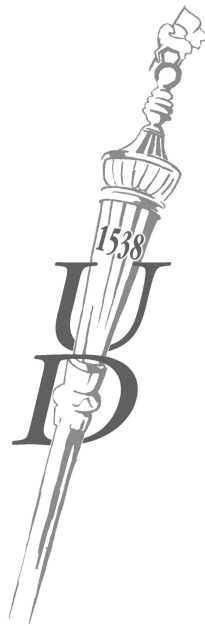


University doctoral (PhD) dissertation abstract

**THE IMPACT OF HEALTH TOURISM ON THE QUALITY OF
LIFE IN HAJDÚSZOBOSZLÓ**

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1. BACKGROUND OF THE RESEARCH, RESEARCH OBJECTIVES, HYPOTHESES

1.1. Background of the research

In my doctoral dissertation I attempt to link two research areas, focusing on the examination of life quality and the factors determining it. I am aware of the fluid nature of the topic; the analysis of life quality is considered to be one of the challenging research tasks for many reasons.

The analysis of life quality has become a target area of high priority recently. The past two decades have seen significant social and economic changes which have affected consumers' demands, expectations, and consumer behaviour. The change of the regime has made certain social groups in Hungary both poorer and less satisfied with their conditions; looking at the factors determining life quality, such as the quality of social relationships, depression, self evaluation and meaningful life objectives, one can see a very unfavourable picture of the general state of life quality in the Hungarian society today.

Alongside with researchers, the government is also making efforts to survey life conditions and to analyze the factors determining the quality of life. The topic of happiness has long been an area of interest for the members of the societies, but it was only in the second half of the 20th century that due to the governments understanding that economic indicators alone do not provide satisfactory means of measuring life quality, it became a target area of scientific research; in order to gain a realistic picture, it is essential to know what mental perceptions of their on lives people tend to have.

The topic is highly complex and has been made even more complex by me introducing an additional target factor. I selected health tourism as the target area of my research because Hungary is well known for its wealth of natural resources, of thermal waters in the first place. The majority of the subsurface ground layers in Hungary are rich in high quality thermal water resources, which ranks the country high in the global health tourism market. I was interested to know whether people living in the regions of health tourism destinations are by virtue more satisfied than their counterparts, or are their lives not really affected by this fact.

1.2. Research objectives

My initial hypothesis is that the differences between the quality of life of the different regions in Hungary can substantially be attributed to the presence or lack of local health tourism attractions. To be able to provide an authentic analysis of the impact of health tourism, I selected a settlement characterized by this type of tourism features. Based on the number of nights spent and on the number of visitors to the settlement, I selected Hajdúszoboszló to be the target of my investigations. The town plays a decisive role not just in the regional, but also in the general domestic health tourism sector as a whole. The life quality of the local people is thus not affected by factors any other than that (agriculture used to have some impact but is has become immaterial by now).

In my dissertation work I was pursuing the following aims:

- Identification and analysis of factors describing life quality;
- Introduction of the elements (models) of life quality;
- Demonstration of the impacts of health tourism on a destination thereof, and the definition of the role of health tourism (thermal water, in particular) as compared to other factors influencing health quality;
- Establishing the relationship between individual elements of life quality and satisfaction.

I consider it important to reveal the components shaping the conditions and quality of our lives. The relevance of this consideration is underpinned by several reasons. Tourism, more specifically health tourism in Hungary is one of the engines of the economy, and is being prioritized by many national development programs and strategies, on the one hand.

On the other hand, in addition to the economic aspect, scientific considerations make it also essential to have a clear understanding of the factors that determine the quality of our lives and can give us satisfaction. The knowledge and understanding of these factors and of the elements that have impacts on them will create the potentials of creating a happier and more satisfied nation.

1.3. Research hypotheses

H₁: Health tourism has an impact on the quality of life of the local people.

Given that health is the most precious component of our lives, we can assume that those who are motivated to choose health tourism destinations are happy people. Upon similar consideration, we can also assume that those residing in one of the health tourism destinations are happier than average people. Further on, the way we spend our leisure time has a key effect on our daily life, and these (non-job) activities determine the measure of our satisfaction with life.

H₂: Those involved in health tourism are more satisfied than those who are not.

People are becoming more and more health conscious, they are spending more and more time and money on protecting their health, they are motivated to rely on natural alternatives in their convalescence and therapies; therefore they are inspired to make use of health tourism services. Since those involved in the provision of health tourism services have a direct access to these benefits themselves, and can earn higher incomes also, this, in turn, can presumably make them feel more satisfied.

H₃: Age and education affect life satisfaction levels significantly in settlements of health tourism destinations too. The level of people's satisfaction with life decreases with age.

It has been proven by a number of domestic researches that life satisfaction is significantly affected by age, i.e. it decreases with aging. Based on this, I hypothesize that similar tendencies can be identified in the health tourism destinations I chose to investigate. I added the aspect of education to the foci of the research.

H₄: There can be established a close relationship between income and life satisfaction.

It is often voiced that money cannot buy happiness. I assume, however, that income and life satisfaction do have a close relationship with each other.

H₅: Individuals working in the health tourism sector have higher monthly incomes per capita than those who have jobs in sectors other than this.

Health tourism and the services associated with it have to satisfy high quality requirements, which make them more expensive to buy. One important advantage of health tourism is that the average periods of stay in this sector are longer than in other branches of tourism, which eventually increases the specific expenditures by health tourists. This, in turn, will provide higher incomes for the providers of the services.

2. DATABASE AND RESEARCH METHODOLOGY

2.1. Research procedure

I conducted both primary and secondary researches by applying both qualitative and quantitative approaches. The research procedure is shown in Figure 1 below. In the initial phase of the procedure some exploratory research was done, which was then followed by the analysis and interpretation of the data.

