# **Kneipp Therapy**

## **History**

The "International Association of Kneipp Physicians" was founded on February 2<sup>nd</sup> 1894 in Bad Wörishofen in the presence of Sebastian Kneipp and 26 attending doctors. The Reverend Kneipp thankfully accepted the honorary presidency of the newly founded association. He wished his method to be taken up and studied by physicians. This wish was also made in 1886 in the preamble to his book "My Water Cure". It is remarkable that the issues debated at the foundation concerning annual subscription, publication by members, finances and the general arguments presented differ little from present day.

#### The First Years

The ambitious association, under the editorial direction of its president Dr. Alfred Baumgarten and with the contribution of the Rev. Prelate Kneipp, started publishing the "Central Paper for Kneipp Therapy" as the official organ of the International Association of Kneipp Physicians on April 7<sup>th</sup> 1894. Here one can probably receive the most realistic insight into the situation of that time.

The topics included original articles by Pastor Kneipp and individual physicians about aspects of diseases including the course of specific patient's illness. Dr. Baumgarten regularly presented cases from the children clinic built in 1892 / 1893 in Bad Wörishofen. The booklet also included the detailed illustration of the various water applications and a review of medicinal plants.

Furthermore, an impressive list of visiting physicians attending Kneipp's consultation hour was published. This list clearly shows that about 150 doctors annually participated, over various periods of time, in order to get an impression of and be schooled in Kneipp's methods. The official manuscript, also read by lay persons, also included advertisement and help-wanted ads.

## The Original Kneipp Therapy

In the preface of the "Codizill" released in 1896, Kneipp designates the Physicians Association with the express wish that the association, above all, agree and contribute, to the unaltered preservation of his methods. Kneipp also extended this wish to the various lay associations.

"If the medical profession and the lay associations are in concensus and support one another, then both groups will receive the most benefit and gain the largest success from my methods". "This, I wish with all my heart". The Kneipp treatment and the Association of Kneipp Physicians continued to develope after the death of Pastor Kneipp even though the collaboration between physicians and lay persons functioned only to a limited degree due to personal differences and diverging priorities.

## **The Present** (Modern Kneipp Therapy)

The method of therapy according to Kneipp has developed from the treatment of acute diseases to a supportive therapy for the treatment of chronic diseases of civilization. The focus of modern Kneipp therapy is on prevention, health preservation and rehabilitation. Kneipp therapy is a synergistic acting and simultaneous application of the classical naturopathic treatments. The importance of a good blood circulation throughout the entire body and "health resistance" (the hardening of the body) has gained a new dimension of importance in light of the knowledge of the interplay of blood circulation and immunology, free radicals, stress and adaptation.

The Effects of KneippTreatment; (a Standardized Complex Therapeutic Regimen in a Spa Environment) on Pain, Quality of Life and Drug Consumption. A Cohort Study with a 1 - Year Follow -Up.

#### Introduction

Medical care has been subject to several incisive paradigms shifts over the last few years. Traditional methods of medical care, that in the past have been taken for granted, have recently been increasingly questioned due to the pressure of socio-economic and sociodemographic changes. This applies to all medical sectors, but, is making an especially serious impact on the "Kur "sector. Here, the proof of the effectiveness of a single intervention is especially difficult to show, due to the complexity of the treatment. The assessment of the efficiency of the "Kur treatment", i.e. effectiveness vs. cost, requires the analysis of direct and indirect cost saving, which, demands the use of special evaluation methods [1]. While the physiological rationale and the mode of action [2] of singular and complex therapies in a spa environment are commonly accepted, studies, that argue for an improvement of life and an increase in expectancy of life as a collateral consequence of measurements in a spa environment [3,4] are, to this point, still missing. At the time of the conception of this study, there is no other work known, that has documented the "medical efficiency" of a complex, "holistic" -oriented Kneipp-Kur. Considering economic aspects, it is especially relevant to see to which extent the "Kur treatment" effects the physical / mental state and attitude to health of the individual, as the basic prognostic factors of most chronically diseased patients [5]. Above all, both the cognitive co-participation of the patient in his medical condition "Krankheitsgeschehen" i.e. (an increase of the patient's "capability" as well as self-confidence and motivation ) and the demonstration of special activity-offers ( "help people help themselves" ) form crucial criteria to reach an enhancement of personal quality of life. This approach on the "individual preventative behaviour level" will eventually, indirectly, save health costs [6-8]. This person-oriented task, must, in addition to structural and environmental related factors, gain in importance in the face of increasing financial restrictions [9]. The "Kur treatment potential" (within a specific spa environment), and with serial treatment of complex working methods and medical behavioural methods, presents an ideal possibility to be effective on a "holistic" level [10]. Methodological problems of intervention research arise as a result of the holistic approach of every Kur. These include the systematic evaluation of singular Kur methods as well as strategies and outcomes of the Kur [2,8]. A feasible approach to resolving these problems include examinations, using standardized programs based on primary and secondary prevention, (for ex. musculoskeletal diseases), that could prove a patientrelated and socio-economic benefit with regard to the following; pain intensity, drug consumption, number of days of disablement, the incidence of injuries and surgeries, as well as the reintegration into working life [11-15]. The Kneipp-Kur, a classical component of naturopathy, is a standardized complex therapy. Under adequate conditions, it is appropriate to use for an appraisal of effects and efficiency of a holistic intervention. Kneipp Kurs, taking place between 1992 and 1995, were analysed, under virtual standardized conditions with regard to the above aspect.

