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ANALYSIS OF THE BIO-PSYCHO-SOCIAL FACTORS INFLUENCING THE QUALITY OF LIFE OF SENIORS LIVING IN REST HOMES

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Abstract

This article provides a summary of the results of research in the quality of life of seniors. In the introduction we define the term quality of life and we discuss the roles of its psychosocial determinants.

The purpose of this research is to establish the quality of life of seniors living in rest homes, assess the quality of life in various domains of life from the aspect of their significance with regard to overall satisfaction with the quality of life. A group of seniors who live in a home environment and who are also graduates of the University of the Third Age at the University of South Bohemia in České Budějovice, served as a control group. Quantitative research strategy – questionnaire survey – was used to achieve the research goal. A combination of questionnaires, developed by the World Health Organisation (WHO) for researching the quality of life of seniors, was used as an instrument for obtaining the required data. This concerns a standardised Czech version of three internationally used questionnaires: WHOQOL-OLD, WHOQOL-BREF and the Attitudes to Aging Questionnaire – AAQ.

Differences in perception of quality of life in both groups are clear in a number of aspects and we devote the "Results" section to description of these.

Key words: *senior – quality of life – WHOQOL-OLD questionnaire – WHOQOL-BREF questionnaire – Attitudes to Aging Questionnaire (AAQ)*

ORIGINAL ARTICLE

INTRODUCTION

In recent times we frequently encounter the term quality of life in relation to modern approaches to seniors. This term is distinguished by its high degree of subjectivity and individuality. The subjective perception of quality of life is identified using the abbreviation QOL. The quality of life concept was originally a political and economic concept. However, it also gradually began penetrating into social sciences such as sociology, psychology, pedagogy, as well as medicine and nursing. Society is currently undergoing significant demographic changes. The number of aging and old people is gradually increasing, which does not remain without a response by specialists and their endeavours to examine all the aspects of life of this age group.

In medicine and psychology quality of life is considered a multi-dimensional, subjectively measurable construct. It is considered a positive indicator of the

overall condition of the individual, enabling assessment of complexly specialised medical and psychosocial intervention. The World Health Organisation understands quality of life to mean "how a person perceives his standing in life in the context of the culture in which he lives and in relation to his goals, expectations, life style and interests" (Dragomirecká 2009, p. 9).

Specialist literature gives a whole range of definitions for quality of life, however we can summarise that, on the most general level, quality of life is perceived to be the result of interaction between many factors. These are social, medical, economic and environmental conditions, which interact together and affect human development (Hnilicová 2005).

Measuring the quality of life of seniors

Dragomirecká (2009) states that, in social gerontology, important dimensions of the quality of life in old age are considered to be overall state of health, the ability to perform ordinary activities, financial security and satisfaction with life. At the impulse of the World Health Organisation the WHOQL (World Health Organisation Quality of Life) international work group began its activities in the beginning of the nineteen nineties and developed questionnaires for assessing quality of life. This work group was made up of the representatives of 15 research centres worldwide. During the period from 2001 to 2004 the international "Assessing the quality of life of seniors and their relationship to healthy aging" project took place with the participation of 23 research centres from four continents (Dragomirecká 2009).

In the Czech Republic it is the Psychiatric Centre in Prague that is concerned with assessing the quality of life and validation of instruments for quality of life. The Czech version of the WHOQOL-100 and WHOQOL-BREF questionnaires were validated for research and clinical practice. The WHOQOL-OLD questionnaire was developed for assessing the quality of life of the older population (Ondrušová 2009).

From the philosophic aspect we can state that the quality of life is affected not only by material and formal causes, i.e. choosing opportunities that a person then realises, but also by what we are heading towards and what we call the meaning of life (Hogenová 2002). In her research E. Lukasová discovered nine subject categories for the meaning of life, which include: own well-being, self-realisation, family, employment, society, interests, experience, services to some belief and vital needs (Lukasová 1992). The method of realisation and fulfilment of the values of the given value scale, the possibility of achieving the chosen preferences and satisfaction of their achievement makes up the content of the human life and also determines its quality. A person's consciousness also leads them to seek out a meaning for their life.

