

THE DOCTORAL THESIS ABSTRACT
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**Thesis title: OPTIMIZING KINETIC PROGRAMS FOR
IMPROVING LIFE QUALITY OF ELDERLY PERSONS**

KEY WORDS: optimizing, kinetic programs, life quality, elderly
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In a society coping with an accelerated ageing process, life quality is more and more referred to as life quality of the elderly persons. These people are quite numerous in any country throughout the world, representing a continuous challenge for health institutions.

In Romania, the ever increasing number of elderly persons is leading to a whole category cumulating lots of deficits submitted to the sphere of kinesitherapy.

It is important that the ageing of these persons be done through an active process, that is a life regime with physical exercise and adapted sports. Since exercise means LIFE and life is exercise, physical activity and sports are necessary for humans, all through their lives (during childhood and adolescence, for healthy and harmonious growth; in adults, for keeping up a good state of health and tonus; in old age, for conserving health, as an activating, revitalizing and recovery therapy).

Professor Herman Van Coppennolle, coordinator of the Thenapa II - Ageing and Disability program, said that Europe would be confronted with a *tsunami* of elderly persons, given the continuous increase of their number; he mentioned that many of these people have certain functional limitations due to age or to several disabilities.

Doctor Tudor Sbenghe, the great specialist in recovery, in an interview for the Romanian Kinesitherapy Magazine, said that life

expectancy in Europe is increasing; as a result, there would be more and more elderly people to be treated by means of kinesitherapy. These growing numbers are a fact. Another fact is that Romania is not ready to deal with the necessities of old age (especially when it comes to certain disorders).

Those who do physical exercise, control their weight and avoid smoking have the chance to live longer or to deal with disabilities much later, as compared to others. Any kind of activity - physical, mental or spiritual – can slow down the ageing process and it is never too late to start.

The present thesis is made out of three main parts, preceded by an introduction and ending with bibliography and the annex section.

Part I - includes 4 chapters and 15 minor chapters, representing an approach of the literature in the given field. The scientific research encounters here its theoretical and generally methodological frame. The motivation of the chosen theme is presented here, with focus on the necessity of optimizing kinetic programs for the elderly. The goal is to make an accurate and exact evaluation of these persons' needs, to develop kinetic programs appropriate to the subjects' state of health and to put them into practice, with the final purpose of motivating as many elderly persons as possible to continue or to start practicing physical exercise. At the same time, we wish to implement the idea of an active life, an active ageing process, from a physical and mental point of view.

The research intended by the present thesis aims at conceiving individualized kinetic programs, which should combine exercises adequate to all diagnoses possible in an elderly person, meant to reach the objectives according to every patient. Also, alongside promoting the effects and consequences of physical exercise and sports in the elderly, there is an evaluation of the results obtained by practicing such exercises.

The author presents several aspects related to the place and role of physical activities within the socializing process of the elderly. At the same time, this first part of the thesis contains information on life quality of humans, evaluation of life quality in elderly people, sports and life quality in old age.

Part II - presents aspects of the experimental research, with the purpose of preparing the preliminary experiment or the initial phase of the research, which focuses on a number of 20 patients.

One of the goals has been that of developing a theoretical and practical exercise guide, adequate to several types of disorders, according to the medical diagnoses present in every patient; this guide is meant to help kinesitherapists and those elderly persons wishing to start or to continue practicing such exercise programs.

The research results interpretation highlights particular, as well as group aspects, obtained as a consequence of implementing such programs.

The preliminary phase of the research, through implementing individualized kinesitherapy programs, according to the pathology present in every patient, and moreover, through implementing organized physical exercise, had the purpose of highlighting the beneficial effects on the organism of the elderly, which can lead to a significant increase of functional capacity and, thus, to the increase of life quality. Although the programs have been implemented only for three months within the preliminary research, it has been considered that the research may apply to a greater number of patients. Consequently, the experimental research on optimizing life quality of the elderly persons through kinetic programs and sports developed.

Part III - presents aspects of the experimental research on 100 patients.

