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DOCTORAL THESIS

SUMMARY

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**When it comes to eating right
and exercising, there is no
"I'll start tomorrow."
Tomorrow is disease
(V. L. Allineare)**

ARGUMENT

In recent decades many researchers have addressed health in their studies describing and defining the problem, but at the same time seeking relationships with several sciences. Since transformations and reforms in the country, from different areas negatively affected the health of the population, knowing they indicators decreased dramatically in the past decade, the author believes that it is the teachers duty to help through the school the students to understand that they are an important part of their community, and their overall health is given by the health of all individuals that make it up. Health must be seen as a precious gift, which through an unwritten obligation we shall to keep it.

The relevance of the theme is indisputable since the analyzed key descriptors of health conditions of children are insufficient. The wrong way that led to this result is very complex, but certainly we can mention lack of strategy on health education, health promotion in school curriculum. The choice of the subject – health education – intends to help children from primary schools, as according to many theories of behavior (Ajzen, 1985, Ajzen and Fishbein, 1980, Bandura, 1994), they need specific knowledge about health as a prerequisite for adopting healthy lifestyles and minimize risk. The theme is approached from two perspectives: theoretical (in the first chapter) and practical-applied (chapters two and three), aiming to implement the nine specific health education topics and presenting the situation of health education in primary schools as well the laws, regulations and related methodologies on national level and the international practice.

Research results in this work contribute to rethinking the health education system in schools and to develop a training course for teachers in school education.

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Keywords: health education, optional subject, curriculum, professional development, national and international programs in health education

Brief summary of the thesis

The central theme of the work is the situation of health education analysis in primary school. The conceptual model of the paper is shown in Figure 1.

In the broader theme about health education the author aims to highlight the role of this discipline in the current curriculum as an optional subject, opportunities for expanding its teaching by introducing themes proposed by WHO and the EU, and analyze legislation, plans framework and curricula for primary schools.

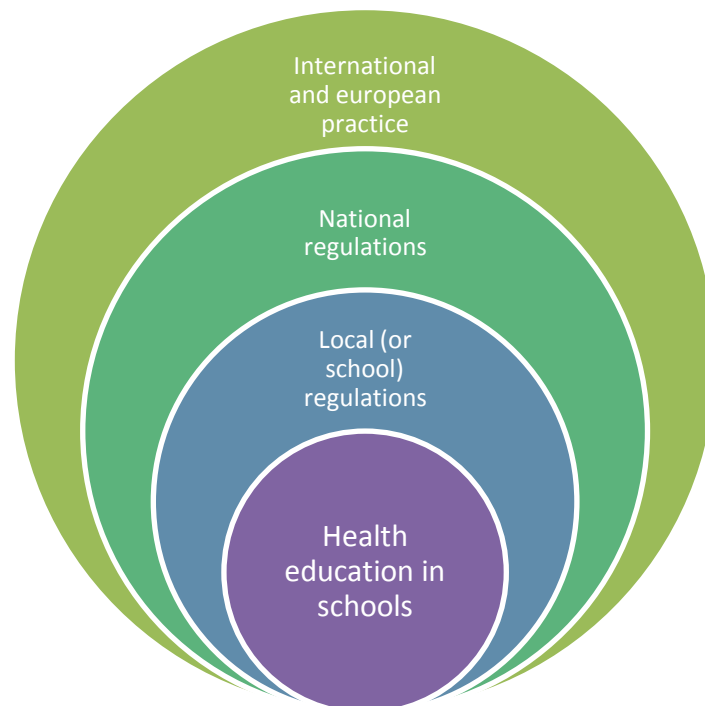


Figure 1: The conceptual model

The general objectives that she sought in the theoretical but mostly in the empirical research were to examine the role of health education optional discipline in the educational framework plan, various interdisciplinary aspects and the need to introduce specific topics. The paper reviews the most important results of basic research and reports, presenting national and international statistical data.

To better understand the position it occupy in the curriculum, the author aims to study the relationship between Health education and the compulsory subject such as *Personality development, Social education, Physical education and sport, Music and movement, Mathematics and exploration of the environment.*

According to the author's interpretation, health education activities at school are influenced by a number of regulations, practices and laws on different levels. The most widely frame is offered by international and the European Union's practice. The paper analyzes this topic in the second chapter, detailing the international models of curricula with topics related to health education, healthy food in schools in Europe and one of the most widespread school nutrition program (fruit and milk).

Another level of regulations is the national health education. In chapter III of the paper – through document analysis method – the author describes educational laws in force during the implementation of research (84/1995 and 1/2011) and its methods, curricula and school plans.

The first study conducted on a sample of approx. 10,000 students, 704 primary school classes in Harghita and Covasna counties were identified optional disciplines taught by teachers from 2008 to 2012 and in the second study were recorded the responses of 262 teachers from 12 counties about their opinion related to health education. The research offers a response on recently developed local practices targeting health education and presents the factors that stimulate this.

The work is divided into three chapters as follows: The first chapter is entitled *Conceptual background of the analyses* and presents conceptual and theoretical approaches to the conceptualization of the main terms used in this paper and previous research which led to formulating research questions and the integration of research results in broader context analysis.