This research is most frequently performed by quantitative questionnaire methods. Most of the questionnaires are conceived so that they clarify the current state of health of the respondent, personal and other anamneses, the respondent's affinity to movement, or physiotherapy, potential difficulties during normal daily activities, such as getting dressed, walking up stairs, hygiene, etc. From the patient's viewpoint a so-called bio-psycho-social approach should be maintained, i.e. respect of all other factors, for instance mental, social, cultural anthropological or religious, which seemingly are not related to medicine, but frequently have a significant impact on the development, progress or recovery from a specific illness (Zeman 2008).

Factors influencing the quality of life of seniors

Most definitions defining the quality of life endeavour to list the most important factors involved in forming an individual's quality of life. With regard to the subjectively different perception of these factors, it is not possible to define all these factors. We can mention a group of factors (areas), which have direct or indirect impact on human and social development. This concerns medical, social, economic and environmental areas. Another group of factors that influences an individual's quality of life is absolutely specific and tangible. For example this concerns age, gender, family situation, polymorbidity, achieved education, the individual's scale of values, economic situation, culture, etc.

According to Topinková (2005) health is one of the most important human values. Old age is not an illness, but some older people have medical and functional problems. The gradual decrease in independence and

increase in dependence is a serious risk factor in old age. For clinical practice and for the requirements of social services and care, it is important to diagnose and treat a specific disease and also assess the senior's functional capability and self-sufficiency. Causes of worsening self-sufficiency (apart from chronic disease and decreased physical and mental ability) can be risk factors of a wholly "non-medical" character. This chiefly concerns unsatisfactory living conditions insufficient financial security, unavailability of care services or the family's unwillingness (inability) to provide care (Topinková 2005).

In addition to clear and objective standards, such as the ability of self-care, level of mobility and ability to influence development of one's own life, Van der Steen (2001) gives the level of subjective personal well-being as an important factor influencing the quality of life. This is simultaneously considered one of the fundamental components of health.

Another event that can affect family life is children leaving home. Spouses suddenly find themselves alone, with only each other. They must find a new method of married life without children. This change can bring partners closer together or, on the contrary, cracks can appear in their relationship, which can be filled with emptiness. We are talking about "empty nest syndrome". The loss of the parental role is frequently replaced with a new role – the role of grandparents (Pichaud and Thareauová 1998).

One of the most difficult trials of life in the life of an older person is loss of their partner in life. Widowhood may lead to feelings of abandonment and personal insignificance (Vágnerová 2007). A person must reconcile himself to the loss of his partner in life and also the death of his peers. Říčan (2004) states that reconciling with widowhood means reorganisation of your life and setting new goals.

With progressive age the senior's manual dexterity is reduced and problems with orientation appear. They begin to suffer the so-called social integration handicap, which means the inability to participate in normal social relations (Pacovský 1994, p. 19). If it is no longer safe or possible for an older person to live in a home environment, they are put before a mentally very demanding situation in their life – leaving to live in an institutional facility. They may be at risk of loss of autonomy, adaptation shock and the "last stint syndrome". Other factors that significantly influence the satisfaction of seniors and the quality of their lives are chiefly health, social environment, inter-personal relations, financial security, activities and medical and social care (Ondrušová 2009).

METHODS AND MATERIAL

Quantitative research strategy– questionnaire research - was used to achieve the research purpose. A combination of questionnaires developed by the World Health Organisation (WHO) for researching the quality of life of seniors was used as an instrument for obtaining the required data. This concerns standardised Czech versions of three internationally used questionnaires: WHOQOL-OLD, WHOQOL-BREF and the Attitudes to Age and Ageing Questionnaire – AAQ.

The WHOQOL-OLD quality of life questionnaire covers six areas that are of significance for people of a higher age. This concerns *function of senses, independence* (self-sufficiency, ability to take care of themselves), *fulfilment* (in the sense of achievement of past goals, current contribution and future prospect), *social involvement* (contact with people and the appropriate number of meaningful activities), *attitude to death and dying and close relations* (intimateness). Each area (domain) contains four items – in total the questionnaire has 24 items that it assesses on five-point Likert scales expressing intensity, capacity or satisfaction.

