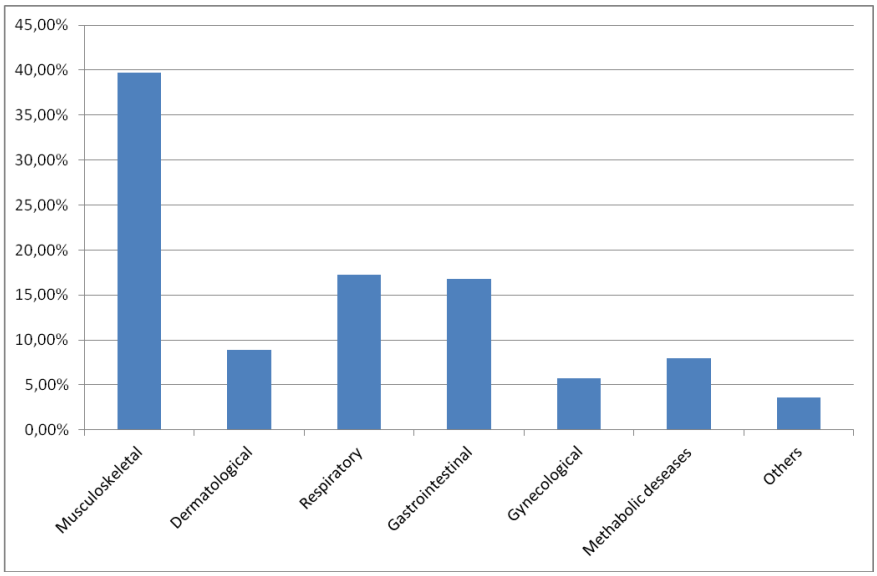
This assessment has shown a level of maturity in the initial countries contacted also adding economic value and social context of the community.

The questions below are for the type of prescription and its indications**.**

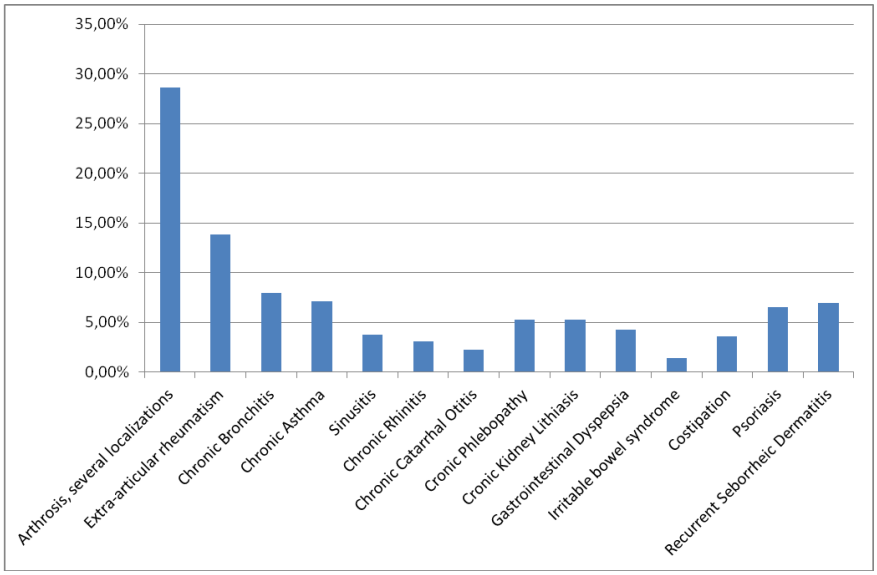
WHENEVER HYDROLOGICAL THERAPIES ARE PRESCRIBED BY A DOCTOR, ARE THE TYPE AND CHARACTERISTICS OF THE THERMAL WATERS CLEARLY INDICATED?



WHAT ARE THE MOST COMMON FIELDS ON WHICH HYDROTHERAPY IS USED ? PLEASE SPECIFY A PERCENTAGE FOR EACH OF THE FOLLOWING:



WHAT ARE THE MOST COMMON FIELDS ON WHICH HYDROTHERAPY IS USED IN THE REFERENCE COUNTRY?



