

**Faculty of Public Health**  
**Department of Health Care**



*PROSPERITAS VESTRA FINIS NOSTRA!*

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**REHABILITATION CARE TO OVERCOME LONELINESS  
IN THE ELDERLY AND OLD PEOPLE**

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**AUTOREFERAT**

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The dissertation contains 158 standard pages and is structured in three chapters. It includes 8 tables, 94 figures and 7 appendices. The bibliography contains 168 sources, of which 53 in Cyrillic and 115 in Latin.

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## **ABBREVIATIONS USED**

<b>HE</b>	Housing for the Elderly
<b>TEMC</b>	Territorial expert medical commission
<b>MHG</b>	Morning Hygiene Gymnastics
<b>EG</b>	Experimental group
<b>CG</b>	Control group

## **INTRODUCTION**

The problem of loneliness of the elderly, due to its diverse aspects, has an integrative character and is the pivot of sociology, gerontology, anthropology, psychology, social work and complex rehabilitation. This age group is characterised by changes in living conditions, in social and family roles, in the nature of social and Friendship contacts, leading to a loss of life goals and the meaning of life. Loneliness becomes a persistent characteristic of the elderly and old people as a social group. The impoverishment of the population makes the issue of loneliness in older people particularly significant. These reasons are a prerequisite for the search for workable mechanisms to overcome loneliness in old age and it is a pressing question that is looking for an answer. A person's transition from working age to retirement age changes his or her relationship with society and values such as the purpose and meaning of life, good and evil, happiness and unhappiness, etc. For many of them, the process of adjustment to the new conditions of life is extremely difficult. This is due to the change in their social situation (retirement, changing social roles, misunderstanding in the family). Retirement is particularly difficult for people whose work has been highly valued during their working life. The emergence of leisure in 'more' is a prerequisite for a change in the psychological state: attention is focused on deteriorating health, loneliness, uncertainty about tomorrow. The lack of Friendships and the possibility of caring for others, the absence of variety in daily life, lead to manifestations of loneliness, helplessness and boredom for many users of nursing home services. These conditions often pose more challenges to the medical and social teams providing support in care homes than physical and functional problems.

In Bulgaria, the number of elderly people over 65 has more than doubled in the last twenty years amid demographic collapse. Ageing processes are associated with changes in the body, leading to a weakening of biological and social functions, to an exacerbation of existing or to the emergence of new, often serious diseases. For any ageing person, changes in the central nervous system are inevitable, with consequences of reduced efficiency, increased sensitivity, the onset of depression and irritability, memory decline and loss of certain skills. Scientific knowledge seeks ways to cope with loneliness in older people. Comprehensive rehabilitation at this age, addressing the biological, psychological and social aspects of the problem provides real opportunities to improve life satisfaction. Occupational therapy, as part of rehabilitation, focuses on changes in environmental conditions to facilitate the individual, increasing their motivation, well-being and effectiveness in carrying out daily activities. Ergo- and art therapy have the opportunity to take a leading role in improving and overcoming emotional and functional problems that affect the quality of life of users of the social service "Housing for the Elderly", as well as the elderly and old people.

## **1. AIM, OBJECTIVES, HYPOTHESES, SUBJECT AND OBJECT**

**1.1. Aim** to investigate and establish the impact of specific rehabilitation care in overcoming/reducing feelings of loneliness in older and elderly people through the implementation of an experiment.

### **1.2. Objectives**

1. To clarify the socio-demographic and health profile of the users of the social service "Housing for the Elderly".

2. To develop a comprehensive methodology "From the past to the present".
3. To carry out an experiment by applying the methodology "From the past to the present" with users of the social service HE.
4. To assess the degree of experienced loneliness before the experiment in both experimental and control groups.
5. To assess the degree of experienced loneliness after the experiment in both experimental and control groups.

### **1.3. The hypotheses**

**Hypothesis 1.** The elderly and old people experience a sense of loneliness.

**Hypothesis 2.** The complex methodology "From the past to the present" contributes to a positive impact on the feeling of loneliness in elderly and old people.

**Hypothesis 3.** In elderly and old people, the complex methodology "From the past to the present" does not affect their sense of loneliness.

### **1.4. Subject and object**

The subject of the study is overcoming the feeling of loneliness through rehabilitation care for users of the social service "home for the elderly". The object of the research is the users of the social service HE.

## **2. MATERIAL, METHODS AND INSTRUMENTS OF THE STUDY**

**2.1. Material of the study** to achieve the aim and objectives of the work 86 users of the social service "Housing for the Elderly" were studied. The study was approved by the Research Ethics Committee at Medical University - Varna and conducted during the period March 2019 to February

2020 (Protocol No. 81 of the Research Ethics Committee, MU-Varna, meeting of 28.02.2019). The general population is all users of the social service HE, residing on the territory of the HE "Gergana", resort. „St. St. Constantine and Helena", Varna (one hundred places). The sample includes 86 persons, which represents 86% of all patients of the home. In the territory of the town of. In the territory of Varna there are two such institutional services offered besides the Gergana Home and the St. John Chrysostom Home, but the latter was not included in the study due to the mixed funding principle.

**Inclusion criteria for the study:**

- persons over 65 years of age using the social service "Housing for the Elderly";
- users of the social service HE who gave their consent to participate in the study;
- persons staying more than one year in the social service HE.

**Exclusion criteria for the study:**

- persons under 65 years of age;
- persons who refused to participate in the study;
- persons staying less than one year in the social service "Housing for the Elderly".

Users who accepted to participate in the study were randomly assigned to two groups:

-Experimental group: 43 participants from HE "Gergana", Varna;

-Control group: 43 participants from HE "Gergana", Varna.

**2.1.1. Stages of the study :** It was conducted in eight stages, which are presented in the form of a table (Table 1):

Table 1

<i>Stages</i>	<i>Activities</i>	<i>Venue</i>	<i>Tool-rium</i>	<i>Period</i>



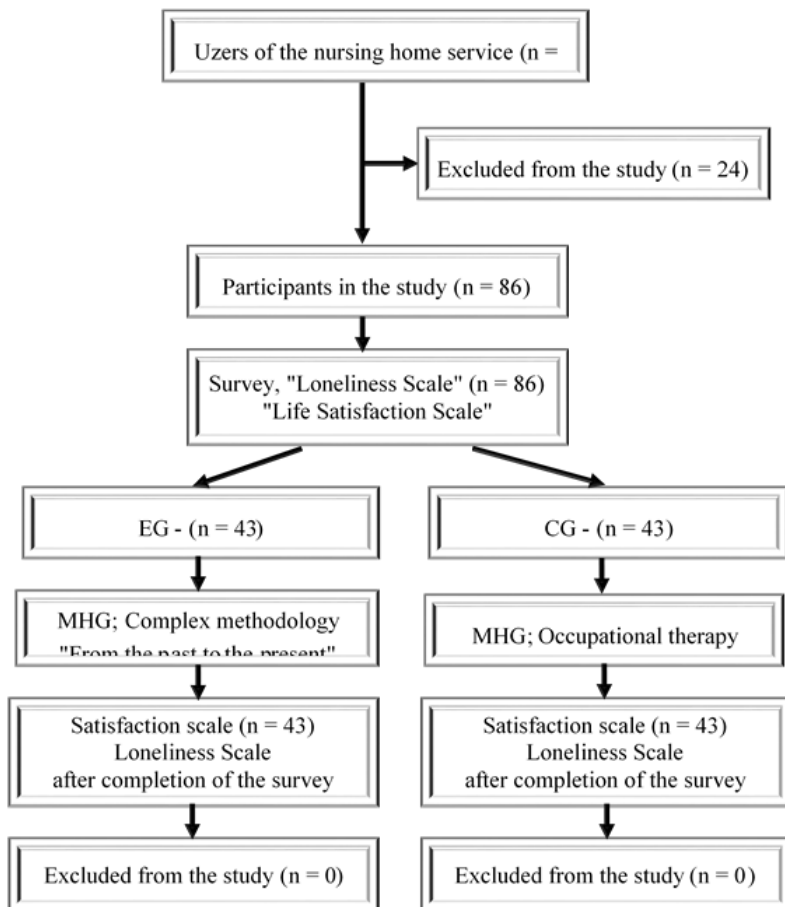
<b>Stage 1</b>	Analysis of specialized literature in relation to the relevance of the problem under study	Varna	Specialized literature, specialized databases with publications	January, 2019
<b>Stage 2</b>	Determination of the aims and objectives of the dissertation research; selection of appropriate methods; development of a toolkit for its implementation.	Varna	Participant information; Informed consent for inclusion; Individual socio-demographic profile questionnaire; Loneliness Scale; Life Satisfaction Scale	January, 2019
<b>Stage 3</b>	Creating a thematic plan for the therapy sessions	Varna	Thematic plan of therapy sessions.	February, 2019
<b>Stage 4</b>	Selection of participants according to the criteria; Questionnaire survey; Assessment of feelings of loneliness and life satisfaction before the study	HE “Gergana”, Varna;	Preset inclusion and exclusion criteria; Individual socio-demographic profile questionnaire; Loneliness scale; Life Satisfaction Scale.	March, 2019

