Thalassotherapy – A Healing Approach in a Growing Wellbeing-Industry Prof. Dr. Kai Illing

1. Introduction

The term Thalassotherapy stems from the Greek word thálassa (θ άλασσα) meaning sea or ocean and comprises many seawater-based treatments. Treatments on the base of remedies taken from the sea are quite common in Europe and used as well in wellness tourism as in medical tourism. The medical capabilities of the Thalassotherapy have been extensively discussed in Illing 2018 whereas the article in hand tries to focus on tourist aspects and the chances Thalassotherapy offers to the growing wellness and wellbeing industry.

There are some European countries the social insurances of which pay for certain treatments offered in the realm of Thalassotherapy. In other countries, the Thalassotherapy remained in a state of a popular and somehow shamanistic state that does have much to do with evidence-based medicine.

2. The Thalasso-world of treatments

Thalassotherapy capitalizes on many natural remedies that are offered by the sea:

	1	2	3	4	5	6	7	
Remedies	Light/Sun	Air/Wind	Sand (non- herbal)	Peloide (herbal)	Seawater	Algae	Salt	А
	All relevant weather conditions		More solid substances as part of the beach		Seawater and its ingred		dients	В
Treatments	Sunbath		Peeling	Peeling	Shower (jet shower)	Cosmetics, skin care	Peeling	С
	Sport and other outdoor activities (gym)		Sand bath	Wrapping (pack)	Underwater massage		Salty air inhalation	D
	Heliotherapy	Salty air inhalation			Drinking cure	Food, pills	Food	Е
					Wrap	Wrapping		F
					Rubbing			G
					Massage			Н
					Bath (Thalasso circuit)			1

Table 1: The Thalasso-grid (source: Adapted from Illing 2018, p. 104.)

Basically, almost all Thalasso treatments can be offered in a more non-medical context or in a more medical one. The latter one makes it necessary to hire medical therapists or even medical doctors. Those treatments being under the double rule (grey colour) are more often part of medically supervised treatments. Explanations:

 \rightarrow 1C: Sunbath is normally not recommended as a high exposure to sunshine may cause skin cancer. But certain skin diseases can be relieved if the exposure to sunshine is medically guided.

- → If your establishment concentrates on 6C your location might be far away from the sea. Amongst others you offer cosmetic treatments using those with algae and maybe salt for salt baths. To foster the sustainable background of your products you may use salt that is harvested by a saltern directly by the sea. A saltwater pool may be an appropriate diversification of your pool area that might comprise mostly sweet water pools.
- → Salty air inhalation as mentioned in 2E and 7D are most often offered in medical institutions that care of patients suffering from respiratory diseases. An inhalation of this kind offers a relief for the respiratory tract since it has a secretolytic effect. Inhalation with salty air can be done directly by the beach inhaling the maritime aerosols or in the medical spa with an inhaler. The best effect can be reached if people are in the breaking wave zone. An even small distance of 15 metres can reduce the effect by 50%.
- → 3D is normally offered as thermal therapy aiming at relieving the locomotory system. But this kind of thermal treatment can also be offered in a mere wellbeing context causing a cozy feeling of warmth. A sand bath can be done in a sand bed in your spa, but it can also be offered at the beach using sand that is taken from the beach directly.
- \rightarrow 3C, 4C and 7C underline that many different materials taken from the sea can be used for peelings that are mostly booked for wellbeing and cosmetic purposes. Peelings can be made in a treatment room but also in combination with a sauna ritual in a Razul bath. It helps not only to remove dirt but also to peel off loose skin scales.
- → 5I and 6I lead to a discussion of what character the pool that offers salt water should be. The pool might be rather simple offering just saltwater or it may be quite sophisticated equipped with various water jets providing an underwater massage. The water jets may eject the water with different power, they may be directed to different body areas and they may eject water of different temperature.
- → 6E is normally offered in the hotel's restaurant where the so-called Mediterranean Food consisting of red wine, olive oils, and many different types of fish can be taken as one important pillar in a healthy food concept. 6E also comprises all dietary supplements that are based on algae and other ingredients that are taken from the seawater.
- →5G, 6G, and 7G normally use a massage sponge to get the salt water, the algae peeling, and the salt spread and rubbed in the body part targeted. This procedure is often done by a therapist. If salt water is used it can be done in the way the Vichy Shower does it taking the water from a little shower from above which is part of the massage bench.
- → 7E: Salt as food means that hotels with a major in cuisine and delicious food attach importance to offer various types of salt such as seawater salt, mountain salt, herbal salt, iodised salt etc.
- → 5I and 6I: A so-called Thalasso-circuit aims at offering a certain way through the saltwater pools to be done in a predefined order with the purpose of improving the medical outcome and/or to deepen the wellbeing experience. Such a Thalasso-circuit can be done at the beach including real seawater, but it can also be done in the spa using different types of pools such as a counter current pool (work out, toning the tissue, accelerating the pulse), a hydromassage in a jacuzzy-like smaller pool-type (relaxation), another pool offering a swan jet (muscle relaxation, improving the circulation), whirlpool beds (relaxation and simultaneously activating venous circulation), a drainage section (ascending jets from the ground activating the blood circulation of the foot and the lower part of the legs, lymphatic drainage), and last but not least a cooler salt water bath that is to get the blood circulation in balance again so that the guests can leave the Thalasso-circuit refreshed without a breakdown because of a