This chapter presents various concepts of health (1.1.), starting from a historical analysis (1.1.1.), then debated and explored the determinants of health (1.2.) and ends with the presentation of interdisciplinary sciences (1.3.). To describe health determinants, the author recourse to the works of Doyle and Ward (2001), Pikó and Kopp (2006)., Ferenc Kamaras (2004), and Erickson Meade (2000), Gida (2007) respectively, Whitehead and Dahlgren (1991). After presenting the literature, she presents a series of concepts related to the term *health*, which are summarized in Figure 2. The concept of health is associated with several definitions, the most used (and thus accepted) is provided by the World Health Organization, which include among physical components, mental and social welfare. Similarly, the concept of healthy life has a very broad sense. For this reason, children and young people (students)

must come alone to distinguish between health and illness in relation to personal values. Like the concept of health, the disease is analyzed holistically man being considered as bio-psycho-socio-cultural entity.

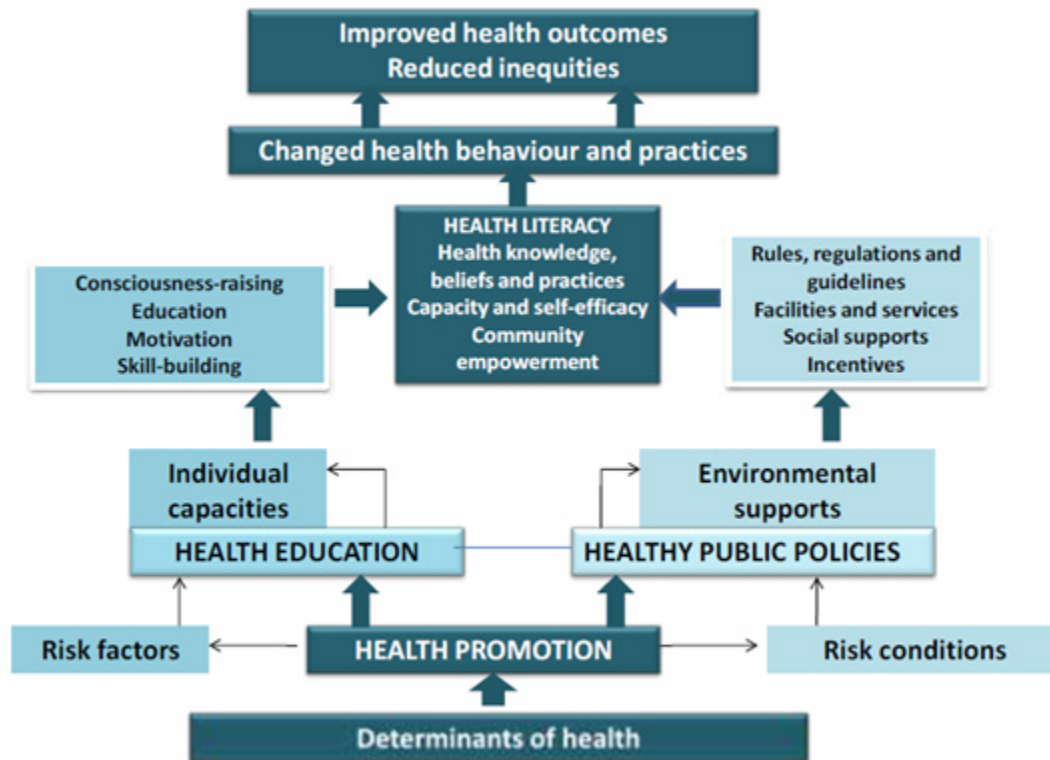


Figure 2: concepts related to the term *health* – Source: WHO (2012)

Synthetic approach is present also in the following parts of the work, patterns of health and health-related theories being presented by a meta-analysis of international research in the field. Modern theories of health require complex approach: the current models are built through projects, and although they don't differ greatly in content, terminologies used are always different. The models presented in the meta-analysis are: The biomedical model of health, The biopsyo-social model (Engel, 1977), Salutogenesis model, Health Belief Model, Motivation-Protection Theory, Theory of Reasoned Action, Theory of Planned Behavior (Ajzen, 1985), Transtheoretical model, Social Cognitive Theory (Bandura, 1994), Social model of health, The human capital model of the demand for health (Grossman 1972), Interdisciplinary health theory (Hurrelmann, K. 2000) Illness-wellness continuum (Insel, Roth, 2010).

In conclusion of the meta-analysis, the author finds the multidimensionality and complexity of health-related terminology, which can be defined by many different directions,

but she notes two broad categories. In the XXI century the concept of health is dynamic, with integrative models, tackled as a process in which the individual is in the foreground, being forced to develop his skills throughout life to fulfill his health related potential.

In the section *Health Sciences* are presented the roles of the Health Psychology, Sociology of Health and Educational Sciences in health promotion. One can note the representative bibliographical sources quoted in this part of the work: Matarazzo (1982), Belarusian Deardoff and Kelly (1987), Gentry (1984) and Albert-Lőrincz (2007) in the field of health psychology, (Armstrong 1995) (Nettleton 2008), Pikó (2002, 2006) in sociology of health and Németh (2007), Pikó (2002), b Urban (2001) in educational sciences.

The entire chapter illustrates properly the interdisciplinary perspective of the analyzed area. It is noted that health sciences are integral part of the applied sciences, having among important activities also the literature inventory that has developed at a pace unprecedented in recent decades.

Chapter II entitled *The relationship between education and health in Europe* highlights national and international concerns, illustrated by promoting and implementing health policies that pursue a strong preventive and informative educational component.