The WHOQOL-BREF quality of life questionnaire is an abbreviated version of the WHOQOL 100 questionnaire. Because it became apparent that the one hundred item version of this instrument was too long in clinical practice, an abbreviated version was created – WHOQOL-BREF with 26 items. Two items are independent assessment of the overall quality of life and the overall state of health and 24 items are grouped into four areas (domains). This concerns *the physical, psychological, social area and the environment*. Assessment takes place on five-point Likert scales.

The AAQ Attitudes to Age and Aging Questionnaire is another questionnaire that originated in cooperation with the majority of research centres participating in the WHOQOL-OLD project. It contains 24 items, grouped into 3 domains. The domain of *psychosocial loss* includes experience of loneliness, social exclusion, secluding oneself and gradual loss of physical independence. The second domain called *physical changes* includes condition, exercise and the overall reflection of physical symptoms of age. The last domain is called *psychological growth* and expresses positive experience that we could express as wisdom or maturity. The items in this domain chiefly concern a positive relationship to oneself and the surrounding world (Dragomirecká 2009). Respondents also choose their responses on a Likert scale of 1 to 5 here.

Research also included establishment of key demographic and identification data. This concerned age, gender, marital status, whether respondents have children, education, the length of their stay in a rest home, acknowledgment and value of contributions towards care.

Group characteristics

The key group was made up of inhabitants of the South Bohemian Region aged 60 years and over. The first selected group (N 1=156) was intentionally chosen from among inhabitants of rest homes in the South Bohemian Region, where inclusion criteria are: age over 60, willingness to cooperate and preserved cognitive function. The second selected group (N 2=74) was made up of seniors living in their own homes, who were included in the research on the basis of the same criteria. Seniors in this group were graduates of the University of the Third Age at the University of South Bohemia in České Budějovice.