<b>Stage 5</b>	Conducting the experiment	HE "Gergana", Varna;	Applying the thematic plan of the sessions the complex methodology "From the past to the present" with the experimental group.	March 2019- November 2020
<b>Stage 6</b>	Assessment of feelings of loneliness and life satisfaction after the survey	HE "Gergana", Varna;	Loneliness Rock; Life Satisfaction Scale;	February 2020
<b>Stage 7</b>	Statistical processing and analysis of the results at different stages of the study	SPSS v. 19.0 Microsoft Excel	Statistical Package for Data Processing SPSS 19.0.	July 2021
<b>Stage 8</b>	Summary conclusions and contributions drawn from the thesis	Varna		October 2021

### 2.1.2. Experiment

The experiment was conducted by applying the complex methodology "From the past to the present", developed by the PhD student after a preliminary presentation of the purpose and nature of the experiment. All participants completed a Questionnaire, a Loneliness Scale and a Life Satisfaction Scale before the study began. We randomly divided the respondents (n=86) into two groups: an experimental group (n=43) and a control group (n=43). In the EG, we applied Morning Hygiene Gymnastics (MHG) and the complex methodology from "From the Past to the Present".

CG was involved in MHG and occupational therapy activities offered by the social service (Figure 1). Analysis of demographic characteristics showed that a significant proportion of participants in the experimental group were aged 75 to 85 years (72.1%). There were 15 males (34.88%) and 28 females (65.11%) in the EG. Males in CG - 12 (27.9%) and females - 31 (27.9%).



**Fig. 1.** Object and scope of the experiment

The **complex methodology** "From the past to the present" consists of 5 themes: "Childhood", "Family - Marriage and Children", "Friendship", "Profession", "Favorite Activities and Interests" and a final stage. Each session lasts 60 or 90 minutes, according to the physical working capacity of the subjects participating in the specific activity. The duration of the experiment was one year. The duration for each subject is planned between 2 and 3 hours. Time that is related to the specific topic and conducted within two weeks. Tasks provided:

Week 1: at the beginning of the session explain to the group what is coming up, how long it will last, answer questions if any. Albums are made by the users with materials provided by us: colored cardboard and paper, punch, blindfolds, string, scissors, colored pencils, markers, crayons, glue, etc. Activities such as: cutting, folding, gluing, painting, colouring, lettering are carried out with help from us if needed. Share memories according to the theme set in the particular session (recalling a favourite song, poem, favourite food or game);

2nd week: participants get the necessary materials for the album;

Week 3: The group gathers to complete the scrapbook made in the first week by cutting and pasting pictures, pictures, cards; drawing and writing and sharing memories from the past related to the specific topic.

The aim of the session on the specific topic is for everyone to find and collect the necessary photos, cards or pictures on their own or with the help of their relatives, which will help them to create their own personal album by cutting, folding, gluing, drawing or writing. Through it, each of the seniors will share a particular part of their life with the rest of the group. The expected outcome of the application of the

'Past to Present' methodology is to contribute to reducing the degree of loneliness felt by the research participants.

I. The following exercises are provided at the beginning of each session:

Respiratory gymnastics - the exercises are performed from the starting position sitting around the table, 5 breathing exercises are provided. The aim is to improve the vital capacity of the lungs, prevent cardiovascular disease, strengthen muscles and mental activity and increase concentration;

Exercises for the distal parts of the upper limbs from the starting sitting position, 5 exercises are provided. The aim is to improve fine motor and extracardiac factors.

II. Incorporate exercises In the middle of the session (about 30 or 45 minutes from the start), participants stand in a standing starting position (those who cannot remain seated) and perform breathing exercises as they move around the table. The implementation of the complex methodology is carried out under the direct supervision of a doctor/rehabilitator due to the illnesses that some of the users in the HE have.

At the end of the session we set the tasks for the next week, which everyone has to complete. We set the time and topic for the upcoming session, which will take place in one week.

III. At the end of the session, repeat the breathing and small joint exercises from the beginning of the session. All other thematic sessions are conducted in this manner. During the last week of the experiment, each participant is given the opportunity to share how they felt, what happened to them, or to ask for feedback from others.

## **2.2. Methods and instruments of the study :**

The following **methods** were used in the study:

A) *Documentary-content analysis* of national normative acts and strategic documents; literary sources related to

rehabilitation care, occupational therapy, art therapy and possibilities for overcoming loneliness in elderly and old people, directly relevant to the problems under consideration.

*B) Sociological method:*

**2.2.1. Individual questionnaire** *for the study of the opinion of elderly and old people regarding the medical and social status and social communication*

The questionnaire contains 32 questions, of which 25 are closed, 2 semi-closed and 5 open. The questions are divided into the following groups to collect the following information:

- socio-demographic and health profile of the examined persons;
- attitude to group therapy and rehabilitation in elderly and old people from the HE;
- Specific features of communication in the elderly and old people in HE;
- Sharing memories and experiences that are part of the lives of the elderly and old.

**2.2.2. Loneliness Rating Scale**

The scale aims to measure the degree of loneliness experienced with the most widely used scale (The University of California Los Angeles Loneliness Scale (UCLA Loneliness Scale, Version 3) (Russell, 1996), which is constructed on 10 statements describing feelings, thoughts, and states associated with the experience of loneliness; Participants responded to the extent to which they felt this way about each of the statements by being offered a value of 1 - I never feel this way, 2 - I rarely feel this way, 3 - I sometimes feel this way, and 4 - I often feel this way. The Cronbach's alpha validity analysis showed that the loneliness scale had good reliability  $\alpha=0.713$ : for EG before the experiment  $\alpha=0.859$  and after the experiment  $\alpha=0.780$ ; CG before the study  $\alpha=0.497$  and after the study  $\alpha=0.529$ .

**2.2.3. Life satisfaction scale:** the Diener Satisfaction With Life Scale (SWLS, Diener et al., 1985), which consists of 5 domains. Constructed to measure the cognitive component of subjective psychological well-being as a global assessment of life; it has high psychometric properties and is related to a wide range of indicators of subjective and psychological well-being. The life satisfaction scale consists of five statements. Subjects are asked to rate each one using the seven-point Likert-type scale ( from completely disagree - 1 to 7 - completely agree. The Cronbach's alpha validity analysis shows that the life satisfaction scale has high reliability  $\alpha=0.865$ : EG before the experiment  $\alpha=0.872$  and after the experiment  $\alpha=0.879$ ; CG before the study  $\alpha=0.821$  and after the study  $\alpha=0.827$ .