low blood circulation. Those Thalasso-circuits can be planned in a more activating, healing or relaxing way. It depends on the strategy of the company, of the type of the guests, and of the possibility to get patients sent by health insurances.

A Thalasso-circuit does not have necessarily something to do with pools. A succession of Thalasso-based treatments can start with a peeling (algae peeling), followed by a warm salt-bath in a hot tub, and finalized with a massage using oil made of algae. Many European cosmetics manufacturers play on Thalasso products successfully advertising with keywords such as "authenticity", "clean ocean water", "the power of the sea", and the like.

If a saltwater pool is planned attention should be paid to the many difficulties concerning the pool-technology because saltwater has a tremendous eroding effect on water pipes, water treatments plants, and other elements of the water technology.

3. A medical concept based on Thalassotherapy

The following chart is to show a medical concept that was made by the author of this article for a medical hotel on the Mediterranean island of Cyprus (Europe). The ThalassaLIFE preventive concept aims to achieve purification and relief: Purification stands for physical and mental cleansing. The detoxifying process will relieve guests from harming body poisons. Purification is a prerequisite for relief and healing. Relief aims to free guests from their burdens of lifestyle diseases. ThalassaLIFE means that lifestyle diseases are going to be treated using as well conventional (western) as alternative treatments in a preventive and non-invasive manner. In this sense healing, relief, and wellbeing will be reached with aid of a holistic combination of conventional and alternative treatments.



Table 2: A medical concept based on Thalassotherapy (source: Illing 2015)

The author of this article suggests differentiating between the means (instruments, "how") on the one hand and the results (aims, "what") on the other hand. The way to design a spa concept in this way is to present not only the instruments ("what do I have to do?") but also the aims guests have when they visit the spa ("what do I get after doing all the procedures?").

4. Summary

Thalassotherapy is a quite comprising approach to tourist health care centers playing successfully on authenticity, healing, wellbeing, and (medical) prevention. It can be integrated into medical companies (medical hotel, specialized clinics offering natural remedies) as it can be integrated into hotel spas focusing on relaxing and beauty services. It is recommended to have Thalassotherapy realized in establishments by the sea, but some treatments can also be realized successfully far away from it.

5. Literature

Abu-Shakra, M., Mayer, A., Friger, M., Harari, M. (2014). Dead Sea mud packs for chronic low back pain. The Isreal Medical Association Journal 16/9, p. 574-577.

Adams, M. (2009). Superfood for optimal health: Chlorella and Spirulina. Truth Publishing. Download 11th Nov. 2016 von http://www.naturalnews.com/specialreports/superfoods.pdf.

Boulangé, M., Kanny, G. (2014). Thermalisme et climatisme, médecines environnementales. Hegel 4/2, p. 170-172.

Chen, Y., Chang, G., Kuo, S., Huang, S., Hu, I., Lo, Y., Shih, S. (2016). Well-tolerated Spirulina extract inhibits influenza virus replication and reduces virus-induced mortality. Scientific Reports, 12.