In the first chapter (2.1.), the author presents aspects of health education of various historical periods, from Greek and Spartan schools, continuing with forms of health education in the Middle Ages, in the last part analyzing the recent history of schools. It is documented in a demanding way the formal health education in Romania, by detailing legislation and literature of different eras. It is concluded that dissemination of health-related knowledge through pedagogy integrated into the information and sensitization activity only at the beginning of the twentieth century. Although the *Health Education* discipline appears in 1882 in the curricula of different schools, it does not have a long life as a distinct discipline. The ideas formulated at the beginning of the century are maintained their topicality till present time. The task of the school is that in addition to the knowledge gained in the science areas already known to transmit practical knowledge related to everyday life. Healthy lifestyle and developing a hygienic behavior is not only the key for the individual prosperity but for the entire society.

Subchapter 2.2 brings the reader closer to the relationship between education and health. Many research highlights the importance and benefits of the link between teaching and

health. In this respect is remembered the work of Skrabski and Kopp (2001), where the authors stress that to have not only successful citizens, but also a whole nation full of achievements, it is necessary that these citizens to become mature and healthy. Public health is seen as a public responsibility also in the view of István Mikola (2006). According to him, the individual's health, physical and mental well-being are key factors for socio-economic progress.

According to Mărginean and Precuțiu (2008) health is an important component of human capital, it is a prerequisite for human activity, to achieve objectives, to experience a full life and to be an active member of society. In recent years the economy has even used different areas of health as the main source of comparison countries (Albert and Kohler, 2004). This proved once again (if needed) that not only the economic welfare affects health, but there is an influence conversely. So there is a reciprocal relationship between economic growth and health (Frenk 2004). In addition to economic indicators there is an association between education level and life expectancy at birth - says Polányi (2013, 135-137) and for proving these allegations he presents correlation tables showing that the populations with a higher education level has a longer life expectancy at birth.

According to Leger's and Nutbeam research (2001) health of students plays a key role in learning, proving that poor health results in a decrease of learning potential.

Tahini et al (2000a, 2000b) points out that a component of quality of life is health, which is closely linked to the level of education. This relationship is reflected in general through a better health status among those with higher educational levels, being much rarer in their case limiting their activities due to illness, but also having lower rates of morbidity and mortality.

In section 2.3 are presented curricula's and best practices for health education. Schools for Health in Europe¹ was an initiative that started in the early 1990s with the collaboration of World Health Organization, Council of Europe and the European Commission – being a European network of health promoting schools. Romania joined this initiative as the 45th country and considering as the biggest challenge (among others) changing attitudes of institutions and individuals, rooting a holistic paradigm to increase welfare, reducing disease.

¹ <http://www.schools-for-health.eu/she-network> (2015.01.15.)

To ensure student health it requires well-developed health policy policies characterized by a high exigency dictated by regulations imposed by the European Union.

Health education is the most important element of health promotion and is defined as the activity which aims to increase wellbeing and prevention or mitigation of disease among individuals and groups, by favorably influencing the attitudes, beliefs, knowledge and behavior, both those who hold power, and the community in general. Currently in the countries included in the "Health Promoting Schools Network" run a series of health education programs (the apple-corn-milk program, cooked food model, milk-corn program, fruit for schools program). Health education in schools is one of the main ways of promoting correct knowledge on various aspects of health and also forming attitudes and essential skills for a responsible behavior and healthy.

After an inventory of European programs related to nutrition, the author of the dissertation examines physical education and sport in the European context, referring to the report published in March 2013 which aim is to present support, methodology and frequency of physical education in 40 countries.

Chapter 3 of the thesis presents research methodology. This methodological part starts by presenting research purpose and describing the theme, respectively the target group of the research. The introduction is followed by the presentation of assumptions, which are based on previous research results and also inspired by own experiences. After presenting the assumptions, are detailed the methodological choices and tools used, then follows the analyze of the results.

Regarding the choice of theme and purpose of the research objectives - according to Rughinis (2003) – it is stated that the present research has primarily an applicative character . Emphasis is placed on empirical data collection and analysis. The theoretical analysis has the required depth for proper research and scientific interpretation of the results. The information and data gathered through research is intended to be a contribution to solve practical problems.

Subchapter 3.1 contains research methodology. The complexity of the research objectives is due to the fact that until now there isn't any complex research linked to the number and type of optional subjects in Covasna and Harghita. In this part of the paper one could find the detailed research questions. The purpose of this paper is on one hand to achieve

a more precise picture about the conditions of choosing *Health Education* as optional subject, the differences (if any) between rural and urban areas. It also seeks to identify social and demographic factors of the teachers who tend to choose more likely that discipline. The author also proposes a comparison between the different teaching languages to mark any differences in the habits of choice of optional subjects. It is also important to analyze the planning of the optional (time-frame approach), because it can vary on a wide enough scale (from one year or one semester to four years). After the national Education Law has changed (1/2011) there were formulated new objectives and research purposes: to analyze the attitude of teachers in primary schools regarding the number of hours per week under the new legislation, the effect on the optional discipline and especially on *Health Education* discipline.

The purpose of the investigations, in addition to describing the phenomenon is to explain it. The author wishes to discover the issues raised by primary school teachers that can interfere with learning activities in schools and that can be related to health. During the research deductive and inductive logic was used at the same time.

The research questions are the following:

1. What optional subjects chose the primary grade classes in Covasna and Harghita in the analyzed period (between 2009-2012)?
2. What proportion of primary school pupils learn Health education or topics (projects) related to it?
3. Are there any association between the choice of the analyzed discipline and age, educational level of the teacher?
4. Are there any differences between the optional disciplines of the Romanian and Hungarian classes?
5. Is there any difference between urban and rural areas related to optional disciplines?
6. Is there any difference between the studied counties regarding the optional disciplines?