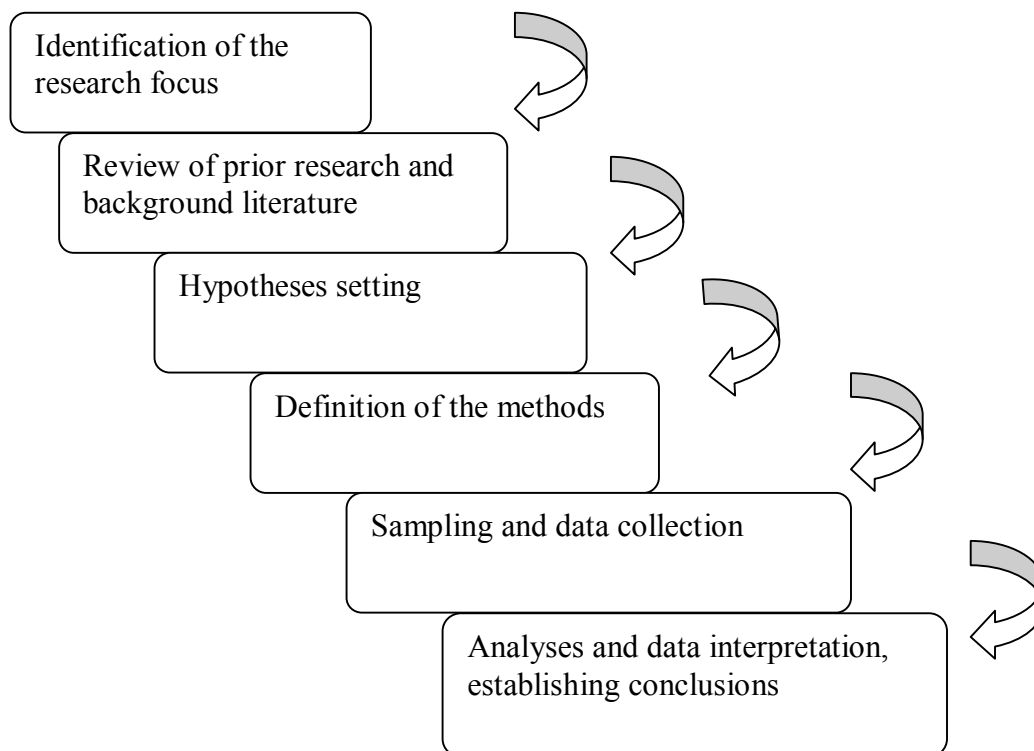


Figure 1.: Research procedure

Source: own development

2.2. Secondary research

Exploratory and analytic work was started with the survey and evaluation of existing data sources, studies and statistics dealing with Hajdúszoboszló and other materials available from the Local Government of Hajdúszoboszló. This was followed by, or – partly – linked with the simultaneous survey of relevant prior research and the study of relevant national and international literature dealing with life quality and health tourism. In this I was relying on

library online databases and other internet sources (Central Office of Statistics, Science Direct, EISZ, World Database of Happiness).

2.3. Primary research

Often there may be a practical need for establishing conclusions concerning a population on the basis of the analysis of data compiled from population samples. This is what happened in my case too. In the frames of the primary research, I interviewed the permanent residents of Hajdúszoboszló using the tool of questionnaires. I chose this settlement because I considered it to be an authentic research site suited for making authentic judgments concerning the impact of health tourism on the quality of life.

The interviewees were selected from among the permanent population only, because it is only permanent inhabitants who can provide reliable information on the impact of health tourism on their life qualities. 804 individuals were interviewed by 2 interviewers between the dates of October 2011 and February 2012. I had thorough and in-depth consultations with the interviewees with a view to equip them with all the necessary information and skills that they might need to smoothly conduct the interviews and/or answer the occasional questions asked by the interviewees. I applied the method of quota sampling in order to retrieve data that are representative of gender and age. The distribution of the base population concerning gender and age was known (from the data sources of the Local Government and the Central Office of Statistics), and it served as a pool for the selection of the sample.

The variables include both socio-economic and socio-cultural factors, but only those factors of the latter type have been included that have earlier been used by other researchers of the socio-cultural impacts of tourism as well (for example: PIZAM–MILMAN–KING, 1994; RÁTZ, 1999), and those that have significant roles in influencing the quality of the life of the people.

For setting the response-scales I used several scale types, but dominantly I was relying on the semantic differential type. Semantic differential scales are widely used (MICHALKÓ–RÁTZ, 2011) when five point response categories are set between the endpoints of e.g. “totally agree” and “totally disagree”(MALHOTRA, 2008).

For the statistical analysis of the data the Statistical Package for the Social Sciences (SPSS), Excel spreadsheets, Adobe Photoshop professional program tools were used. The SPSS program was among others used to complete cross-table analysis, chi-square tests, correlation analysis and principal component analysis.

3. MAJOR RESULTS OF THE RESEARCH

3.1. Results of the secondary research

As established by literature sources, life quality is a multidimensional concept.

Based on literature sources, the principal component factors of the concept of life quality are the following:

- Objective aspects of life quality: objective factors (income, marital status, employment, number of children, etc.) serve as the base of life quality researches.
- Subjective attitude to life: the concept must incorporate the subject's attitude to and satisfaction with the objective factors.
- Satisfaction: overall attitude to life.
- Time factors: time is a very important factor, as happiness and satisfaction express the mental status of the moment.

In my research I completed the situation analysis of the settlement according to the three-functional role of rural development. The results of the situation analysis show that Hajdúszoboszló is to face great challenges: in order to ensure development and livelihood potentials for its inhabitants, the settlement must make sure that its leading position in the domestic tourism market is maintained, and the challenges posed by competition are met by improvements of the services.

The interests of the local people must also be considered: the developments must be aimed at the creation of a hospitable town, at the creation of new jobs, at the adjustment of the profile of education to the specificities of the area, at the improvement of services infrastructure and leisure time programs – e.g. longer and more leveled seasons. Tourism and attached services are the engine of local economic development, they play a major role in employment development too. Present and perspective developments must be designed with a view to environmental and social sustainability.

3.2. Results of the survey (questionnaires)

Survey data were collected from a sample of 804 respondents which makes 3.34% of the total number of inhabitants of the town, and 0.15% of the total number of the inhabitants of the county. I consider the size of the sample adequate, since several domestic (RÁTZ, 1999; MICHALKÓ, 2010) and international surveys used samples of smaller sizes (MICHALKÓ–RÁTZ–IRIMIÁS, 2011: 500 respondents; MILMAN–PIZAM, 1988: 203 respondents).

The research is representative of gender and age, the sample mirrors the settlement's distribution ratios: females 53%, males 47% (Table 1.).

Table 1.: Sample descriptors

Background variables	Headcount	%
By age		
20 or younger	136	16,8
21-40	250	31,3
41-60	235	29,1
over 60	184	22,8
By gender		
female	424	53
male	380	47
Involvement in health tourism		
yes	402	50
no	402	50

Source: own development based on questionnaire responses

3.2.1. Results of the whole-sample analysis

The local inhabitants interviewed were asked to use a scale of 1-5 points to evaluate the contribution of the individual elements listed to their positive attitude to life quality (Figure 2.). It shows very clearly that the average of the values assigned to the individual elements hit, but more typically exceed (except for those assigned to the items concerned with political atmosphere and traveling) value 3, which means that the respondents attribute higher than average values to the factors listed.

Thus, it has been justified that the factors that I (and literature sources) consider to be determining factors of life quality, do contribute – to different extents, though – to life satisfaction. The respondents assigned the highest values to family (4.2) and to personal relationships (4.1). Prior researches (SZABÓ, 2003; UTASI, 2005) also support the outstanding importance of family in the life quality considerations.