Crecente, J., Santé, I., Díaz, C., Crecente, R. (2012). A multicriteria approach to support the location of thalassotherapy (seawater therapy) resorts: Application to Galicia region, NW Spain. Landscape and Urban Planning 104, p. 135–147.

de Andrade, S., de Carvalho, R., Soares, A., de Abreu Freitas, R., de Medeiros Guerra, L., Vilar, M. (2008). Thalassotherapy for fibromyalgia: a randomized controlled trial comparing aquatic exercises in seawater and water pool. Rheumatology International, 29/2, p. 147-152.

Deutscher Heilbäderverband, Deutscher Tourismusverband (2005). Begriffsbestimmungen – Qualitätsstandards für die Prädikatisierung von Kurorten, Erholungsorten und Heilbrunnen. Download 12th Nov. 2016 von http://www.deutscher-heilbaederverband.de/Begriffsbestimmungen-12-Aufl-aktualisiert-2011-PDF-685370.pdf

Fernandes, J., Fernandes, F. (2013). Thalassotherapy and Aesthetical Tourism. Medical Tourism Magazine 22, Sept.-Oct, p. 89-91.

Gilot, Jean-Michel (o.J.). Il y a 150 ans : l'invention de la thalassothérapie, une idée qui miroite aux yeux des gens du monde. Download 12th Nov. 2016 von

 $http://enenvor.fr/eeo_actu/bellepoque/il_y_a_150_ans_l_invention_de_la_thalassotherapie_une_idee_qui_miroite_aux_yeux_des_gens_du_monde.html$

Glavaš, N., Mourelle, M., Gómez, C., Legido, J., Šmuc, N., Dolenec, M., Kovač, N. (2016). The mineralogical, geochemical, and thermophysical characterization of healing saline mud for use in pelotherapy. Applied Clay Science.

Glavaš, N., Kovac, N., Jurjec, J (2010). Thalasso medical centre in the saltpans of Secovlje (Portoroz, Slovenia). In: Maraver, F., Karagülle, M. (eds). Medical Hydrology and Balneology: Environmental Aspects. Balnea 6, p. 110-111.

Gomes, C. (2013). Naturotherapies based on minerals. Geomaterials 3, p. 1-14.

Gomes, C., Silva, J., Sequeira, M., Gomes, J. (2009). Potentials for therapeutic purposes of the biogenic carbonate sand occurring in some Island of the Macronesia Archipelago based on their unique chemical and physical properties. Geochimica Brasiliensis, 23, p. 332-343.

Gomes, C., Silva, M., Gomes, J. (2001). Psammotherapy in Porto Santo Island (Madeira archipelago). Anales de Hidrología Médica 4, p. 11-34.

Gutenbrunner, C., Bender, P., Cantista, P., Karagülle, Z. (2010). A proposal for a worldwide definition of health resort medicine, balneology, medical hydrology and climatology. International Journal of Biometeorology 54, p. 495-507.

Harari, M. (2012). Beauty is not only skin deep: The Dead Sea features and cosmetics. Maraver, F., Karagülle, M. (eds). Medical Hydrology and Balneology: Environmental Aspects. Balnea 6, p. 127.

Heering, S. (2010). Balneo-Phototherapie mit Solelösung des Toten Meeres und Schmalspektrum UV-B Bestrahlung (311NM): Evaluation der optimalen Therapieparameter. Inaugural Dissertation der Medizinischen Fakultät der Universität Regensburg.

Hinteregger, S. (2010). Medizinalbäder und wasserunterstützte Therapieformen im Bereich der physikalischen Medizin. Wissenschaftliche Literaturstudie zur Wirkung gängig angewandter Therapieformen. Download 4th Nov. 2016 from

http://www.hauptverband.at/cdscontent/load?contentid=10008.566558&version=1391184727

Hirahashi, T., Matsumoto, M., Hazeki, K., Saeki, Y., Ui, M., Seya, T. (2002). Activation of the human innate immune system by Spirulina: augmentation of interferon production and NK cytotoxicity by oral administration of hot water extract of Spirulina platensis. International Journal of Immunopharmacology 2/4, p. 423-434.

Illing, K. (2018). Thalassotherapie – Medizinischer und touristischer Nutzen. Tourismus Wissen Quarterly, p. 103-108.

Illing, K. (2017): Medical Hotels: An approach to sustainable health in the leisure industry. Smith, M. & Puczko, L. (eds.). Routledge international handbooks, p. 246-260.