Premises of the research

As old age belongs to all of us and to each in particular, by means of the present thesis the author intended to create a behavioral attitude at an individual and population level, a state of mind, which should lead to creating the premises of an active life.

Alongside wisdom, old age may bring about a lot of problems: physical pain, which makes the elderly incapable to see for themselves; alteration of the nervous system, the feeling and the fear of being useless and a burden for their children and grandchildren. In western countries, the elderly people well situated financially and without major health problems, enjoy seeing the world, then enter special centers, where are the beneficiaries of permanent care and diverse occupational therapies. In Romania, there are three aspects

which make it impossible: mentality, lack of money and a small number of such places.

The **hypotheses of the research** are accurately formulated and in accordance with the directions of the research. These are the following:

1. If the idea of physical exercise is implemented and the elderly put it into practice through individualized kinetic programs combining exercises for all diagnoses present in a patient with exercises related to adapted physical activities, stretching, occupational therapy, the life of these people may become active and its quality may be improved by an increase of resistance to effort and illness.

2. The elderly persons attending the day-care center do not suffer from any major disability which should not allow their participation in the individualized kinetic programs. This hypothesis is also an exclusion criterion, that is the elderly participating in the study must be able to walk to the center by themselves.

The **final purpose** of the research has been that of motivating as many elderly persons as possible to continue or to start practicing physical exercise, alongside implementing the idea of an active life, an active ageing process, from a physical and mental point of view.

Research methods

1. Theoretical methods: theoretical research of sources, concepts and views, theoretical approaches
2. Observation and study of the persons attending the day-care center
3. The experiment (establishment, instruction-education, establishment-evaluation)
4. Statistic analysis of data and results obtained

The description of the group of patients has been made according to age, gender, systolic and diastolic blood pressure, reposing cardiac frequency, weight + height = body mass index (BMI), the following or non-following of a special kinetic program.

The author used some of the more efficient methods and ways of evaluation, as a consequence of the experience gained throughout the preliminary studies, as well as ways of kinetic intervention adequate

to the objectives expressed, and according to the functional features and diagnoses of every elderly person in the group.

This part of the study validates or invalidates the hypotheses presented, by means of statistic analysis of data, group analysis in terms of parameters evaluated. There has been made a quantitative and a qualitative analysis of data, and the interpretation of the results by reporting them to the values considered normal in this category of age, and also to the median values of the target population, which relate to normal limits.

The design of the research is attentively elaborated and presents data on the patients, periods, phases and contents of the research, whilst the analysis and statistic-based interpretation offer an adequate base for the conclusion-making process and the implementation of kinetic programs, which finalize the study.

Theoretical and practical conclusions

Health is an essential component of life quality in elderly persons. For these people, being in a good state of health means a good quality of life or, at least, a great plus in life quality. Despite all that, one cannot say that elderly people see health as their sole priority. It has been noticed that if their children have worries and problems, the preoccupation for their own health passes behind; thus, a *good old age* is not necessarily equivalent to a good health. Over one third of the elderly people associate what they mean by a *good old age* with dimensions other than health.

Practicing physical exercises may lead to a decrease in the number of care requests in medical institutions, a decrease in medicine consumption, and it can also maintain the autonomy of elderly persons.

Out of the 100 elderly persons considered for the study, 74 participated in individualized kinetic programs, according to the pathology that each of them presented. Consequently, it would appear that the elderly are willing to do physical exercise, especially when there is someone to take care of them and to offer them the attention they need, although it would be a lot better if they had such mentality as elderly people in other countries do.

By this research, the author intended at least to implement the idea of physical exercise in the elderly and to motivate towards an active life those who do not practice any sports and to convince those

used to physical exercise to continue practicing, with the purpose of increasing and improving the state of health and life quality, by an active way of life, pro-longevity.

Given the results obtained, a conclusion would be that physical exercise and sports play an important role in maintaining and / or increasing functional capacity, and alongside, in **increasing life quality of the elderly**.

The final conclusion is that the constant following of kinesitherapy programs, physical exercise and sports, influences positively the functional parameters, with a considerable impact on life quality of the elderly people. As a plus, the center where this research has taken place started implementing such programs, as a consequence of their appealing to the elderly.