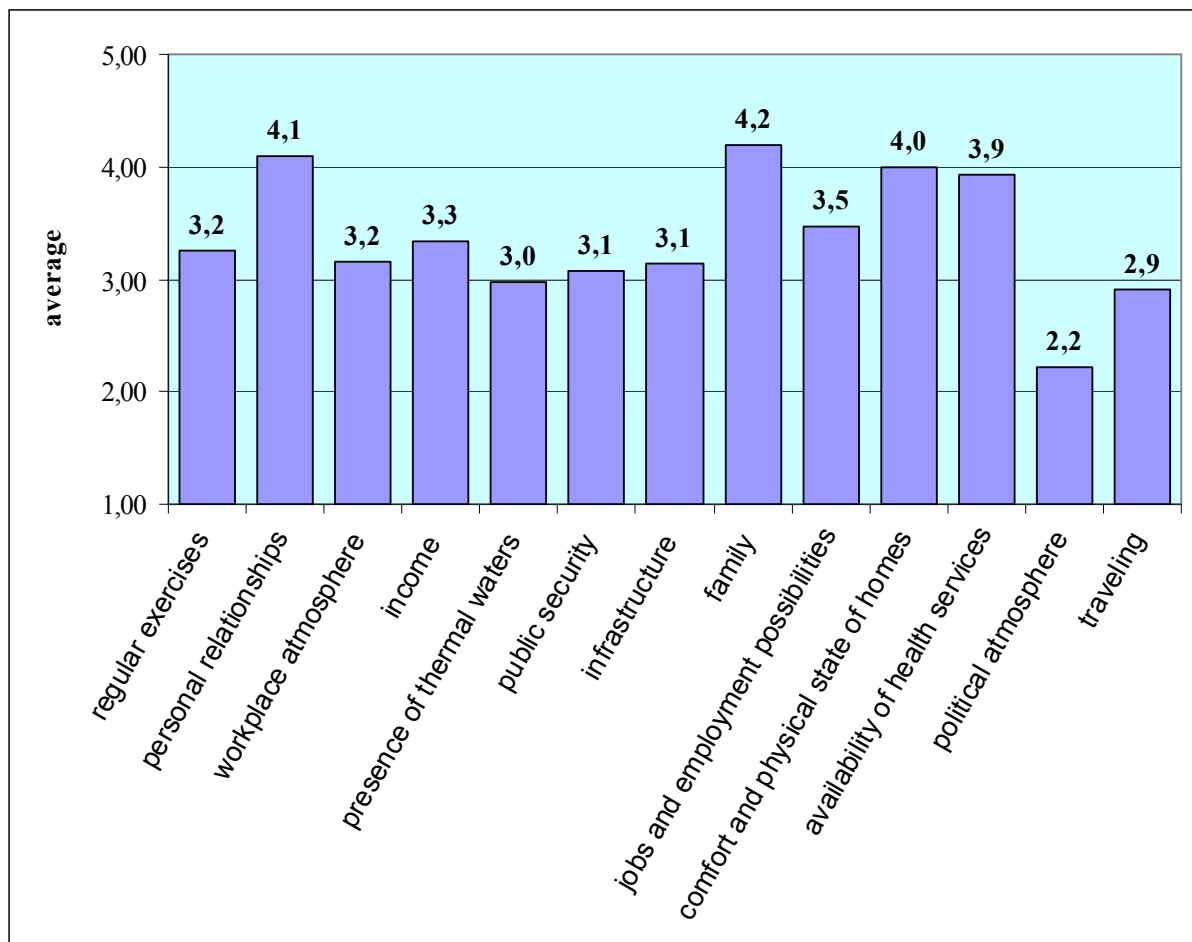


Figure 2.: Evaluation of the factors of life quality
Source: own development based on questionnaire responses

73.64 % of the respondents claim that personal relationships play a *major* or *decisive* role in the assessment of the quality of their lives. The responses do not significantly differ by the gender.

Three quarters (74.11%) of the respondents claim that family largely contributes to the positive assessment of their quality of life. It is asserted by other domestic studies as well that the majority of the society considers family to be the most precious value. General distrust

and lack of trust in foreigners, typical of our modern societies, make close family relationships even more precious.

Due to lack of space, of the list of the elements analyzed and cross-tables drawn I will only demonstrate the relationships between the most important factors. The cross-table below demonstrates the relationship between education and life satisfaction (Table 3.). The data show that education influences life satisfaction to a considerable extent. Almost three-quarters of the respondents having 8 years general primary school or lower level education are less satisfied with their lives. 33.3% of them are dissatisfied rather than satisfied, 50% are satisfied from certain aspects but need improvements of their lives.

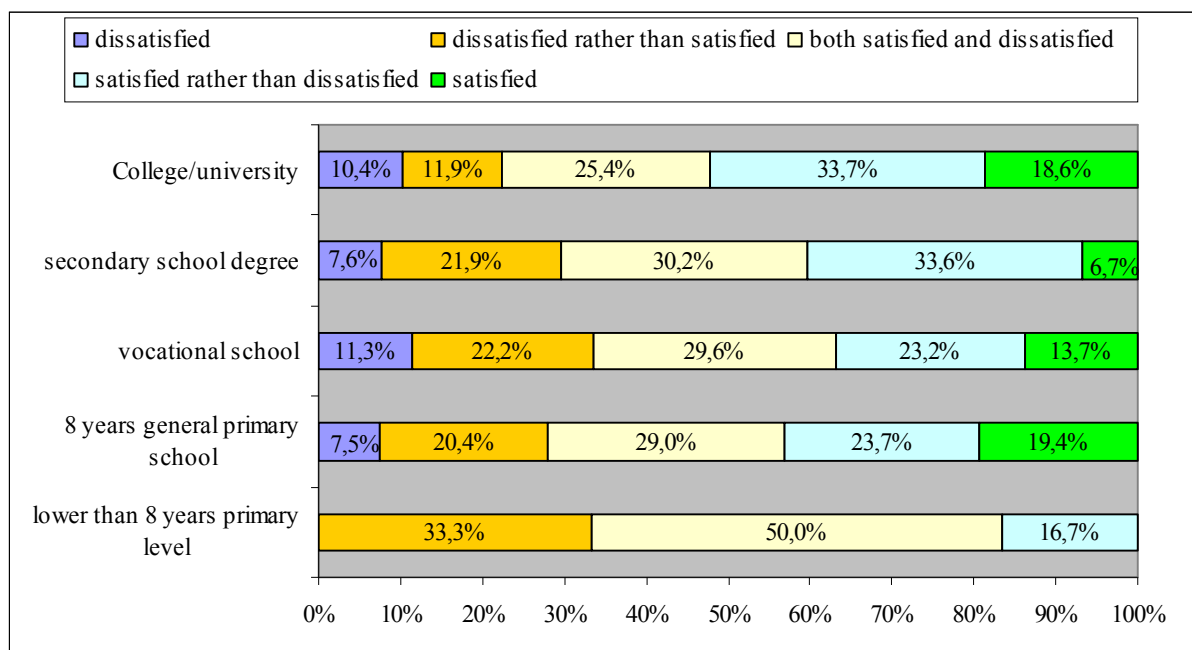


Figure 3.: Relationship between education and life satisfaction

Source: own development based on questionnaire responses

The average value of the 1-5 values of the scale (1 = dissatisfied and 5 = totally satisfied) gives us the measure of satisfaction. In Table 2. we demonstrated that respondents not having primary level education are considerably less satisfied (2.84) than those having degrees in higher level education (3.86).

Another socio-demographic factor, marital status also influences life quality. Table 2 highlights a point of interest: unmarried (male or female) individuals are more satisfied with their lives (3.43) than those living in partnership. This can be explained by recent preference trends of single life styles and the desire to preserve some degree of personal independence.