*C) Experimental method:* development and application of the complex methodology "From the past to the present" for overcoming loneliness.

*D) Statistical methods:*

- parametric methods for hypothesis testing
- Assessment of internal consistency for questionnaire reliability - Cronbach's Alpha;
- graphical analysis
- nonparametric methods for hypothesis testing:
  - $\chi^2$ -analysis ( $\chi^2$ ) - to assess the association between qualitative variables.
- analysis of variance: to measure differences in a population by a particular attribute. Measurement of the indicators arithmetic mean, mode and median of the statistical series, and mean square deviation;
- Discriminant analysis to investigate the primary manifestation of emergent patterns.

Statistical software package MS Excel 2019 and SPSS v. 19 were used for data processing.

### 3. RESULTS AND DISCUSSION

#### 3.1. Descriptive characteristics of the users of the social service

The survey was conducted among the users of the social service of the HE, and included a total of 86 users of the social service of the “Gergana” social centre, resort of. "St. St. Constantine and Helena, Varna, with the distribution by gender, age, place of residence, education and monthly income shown in (tabl. 2):

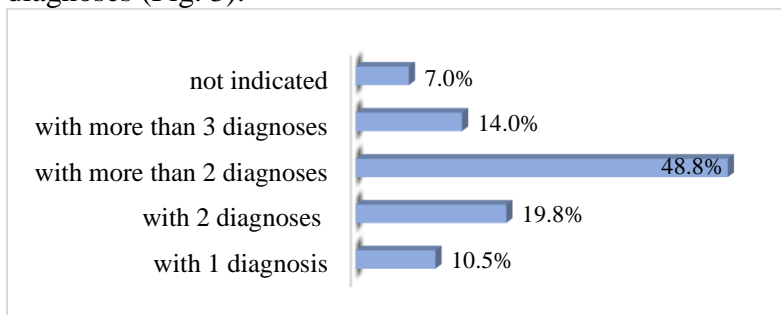
**Table 2.** Socio-demographic characteristics of the examined persons

Age	n	%
65 - 70	10	11,6%
71 - 74	11	12,8%
75 - 80	30	34,9%
81 - 84	23	26,7%
85 - 90	12	14%
<b>Gender</b>		
man	27	31,4%
women	59	68,6%
<b>Location</b>		
village	14	16,3%
small town	25	29,1%
big city	47	54,7%
<b>Education</b>		
Primary school	21	24,42%
Secondary school	47	54,7%
College degree	10	11,6%
University degree	8	9,3%
<b>Marital status</b>		
single	9	10,5%
widower	60	69,8%
divorced	17	19,8%
<b>Average monthly income</b>		
from 100 to 200lv	5	5,8%
200 - 300Blv	55	64%
300-400lv	22	25,6%
over 500lv	4	4,7%



The results show that women predominate (68.6%), persons in the age group 75-80 years with an average age of respondents was 79 years (65÷90 years). The survey data show that the highest proportion of respondents with secondary education (54.7%), the second highest proportion of respondents with primary education (24.4%), with a significantly lower number of persons with post-secondary education (11.6%) and higher education (9.3%). Depending on marital status, the highest proportion of respondents had lost their partners (69.8%), followed by those who had separated from their partners (19.8%) and only 10% had always lived alone. The majority of respondents had children (84.9%). It was found that half of the respondents lived in the big city (55%), and the lowest proportion of respondents came from the villages (16.3%). The main source of income for the users of the social service "home for the elderly" is the retirement pension. The average monthly income of the majority of respondents (69.8%) is up to 300 lv.

Leading the distribution of respondents on the indicator 'number of chronic conditions' were 83% of HE service users who reported having two, three or more diagnoses (Fig. 3):



**Fig. 3.** Number of diagnoses

The largest number of respondents had diseases of the cardiovascular system (59.3%), followed by diseases of the endocrine (20.9%) and nervous system (17.4%),

musculoskeletal system 15.1%, etc. The surveyed persons indicated the presence of more than two chronic diseases, and a small proportion of them (17.4%) had a decision from the TELC (Tabl. 3):

**Table 3.** Chronic diseases

Cardiovascular system	Respiratory system	Mmusculoskeletal system	Nervous diseases	Digestive system	Endocrine system
59,3%	5,8%	15,1%	17,4%	7%	20,9%

Survey **findings** from the socio-demographic and health profiles of older people's HE users:

***Socio-demographic and health profile of the study subjects:***

- A total of 86 users of the social service "Gergana" - Gergana were included in the study. Varna with the largest relative share of the surveyed persons aged 75-80 years, women are more than half and one third are men. The average age of the respondents was 79 years;
- The largest share of participants had secondary education, followed by those with primary education, with a significantly smaller number of those with post-secondary and tertiary education;
- A large proportion of respondents had lost their partners (the widowed), followed by those who had separated from their partners (the divorced) and many had children;
- Half of the surveyed persons come from the big city, the share of consumers from the villages is very small, and the average monthly income of most of the surveyed persons is up to 300 BGN and it is their main source of income;
- Well over half of the users have two, three or more diagnoses, some of them with a decision from the TEMC. Cardiovascular diseases account for the highest proportion,

followed by endocrine, nervous system, musculoskeletal and other diseases. Chronic non-infectious diseases are a significant socio-medical problem in the elderly and old people;

➤ More than half of the participants in the study indicated that they cannot take care of themselves, which determines the need for support and assistance in activities related to their daily life;

***Specific features of communication in the elderly and old people in HE:***

➤ In everyday life, regardless of their age, social service user mostly interact with their children, their friends and their neighbours. Women are more likely to socialise with their neighbours and children in everyday life, while men are most likely to socialise with friends. The comparative analysis shows that the majority of users most often socialise in everyday life with their neighbours;

➤ Users have a desire to interact with people their own age and most often these are people aged 65-70, both genders are making social relationships with their peers;

➤ More than half of the people surveyed have a desire to socialize with young people and this increases with increasing age (85-90), with gender and education not being a factor in this communication. At the same time, almost half of the respondents are of the opinion that people of different generations find it difficult to get along with each other;

➤ More than half of the respondents were of the opinion that they do not have difficulties in communicating, as gender and education do not pose barriers to social communication that decrease with increasing age. Marital status is not a barrier to social relationships for users in HE;

➤ Consumers with age (85-90 years) and those with secondary education are the most likely to engage in conversation with strangers and enjoy socializing. Men are

more likely to make contact with strangers than women. Satisfaction with communicating with strangers is mostly expressed by users from the HE living in rural areas. Respondents aged 65-70 and in the prime age group of 85-90 reported an aspiration for social communication and a desire to socialize.