Research type: quantitative and qualitative

The research hypotheses are the followings:

1. *There is a measurable difference between Hungarian and Romanian classes regarding the optional discipline.*
2. *There are differences in Health education discipline in urban and rural areas of the two counties.*

3. 3. *The existence of optional disciplines is influenced by opinion of teachers from primary classes on the weekly number of teaching hours.*
4. 4. *Is there an identifiable profile of primary class teachers who have a supportive attitude towards health education.*
5. 5. *Identifying special health cases by primary school teachers are in direct relation not only with attitudes towards health education but with formal activities organized by the teacher.*

While presenting the hypotheses, steps are made for conceptualization and operationalization: the exact meanings of the concepts existing in the hypotheses are defined and indicators are presented through which assumptions will be tested. Assumptions are primarily related to the theoretical assumptions, secondly to the results of the analysis of documents, and thirdly to the author's own experiences and assumptions.

Subsection 3.1.2. presents the sample and the timeline of the sociological research.

The first research on the field was the diagnostic study conducted on a sample of 704 primary school class in the counties of Harghita and Covasna (330 classes in urban and rural classes 374). The second research has been made through an online questionnaire on a sample of 262 teachers from 12 counties.

Subsection 3.1.4 presents the methods and tools used during the research. A possible choice was to compile a comprehensive picture about optional disciplines taught by teachers who have chosen *Health education* using only qualitative research methods (interviews, focus groups in the field). The alternative was to achieve a more extensive research, in-depth and detailed, where in addition to quantitative methods qualitative (document analysis) methods were also used. In the end the latter solution was used, the decision was motivated by the fact that research aims demanded extensive research performance. In accordance with this, for data collection and replying to research questions quantitative data analysis methods were chosen that can be obtained from official documents and questionnaire survey method based on traditional sociological or online questionnaire.

To collect data about teachers who teach *Health Education* and about the classes where this discipline is taught as an optional subject were two main methods of data collection: processing statistics received from the county school inspectorates and through traditional and online questionnaire survey method. In the process of decision for opting for

methods were considered the advantages and disadvantages, as described in the literature, and presented the measures taken to avoid the disadvantages. For example, face-to-face interviewing can reduce misinterpretations of teachers because the interviewer presence prevents it. Instead data collection costs and time investments are very high.

Online questionnaire survey method represents a set of benefits (allows describing the characteristics of larger populations, and formulate explanations), in addition it implies lower costs and reduced time-frame needed to fill and provides easy anonymity of respondents. The most important methodological problem related to the online survey method consists on unpredictability and high rate of non-response (Babbie 2003 Horváth et al. 2012). To prevent this, author's efforts were mainly concentrated in this direction yielding a positive result, reaching a rate of 32% instead of the expected return rate of 15% (Kuráth - Németh 2011).

Section 3.2 shows the sources used in the analysis of documents. These are the laws 84/1995 and 1/2011 and the National Education Ministry orders number 4686/2003, 5198/2004, 3654/2012, 3371/2013 and 5003/2014 and their appendixes. Document analysis is performed based on bibliographic sources such as Baller (1996), Doina (2008), Fóris-Ferenci (1999), Bardossy (2002) Kádárné and Kaldor (1996) and Zsolnai (1986).

Subsection 3.2.2 contains the presentation of school health education topics, European and national data and are detailed the nine areas of health education: the ill-health, food - moving day schedule - free time - sleep, personal hygiene, mental health, accident prevention -first aid, sexuality, family relationships and group behaviors, addictive behavior- right decisions. In detail national and international data is presented and analyzed, highlighting their importance, and in section 3.5 are made proposals concerning the possible courses of primary school achievement in Romanian schools.

Presentation of the study on optional disciplines and Health Education

The study in Harghita and Covasna county included a total of 126 schools in urban and rural areas, collecting data on more than 700 classes, meaning information about the optional disciplines of approximatively. 10,000 children. Field data collection began in the 2010/2011 school year with schools in the county seats, cities and towns on the analyzed area. Records continued in the next school year by including the communes and villages.

The necessity and relevance of the theme is justified by the fact that in none of the analyzed counties have been made a thorough analysis of health behavior in the primary

classes. However, in 2005/2006 it was made an exploratory research for determining health behavior and health-related factors among adolescents in Covasna (Brassai 2007).

Table 1: Distribution of the analyzed classes

| <i>Settlement type</i> | <i>Harghita</i> | <i>Covasna</i> | <i>Total</i> |
|------------------------|-----------------|----------------|--------------|
| City | 156 | 174 | 330 |
| Township | 141 | 116 | 257 |
| Village | 75 | 42 | 117 |
| Total | 372 | 332 | 704 |

Source: own data

Study on primary school teachers views on legislative changes in education

The appearance of new curriculum frameworks in methodology Education Law 1/2011 (3654 / 29.03.2012, 3371 / 12.03.2013) have influenced not only the system of optional subjects (in the past at least one subject - currently not more than one discipline), but also the compulsory ones: eliminating intervals and defining exact times for each discipline. Thus, if before 2012 the teacher decided the number of hours for the class, the new preparatory classes this is no longer possible.

The purpose of the research is to know the attitude of teachers linked to new changes, whether in these circumstances prefer to take optional subjects, and if so, what preferences they have. The research aims also to discover health problems of children by teachers perspective.