Table 2: Assessment of life satisfaction by selected socio-demographic characteristics (marital status, education)

	Measure of satisfaction
<i>Marital status</i>	
Not married	3,43
Married	3,19
Having partnership relation	3,13
Widow(er)	2,71
Divorced	2,65
<i>Education</i>	
Lower than 8 years primary school level	2,83
8 years primary school	3,27
Vocational school	3,06
Secondary school degree	3,1
College/university degree	3,38

Source: own development based on questionnaire responses

Life satisfaction of the Hungarian population is significantly decreasing with age (MICHALKÓ, 2010). In my research, though, I arrived at a conclusion different from that (Table 3.). I found the measure of life satisfaction to be the highest (3.34) in the age group of 21-40 years, and the lowest, as low as 2.91 in the age group of 41-61 years. This seemed to contradict to the general national tendency, so I went into detailed analyses to identify the cause. The results, that spotlight some relationship with health tourism, will be demonstrated later, in the chapter dealing with health tourism.

Table 3.: Assessment of life satisfaction by selected socio-demographic characteristics (age, gender)

	Measure of satisfaction
<i>By age group</i>	
20 years or below	3,15
Between 21-40 years	3,34
Between 41-60 years	2,91
Over 60 years	3,32
<i>By gender</i>	
male	3,06
female	3,31

Source: own development based on questionnaire responses

There is a clear relationship identified between life satisfaction and income. The higher the income, the higher is the measure of life satisfaction (Table 4.). Similarly, the relationship

between national incomes and average subjective welfare has been established at the international level too (correlation of 0.6- CUMMINS, 1997).

Table 4.: Assessment of life satisfaction by income

	Measure of satisfaction
<i>Income level</i>	
Lower than 50 thousand HUF	2,11
Between 50-100 thousand HUF	3,14
Higher than 100 thousand HUF	4,36

Source: own development based on questionnaire responses

In my correlation analysis I found a correlation of 0.6, which indicates a close relationship between the two factors examined (Table 5.). Also, it shows that the average measure of life satisfaction of the respondents having incomes higher than 100 thousand HUF is substantially higher (4.36) than that of those earning incomes lower than 50 thousand HUF (2.11) (Table 4.).

Table 5.: Relationship between selected factors and life satisfaction (Spearman correlation)

Factors	Correlation coefficient	Significance
<i>Are you happy with your life?</i>	1,000	-
<i>What average monthly household income per capita do you have?</i>	0,676	0,000
<i>What changes in your financial conditions have you had over the past 3 years?</i>	0,565	0,000
<i>Which social group do you think you belong as concerns your life style?</i>	0,672	0,000
<i>Are you an active member of the job market?</i>	-0,395	0,000

Source: own development based on questionnaire responses

In the assessment by the individuals of their satisfaction with their lives, society plays a decisive role. According to the theory of social comparisons (EASTERLIN, 1974), members of a society compare themselves with the other members and assess their satisfaction with life in this relationship. After the change of the regime, the earlier base of comparison has ceased to exist any longer, and like other members of the Eastern European countries Hungarian people now tend to compare their own living standards to the standards of the Western European countries.

Based on the data compiled from the responses, I conducted a factor analysis using the Principal Component Method.

I was using a high number of variables correlating with each other. In my analysis I identified the relationship between the interrelated variables, and formulated them on the bases of explanatory variables, i.e. factors.

In order to decide whether factor analyses are applicable, one must rely on statistic indicators. A feasible method is the Barlet spherical probe, which is used to test the zero hypothesis i.e. that the variables of a sampling universe are uncorrelated. The zero hypothesis is not justified if the test statistics produce a high value. Another feasible indicator is the conformity indicator of Kaiser-Meyer-Olkin (KMO). If the indicator has a low value, the factor analysis cannot be executed because the correlation between the variable pairs cannot be explained by any other variables than this. If the KMO value is higher than 0.5, the analysis can be executed (SAJTOS–MITEV, 2006).

Seeing the results of the analysis of the correlation between the life quality factors, I considered it useful to examine the Kaiser-Meyer-Olkin (KMO) criteria. A value of the KMO indicator higher than 0.5 means that our variables are suitable for the factor analysis, moreover, the more the value approximates value 1, the more adequate results of the analysis are to be expected (SAJTOS–MITEV, 2007).

The KMO indicator of 0.865 calculated for life quality factors, and the correlation of 0.000 significance of the Bartlett test justify the need for factor analysis (Table 6.).

Table 6.: KMO index and Bartlett test results for life quality factors

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,865
Bartlett's Test of Sphericity	Approx. Chi-Square	5314,349
	df	120
	Sig.	,000

Source: own development based on questionnaire responses

Based on the results gained from the factor analysis, a life quality structure comprising four groups of elements has been drawn up. The four groups comprise the elements of life security

and settlement development level, and those of leisure time activities and individual dimensions. These four groups are suitable to incorporate all the elements of the life quality models developed so far (Figure 4.). It is worth of note, that thermal water availability is listed as a component contributing to life security in the examined health tourism destination. This is because thermal water and attached health tourism services provide livelihood for the dwellers.

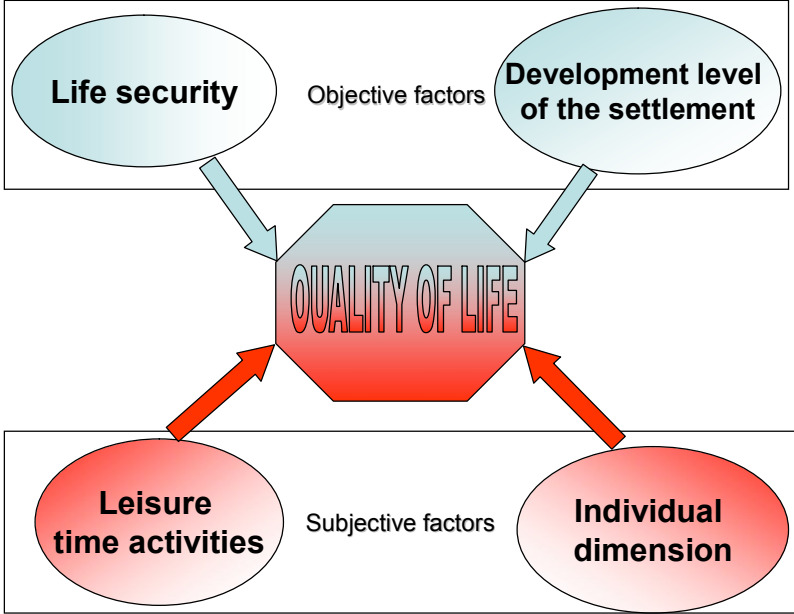


Figure 4.: The structure of the elements of life quality
 Source: own development

3.2.2 The impact of health tourism on selected factors of life quality

Since the dissertation is aimed to demonstrate the impacts of health tourism, the sample has been split up into two equal size sub-samples of 50-50 %, i.e. a sub-sample comprising the responses of those involved in health tourism, and a sub-sample comprising the responses of those not involved in health tourism. In this chapter I will examine the differences between these sub-samples with a view to understand the importance health tourism plays in their lives. The significant differences between the responses of the two sub-samples are underpinned by the chi-square test.