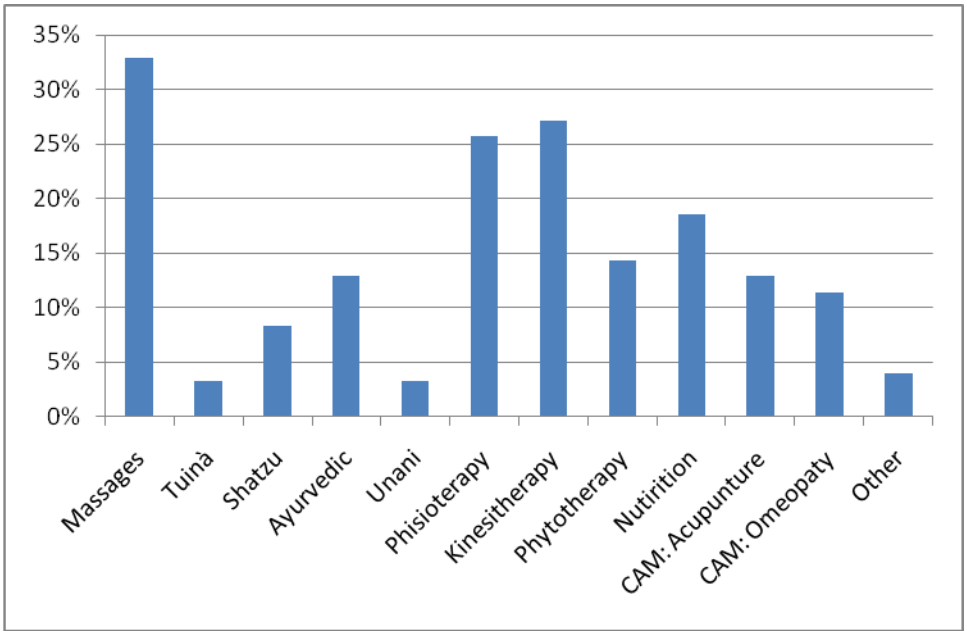
With regard to the working methods and prescriptions we can say that the cross-cutting nature of the requests and needs of hydrotherapy performance requires an attitude of work prepared to advise and assist patients constant, moreover, are not to underestimate the diversity of clinical situations.

It is not surprising that most of the treatments concerns the chronic inflammatory musculoskeletal diseases. The benefit of these treatments is probably the result of a combination of several factors among which the most important are the effects mechanical, thermal and chemical effects. Spa therapy represents a popular treatment for many rheumatic diseases.

Interesting to note is that the prescribing physician indicates with precision the type of water to be used for the specific pathology. Also in this case, the data show a maturity and scientific of Doctors' preparation.

In all states surveyed the answer was "yes" to the following questions:

- You can specify that the most common techniques of hydrotherapy in your country are used in conjunction with specific and different for each disease?
- Are any complementary medicine (CM) techniques used in the reference country as a complement to hydrotherapy practices?
- Specifying which and how common the following techniques complementary Medicine used in combination with hydrotherapy**:**



In particularly so in the reference countries protocols are defined and used for the combination of hydrotherapy and other treatments in 75% of cases