#### **Patients and Methods**

The examination was designed as a prospective cohort study. The selection of patients was carried out by four physicians according to detailed assignments. All patients agreed to participate in the study ( informed consent ). The total number of patients recruited was ( n = 363 ). The number of female patients was 209 = 59%. The number of male patients was 154 = 41%. The medium length of time of the Kur was 25.5 days ( range 18 - 35 ). The patients treated for three weeks = 48%. The patients treated for four weeks = 51%. Two patients ended the Kur ahead of schedule.

The number of participants treated on an out-patient basis was 248, with a Kur time period length of 23.3 days. The number of participants treated on an in-patient basis was 115, with a time period length of 27.4 days. All important demographic data are listed in tables 2 and 3.

All test data were documented according to a previously defined and published test plan [16]. This appraisal was carried out during the Kur, as well as, for a period of 12 months after completion of the Kur. A total of 6 control dates were carried out ( see table 1 ).

Data were collected with acceptance into the study concerning anamnesis, clinical findings and elementary laboratory parameters. Anamnestic and clinical data were documented by physicians according to a standardized test sheet with the utilization of semi-quantitative scores [16]. The patient's emotional state was recorded by extrinsic evaluation (physician) through half-standardized interviews as well as intrinsic evaluation (patient) through questionnaires. Four categories, with various point value, were formed with regard to extrinsic evaluation of the patient's emotional state including; pain (3), vital dysfunction (15), vegetative dysfunction (17) and psycho-social disorders (10). Seven levels of difficulty were assigned for each point and graded according to existence and degree as follows: 1 (never), 2 (very little), 3 (little), 4 (moderate), 5 (moderately strong), 6 (strong) and 7 (very strong) [18,19]. The patient's questionnaire collected information regarding physical state including; pain, attitude toward health, current medication,

psychological and vegetative ailment, the social situation as well as occupational stress [20]. The therapy program was individually adapted to the specific patient corresponding to the different diagnoses and included an average of 6.3 forms of therapy. These were carried out according to the therapy schedule and prescription. The therapy program was adapted in the course of the Kur ( doses change when reaction is inadequate), an important basic principle of naturopathic medicine in a spa environment.

The classic components of Kneippism include methods of hydropathy, kinesiatrics and massage, phytotherapy, dietetic treatment as well as lifestyle regulative therapy.

In the study at hand, the following methods of Kneipp Hydrotherapy were practiced; ablutions, packings, wetpacks, appliances, gushes, partial baths and full baths. A defined - disease oriented Phytotherapy was not practiced.

The conclusions of the study were presented in descriptive form. The statistical appraisal, when applicable, was performed thru analysis of variance for dependent (Friedmen) and independent (Kruskal-Wallis) control samples. Bivariate comparisons were performed thru a t-test for dependent / independent control samples (Wilcoxon-Mann-Whitney-Test). These comparisons were carried out in the form of a post-hoc-analysis with primarily a descriptive character. Multiple group comparisons were not conducted. A probability of error of p= 0.05 was defined as the level of significance.

## **Conclusions**

At the beginning of the study, 89 % of the patients displayed more than one aspect from the ten defined disease groups (indications for the Kneipp Kur). The prevalence of the diseases in the single disease groups is presented in table 4.