The comparison is demonstrated by the doughnut diagram below. The outer circle represents responses of those not involved in health tourism, whereas the inner circle stands for those

involved. Any deviation from this representation scheme is indicated and interpreted in the legend.

Figure 5 shows a striking difference between the two sub-samples. Respondents involved in health tourism have 8 years of primary school level education the lowest; whereas 1.49 % of those not being involved have education lower than this, which means that they did not complete even their primary school studies.

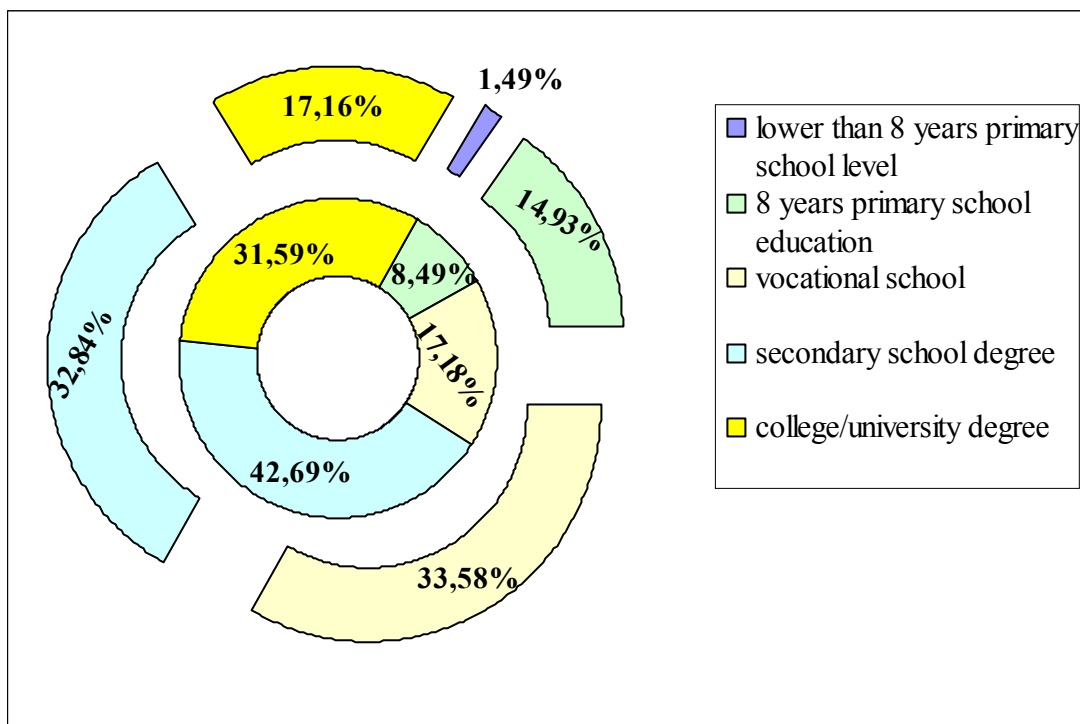


Figure 5.: Education levels by involvement / non-involvement in health tourism
Source: own development based on questionnaire responses

The proportion of those having secondary school degrees (42,69 %, i.e. by 9.85 % higher), college or university degrees (31,59 % i.e. by 14,43 % higher) is much higher in the sub-sample of those being involved in health tourism as compared to their counterparts.

I was interested to know the occupation of the respondents. Like earlier, here too we can see significant differences between the two sub-samples (chi² test: p = 0.000).

As demonstrated in Figure 6., the largest proportion of those involved in health tourism are entrepreneurs by occupation (22.8 %) or employees (19.9 %). Civil servants and people working in the services sector are represented high, too (18.2 %, 17.4 %, respectively). The

proportion of stay-at-home moms, and mothers on childcare-leave, however, is very low (1 %, 1.7 %, respectively).

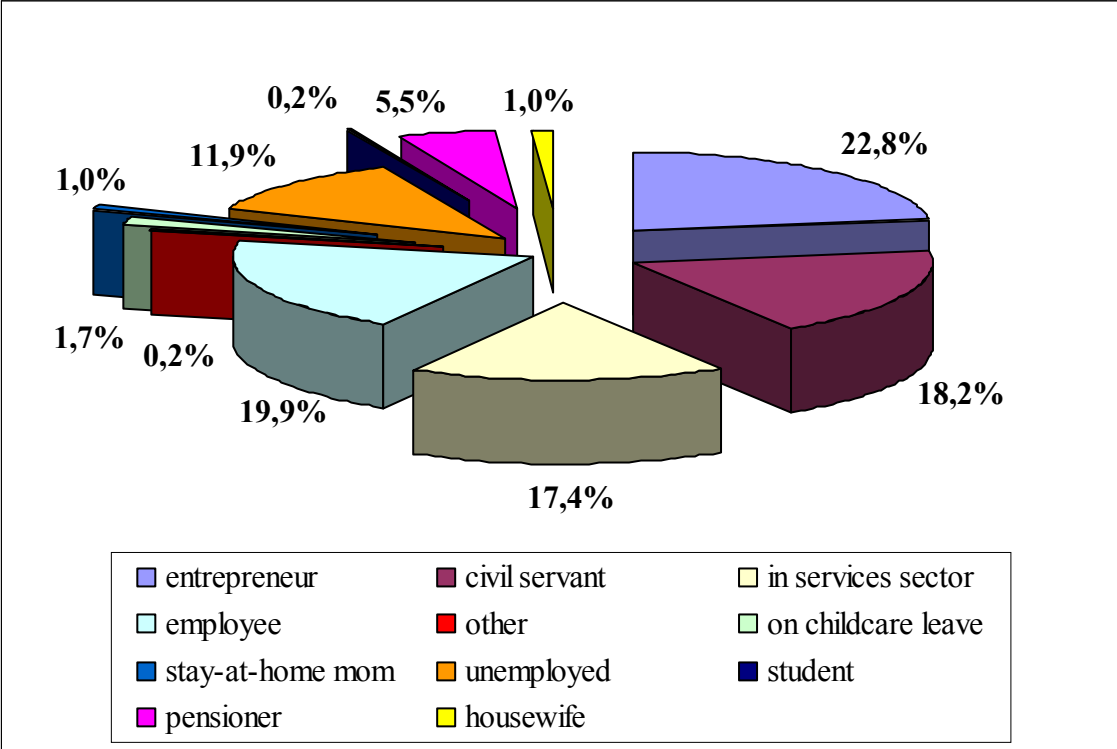


Figure 6.: Distribution of respondents involved in health tourism by type of occupation
 Source: own development based on questionnaire responses

In the sub-sample of the respondents not involved in health tourism (Figure 7.), the proportion of those not having jobs is the highest (27,11 %). This can be explained by the high job creating potential of health tourism.