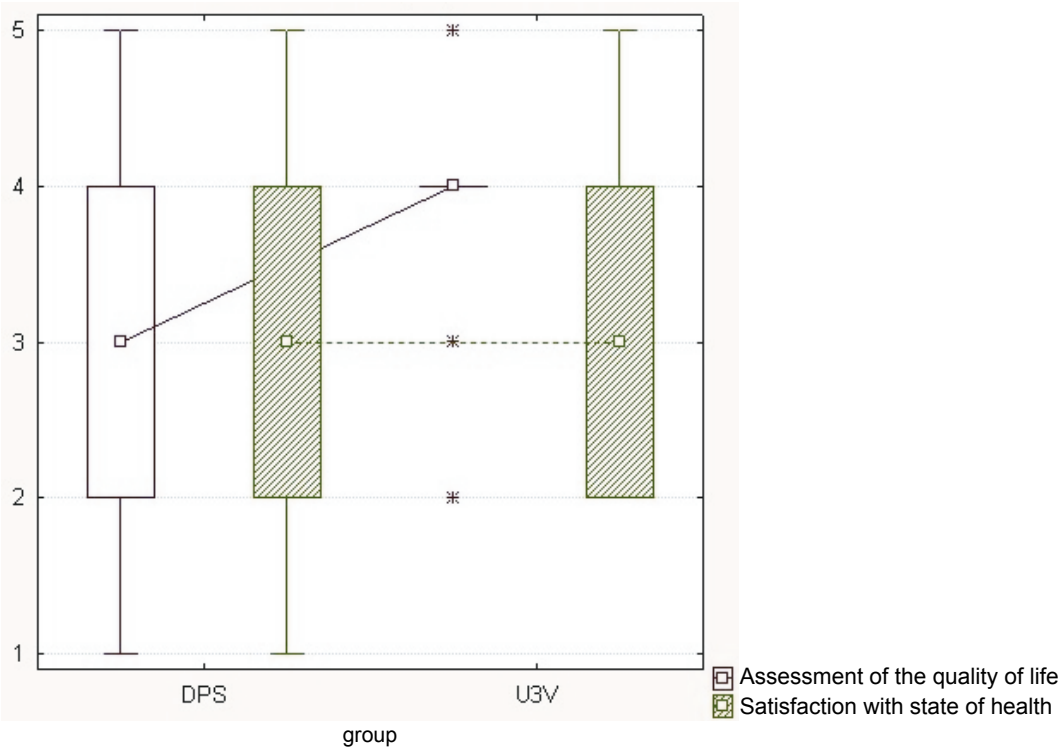
Data processing methods

During evaluation we focused on assessing and statistically expressing satisfaction with health and quality of life and the importance of the determinant of health and QOL in both groups.

We based our findings on results in life domains, transformed to a scale of 0–100. With regard to the character of classification of results were performed the analyses using non-parametric methods. We used correlation analysis (Spearman's sequence analysis) for analysis of relations between individual life domains and overall quality of life and satisfaction with health, during identification of differences between groups or differences in relationship to the demographic characteristics of test respondents for independent choices (Mann-Whitney's U test, Kruskal-Wallis test). During comparison of respondents from both groups (DpS and U3V) we based our findings only on data from categories of balanced age and with adequate representation (i.e. data from respondents younger than eighty years) – the number of respondents is consequently reduced to 92 (DpS) and 72 (U3V) here. Other analyses come from the complete research sample.

RESULTS

Graph 1 portrays the differences in assessment of the quality of life and in satisfaction with health between both groups. Respondents from rest homes give a median neutral assessment in both cases, however their range of responses covers the whole range from marked dissatisfaction to marked satisfaction. On the contrary, respondents living in a home environment most frequently state that they are satisfied with their quality of life and none of them stated that they were markedly dissatisfied with their health. It is clear from table 1 that the results in both indicators demonstrably differ on the level of significance of less then 1% (highlighted in bold).



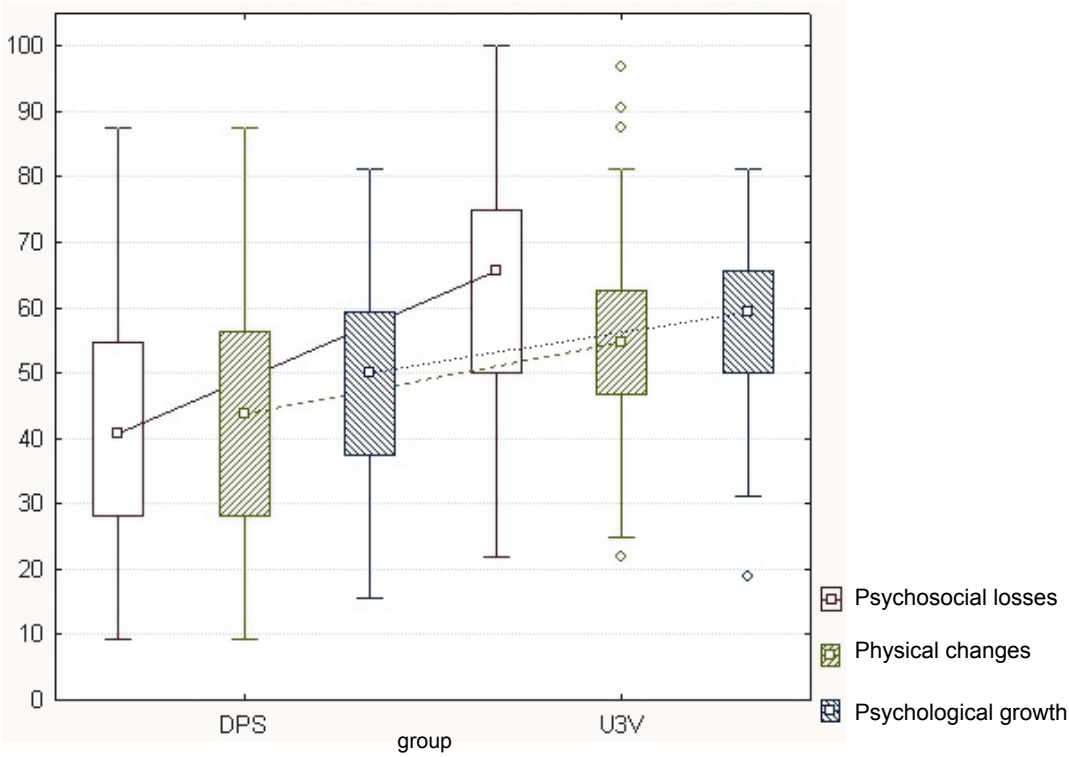
Graph 1. Assessment of quality of life and satisfaction with state of health