***Sharing memories and experiences, part of the lives of the elderly and old people :***

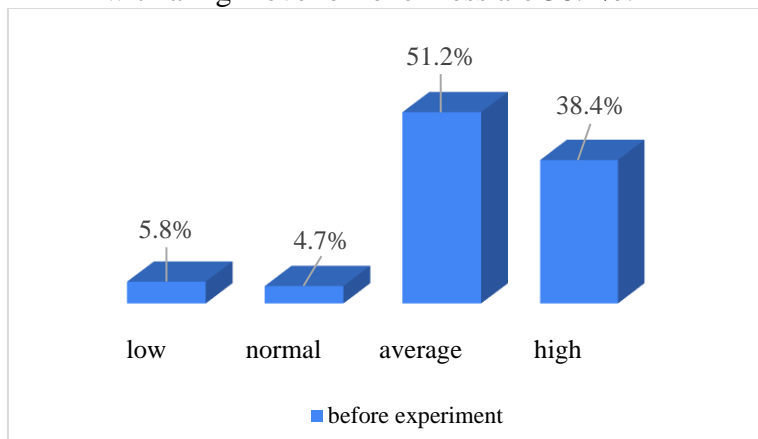
- As they get older, HE users increasingly use memories to enhance and make sense of their daily lives and accept that it helps them live better in the present, with gender and education having no influence;
- Regardless of their marital status, respondents unanimously affirmed that memories are an important part of their lives and help to make life better in the present for the majority of consumers, no matter where they lived prior to coming to HE;
- More than half of the respondents would like to reminisce about the past more often and are very willing to share their memories and experiences with other people.

In conclusion, we can say that through past experiences with a more mature understanding, many people can move forward to live better in the present. Returning to the past can offer relief, especially for the elderly who are less mobile or live in a nursing home. Sharing memories helps them recall their accomplishments and appreciate what they have achieved. Recalling past experiences can enhance the present, the meaning of life through a connection to the past, and increase a sense of significance. Recollections can provide laughter and entertainment for older people. Sharing them can be done individually or in group therapy sessions where skills can be learned to initiate and sustain conversation, to regulate periods of silence, and to improve interpersonal interactions.

### 3.2. Results and discussion of the Loneliness Scale questionnaire

86 users of the social service “Gergana“ HE - Varna in the period March 2019 - February 2020 were studied. We randomly divided the respondents (n=86) into two groups: experimental group (n=43) and control group (n=43). We administered the Loneliness Scale questionnaire to assess baseline loneliness in all respondents prior to administering the combined “From the past to the present” methodology. The baseline level of loneliness status of all respondents overall showed the following results (Fig. 4):

- with low and normal level of loneliness are 10.5%;
- more than half (51.2%) had an average level of loneliness;
- with a high level of loneliness are 38.4%.

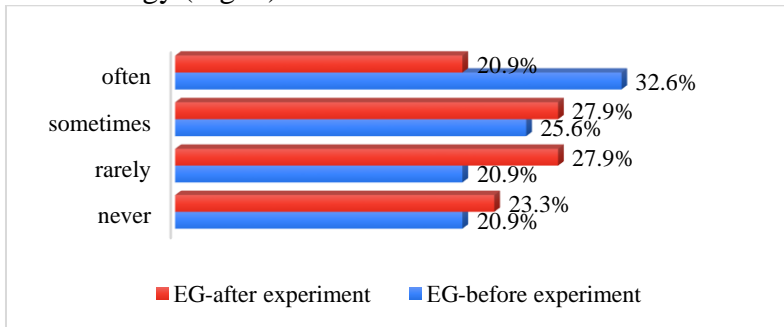


**Fig. 4.** The baseline of the state of loneliness (n=86)

After applying “From the past to the present” methodology, a comparison of item scores in the EG (*before and after the methodology*) shows some differences, largely statically significant:

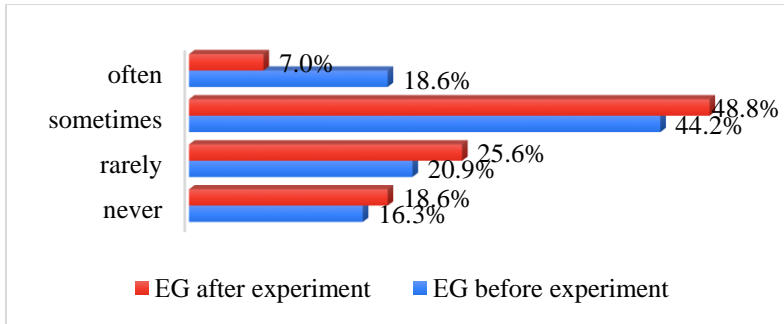
- *Element 1* (“How often do you feel unhappy doing so many things alone?”): after applying the “From the past to the

present" methodology, there was a change of 11.7% in the "often" degree and 7% in the "rarely" degree (measured on the 4-point Likert scale). EG respondents before the experiment often felt unhappy by doing various things alone at 32, 6%, but after the implementation of the methodology this feeling decreased to 20%. Respondents rarely felt unhappy (27.9%) before the experiment, while this self-reported loneliness index decreased to 20.9% after the methodology (Fig. 5):



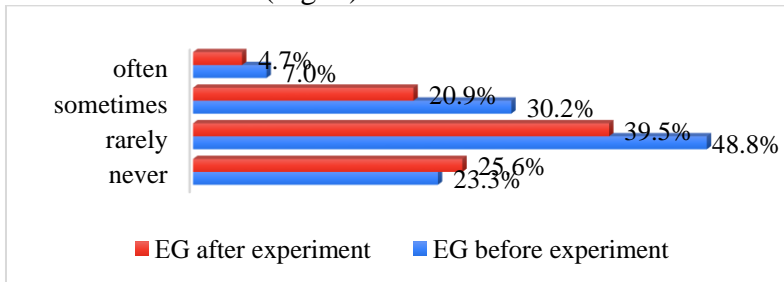
**Fig. 5.** EG - Element 1

- *Element 2 ("How often do you feel you have no one to talk to?")*: for users of the social service HE participating in the EG, after applying the complex methodology, a difference of 11.6% in the degree of "often" is reported. Before the experiment, respondents answered in 18,6% that they often felt the lack of a conversation partner to talk to, and after the experiment this feeling decreased to 7% (Fig. 6):



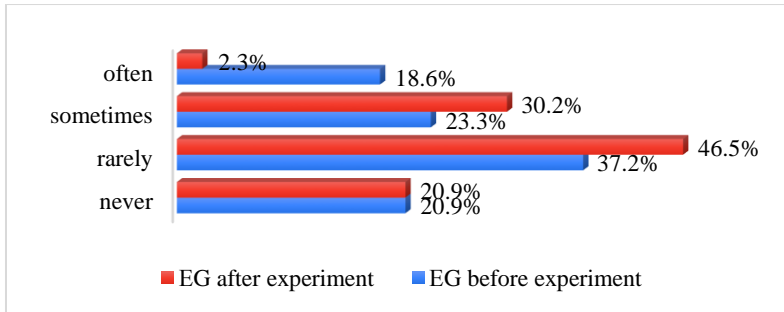
**Fig. 6.** EG - Element 2

- *Element 3 ("How often do you feel you cannot tolerate being so alone?")*: the results of the EG subjects included in the experiment show a 9.3% change for the degree "rarely" and the degree "sometimes" on the frequency of occurrence of the intolerance of being alone. EG users before the implementation of the complex methodology expressed that sometimes (in 30.2%) they felt that they could no longer tolerate being alone, while after the experiment this feeling decreased to 20.9% (Fig. 7):



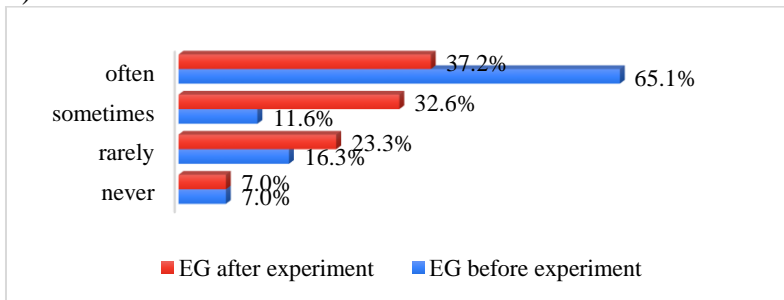
**Fig. 7.** EG - Element 3

- *Element 4 ("How often do you feel as if no one understands you?")*: in the answers of the EG respondents in the degree "often" we find a significant dynamic (from 16.3%) after the application of the complex methodology. Before the experiment, participants reported in 18.6% that often no one understands them, while this feeling decreased significantly after the experiment, to 2.3% (Fig. 8):