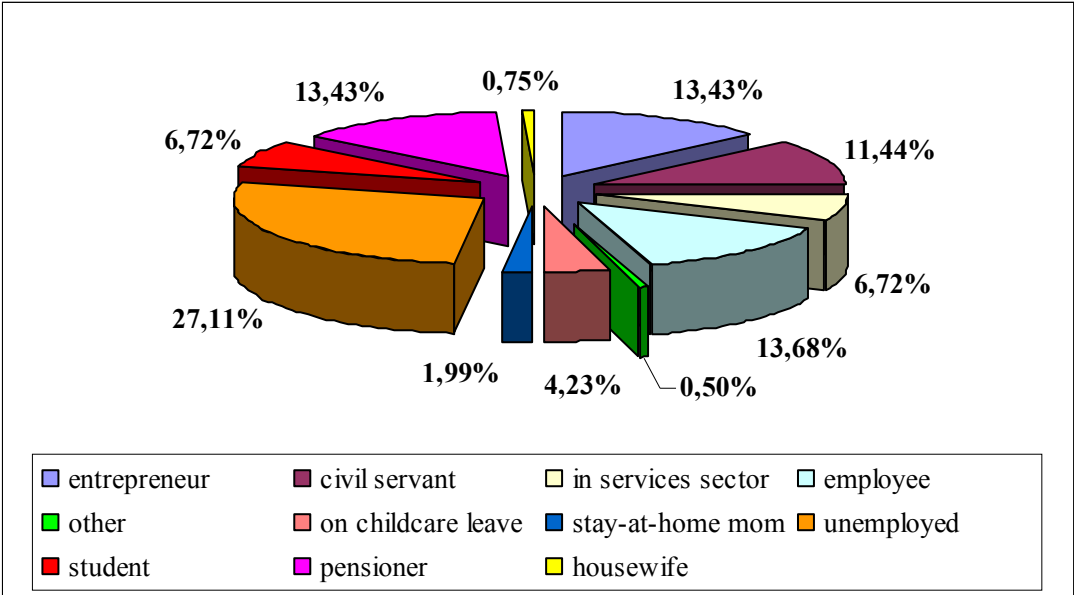


Figure 7.: Distribution of respondents uninvolved in health tourism by type of occupation
 Source: own development based on questionnaire responses

Health tourism is less affected by seasonality, and provides services of higher prices (due to expertise and specific medical potentials).

Every 100 new jobs created in health tourism are known to create further 214 new jobs nationwide (KÖNYVES et al., 2004). Thus, individuals working or qualified to work in the health tourism sector have higher chances of finding jobs or new possibilities of employment in one of the related services.

An evident impact of health tourism on the average monthly per capita incomes can also be detected (Figure 8.). The responses of the two sub-samples show significant differences (chi-square test: $p = 0.000$). 29.1 % of those involved in health tourism have monthly per capita incomes higher than 100 thousand HUF, 55.72 % earn incomes between 50-100 thousand HUF, and not more than 15.17 % have to make a living on less than 50 thousand HUF a month. Conversely, the majority of those not being involved in health tourism (48.01 %) earn incomes between 50-100 thousand HUF monthly, and 33.33 % have monthly per capita incomes lower than 50 thousand HUF. This means that every third person working in the health tourism sector earns average per capita monthly incomes of 100 thousand HUF.

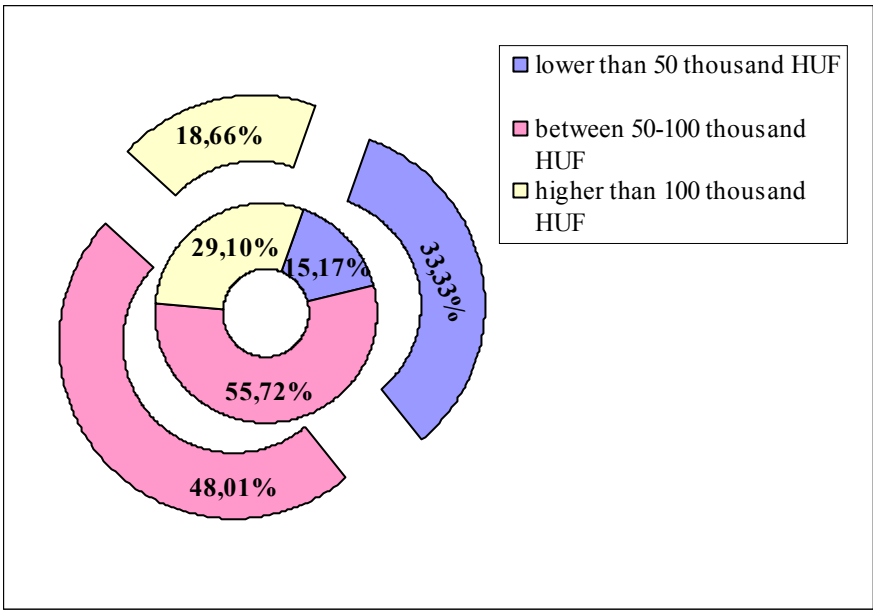


Figure 8.: Average monthly per capita incomes of respondents working in the health tourism

Source: own development based on questionnaire responses

Seeing the significant differences between the responses by those involved in health tourism (chi-square test: $p=0.000$), I judged the issues of employment worth of further analysis, too.

66.46% (categories of “very important” and “absolutely important” combined) of the respondents involved in tourism consider employment a very important factor of their life quality. Only 7% of the respondents do not attribute high importance to employment as a contributing factor to the quality of their lives. For 19% of those not involved in tourism, improvement of employment is not associated with improvement of life quality.

Individuals are considered to have a high level of subjective life quality, if they are satisfied with life in general, experience the feeling of happiness frequently and rarely feel distressed, sad or angry; in contrast, individuals are considered to have a low level of subjective life quality, if they are not satisfied with their lives, experience the feeling of happiness rarely, and frequently feel distressed, sad or angry. Conversely, those who claim to be happy belong to the group of individuals with high levels of subjective life quality, whereas those who claim to be unhappy belong to those having low levels of subjective life quality.

I tested the assessment of the level of subjective life quality by posing the interviewees to questions about their general satisfaction with life, and about their momentary state of happiness. Although multi-item questions are supposed to ensure more reliable responses than single-item ones (DIENER–BISWAS–DIENER, 2000a), most of the researches known apply the method of single-item questions for measuring satisfaction and happiness. In my research I also used the method of single-questions: “*How do you assess the level of your overall happiness?*” and “*How do you assess the level of your overall satisfaction with life*”. For their responses the interviewees could use a 1-5 scale of semantic difference.

Health tourism has a positive impact on happiness and life satisfaction. I found that the measures of happiness and life satisfaction of those involved in health tourism are higher both in the sub-sample and in the whole-sample population groups. The measure of satisfaction of those involved is 3.41, a value considerably higher than the average; the same for those not involved in health tourism is 2.94, barely higher than the mean value (Table 7.).

Table 7.: Measures of happiness and satisfaction according to involvement / non-involvement in health tourism

	Measure of happiness	Measure of satisfaction
<i>Involved in health tourism</i>	3,31	3,41
<i>Not involved in health tourism</i>	2,95	2,94
<i>Total sample</i>	3,12	2,18

Source: own development based on questionnaire responses

The percentage values reflecting the positive impact of health tourism are the following: to the question “*How do you assess the level of your overall satisfaction with life*” half of the respondents involved in health tourism responded that they feel satisfied (categories “satisfied rather than dissatisfied”, and “satisfied” combined), in contrast to the proportion of 34.33% of those no involved. Respondents not involved in health tourism tended to claim that they are *dissatisfied* or *dissatisfied rather than satisfied* (37.06 %); this supports my hypothesis H₂, i.e. individuals involved in health tourism tend to be more satisfied than those not involved (Figure 9.).