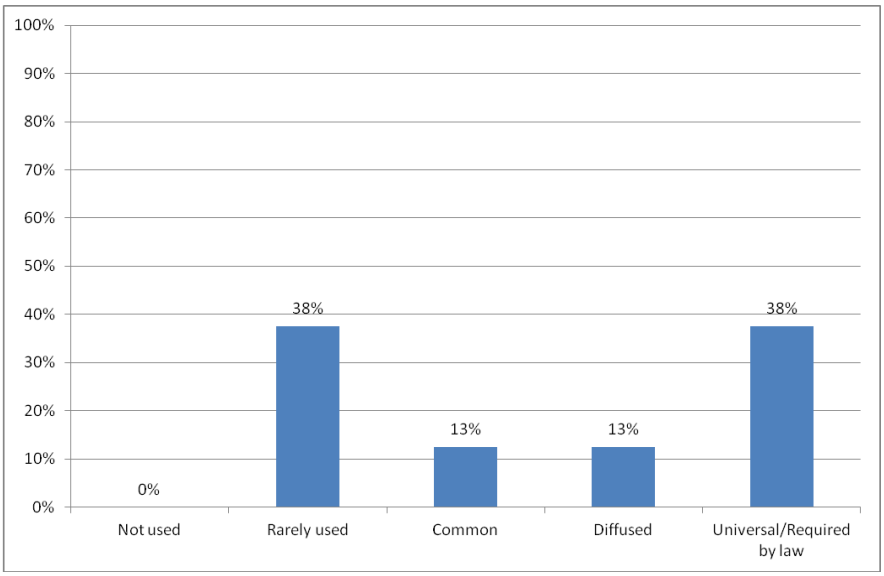
Interesting is the fact that in the Countries of reference, there are records of hydrotherapy treatments provided, clinic or hospital in different percentages, respectively: Only few homes in 25%, 37.5% and Commonly used Universally used / required by the law 37.5% .

Records of the side effects is 50% and evaluation systems in place for the evaluation of the results is 100%

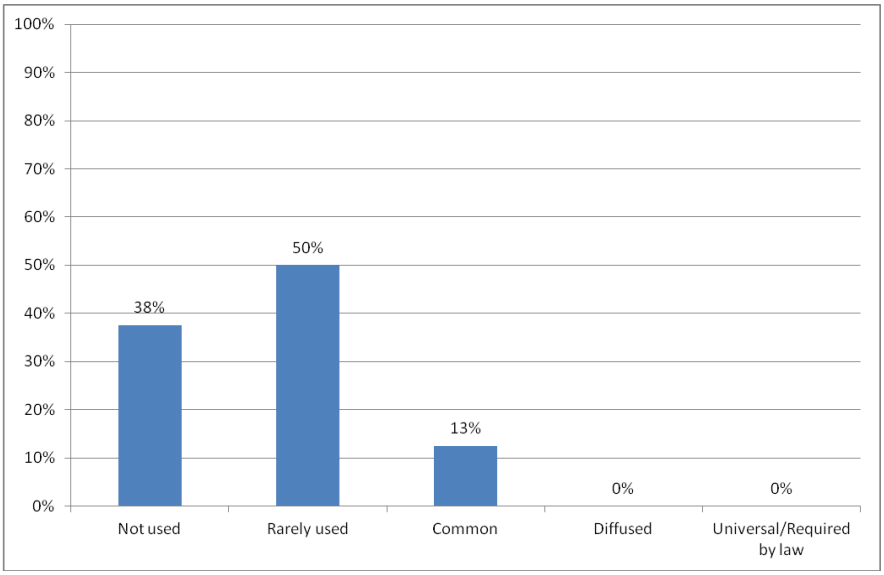
The systems of evaluations are used generally to evaluate the results of the hydrotherapy treatments are: Evaluation scale results 3.50%; IQL: 1.75%; Costumer satisfaction 3.75%; Other: 2.6%

In particular:

