A Romanian perspective on training for wellness

Mariana Ionela, Tudor a *, Luminita, Georgescu b, Cristina Ioana, Necsoi a

aDepartment of Medical Assistance and Kinesitherapy, University of Pitesti, Targu din Vale nr.1, Pitesti 110040, Romania
bDepartment of Natural Sciences, University of Pitesti, Targu din Vale nr.1, Pitesti 110040, Romania

Abstract

With this study we aim to identify strategies for the diversification, reorganization and modernization of physical therapy and tourism services using Life Long Learning to the level of treatment facilities within health resorts. We tried to assure a complex interdisciplinary and multidisciplinary approach of wellness strategies in the context of promoting quality of life, using natural spa factors for treatment in correlation with the possibilities of specific physical therapeutic interventions to resort profile. Creating a personalized database on certain pathology offers the possibility of following in the dynamics of individual evolution after rehabilitation and spa interventions.

Keywords: Perspective, training, wellness, diversification, spa, services;

1. Introduction

The improvement of vocational training in the field of health is closely linked with the necessity for continuous professional skills development. Latest national reports revealed an increased therapeutic and social interest for treatments in health resorts, which have led to the development of health tourism. With the growing concern for healthy people at every stage of life, strategies of caring systems are focused more and more on diseases prevention and wellness promotion (Buchner, 1997).

In current speech, as well as in most guides for healthy living, wellness is a generous term used to draw attention to all aspects of an individual's health (Blair, 1993). A lot of scientific evidence revealed the usefulness of holistic approaches of people’s health and wellbeing, direction in which spa treatments demonstrated their effectiveness in a large category of disorders (Holloszy, 1992). Although it holds a third of the total of natural factors for spa treatments exploitable in Europe, Romania is only on the 5th place among balneary countries, having 77 resorts out of which more than a half are with a specific profile (usually rheumatologic).

The primary types of therapeutic approaches applied currently within different pathologies protocols of such spa resorts refer to drug therapy, to which is associated physical therapy, or to surgical interventions followed by rehabilitation and physical therapy. Therefore, we can argue that movement therapy, by controlled physical exercise is a basic method of intervention, having major implications over the individuals’ health status (Taaffe, 1999).

Physical therapy practiced in either of its forms: rehabilitative or prophylactic, inevitably leads by its outcomes to reducing the onset of diseases or to improvement of health status on one hand and also of the quality of life on the
other hand. Apart from immediate results after treatment, which, according to specialty statistics, show impressive improvements of subjective and objective symptomatology, an important echo was registered by a series of studies on the results over time of some repeated treatments, using economic indicators of effectiveness, respectively temporary incapacity to work, determined by diseases for which those spa treatments were being used (Hounker, 1996; Province, 1995).

2. Purpose of study

With this study we aimed to identify strategies for the diversification, reorganization and modernization of physical therapy and tourism services using Life Long Learning to the level of treatment facilities within health resorts.

The specific objective of this research was to perform a diversification of methods for kinetic treatment applied in rehabilitation services of health resorts with the possibility to extend them for preventive measures and lifestyle changes also. This implies a standardization of exercises into evidence-based recommendations, which are most likely to increase the precision of the testing and assessment methods, improve individual’s functional status and reduce the burden of the leading causes of preventable illnesses and death.

3. Methods

We tried to assure a complex interdisciplinary and multidisciplinary approach of wellness strategies in the context of promoting quality of life, using natural spa factors for treatment in correlation with the possibilities of specific physical therapeutic interventions to resort profile.

Correlating the kinetic patterns standardized by repeated assessments through usage of computer programs will ensure the feedback for motivating persons and awareness them and specialists over the effectiveness of proposed intervention program. For this research we tested the use of a visual movement soft which allows to identify some protocols of standard physical exercise programs, easy to monitor, which the patient or any other person shall be able to apply then at home, self-conscious and systematically in order to increase and maintain health status and wellbeing.

The research was conducted on a group of 60 subjects, beneficiary of spa services, aged between 25 and 87 years old, with different degrees of gait and balance disorders. Thus we chose to use four functional sample assessments with intervention recommendations: Dynamic Gait Index (DGI), Berg Balance Scale (BBS), Tinetti Balance Test and Tinetti Gait Test- which are interpreted by the Performance-Oriented Mobility Assessment (POMA).

Subjects were randomly divided into two groups: the experimental group (30 subjects), for which a program of visual movement soft exercises was implemented, following the functional assessment and the control group (30 subjects), benefiting from classical physical therapy intervention.

Both groups benefited, during research, from complementary methods offered by the treatment facility: hydrotherapy and hydrothermal therapy, massage, electrotherapy, ultrasounds, galvanizations, wax packing and crenotherapy. Implementing the visual movement soft exercises programs and assessment scales offers the possibility for visualizing the manner in which the exercises are being performed, and, based on graphical descriptions, it allows a visualization of the program effects during the intervention sessions. Based on the functional diagnosis of 10 month assessment monitoring (initial, intermediary, final) there were selected exercises with the highest degree of effectiveness.