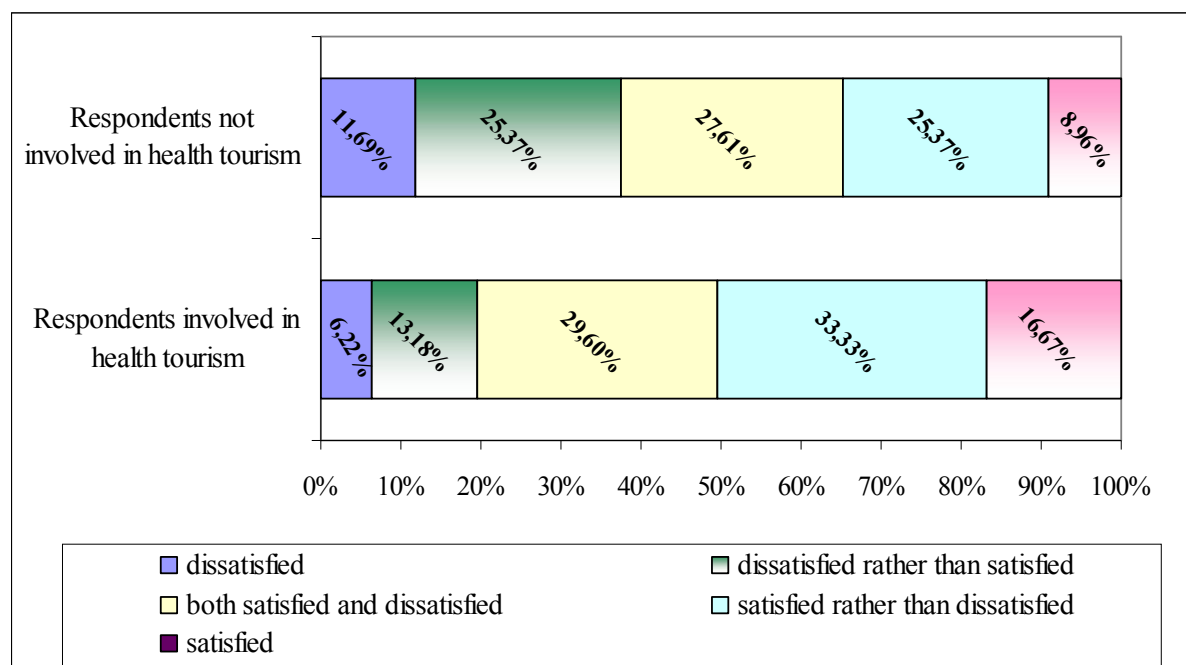


Figure 9.: Measures of life satisfaction according to involvement / non-involvement in health tourism

Source: own development based on questionnaire responses

4. NOVEL OUTCOMES OF THE RESEARCH

The major novel outcomes of my research and dissertation are the following:

1. I completed the analysis and evaluation of town Hajdúszoboszló, one of the most preferred destinations of health tourism in county Hajdú-Bihar according to the three factors of rural tourism and to the aspects of the life quality of the inhabitants.
2. Based on secondary research, I defined the corner stones of the concept of life quality, and have concluded that most of the definitions in the field leave the aspect of time out of consideration.
3. I am the first to have conducted a research into the life quality of the residents targeting to analyze the impact of health tourism, and having confirmed that health tourism does influence the quality of their lives.
4. I have demonstrated that there is a significant difference between residents involved and not involved in health tourism concerning the factors determining the quality of their lives. These factors are as follows: family, workplace atmosphere, comfort and physical state of the homes, average monthly incomes per capita, jobs and employment possibilities and traveling.
5. I have established relationships between the elements of life quality, and applying a factor analysis I have drawn up a new structure of the elements. Based on this, it can be concluded that thermal water is one of the component parts of life security in Hajdúszoboszló.
6. I have proved that age plays a decisive role in assessing one's satisfaction with life; my research results of the target health tourism destination show that satisfaction with life there does not decrease with age. On the contrary: older people tend to be more satisfied with their lives.

7. I have proved that in the targeted health tourism destination of Hajdúszoboszló there is a close correlation between income and satisfaction with life.

5. PRACTICAL USABILITY OF THE RESULTS

In Hungary there has not been much research carried out into the impact of tourism on the life of the quality of the local people. It is just recently that quality of life as such is being investigated, the first research results dealing with the relationships between health tourism and life quality at a concrete settlement of Hungary (Orosháza) came out just in 2011. I presume that my research is dealing with the analysis of foci and relationship novel in the research area.

Health tourism in Hungary, in the North-East region in particular, has a long history and will have a long future. Developments in every destination, therefore, must prioritize the objective of the subsequent improvement of the life of the local people.

Life quality is one of the most frequently quoted concepts both in our everyday life and in professional / scientific environments; consequently, it is defined and interpreted from many different angles and perspectives. Thus, this concept has not gained a universally accepted and uniform definition so far; however, I hope to have contributed important inputs to achieving a clearer understanding between different approaches.

The outcomes of my investigations may provide a basis for carrying out further impact assessments, for conducting similar researches in the future, and for comparing the overtime results of these researches and developments.

I consider it important that further researches of life quality and of the role of health tourism are conducted, since this will ensure that the elements of life quality and the interrelationships in health tourism are better understood. I presume that future investigations of subjective opinions and satisfaction would be very useful to carry out.

6. LIST OF AUTHOR'S PUBLICATIONS IN THE RESEARCH TOPIC

Publications in compliance with the Doctoral requirements:

1. **A. Sőrés** – K. Pető (2011): Regional examination of certain factors influencing the quality of life, Abstract (Applied Studies in Agribusiness and Commerce), Vol. 5., No. 1-2., pp. 73-81. ISSN 1789-7874 **impakt faktor 0,01** – 32 843 karakter
2. **Sőrés A.** (2008): Az EU-csatlakozás hatásai Magyarországon a turizmus, ezen belül az egészségturizmus területén. Agrártudományi Közlemények 2009/34, p. 169-177. – 39 367 karakter
3. **A. Sőrés** (2013): Cognitive dimensions of subjective quality of life in Hajdú-Bihar County. Applied Studies in Agribusiness and Commerce Vol. 7., No. 3-4. (megjelenés alatt-befogadó nyilatkozattal) **impakt faktor 0,02** – 20 524 karakter
4. **Sőrés A.** (2013): Marketinghatékonyság az egészségturizmusban. A Falu, XXVIII. évf. 2. szám, pp. 81-91 (megjelenés alatt-befogadó nyilatkozattal) – 30 967 karakter

FURTHER PUBLICATIONS

In Hungarian language scientific journals with abstracts in a foreign language

Sőrés A. (2009): Az egészségturizmus és az életminőség kapcsolatrendszerének vizsgálata. Agrár- és Vidékfejlesztési Szemle 4. évfolyam 2009/1, pp. 66-72. ISSN: 1788-5345

Sőrés A. (2009): Az egészségturizmussal összefüggő életminőség egyes elemeinek vizsgálata Hajdú-Bihar megyében. Világtrendek a turizmus-iparban, Szolnok, 2009. november 26., Economica folyóirat, 2009 különszám, p.72-83. ISSN: 1585-6216

In foreign language scientific journals

A. Sőrés – K. Pető – M. Csipkés (2012): Examining Life Quality in Hajdúszoboszló Tourist Area, with a Special Focus on Health Conditions, Journal of Agricultural Informatics, Vol. 3., No. 1., pp. 1-10.