Table 1. Assessment of quality of life and satisfaction with state of health for both monitored groups of seniors

		Quality of life						Satisfaction with health				
		N	average	median	average order	M-W U / chi-quadrate	p	average	median	average order	M-W U / chi-quadrate	p
DPS		92	3.08	3	66.60	1849.5	0.000	2.58	2	69.54	2120.0	0.000
U3V		72	3.82	4	102.81			3.24	3	99.06		
DPS	women	54	3.11	3	47.81	955.0	0.554	2.52	2	45.27	959.5	0.578
	men	38	3.03	3	44.63			2.66	2	48.25		
U3V	women	53	3.98	4	40.08	313.5	0.006	3.26	4	37.25	463.5	0.585
	men	19	3.37	4	26.50			3.16	3	34.39		
women	DPS	54	3.11	3	40.18	684.5	0.000	2.52	2	43.47	862.5	0.000
	U3V	53	3.98	4	68.08			3.26	4	64.73		
men	DPS	38	3.03	3	27.00	285.0	0.177	2.66	2	26.20	254.5	0.059

The detailed data in Table 1 concerns differences between results for men and women – while there is no demonstrable difference between the results for men and women in the group from the rest home, in the control group women state a higher satisfaction with their quality of life than men.

Graph 2 shows the results of both groups in the domains of the AAQ questionnaire. While the results of respondents from the University of the Third Age range mostly in the zone of positive assessment, the results of respondents from rest homes show their slight negative (psycho-social loss, physical changes) or neutral (psychological growth) experience.



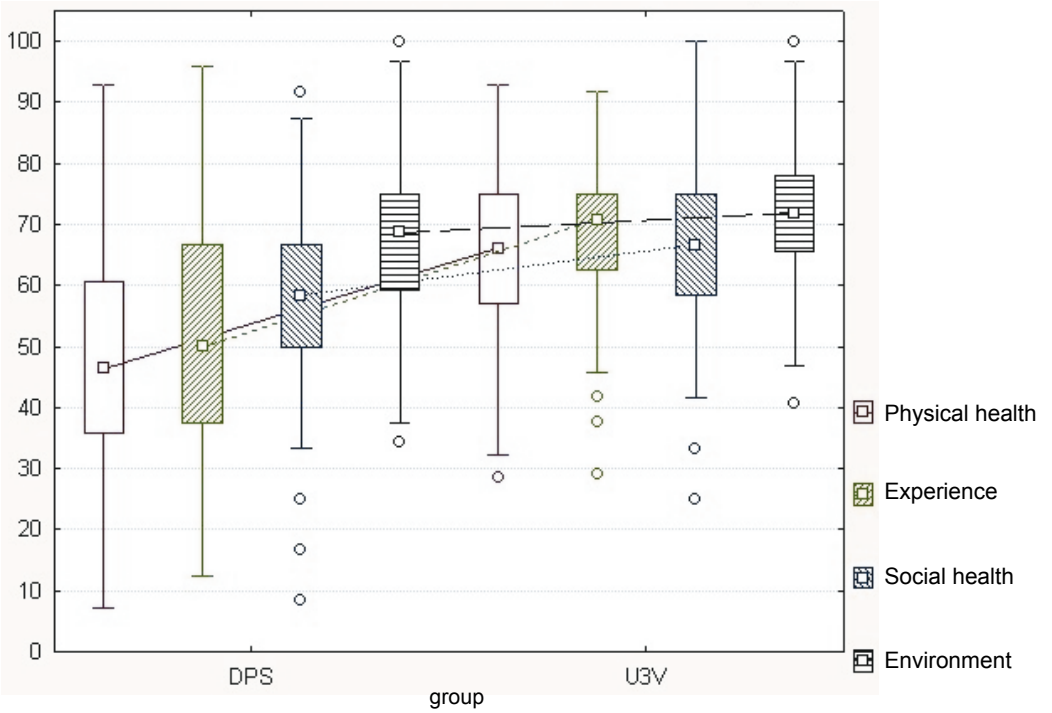
Graph 2. Distribution of AAQ scale results for both monitored groups of seniors