4. Findings and results

In order to capture the evolution in time of variables of interest (classifier variables, BSS score, DGI score and POMA score) subjects were tested on regular time intervals. A number of ten assessments took place: an initial assessment, before comprisal into program, eight intermediary and a final assessment. Evolution over time of variables of interest was analyzed comparatively for the two groups.
Given the number of subjects (n=30) and relatively normal form of distributions of analyzed variables we used “t” test for two independent samples and ANOVA test for repeated measures.

Regarding the BBS test, the results were statistically significant for both witness group (F = 20.554, p< 0.001) and the experimental one (F = 105.540, p< 0.001). A more important aspect is the moment in which these differences occurred.

The Dynamic Gait Index Test (DGI) assesses the safety level of walking, a low score showing the predisposition for falls. The difference between the ratings registered by the score in DGI was statistically significant: F = 15.576, p<0.001 (for witness group) and F = 75.576, p< 0.001 (for the experimental group). It is interesting to see further on the moment of the emergence of such differences and the magnitude of them.

The POMA test integrates the results of two subtests (Tinetti for gait and Tinetti for balance) and is assessing aspects related to the balance. The test result shows the patient’s risk of losing balance or of not being able to walk. The scores obtained are interpreted as follows: a low score shows a high risk for loosing balance and a high score shows a low risk for losing balance. Statistically significant differences (p<0.001) between the repeated assessments were found inside both samples: the experimental sample and respectively the control one. All these results are summarized below in table 1.

<table>
<thead>
<tr>
<th></th>
<th>t-rating initial/final</th>
<th>d.f. initial/final</th>
<th>p initial/final</th>
<th>Difference between means initial / final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berg Balance Scale (BBS)</td>
<td>-0.189 / -2.628</td>
<td>58 / 58</td>
<td>0.851 / 0.011</td>
<td>-0.400 / -5.633</td>
</tr>
<tr>
<td>Dynamic Gait Index (DGI)</td>
<td>-0.939 / -3.362</td>
<td>58 / 58</td>
<td>0.352 / 0.001</td>
<td>-0.867 / -3.133</td>
</tr>
<tr>
<td>Performance-Oriented Mobility Assessment (POMA)</td>
<td>-0.561 / -2.988</td>
<td>58 / 58</td>
<td>0.577 / 0.004</td>
<td>-0.600 / -3.200</td>
</tr>
</tbody>
</table>

From the graphic (Figure 1.) of the means showed below it may be noticed the evolution of ratings in the BBS between the successive assessments, comparatively for the two samples. In both samples, the distribution curve has an ascendant shape, equivalent to a decreased risk of falls. For the experimental sample, the distribution curve has a more abrupt shape, being equivalent to a higher level of progress from a therapeutic or preventive point of view.

![Berg Scale](image)

**Figure 1. The evolution of the mean values of the Berg scale score in the successive assessments**

Considering the graphic of the DGI mean values between the successive assessments analyzed comparatively for the both groups (Figure 2.) it can be observed the same ascendant shape of the curve distribution, equivalent to a
decrease of the probability of fall and a higher degree of confidence in gait. For the experimental sample, it is more obvious the progress thus, implementing the visual movement soft exercises programs and assessment scales, adds efficiency to intervention due to the fact that it offers the possibility for visualizing the manner in which the exercise is being performed, and, based on graphical descriptions, it allows proper execution and correction of exercises during the training sessions.

The evolution of ratings in the POMA Test between the successive assessments, comparatively for the two samples (Figure 3.) reveals a higher level of progress and decreased risk of losing balance for the experimental group.

There are many reports of immediate results after treatment in spa resorts reflecting significant improvements in subjective and objective symptoms (Aoyagy, 1997).
Also an important echo was registered on economic indicators of effectiveness, respectively on temporary incapacity to work, determined by the health conditions for which specific treatments were being used.
A personalized database on certain pathology offers the possibility of following in the dynamics of individual evolution after rehabilitation and spa interventions (Agree, 1995).
5. Conclusions

The development and modernization of services (including physical therapy) in health resorts do not come as cycle phenomena, with exclusively economic valences, but as answers to increasing requirements for climatic and balneary spa treatments, respectively for spa treatments having specific and therapeutic natural factors (Braun, 1991; Coggan, 1992). It is needed a change in attitude in promoting wellness programs because this involves integrating a multitude of variables, starting from the elements of context and reaching to individual elements – age, gender, socio-economic status, health status, attitude toward the quality of life.

Using a visual movement soft allows the identification of some protocols for standard physical therapy programs, easy to monitor, which everybody will be able to apply at home, conscious and systematically, thus helping people to actively engage and take control of their health.

Creating a personalized database on certain pathology offers the possibility of following in the dynamics of individual evolution after rehabilitation and spa interventions. Furthermore, sharing the experiences and practices of specialist from different countries in an international context by creating a network platform, that will connect partners, beneficiaries (clients and institutions), but also the involved target groups and other potential users will lead to an ultimate goal of increasing the dimension and quality of wellness services.

References