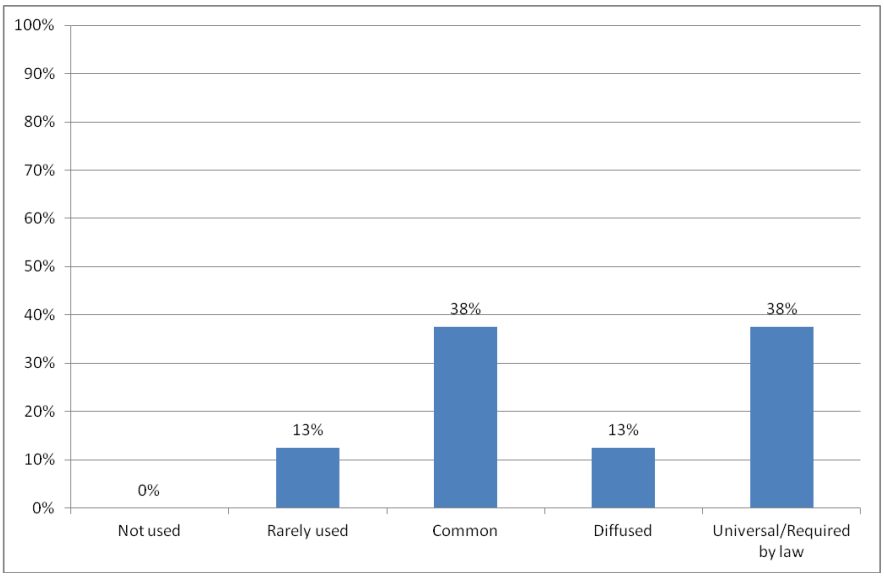
Evaluation scale of results



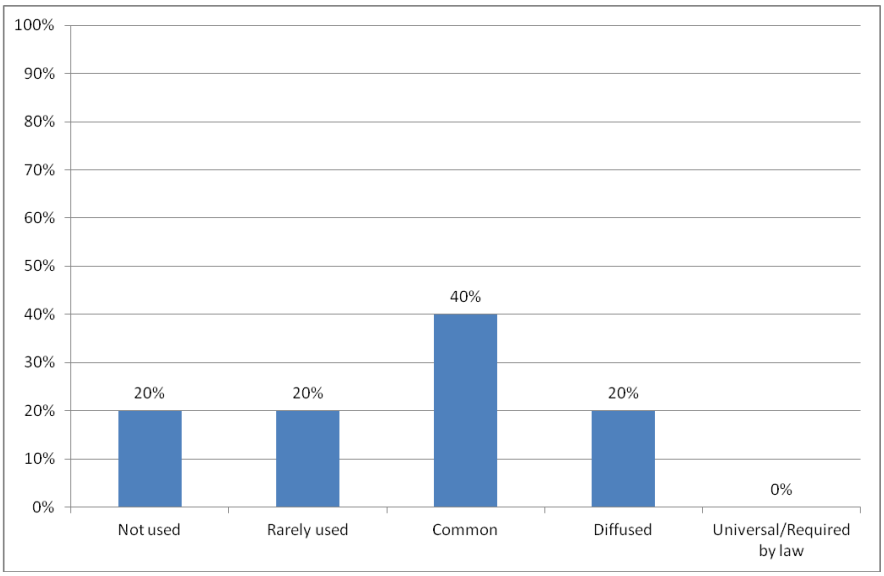
IQL



Customer satisfaction



Other


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
20%
20%
40%
20%
0%
Not used
Rarely used
Common
Diffused
Universal/Required by law

CONCLUSIONS

From the study we can say that there are three types of countries regarding the use and the diffusion of HT.

- In the first block HT is widely used by the population and therapies and practices are often included in National Health care system. This block of countries include the most part of the European countries, including Russian Federation.
- In the second block, HT is used as Complementary Medicine and often the therapies are used in SPA or other locations. IN the most of these countries no reimbursement is provided to the people for funding the therapies.
- There is also a third block, in which the population is increasingly orienting to the use of HT but this is not considered part nor of Health Care System nor of the Complementary Medicine. HT is used for leisure and wellness purposes only.

Also regarding the legislative regulatory framework in relation to the situation and education in the various countries we could consider three blocks of countries .

- There is a block, including both countries of Western and Eastern Europe that have a high level of government regulation and legislation on the use of hydrotherapy. In these countries also academic training of operators is mostly at the university level with the presence of post-graduate and improvements of real specialty schools.
- There are also countries such as in North Africa (Tunisia, Morocco and Algeria), which are an area of great traditions hydrotherapy, where the discipline is going to meet legislative and regulatory development, partly due to the strong demand expressed towards the population of this therapy and the necessary safeguards that need to be put in place.
- The same situation can be found in Latin American Countries with the exception of Cuba. In this Country hydrotherapy is recognized by the Ministry of Health and by the National Health system.
- Finally, there are countries such as (Japan, South Korea, Vietnam and China), although hydrotherapy has a great historical tradition and is used as a traditional method.

Also the clinical studies on HT were prevalently carried out in countries of the European area while studies from extra-european countries still lack.

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