Differences in assessment of domains in questionnaire WHOQOL-BREF (Graph 3) are similar. There is a slightly positive assessment predominant by respondents from the control group in all domains, while this is apparent only in assessment of social health and environment by respondents from the rest home – however, an overall lower result is also demonstrable here.

The difference in assessment of individual life domains is not the only type of difference between both monitored groups. The structure of connections between individual life domains and the overall feeling of quality of life and satisfaction with health also differs. Even though it is clear that, for both groups, some domains function as an invariant (fixed) from the aspect of their significance to quality of life, it is also clear that both groups perceive other indicators to be variously significant or topical. While this affinity is very high in the group of seniors from rest homes (Spearman's correlation coefficient 0.0607), in the control group we encounter a highly evidential, but only a moderately powerful, positive correlation (0.0356) (Table 2). The higher affinity between state of health and perception of the quality of life in seniors from rest homes

is also clear from the quantity of positive correlations – as if more circumstances could impact the physical feeling of health in this group of seniors, while seniors from the control group seem more socially active and overall more "robust".

In both groups quality of life and satisfaction with health are also influenced by "psychosocial loss", "physical changes", "social involvement" and "social relations". Our findings also indicate that while affinity is more significant in the sphere of relations and social function for seniors in rest homes, "social relations" and "social involvement" are more extensively defined in their counterparts from the control group.



Graph 3. Distribution of WHOQOL-BREF scale results in both monitored groups of seniors

DISCUSSION

Quality of life is a complicated and very general term. It is a difficult to define concept due to its multidimensionality and complexity. It concerns understanding of human existence, meaning of life and being itself. It includes searching for the key factors of being and self-understanding. It examines material, psychological, social, spiritual and other conditions for human health and a happy life. We agree with Tokár's statement (2002, p. 189) that "an individual's quality of life is a multi-level system of attitudes, relations and actions, intersected by the individual's own needs in life and values. The path along which the individual sets out in the direction towards its fulfilment is as important as needs and values."

Fleck et al. (2003) state that the number of healthy seniors is increasing and this forces us to change established stereotypes, based on the opinion that old age is a synonym for illness. In our research we found that age itself has no demonstrable effect on quality of life. On the contrary, variable life styles and a number of psychosocial determinants show a very significant effect. This may also demonstrably be related to the physical feeling of health in seniors from rest homes. Křížová (2005) believes that the state of health is fundamentally affected by all activities that seniors carry out.

Table 2. Detailed overview of the results in individual domains for all three questionnaires and for both monitored groups: correlation between overall quality of life and satisfaction with health, with the individual scales of used methods