**Fig. 8.** EG - Element 4

- *Element 5 ("How often do you find yourself waiting for people to call or write?")*: after applying the complex methodology to the EG social service users, a significant difference was found in the "often" rate - 27.9%. Before its implementation, more than half of the respondents (65.1%) said that they often wait for people to call or write to them, and after the end of the experiment this result was 37.2% (Fig. 9):

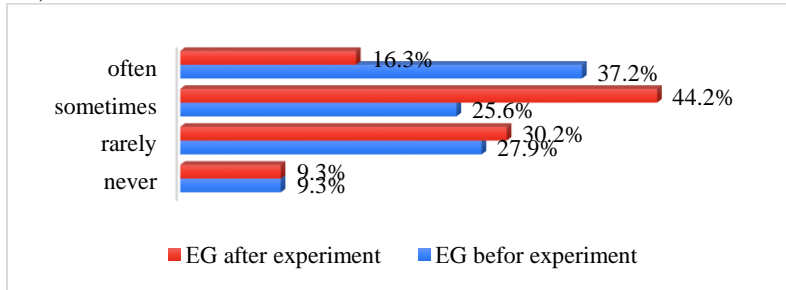


**Fig. 9.** EG - Element 5

- *Element 6 ("How often do you feel completely alone?")*: for the users of the social service HE participating in the EG, after applying the complex methodology, a difference of 20.9% change in the score of the degree "often" is reported. Before the experiment, the respondents answered that they often feel completely alone in 37.2%, while after the

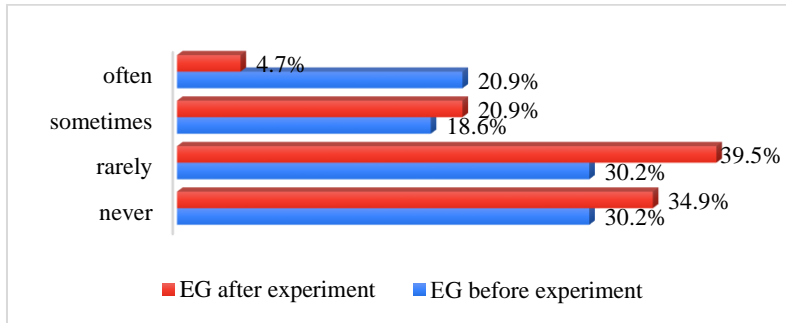


experiment the feeling of loneliness decreased to 16.3% (Fig. 10):



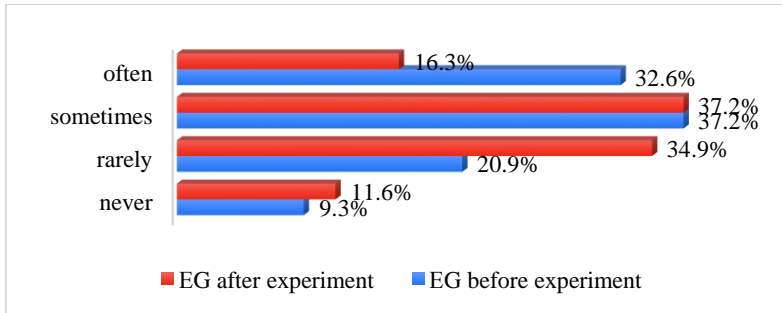
**Fig. 10.** EG - Element 6

- *Element 7 ("How often do you feel unable to reach out and communicate with those around you?")*: the answers given by the EG subjects included in the experiment for item 7 show a change of 16.2% for the degree "often" (before 20.9% and after 4.7% methodology) (Fig. 11):



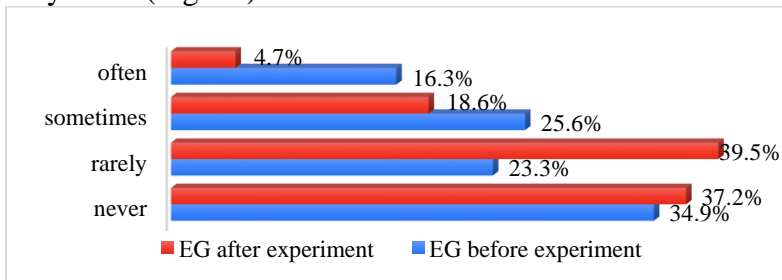
**Fig. 11.** EG - Element 7

- *Element 8 ("How often do you feel starved for company?")*: after conducting the "Past to Present" methodology, we find a significant difference in terms of the degree of "often" - 16.3% in the EG participants. Before the implementation of the methodology, 32.6% of the EG respondents "often" felt that they were stuck for company, which subsequently decreased to 16.3% after the experiment (Fig. 12):



**Fig. 12.** EG - Element 8

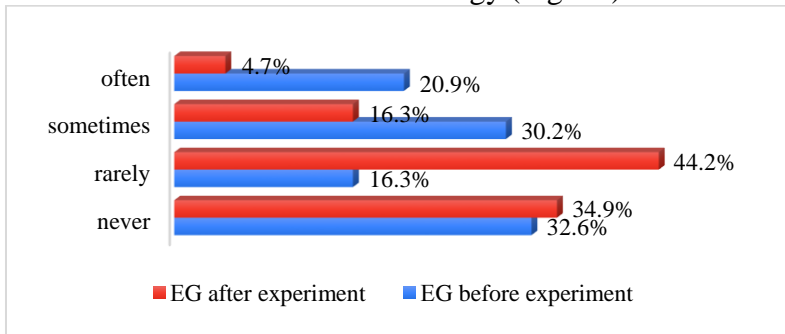
- *Element 9 ("How often do you feel it is difficult for you to make friends?")*: for the HE service users participating in the EG, a difference of 11.6% in the degree of "often" is reported after applying the complex methodology. Before the application of the methodology, the surveyed persons answered that they often find it difficult to make new Friendships 16,3%. After its completion, this percentage was only 4.7% (Fig. 13):



**Fig. 13.** EG - Element 9

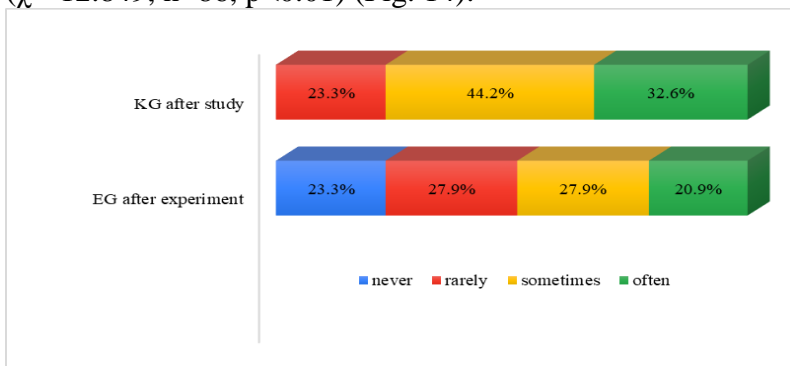
- *Element 10 ("How often do you feel shut out and excluded by others?")*: the results of the EG respondents included in the experiment show a change of 16.2% for the degree "often" and 13.9% for the degree "sometimes" on feeling excluded from other people. EG respondents before the implementation of the complex methodology expressed that they often (in 20.9%) felt excluded from others, while after the experiment this feeling decreased to 4.7%. The

results for the degree "sometimes" changed from 30.2% before to 16.3% after the methodology (Fig. 13):