Data collection was conducted via an online questionnaire using CASIC method (Computer Assisted Survey Information Collection) from 2 February to 7 March 2014. In this study, 262 questionnaires were completed, primary school teachers being from Arad, Bihor, Brasov, Harghita, Hunedoara, Cluj, Covasna, Mures, Maramures, Salaj, Satu Mare and Timis county (Figure 3). The study targeted that part of primary teachers who have had experiences with preparatory classes, because in those cases were applied the most legislative change. To have greatest effectiveness in contacting this part of the teacher it was used a list from a training named ICOS (<http://www.icos-edu.ro/>). This training is mandatory for those who teach in preparatory classes.

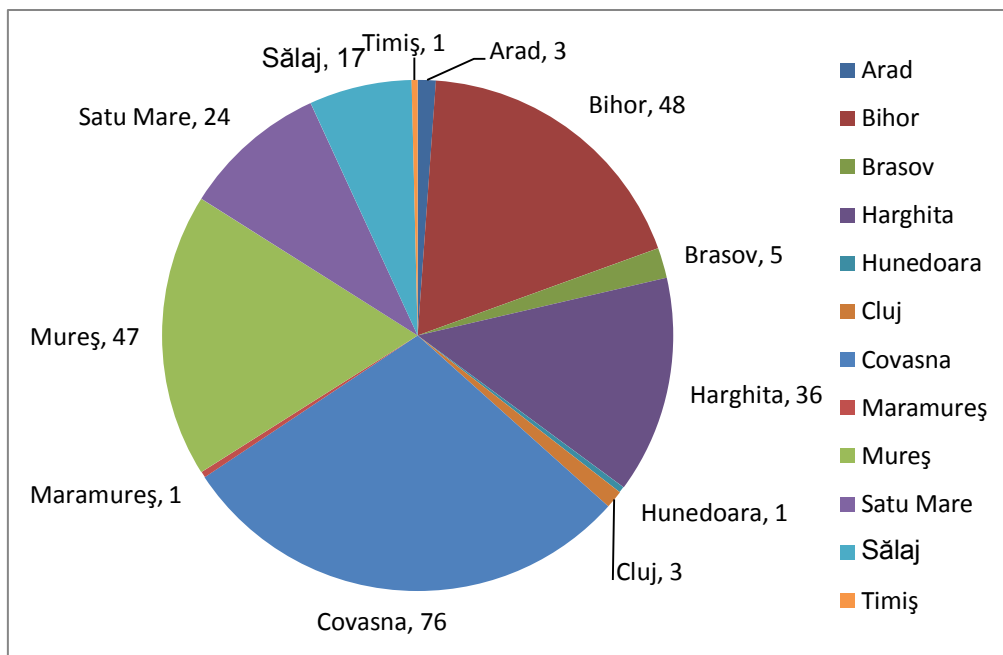


Figure 3. Distribution of respondents by county – source: own data

Most responses came from the counties of Harghita, Covasna and Mureș (60%). Although in Harghita county were the highest number of teachers trained under the mentioned ICOS program in Hungarian (343 teachers) of these people have responded only 12%. In the case of Covasna county there is a higher rate of response (76 of 210, 36%). Mureș County is between these values, with a response rate of 31% (47 of 210 people contacted completed questionnaires).

Statistical methods

Data processing was done in SPSS and in addition to indicators of descriptive statistics, inferential statistics were also used: for example tests involving multiple variables, such as chi-square, t-test, regression model building. The research results are presented in section 3.7.

For testing the first hypothesis which states that there is a measurable difference between optional disciplines in classes with different teaching language (Hungarian and Romanian) the author has created a list of all the disciplines mentioned as optional. In total 151 different titles were identified (their list is given in the Appendix of the thesis), after which similar names were categorized together (ex. Mathematics, Mathematics with fun, The world's of Mate etc.). There are many disciplines with a single occurrence (the research identified 77 such entries, representing around 50%). In the analyzing process of the

hypothesis it was examined for each school year the distribution of most frequently chosen subjects in every language teaching, which were then calculated by statistical tests (chi-square) and their significance level (p). Thus it have outlined eight major disciplines by the number of frequencies and their distribution was analyzed based on the language of teaching.

The differences between the classes taught in Hungarian and Romanian seem to be significant for each studied school year (the value of p is less than 0.000). We can identify typical subjects for classes taught in Hungarian.

If in classes taught in Hungarian folk dance, Informatics and Theatre were among the most favorite disciplines, in the case of Romanian-language classes these disciplines do not appear (excepting *Theater* that occurs only once in the school year 2011/2012). The value of calculated chi-square test for the 2008/2009 school year is $\chi^2 = 25.917$, with an associated p-value of 0.001.

Table 2 shows the last school year analyzed. In this case we can identify those subjects that seem to be specific for classes taught in Hungarian. First place is occupied by *Health education* (for both language), but the overall differences are significant: values calculated are $\chi^2 = 31.024$ and $p = 0.000$.