Full length international conference papers published in foreign languages

A. Sőrés – A. Nagy – K. Pető (2010): Analysis on the objective indicators of life quality in Hajdú-Bihar county. International Scientific Conference Agrarian Perspectives XIX., Prága, 2010. szeptember 14-15. ISBN: 978-80-213-2123-6 pp. 317-323.

A. Sőrés – K. Pető (2010): Development programs in Hungary. Umweltgerechte Nutzung und nachhaltige Entwicklung des ländlichen Raumes. Workshop zum Abschluss des Arbeitsplanes

2008-2010 im Rahmen der Universitätspartnerschaften mit osteuropäischen Ländern, Rostock, 2010, pp. 56-71. ISBN: 978 3 86009 106 7

Full length conference papers in Hungary published in foreign languages

Sörös A. (2009): Die Bedeutung des Gesundheitstourismus in Ungarn und seine Wirkung auf die Lebensqualität. Erdei Ferenc V. Tudományos Konferencia, Kecskemét, 2009. szeptember 3.-4., pp. 865-870. ISBN: 978 963 7294 73 0

A. Sörös – K. Pető (2010): The specific advantages of health tourism and the development programmes of health tourism, International Conference on Tourism and Sports Management, Debrecen, 2010. május 27-28. pp. 1-9. ISBN: 978-963-473-378-2

Hungarian language conference papers with abstracts in a foreign language

Sörös A. (2009): Az egészségturizmus trendjei, avagy hogyan is fürdőzünk. Tavasz Szél Konferencia, Szeged, 2009. május 21-24., pp. 345-355. ISBN: 978 96 87569 3 0

Sörös A. (2011): Az életminőség szubjektív tényezőinek vizsgálata egy fürdővárosban. VI. KHEOPS Tudományos Konferencia, 2011. május 18., Mór, „Paradigma- és stratégiaváltási kényszer a gazdaságban” - fiatal kutatók tudományos fóruma, pp. 294-303. ISBN: 978-963-87553-8-4

Hungarian language conference papers without abstracts in a foreign language

Sörös A. (2008): Az egészségturizmus szerepe a vidékfejlesztésben. XIV. Nemzetközi Környezetvédelmi és Vidékfejlesztési Diákkonferencia, Mezőtúr, 2008. július 2-4., pp. 53. ISBN: 978-963-06-87874-0-8

Sörös A. (2008): Egészségturizmus számokban, avagy hogyan változtak a turisztikai mutatók az elmúlt időszakban. VI. Alföldi Tudományos Tájégozódási Napok, Mezőtúr, 2008. október 16-17. pp. 14-19. ISBN: 978-963-87874-2-2

Sörös A. (2009): A gazdasági világválság hatásai a hazai turizmusra, ezen belül az egészségturizmusra. Erdei Ferenc V. Tudományos Konferencia, Kecskemét, 2009. szeptember 3-4., pp. 860-865. ISBN: 978-963-7294-79-2

Sörös A. (2012): A fenntartható életmód kérdései a Nyírségben: „A Bihar-hegység és a Nyírség talajvédelmi stratégiájának kidolgozása az EU direktívák alapján” konferencia, Debrecen, 2012. február 24., HURO/0901/135, ISBN 978-615-5183-16-4 pp. 161-167.

REFERENCES

1. CUMMINS, R. A. (1997): Comprehensive quality of life scale adult, School of Psychology, Deakin University, Melbourne, pp. 64
2. DIENER, E. – BISWAS –DIENER, R. (2000). New directions in subjective well-being research: The Cutting Edge. *Indian Journal of Clinical Psychology*, 27., pp. 21-33.
3. EASTERLIN, R. A. (1974): Does economic growth improve the human lot? Some empirical evidence. In: P.A. Davis – W.R. Melvin (szerk.): *Nations and Households in Economic Growth*. Paolo Alto, Stanford University Press, 98-125
4. KÖNYVES E. – MÜLLER A. – MONDOK A. (2004): Az egészségturizmus lehetőségei Hajdúszoboszló példáján, *Szolnoki Tudományos Közlemények VIII*. Szolnok, 1-11. p.
5. KSH (2011): Magyarország 2011: www.ksh.hu/docs/hun/xftp/idoszaki/mo/mo2011.pdf (Letöltés: 2012.05.06.)
6. MALHOTRA, N. K. (2008): *Marketingkutatás*, Akadémiai kiadó, Budapest, 800. p.
7. MICHALKÓ G. – RÁTZ T. – IRIMIÁS A. (2011): Egy magyarországi fürdőváros lakosságának életminősége: az orosházi eset, *Turizmus Bulletin*, XIV. évfolyam 4. szám, 61-68. p.
8. MICHALKÓ G. – RÁTZ T. (2011): *Egészségturizmus és életminőség Magyarországon: fejezetek az egészség, az utazás és a jól(l)ét magyarországi összefüggéseiről*, MTA Földrajztudományi Kutatóintézet, Budapest, 180.p.
9. MICHALKÓ G. (2010): *Boldogító utazás*, MTA Földrajztudományi Kutatóintézet, Budapest, p.119
10. MILMAN, A. – PIZAM, A. (1988): Social Impacts of Tourism on Central Florida; *Annals of Tourism Research* 15/2., pp. 191-204.
11. PIZAM, A. – MILMAN, A. – KING, B. (1994): The Perceptions of Tourism Employees and Their Families Towards Tourism: A Cross-cultural Comparison; *Tourism Management*, Volume 15. Issue 1., pp. 53-61.
12. RÁTZ T. (1999): *A turizmus társadalmi-kulturális hatásai*, Budapesti Közgazdaságtudományi Egyetem, Ph.D. disszertáció, 230. p.
13. SAJTOS L. – MITEV A. (2007): *SPSS kutatási és adatelemzési kézikönyv*, Alinea Kiadó, 404. p.
14. SZABÓ L. (2003): *A társadalmi támaszt nyújtó személyes kapcsolatháló és a szubjektív életminőség összefüggései az egészséges és a mozgáskorlátozott személyek körében*, Budapesti Közgazdaságtudományi és Államigazgatási Egyetem, Ph.D. értekezés, 283. p.
15. UTASI Á. (2005): *A kapcsolatok hatása a szubjektív életminőségre*, in: *A szubjektív életminőség forrásai Biztonság és kapcsolatok*, szerk: Utasi Á., MTA Politikai Tudományok Intézete, Budapest, 2006, 312. p.