Method	Domain	Group			
		DPS		U3V	
		Overall quality or life	*Satisfaction with health*	*Overall quality or life*	*Satisfaction with health*
Global assessment – WHOQOL-BREF	Overall quality of life	1.000	0.607**	1.000	0.356**
	Satisfaction with health	0.607**	1.000	0.356**	1.000
AAQ	Psychosocial losses	0.528**	0.498**	0.391**	0.26(*
	Physical changes	0.542**	0.593**	0.266*	0.316**
	Psychological growth	0.528**	0.418**	0.165	0.022
WHOQOL-OLD	Function of senses	0.368**	0.370**	0.216	0.381**
	Independence	0.539**	0.446**	0.472**	0.397**
	Fulfilment	0.337**	0.159*	0.513**	0.185
	Social involvement	0.269**	0.173*	0.560**	0.486**
	Death and dying	–0.029	–0.041	–0.171	–0.033
	Close relations	0.411**	0.285**	0.310**	0.119
WHOQOL-BREF	Physical health	0.613**	0.678**	0.428**	0.624**
	Experience	0.621**	0.524**	0.537**	0.321**
	Social relations	0.307**	0.174*	0.448**	0.236*
	Environment	0.464**	0.302**	0.276*	0.176

Legend: The table rows contain data on the affinity (correlation – Spearman's correlation coefficient) between the individual scales of all three used methods with items for assessment for overall satisfaction with quality of life and with health for both monitored groups of seniors. Data identified ** is evidential on the maximum level of significance 0.01, data identified * on the maximum level of significance of 0.05.

The domains of "independence", "physical health", and "experience", a triad of scales that correspond to the bio-psycho-social concept of health, appear to be the most important for the quality of life of both monitored groups of seniors.

The actual meaning of the word health has many forms and the World Health Organisation (WHO) probably submitted the best-known definition, which defines health as a state of full physical, mental and social well-being and not as simply the absence of illness or weakness. This definition was later supplemented by important characteristics of health such as the ability to lead a socially and economically productive life (Kebza 2005).

In the domain of "death and dying" our findings correspond to research by Dragomirecká (2009, p. 19) and confirm that the fear of death and dying "belongs" to old age and does not have any special impact on assessment of the state of health. The sphere of social function is very important, but it depends on personal focus. The extended range of relationships and activities become less important along with the increase in dependence on care by another person and close relations become more important. We consider indicators of the different strength of the connection between physical health, or restriction and quality of life, to be another suggestive finding in both examined groups. This finding is decisive with regard to planning the subsequent progress of our research. Dragomirecká (2009) also confirms that her research showed a significant connection between the quality of life and state of health and also higher age, education and financial

security. She also assumes that the quality of life decreases with age and is also negatively influenced by loneliness, poverty and poor family relations. However, in our findings the oldest sub-group of respondents from rest homes rated their quality of life and state of health better than the other three sub-groups (note: with regard to assessment of health this difference is actually evidential namely in the two border age groups – however, we do not give the detailed results due to size).

Conditions for good quality of old age are based on many factors, such as the manner of life, life style, health care, physical and mental well-being, social life, hobbies, etc. To a specific degree the individual's mental adaptability to changes that are brought about by age and also a new manner of life is also important. The satisfaction in life of older people is higher if their life does not significantly differ from their manner of life in middle age (Junová 2009).

CONCLUSION

Quality of life is closely connected to the environment in which the individual lives. Providers of medical and social services should be interested in assuring these services so that the last phase of an individual's life is meaningful, without pain and loneliness. The finding that a human life should have a specific goal and direction is important for the personal feeling of own value and is one of the conditions for satisfaction in life. Research of personal well-being shows that older people can be more satisfied than younger people in some aspects. With their life-long experience older people are usually more realistic, do not have excessive expectations with regard to their aspiration for assertion on the social ladder and have lower material requirements. These components can significantly influence the subjective feeling of satisfaction (Křivohlavý 2006).

We believe that examination of the quality of life of seniors in rest homes is important chiefly because the numbers of seniors who need this type of service will increase, as a result of the increasing length of middle age and the aging of the population. The results of our findings can become a meaningful impulse and reflection for providers of social services. They can help them specify the goals of services they provide to seniors. They can also help them understand the needs of current seniors, which are important for their satisfied and dignified life. Most questionnaires for establishing quality of life are intended for clinical studies. Similarly to Sláma (2005) we also assume that if workers concerned with care of seniors become familiar with the structure of the questionnaires we used, these instruments can serve as an outline for discussion concerning problems that are important to their clients, but are not established during normal investigation.

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