Table 2: Distribution of optional disciplines with the highest frequency in 2011/2012 school year, by teaching language

| <i>Discipline</i> | | <i>Teaching language</i> | | <i>Total</i> |
|-------------------------|-----------|--------------------------|-----------------|--------------|
| | | <i>Hungarian</i> | <i>Romanian</i> | |
| Health education | frequency | 89 | 18 | 107 |
| | % | 23.3% | 48.6% | 25.5% |
| Folk dance | frequency | 74 | 0 | 74 |
| | % | 19.4% | 0.0% | 17.7% |
| Foreign language | frequency | 35 | 7 | 42 |
| | % | 9.2% | 18.9% | 10.0% |
| Mathematics | frequency | 43 | 5 | 48 |
| | % | 11.3% | 13.5% | 11.5% |
| Dramatic games | frequency | 46 | 0 | 46 |
| | % | 12.0% | 0.0% | 11.0% |
| Literature for children | frequency | 29 | 6 | 35 |
| | % | 7.6% | 16.2% | 8.4% |
| Informatics | frequency | 19 | 0 | 19 |
| | % | 5.0% | 0.0% | 4.5% |
| Theater | frequency | 47 | 1 | 48 |
| | % | 12.3% | 2.7% | 11.5% |
| Total | frequency | 382 | 37 | 419 |
| | % | 100.0% | 100.0% | 100.0% |

Source: own data

The results also show that it would be useful a curriculum approved by the ministry for Health Education discipline for classes taught in Hungarian.

To test the second hypothesis (no differences in frequency of the *Health education* discipline in urban and rural areas of the two counties) it was examined for each type of settlement the distribution of frequencies and compared the two counties (Covasna and Harghita). The table below shows the results for each analyzed school year.

Table 3: Health education as optional discipline – distribution by type of settlement

| <i>Type of settlement</i> | <i>Do they opted for this discipline?</i> | | <i>Total</i> |
|---------------------------|---|------------|--------------|
| | <i>No</i> | <i>Yes</i> | |
| 2008-2009 | | | |
| City | 90.0% | 10.0% | 100.0% |
| Township | 90.3% | 9.7% | 100.0% |
| Village | 99.1% | 0.9% | 100.0% |
| | 91.6% | 8.4% | 100.0% |
| $\chi^2=10,365; p=0.006$ | | | |
| 2009-2010 | | | |
| City | 87.3% | 12.7% | 100.0% |
| Township | 89.5% | 10.5% | 100.0% |
| Village | 98.3% | 1.7% | 100.0% |
| | 89.9% | 10.1% | 100.0% |
| $\chi^2=23,861; p=0.000$ | | | |
| 2010-2011 | | | |
| City | 87.6% | 12.4% | 100.0% |
| Township | 91.1% | 8.9% | 100.0% |
| Village | 97.4% | 2.6% | 100.0% |
| | 90.5% | 9.5% | 100.0% |
| $\chi^2=12,237; p=0.000$ | | | |
| 2011-2012 | | | |
| City | 84.2% | 15.8% | 100.0% |
| Township | 94.2% | 5.8% | 100.0% |
| Village | 98.3% | 1.7% | 100.0% |
| | 90.2% | 9.8% | 100.0% |
| $\chi^2=26,478; p=0.000$ | | | |

Source: own data

As can be seen from the table above, differences are significant in all four analyzed years, the value of χ^2 is always over 10, and p-value tends to 0. Therefore it can be said that *Health education* in cities was more often chosen optional subject to primary school than in

the communes. The differences are even greater when villages are compared with communes, or cities with villages.

If we focus on the analysis at the county level, then it can be observed that each of the four school years analyzed show significant differences between Harghita and Covasna county's classes reporting Health Education as optional. Every time there is a higher percentage of those who opt for this discipline in Harghita county. It can not be identified a certain dynamic in time between counties, but it appears that in the school year 2009/2010 and 2010/2011 classes who have chosen *Health education* in Harghita county was almost three times higher than in Covasna. In the first and last analyzed year this proportion was double. Optimal logistic regression model created by the author is consistent with calculations of chi-square test, as it enhances its results – the ratio of three times higher values in Harghita county (the value of Exp (B) being 3.145).

Regarding the analysis of the third hypothesis (the existence of the optional discipline is influenced by opinion of teachers in primary classes on the weekly number of teaching hours) one can note that 70% of respondents consider that the teaching hours are too much for preparatory class (22 hours) and class I. (24 hours). Consequently teachers tend not to propose optional disciplines (which increase the loading of hours weekly), not to mention the difficult procedure of program approval.

Testing the hypothesis, the author examined the proportion of those who chose in the school year 2011/2012 an optional discipline. The results show that only a third of teachers use the possibility of choosing an optional subjects, many of them stating that this is because they have simultaneous classes (where the provisions of the choice for optional subjects are different, given the fact that they involve other promotions), thus organizing and planning is easier.

Considering the facts described above, the optional subjects of traditional and simultaneous classes were compared. It was found that the probability of choosing an optional subject is much greater in the case of a simultaneous class: ($p = 0.000$), the calculated statistical test is $\chi^2 = 47.969$ as the frequency is 63% for simultaneous classes and only 15.79% in traditional classrooms. Chi-square test was calculated also to decide if it exists a relationship between different opinion on the number of teaching hours and the existence of

the optional discipline. The difference can be easily observed, however, the χ^2 test value is only 5.664 with $p = 0.129$, meaning that the differences are not significant statistically.

For the fourth hypothesis it was used an optimal linear regression model in which the dependent variable was the respondents' opinion related to *Health education* discipline and the independent variables were year of birth, age, number of health problems in class, level of education, type of settlement, type of class, frequency of the integrated activities, feedback received related to the professional work, etc.

The variables with the greatest explanatory power are the age, type of the class, number of children in class with health issues, opinions about quality and excellence. These four variables have an aggregate explanatory power of 13.4%, the R value is $R = 0.134$.

Research variables cannot fully explain (or at least in 50% proportion) the primary schools teachers attitude and opinion. However it seems that there was identified important elements influencing this, which outlines the profile of the teacher who has a supportive attitude towards health education. If we consider only those counties where the majority of the answers came from (Harghita and Covasna), it appears that the profile does not differ greatly from the national level.