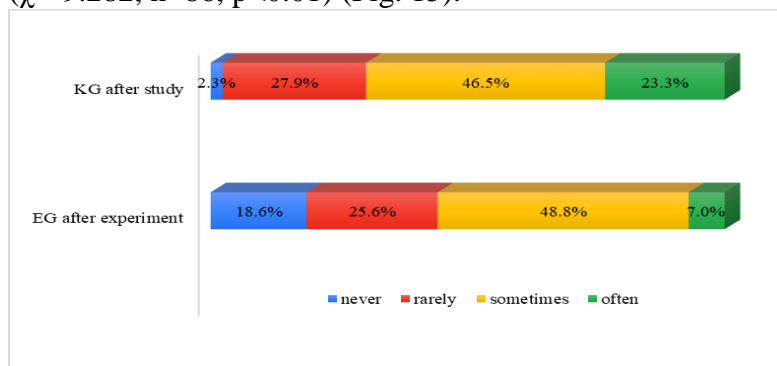
**Fig. 13.** EG - Element 10

*The comparative results between the EG and the CG on the items of the Loneliness Scale questionnaire show that a proportion of the EG respondents "never" (23.3%) feel unhappy when doing various things alone, but none of the CG respondents indicated this response. About one-fifth of the EGs expressed that they are "rarely" (27.9%) and "sometimes" (27.9%) unhappy when they cannot share their satisfaction. The data from CG showed that 39.5% of respondents "sometimes" and nearly half "often" (44.2%) felt unhappy when performing various activities independently ( $\chi^2=12.849$ ,  $n=86$ ,  $p<0.01$ ) (Fig. 14):*



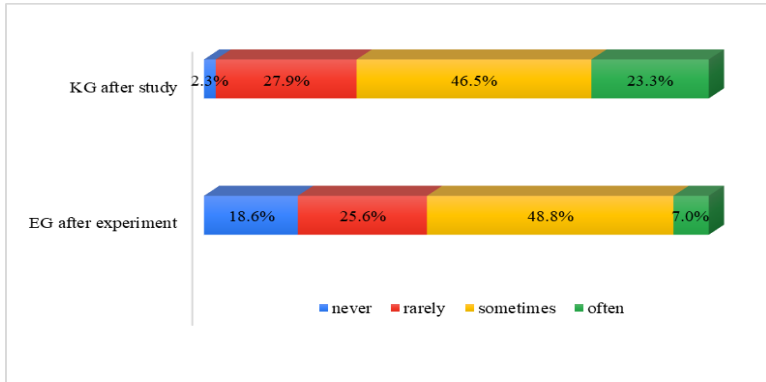
**Fig. 14.** EK and CG - Element 1 (  $p<0.01$  )

A comparative analysis of the opinions expressed by the two groups regarding the inability to communicate shows that almost half of the respondents in the EG (48.8%) and the CG (46.5%) "sometimes" feel that they have no one to share with in their daily lives. Respondents in CG largely "often" feel that they have no one to talk to (37.2%), while the proportion found in EG is significantly lower (7%). Respondents in CG who "never" feel this way are only 2.3%, while the proportion in EG is significantly higher (18.6%) ( $\chi^2=9.282$ ,  $n=86$ ,  $p<0.01$ ) (Fig. 15).



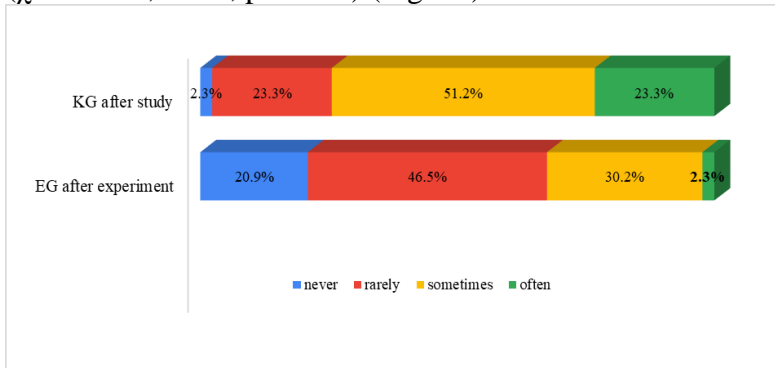
**Fig. 15.** EK and CG - Element 2 ( $p<0.01$ )

Feelings of loneliness, characterized by a depressive and anxious response to social isolation, is a serious problem faced by many older people. Almost half of the participants in the EG indicated after the experiment that they "rarely" (48.8%) have the feeling that they cannot stand being alone and a quarter of them are of the opinion that they "never" (25.6%) have the feeling of being alone. A third of respondents in the CG "often" (34.9%) find it difficult to be alone and only 2.3% "never" experience this feeling ( $\chi^2=17.803$ ,  $n=86$ ,  $p<0.001$ ) (Fig. 16):



**Fig. 86.** EK and CG - Element 3 ( $p < 0.001$ )

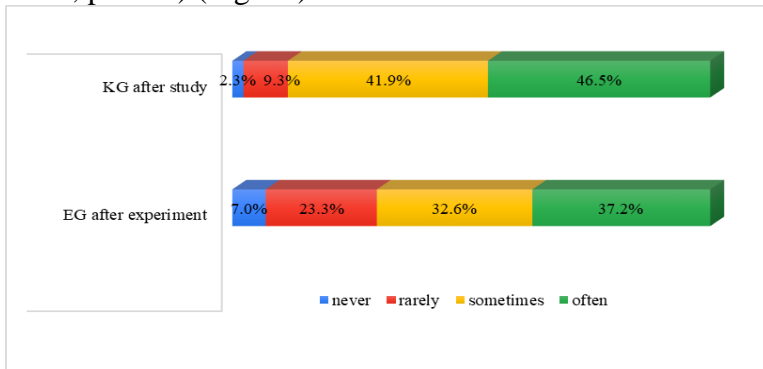
The EG responses show that half of them "rarely" (46.5%) feel that no one understands them and indicate that they "never" (20.1%) feel unaccepted. For CG, half of the respondents (51.2%) only "sometimes" felt misunderstood by other people, but they also "often" (27.9%) felt misunderstood ( $\chi^2 = 19.411$ ,  $n = 86$ ,  $p < 0.001$ ) (Fig. 17).



**Fig. 17.** EK and CG - Element 4 ( $p < 0.001$ )

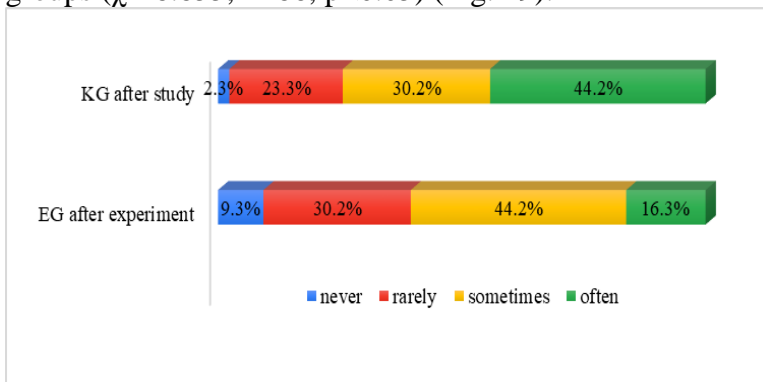
After conducting the experiment using the "From the past to the present" methodology, some of the EG respondents "often" wait for people to call or write to them (37.2%), and nearly a third of them "sometimes" feel unnecessary (32.6%). For CG, more than half of respondents "often" (62.8%) and