A judgement on the general success of the Kur was based, to a large extent, on the patient's change in the amount of consumption of medical drugs. At the beginning of the Kur, 84 % of the patients took at least drug. At the end of the Kur, 20 % of the patients had reduced the need for medication; another 20 % were released without the need for any type of pharmaceuticals. This effect was seen up to 12 months (significance p< 0.001) after completion of the Kur. At this time there was no need for medication with 22 % of the patients. A continued reduction in the use of medication was seen in 20 % of the patients. An increase in the use of medication at the end of the Kur vs. beginning of the Kur was seen in 3 % of the patients. A comparison of Kur - pre / post medication use, shows an increase in reduction of acute vs. long-term medication consumption ( table 5 ).

A higher prevalence of disorders regarding the locomotor system of the Kur patients was noticed. Global pain was rated as a basic parameter of the Kur effect. The intensity, the occurrence and the degree of pain showed a significant decrease ( p < 0.0005 ) in the course of the Kur and in the follow-up period ( fig. 2 ). A significant improvement ( p < 0.05 ) was seen in the emotional disorders ( Vital - Vegetative - and Psycho-Vegetative ) in a pre/post Kur comparison of the patients, according to physician appraisal ( fig.3 ). The patients' self-judgement rating showed significant improvement for the categories of ( General Ailments - Depression - Subjective Limitations - and Chronic Excessive Demand ) in the pre/post Kur comparison, as well as, in the follow-up period ( fig. 4 ). The IRES-Questionnaire according to Gerdes and Jaeckel [18] was used for self-judgement rating.

#### **Discussion**

Disease is defined as a mental, physical and social state that deviates from the norm, that should be accessible to treatment. As such, symptoms should be eliminated, ailments eased, functional disorders corrected or their progression prevented and emotional states improved [21]. With many complex and chronic disease patterns, where the "restitutio ad integrum" (curation) does not present a realistic therapeutic goal, therapeutic efforts focus on the minimization of the consequences of health impairment. This is in accordance with the WHO-Concept of the ICIDH (International Classification of Impairments, Disabilities and Handicaps ) [22]. This procedure is basically result oriented and includes aspects of secondary and tertiary prevention. Complex multidimensional ( "holistic" ) therapeutic systems are characteristic. With regard to the treatment and care of chronic diseases, the therapy in a spa environment has had an important significance for a long period of time. With the specific measures of the spa setting and the integration of holistic therapeutic concepts, residual functions can be stimulated, increased or compensatory functions developed and enhanced. Integral components of the spa therapy, in addition to organ related and general somatic aspects, also include psychological and mental effects. Thus, the personal management of handicaps caused by diseases as well as the psychological coping of chronic diseases are central goals. The specific context of the spa environment seems to be particularly well suited for this holistic goal.

The goal of this study was to examine the "holistic approach" of Kneippism with its classical therapy concepts [23-25] in regard to its clinical effectiveness with adequate indications. Hydrotherapy as well as kinesiotherapy and massage therapy are in the foreround of this analysis.

In the last few years the appraisal of the "quality of life" has increasingly gained importance as an assessment criterion (formerly designated as "soft" data) of medical interventions [1,4,26]. The patient's subjective appraisal of the effectiveness of a medical treatment is considered as well as the objective appraisal which is independent of the patient (formerly called "hard" data). This seems to be important in the face of limited financial resources of the patient and, in many cases, with partial self financing of the medial costs. The patient takes responsibility, in conjunction with the treating physician, for the decision as to which therapy is best suited for him. The appraisal of subjective parameters such as pain, vegetative dysfunction and general emotional states, as seen in this study, provide a crucial contextual construct in the evaluation of quality of life [27,28].

The appropriate measuring instruments were developed, improved and validated starting from the Anglo-American area and within the last five years also in Germany [20,29].

At the time of the conception and start of this study important evaluation methods ( now widespread )were not available. In particular, a series of measuring instruments that are necessary for an effective analysis of health - cost efficiency had not, until recently, been strictly validated in the German version [18,20,31]. Nevertheless, the criteria chosen in the research at hand may contribute to the formulation of conclusions about the patient-oriented effectiveness of the Kneipp Kur.

The abatement and the elimination of pain, and the enhancement of quality of life are the essence of all therapeutic interventions. These therapeutic goals are also shared by the Kneipp Kur[3,24,32,33,].

In this study, for this patient population, scores for pain and emotional state showed improvement between the beginning and end of the Kur, and between beginning and after-release from the Kur; patient and physician appraisal (IRES-Questionnaires according to Gerdes).