The last hypothesis, according to which *special health issues identified by primary school teachers are in direct relation not only with attitudes towards health education but also with the formal activities organized by the teacher*, requires explanation of the expression “cases of special health”: it meant ex. wearing of eyeglasses, lack of personal hygiene, cases of diabetes etc. which can be observed by teacher. These kinds of issues are presented by the author in previous part of the thesis through international researches outlining their adverse effects on school success.

Analyzing the data, it appears that teachers, who are more sensitive to problems in class, tend to organize more often day-activities or weeks on health topics. Using correlation test, r value was calculated (0.615 and $p = 0.00$). With the help of statistics the hypothesis can be confirmed. The author also calculates t test, analyzing the number of cases carried over from the two groups formed (supportive to health education and indifferent or opponents of it), the test being $t = 8.956$ and $p = 0.001$.

At the end of the thesis the most important findings of the study are summarized (section 3.8.) and presented the author's recommendations for further research possibilities.

The paper highlights the need to introduce the optional Health Education discipline on compulsory subjects list beginning with preparatory grade till grade XII, given the actual changes on the economic, social, cultural layer worldwide, which exerts a profound influence on health and the development of children and youth.

The necessity of going through the nine specific topics of health education presented in the paper is mandatory because the individual's life has become more complicated than before. Health education can be considered a process of implementation of attitudes, knowledge, behavior norms that favorably influence the attitudes and hygiene practices of the individual, family and community. The purpose of health education in school is the acquisition of hygienic behaviors by children to form a healthy lifestyle by helping improve physical health, emotional and mental-emotional-spiritual multilateral development of personality and social integration of those educated.

The diagnostic study conducted on a sample of 705 primary classes in Harghita and Covasna and one which involved 262 teachers from 12 counties provided information about the optional disciplines taught, about the differences between classes with different teaching languages, about regional differences (types of settlements, counties), about the profile of those who are in favor of teaching *Health education*.

As a component of general education and culture, health education is a system of measures and influences for the formation of hygienic behavior, represents an activity guide for children and young from its condition of natural creature to the social-cultural one. Health education should start at an early age, because at this stage are acquired habits that are relevant to subsequent activities.

It is important to be aware at all educational levels (although the study is limited to primary level), that health is not only one of the basic human rights but also a resource of the state. In the process of education in general, and in the health education in particular nowadays is increasingly outlined the activities designed to stimulate student activity, to be dynamic, flexible, adaptable to new living conditions.

In this final part are summarized and recapitulated the research objectives and motivations. There are presented the difficulties encountered along the research. The major difficulty, in addition to the large volume of field visits for face-to-face questionnaires in the two counties, was the empirical data processing so as to be within the limits of thesis (subject, scope etc.). However, this difficulty is treated as a possibility, because the examination of these questions (of which analysis was not possible in the frame of the thesis) may represent a possible way for further research. The most important recommendation of the author is linked with the professional development of teachers: it is recommended to organize training sessions, conferences, accredited or certified training courses, as this allows monitoring and more effectively support the choice of health education among teachers in elementary school.

SELECTIVE BIBLIOGRAPHY

- Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior*. In: Kuhl J. & Beckman J. (Eds.): *Action control: From cognition to behavior*. Heidelberg: Springer.
- Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. NJ, Prentice Hall: Englewood Cliff.
- Alber, J., & Kohler, U. (2004). *Health and care in an enlarged Europe*. Luxembourg: Office for Official Publications of the European Commission, <http://www.eurofound.europa.eu/pubdocs/2003/107/en/1/ef03107en.pdf>.
- Albert-Lőrincz, E. (2007). *Salus Satis*. Kolozsvár: Kolozsvári Egyetemi Kiadó.
- Armstrong, D. (1995). *Az orvosi szociológia alapjai*. Budapest: Semmelweis Kiadó.
- Babbie, E. (2003). *A társadalomtudományi kutatás gyakorlata*. Budapest: Balassi Kiadó.
- Ballér, E. (1996). A nemzeti alaptantervtől az iskolai nevelő-oktatói munka tervezéséig. *Országos Közoktatási Intézet*, 13-16.
- Bandura, A. (1994). *Self-efficacy*. *Encyclopedia of human behavior*. Vol. 4. 71–81. San Diego: Academic Press.
- Bárdossy, I. (2002). *A curriculumfejlesztés alapkérdései. Távoktatási tananyag pedagógusok számára*. Pécs: PTE Tanárképző Intézet.
- Belar, C. D., Deardoff, W. W., & Kelly, C. E. (1987). *The practice of health clinical Psychology*. New York: Pergamon Press.
- Brassai, L. (2007). *Serdülőkoriak egészségi állapotát és egészséggel kapcsolatos magatartását meghatározó tényezők*. Sepsiszentgyörgy: Táltos kiadó.
- Doina, G. (2008). *Ghid metodologic pentru disciplinele optionale (ediția a II-a revăzută și adăugită)*. Bucuresti: D&G Editur.
- Doyle, E., & Ward, S. (2001). *The Process of Community Health Education and Promotion*. California–London–Toronto: Mountain View.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine Science. *Science*, 196:129–136.
- Fóris-Ferenci, R. (1999). *Tantervek átminősülése*. Kolozsvár: Erdélyi Tankönyvtanács.
- Frenk, J. (2004). *Health and the economy: A vital relationship*. UK: OECD Observer No. 243.
- Gentry, D. (1984). *The handbook of Behavioral Medicine*. New York: The Guilford Press.
- Gidai, E. (2007). Az egészségi állapot és jövedelmi viszonyok kölcsönkapcsolata az EU országaiban. *Magyar Tudomány*, 168. 9. sz. 1145-1148.