"sometimes" (41.9%) expect to be contacted. ( $\chi^2=4.516$ ,  $n=86$ ,  $p<0.05$ ) (Fig. 18):



**Fig. 18.** EK and CG - Element 5 ( $p<0.05$ )

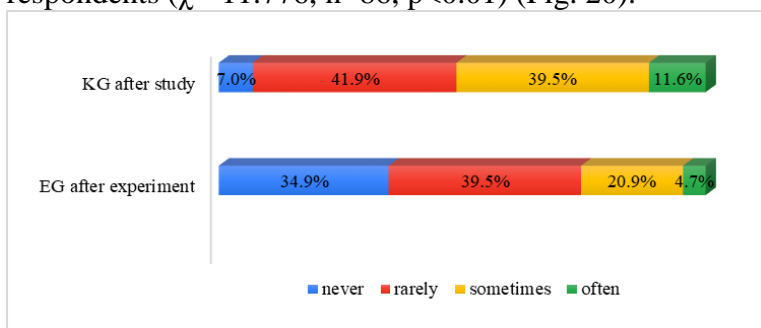
The survey data related to loneliness assessment showed that almost half of the EG respondents indicated that they felt lonely "sometimes" (44.2%) and nearly one-third of them "rarely" (30.2%) felt lonely. CG responses were dominated by respondents who „often“ (44.2%) and „sometimes“ (30.2%) felt completely alone. There was a statistically significant difference in the responses of the two groups ( $\chi^2=8.855$ ,  $n=86$ ,  $p<0.05$ ) (Fig. 19):



**Fig. 19.** EK and CG - Element 6 ( $p<0.05$ )

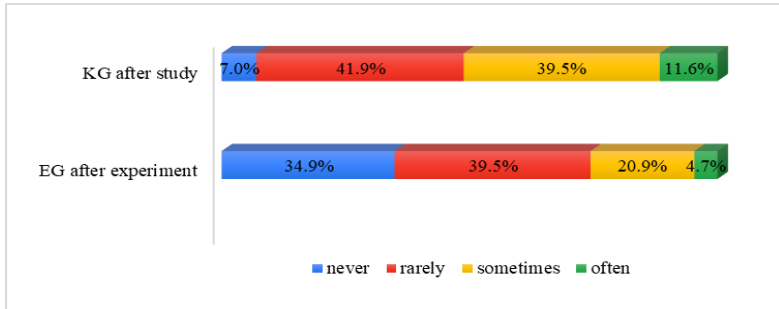
Participation in the "From the past to the present" methodology reduces the feeling of loneliness in the elderly

and old people of the HE. There was no significant difference in the responses of the EG respondents who "never" (34.9%) felt that they could not find an approach to communicate with others. 39.5% of the EG respondents "rarely" encountered a problem in communication, with one-fifth "sometimes" (20.1%) finding it difficult to carry out their social interactions. A minimal proportion of CG respondents indicated that they "never" (5.0%) have difficulty communicating with others. A statistically significant difference was found in the responses of the two groups of respondents ( $\chi^2=11.776$ ,  $n=86$ ,  $p<0.01$ ) (Fig. 20).



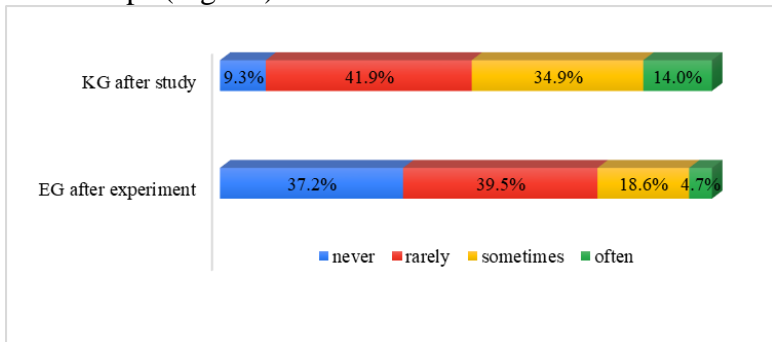
**Fig. 20.** EK and CG - Element 7 ( $p<0.01$ )

A statistically significant difference in the responses of the two groups of respondents was also found when Item 8 was examined ( $\chi^2=11.776$ ,  $n=86$ ,  $p<0.01$ ). When analyzing the results of the CG, we find that almost half "sometimes" (46.5%) and "often" (46.5%) experience the feeling of longing for company. The EG respondents are more likely to "sometimes" (37.2%) feel that they want to spend time together with people with whom they share common interests (Fig. 21).



**Fig. 21.** EK and CG - Element 8 ( $p < 0.01$ )

The EG participants reported that they "never" (37.2%) have difficulty making new Friendships and some of them "rarely" (39.5%) have difficulty. At the same time, CG respondents "rarely" (41.9%) and "often" (25.6%) have problems in establishing a Friendship circle ( $\chi^2 = 11.359$ ,  $n = 86$ ,  $p < 0.01$ ), indicating that engaging in the "Past to Present" methodology helps to overcome the difficulty experienced by the elderly and old people in establishing new Friendships (Fig. 22):

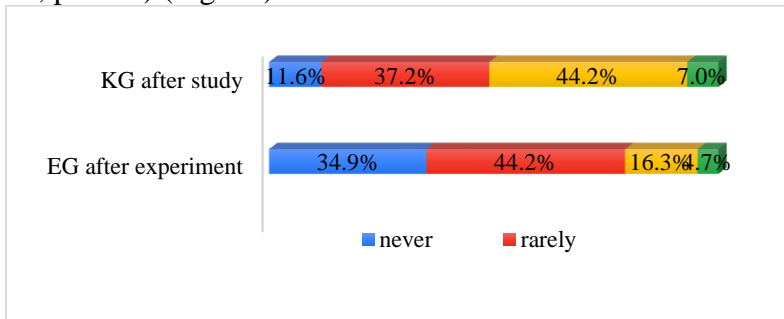


**Fig. 22.** EK and CG - Element 9 ( $p < 0.01$ )

A third of respondents in EG "never" (34.9%) and "rarely" (44.2%) feel excluded by other people. In CG, the proportion of respondents who "sometimes" (44.2%) feel socially excluded is significantly higher than that of EG (16.3%). There was a statistically significant difference in the



responses of the two groups of respondents ( $\chi^2 = 10.996$ ,  $n = 86$ ,  $p < 0.01$ ) (Fig. 23).



**Fig. 23.** EK and CG - Element 10 ( $p < 0.01$ )

***Discussion of the results of the Loneliness Scale questionnaire:*** the baseline level of loneliness of the whole respondent group showed a predominantly "medium level of perceived loneliness" before the implementation of the rehabilitation programs (51.2%). After the application of the "Past to Present" methodology, a comparison of *the results by item in the EG (before and after the methodology)* shows statistically significant differences. It was found that after participating in the complex methodology "From Past to Present" respondents were able to do different things on their own without feeling unhappy and became more confident in themselves and their own abilities.

They share that they find greater understanding when interacting with new interlocutors, which reinforces their belonging to the group. The need to communicate with their relatives is overcome and the feeling of loneliness is reduced. They develop a new approach to communicating with others, mobilising their own resources to present themselves in a more favourable light. They are aware of the strength of the quality connection in the new friendly relations without striving for a multitude of contacts and feel included and accepted in the social circle of HE.

Similar results are found in the study of Y. Ren et al. (China, 2020), according to which the effect of group therapy (reminiscence therapy in combination with physical exercise) leads to a decrease in the feeling of loneliness in the elderly and has the end result of improving their mental health. The group atmosphere enhances the sense of social connectedness among older people and leads to feelings of empathy, respect, social support, a sense of belonging and thus contributes to a reduction in loneliness. Also, revisiting the past improves to some extent the self-esteem and optimism of the elderly. Physical exercise improves physiological and psychological functions, at the same time it enhances the positive emotions of older people by establishing interpersonal communication with others in the social network, which also leads to a reduction in loneliness. Group reminiscence therapies combined with physical exercise improve the mental health of older adults.