A further important aspect intended by Kneippism is the reduction of medication use [7,12). The consumption of pharmaceuticals was reduced, with many of the patients in this study, after completion of the Kur. The acute medication use could be reduced more often than the long term medication use.

This effect was still present after 12 months in the post release observation period.

In one of the few controlled studies concerning this topic, Nguyen et al. [15] could show a similar effect in a three week therapy in a spa environment, with regard to consumption of analgesics, pain and parameters of quality of life.

Hildebrand [35] in 1986, pointed out that the out-patient continuation of the effective methods of a Kur seem to be problematic. A transfer of the patient into systems that provide continued care (out-patient physiotherapy, special post-care groups, sport groups, advanced out-patient physiotherapy and further therapies) seem to be promising according to Donat [35]. This is, however, difficult to put into reality under the current conditions of the compulsory health insurance and statutory pension program.

In this study, the type of post-care provided was not systematically examined. The analysis of the data showed, however, that even 12 months after completion of the Kur, a positive effect was still seen with regard to pain, quality of life and use of medication.

The goal of intervention studies in medicine is, in a classical sense, the analysis of the etiological (causal) relationship of an effect with a therapeutic intervention. Randomization is probably the most efficient method to achieve comparability between the groups to be studied. A double-blind approach is always necessary if the study aims for an exact quantification of the specific effect, (synonym: placebo-controlled study - classical examples are the pharmacological question methods). The practical realization often causes considerable problems even though the methodological conditions are clear and straight forward, and the questions are simple. Nearly every original medical publication is proof of this.

In the field of research in spa settings additional problems aggravate this situation.

As a general rule, the medical question is complex, for example; chronic diseases, multi-morbidity, poly-symptomatic regulatory disorders, etc. In general, the treatments are applied serially and an individual modification / adaption of the program is part of the therapeutic rational. "The therapy" usually consists of a bundel of treatments.

Almost all physical therapies are, by there nature, open and recognizable ie. (can not be hidden from the patient). In addition, the personal component / interaction of the therapist or physician (empathy) similarly presents an absolutely undesired "unspecific" affecting factor, as the primary unspecific milieu of the spa environment. These unspecific, indeterministic factors of every therapeutic over-all effect, form the pro-therapeutic periphery, the so called "aura curae", that can decide between success and failure (happiness and sadness) of the therapy's effect. Furthermore, considering the premiss that the Kur, for the most part, takes its substance from the long term induced effects, it is not surprising that, with regard to the described complexity, there is less concrete knowledge [4] than in medical fields where comparably simple cause-effect relationships are documented. It should be pointed out that,

even here less is clear than commonly assumed: even such a simple question as the causal relationship between cooking salt and high blood pressure has not been definitively cleared [36]. An examination of the therapeutic and rehabilitative effects of the Kur intervention is, if answered positively, to be completed by the analysis of the efficiency of the Kneipp Kur. Just as important would be the proof that, thru the spa environmental constellation ("milieu") [13] compared with out-patient treatment at home, a considerable benefit is attained. At this point in time, only a few controlled randomised studies, in which a direct comparison between spaenvironmental vs. out-patient therapies was examined [12,15,37], have concentrated on this question [4]. Since randomised controlled studies, in the classical sense, are not feasible, Resch [10] showed study design alternatives that seem to be appropriate for the analysis of causal coherence of intervention and effectiveness of complex therapies.

In the future, appropriate scientific instruments should be transferred into the praxis of Kur clinics and used in an efficient manner in order to provide a means by which scientific research can be conducted to examine the reproducibility of results. This goal would help in eliminating existing research deficits in regard to showing the effectiveness and efficiency of the Kur treatment method.

## **Naturotherapy**

### **Forces of Nature**

Naturotherapies regulate and care for the functions of the human organism according to their own mode of action. The basic areas of application are in the field of prevention and therapy of functional disorders. They can also play an important role in treating organic diseases and ailments.

The following five are primarily counted among the natural therapeutic methods:

- Hydrotherapy and Thermotherapy
- Lifestyle-Regulative Therapy
- Kinesiotherapy including Massages
- Phytotherapy
- Dietetic Treatment

The knowledge about this natural therapy of diseases as well as the prevention of

diseases is concentrated in our Health Resorts and Spa Environment. Here are the

Naturopathic- and Spa Physicians and associated therapists with professional

competence / scientific knowledge and location-specific remedies.

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