- Grossmann, M. (1972). On the Concept of Health Capital and the Demand for Health. *Journal of Political Economy*, 80, pp. 223-255.
- Horváth, T., Kiss, L., Nyerges, A., & Roberts, É. (2012). *Horváth Tamás – Kiss László – Nyerges Andrea – Roberts Éva (2012): Diplomás pályakövetés kézikönyv. Education Társadalmi Szolgáltató Kht – Országos Felsőoktatási Információs Központ. elektronikus változat: <http://www.felvi.hu/felsooktatasisimuhely/dpr/ebook/>. Budapest: Education Társadalmi Szolgáltató Kht – Országos Felsőoktatási Információs Központ. elektronikus változat: <http://www.felvi.hu/felsooktatasisimuhely/dpr/ebook/> (2015.02.17).*
- Hurrelmann, K. (2000). *Gesundheitssoziologie*. München: Juventa Verlag.
- Insel, P. T., & Roth, W. T. (2010). *Core Concepts in Health*. New York: McGraw-Hill Higher Education,.
- Kádárné, J. F., & Káldi, T. (1996). Tantervezés. Útmutató a helyi tanterv kiválasztásához, szerkesztéséhez, írásához. *Iskolaszolga*, 21-27.
- Kamarás, F. (2004). *Demografiai helyzetkép. In: Bakacs Marta es Vitrai Jozsef (szerk.): Népegészségügyi jelentés 2004 – szakértői változat*. Budapest: Jóhán Béla Országos Epidemiológiai Központ.
- Kopp, M., & Skrabski, Á. (2001). Egészség és gazdagság Európa fiatal generációjának, a megelőzés kihívásai. *EUSUHM Nemzetközi Konferencia*.
- Kuráth, G., & Németh, P. (2011). *A DPR eredményeinek hasznosítása az alumni rendszerek építésekor a Pécsi Tudományegyetem példáján in Diplomán innen és diplomán túl*. Gödöllő: Szent István Egyetem DPR tanulmányok.
- Leger, L. S., & Nutbeam, D. (2001). *Egészségfejlesztés az iskolában. In: IUHPE Bizonyítékok az egészségfejlesztés hatékonyságára. A nepegeszsegugy kialakitasa az uj Europaban. A Nemzetkozi Egészségfejlesztési es Egészségnevelési Unio (IUHPE) jelentese az Europai Bizottsag számára*. Budapest: Medinfo.
- Mărginean, I., & Precupețu, I. (2008). *Calitatea vieții și dezvoltarea durabilă. Politici de întărire a coeziunii sociale*. București: Editura Expert – CIDE.
- Matarazzo, J. D. (1982). Behavioral health' challenge to academic, scientific and professional psychology. *American Psychologist*, 37(1), 1-14.
- Meade, M. S., & Earickson, R. J. (2000). *Medical Geography*. New York: Guilford.
- Mikola, I. (2006). Népegészség és közéleti felelősség. *Mester és tanítványa*, 10.
- Németh, Á. (2007). Iskoláskorú gyermekek egészségmagatartása. *Gyógypedagógiai szemle*, 1-11.
- Nettleton, S. (2008). *The Sociology of Health and Illness*. Cambridge: Polity Press, 308. old.

- Pikó, B. (2002). *Egészségyszociológia*. Budapest: Új mandátum.
- Pikó, B. (2002). *Egészségtudatosság serdülőkorban*. Budapest: Akadémiai kiadó.
- Pikó, B. (2006). *Orvosi szociológia*. Budapest: Medicina Kiadó.
- Pikó, B., & Kopp, M. (2006). *Az egészséggel kapcsolatos életminőség pszichológiai, szociológiai és kulturális dimenziói*. in: Kopp Mária és Kovács Erika (szerk.) *A magyar népesség életminősége az ezredfordulón*. Budapest: Semmelweis Kiadó.
- Polányi, I. (2013). Egészség, oktatás és emberi tőke In. *Egészség és oktatás. Educatio*, 135-137.
- Rughiniş, C. (2003). Mize și strategii le cercetării comparative in *Sociologia Românească. Sociologie*, I. évfolyam, 1-2 szám, 2003/1-2, 129-143, 129-143, www.academia.edu/285921/Mize_si_Strategii_Ale_Cercetarii_Comparative Utolsó letöltés .
- Tahin, T., Jeges, S., & Lampek, K. (2000a). Iskolai végzettség és egészségi állapot. *Demográfia*, 1. 70-93.
- Tahin, T., Jeges, S., & Lampek, K. (2000b). Az iskolai végzettség és az egészségi állapot változása követéses vizsgálat alapján. *Demográfia*, 2-3, 305-334.
- Urbán, R. (2001). Útban a magatartásszempontról egészségpszichológia felé: az egészségmagatartás pszichológiai elemzése. *Magyar Pszichológiai Szemle*, 593-622.
- Whitehead, M., & Dahlgren, G. (1991). *Policies and strategies to promote social equity in health*. Stockholm: Institute of Futures Studies.
- WHO. (2012). *Health Education: Theoretical concepts, effective strategies and core competencies*. Cairo: Regional Office for the Eastern Mediterranean.
- Zsolnai, J. (1986). *A tanulás tervezése és irányítása a nyelvi, irodalmi kommunikációs nevelési programban*. Budapest: Tankönyvkiadó.