Illing, K. (2015). ThalassoLIFE – Business Plan for a Thalasso-hotel on Cyprus. TDC.

International Standard Organization (ISO) (2015). ISO 17680 - Tourism and related services, Thalassotherapy — Service requirements.

Katz, U., Shoenfeld, Y., Zakin, V., Sherer, Y., Sukenik, S. (2012). Scientific evidence of the therapeutic effects of dead sea treatments: A systematic review. Seminars in Arthrosis and Rheumatism 42/2, p. 186-200.

Kazandjieva, J., Grozdev, I., Darlenski, R., Tsankov, N. (2008). Climatotherapy of psoriasis. Clinics in Dermatology 26, p. 477–485.

La Bonnardière, J. (1865). Introduction à la Thalassothérapie, Thèse de médecine. Boehm & Fils: Montpellier.

Lacroix, P., Aboyans, V. (2005). Thermalisme et médecine vasculaire - Thermatology and vascular medicine. EMC-Cardiologie Angéiologie 2, p. 344–350.

Maraver, F., Karagülle, M. (eds.) (2012). Medical Hydrology and Balneology: Environmental Aspects. Balnea 6.

Panahi Y., Darvishi, B., Jowzi, N., Beiraghdar, F., Sahebkar, A. (2016). Chlorella vulgaris: A Multifunctional Dietary Supplement with Diverse Medicinal Properties. Current Pharmaceutical Design 22, p. 164-173.

Parinet, J., Tabaries, S., Coulomb, B., Vassalo, L., Boudenne, J. (2012). Exposure levels to brominated compounds in seawater swimming pools treated with chlorine. Water Research 46, p. 828-836.

Pore, P. (1984). Detoxification of Chlordecone poisoned Rats with Chlorella and Chlorella derived Sporopollenin. Drug and Chemical Toxicology 7, p. 57-71.

Revue du rhumatisme (2016). Place actuelle du thermalisme en rhumatologie. Éditoral. In press.

Rosenfeld, M., Ratjen, F., Brumback, L. (2012). Inhaled Hypertonic Saline in Infants and Children Younger Than 6 Years with Cystic Fibrosis. The ISIS Randomized Controlled Trial. Journal of the American Medical Association 307/21, p. 2227-2269.

Russel, R. (1749). Dissertatio de tabeglandular, sive de uso aquaemarinae in morbis glandularum.

Schuh, A. (2009). Die Evidenz der Klima- und Thalassotherapie - Ein Review. Schweizer Zeitschrift für GanzheitsMedizin 21/2, p. 96–104.

Schuh, A. (2004). Klima- und Thalassotherapie. Grundlagen und Praxis. Stuttgart: Hippokrates.

Stier-Jarmer, M., Kus, S., Frisch, D., Sabariego, C., Schuh, A. (2015). Health resort medicine in non-musculoskeletal disorders: Is there evidence of its effectiveness? International Journal of Biometeorology 59, p. 1523–1544.

Tomasovi, M., Borovac, J., Vrdoljak, D., Grazio, S., Tikvica, L., Tomek-Roksandić, P. (2015). When elders choose: Which factors could influence the decision-making among elderly in the selection of health tourism services? Medical Hypotheses 85, p. 898–904.

Verband Deutscher Thalassozentren (2002). Qualitätskriterien. Download 13th Nov. 2016 from http://www.thalasso-verband.de/index.php?idcat=17&sid=01b6c7023130cee9b72c5f136c669ac1

Zijlstra, T., van de Laar, M., Bernelot Moens, H. (2005). Spa treatment for primary fibromyalgia syndrome: a combination of Thalassotherapy, exercise and patient education improves symptoms and quality of life. Rheumatology (Oxford) 44, p. 539–46.

The author of this article is a university teacher, consultant, and hotel developer focusing on medical hotels. He is specialized in making business plans, strategy papers, feasibility studies for health tourism companies. Another major of the author is quality management and business development for tourist companies in general.

FH Prof. Dr. Kai Illing

TourismDevelopmentHealthCare TDC Austria: Floecking 194, 8200 Gleisdorf Germany: Annastrasse 18, 12247 Berlin

Mobile: +43 6888198807 Mail: info_tdc@web.de www.med-tourism.eu www.regiosana.eu