Similar results were obtained in a study carried out by J. Tarugu et al. (India, 2019). The research team aimed to determine the effect of group reminiscence therapy in reducing the level of loneliness. In the experimental study, nursing home users were assessed using a revised UCLA scale. They were administered group therapy for working with memories and the post-intervention assessment was made using the same scale. The methodology resulted in a 30.8% reduction in loneliness. In his study, G. Nikolas et al. (2009-2019) conducted a systematic review of research databases and of loneliness interventions for older adults in long-term care facilities (HE/hospice), examining effectiveness in changing perceptions of loneliness in these settings. Approximately 87% of their studies showed a significant reduction in loneliness after the implemented therapies. The authors indicated that laughter therapy, garden therapy, and reminiscence therapy had the greatest impact on

reducing feelings of loneliness. A. S. Mikkelsen et al. (Denmark, 2021) investigated the implementation of a social intervention titled "Tell Stories of Life" in a nursing home, and this program did not strengthen social relationships between nursing home users. However, the authors suggest that it has the potential to strengthen users' sense of identity and their relationship with nursing home staff.

Supporting our study in terms of the "From the past to the present" methodology are the results of L. Franck et al. (Australia; China; Taiwan; England; USA, 2016) who systematically reviewed studies reporting interventions to reduce social isolation, depression and loneliness in older people aged 77 to 86 years using institutional services. According to the authors, reminiscence group therapy has been successful in reducing both social isolation and depression and loneliness in nursing home users. S. Housden (2009) systematically reviewed research on reminiscence therapy as an approach to reducing depressive episodes. Across eight reports, he found five key themes that lead to factors being uncovered and support the effectiveness of therapy. These include its social aspects, along with opportunities for self-expression, sharing emotions and developing trusting relationships within the group. By revisiting the past, older people can engage in meaningful activity that provides social contact and breaks social isolation by focusing on and sharing both positive and negative memories. This review highlights the need for greater care in planning and facilitating reminiscence therapy in care homes.

The results obtained from the study we conducted at the HE are confirmed by J. Wang (Taiwan, 2004), who believes that revisiting the past can provide a mechanism for individuals to adapt to the changes that occur throughout their lives and that maintaining a positive self-image can help

individuals adjust to the negative impact of aging. N. Coleman (England, 1993) suggests that reminiscence therapy may have a preventive role and increase opportunities for socialization. N. Plastow (2006) sees it as a means of coping with social isolation and loneliness. According to Zauszniewski et al. (2004), the main goal of reminiscence therapy groups is socialization with the opportunity to talk and make friends.

In support of the results obtained in our study, S. Chao et al. (China, 2006) found that social interactions among participants increased during the study, by integrating past experiences and increasing self-acceptance, decreasing feelings of loss and enhancing socialization. They attributed to the therapy the improvement in self-esteem, sense of belonging and social significance achieved in the reminiscence group. E. Jones (2003) reported improved bonding among group members, which coincided with an increase in their self-esteem.

We find similar results to the application of the complex methodology from “From the past to the present” in the study by I. Sahu et al. (India, 2019). They applied the reminiscence therapy to 50 women aged 60+ divided into EG (n=25) and CG (n=25). EG was included in 3 biweekly sessions of 45 minutes each by dividing her into 4 groups. Analysis of the results obtained after the experiment revealed that the level of depression was reduced in EG, self-esteem improved and loneliness significantly reduced after the intervention. There was a statistically significant difference in depression, self-esteem and loneliness scores between EG compared to CG ( $p < 0.0001$ ). Therapy has been shown to be the most effective alternative intervention, especially for older adults residing in nursing homes (142). A study conducted by Syed Elias et al (Malaysia, 2019) revealed how older adults with loneliness, anxiety and depression respond

to a reminiscence therapy program. The results showed that the process of revisiting the past on which the programme was based brought satisfaction to the participants and created opportunities for bonding among group members.

### 3.3. Results and discussion of the Life Satisfaction Scale questionnaire

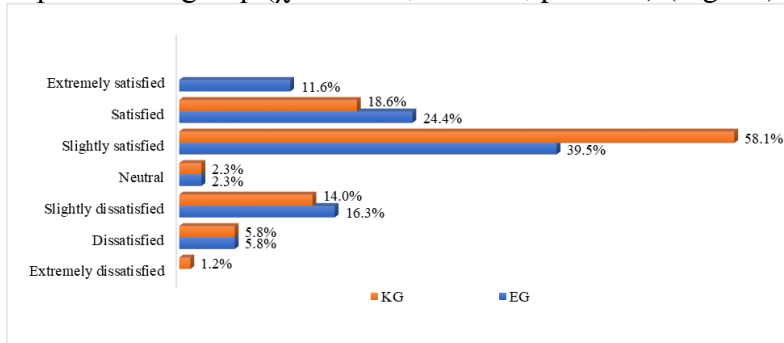
The life satisfaction survey (E. Diener scale) shows that only a fraction of the EG respondents are extremely satisfied with their lives (11.6%), but the CG respondents do not fall into this category. Feelings of satisfaction were experienced by 16.3% of the EG and 14% of the CG respondents. The highest proportion of EG respondents expressed "mild satisfaction" (34.9%), while more than half (58.1%) of CG respondents indicated that they were mildly satisfied with their lives. Extremely dissatisfied is only a small proportion of CG respondents (1.2%), no EG respondents fall there. At the end of the survey, the exceptional life satisfaction for EG remained at 11.6%. We find a twofold increase in life satisfaction for EG respondents (32.6%), while it increased by 9.3% for CG. Slight satisfaction in EG increased by one tenth (9.3%), while there was no change in CG (58.1%). There was a decrease in the EG scores after the experiment for 'slightly dissatisfied' (9.3%) and 'dissatisfied' (2.3%) with life (Table 4):

**Table 4.** Life satisfaction scale - own results

Claims	EG before the experiment	EG after the experiment	CG before the study	CG after the study
Extremely satisfied	11,6%	11,6%	-	-
Satisfied	16,3%	32,6%	14%	23,3%
Slightly satisfied	34,9%	44,2%	58,1%	58,1%
Neutral	4,7%	-	4,7%	-
Slightly dissatisfied	23,3%	9,3%	14%	14%
Unsatisfied	9,3%	2,3%	7%	4,7%

Extremely dissatisfied	-	-	2,3%	-
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There was a statistically significant difference in life satisfaction between EG and CG in the total scores obtained before and after the study. The Student's t test showed a statistically significant difference in favour of the experimental group ( $\chi^2=11.445$ ;  $r=0.194$ ;  $p<0.001$ ) (Fig. 24):



**Fig. 24.** Level of satisfaction with life in total before and after the study in EG and CG ( $p<0,001$ )

Life satisfaction is a cognitive process of subjective evaluation by which individuals assess the quality of their lives according to their own criteria. In this process, they prioritize their life, evaluate it as a whole, weigh the good against the bad, and define it as more or less satisfying. The determination depends on the circumstances of their life and the context that is seen as appropriate. The EG subjects, before and after the experiment, show a high degree of satisfaction compared to the CG where no such data are found. Satisfaction in the EG increased significantly (almost twofold) after the application of the complex methodology. The proportion of CG respondents maintaining satisfaction levels in the 'slightly satisfied' range before and after the survey was predominant. After the implementation of the complex methodology "From the past to the present", the

overall level of life satisfaction of the social service users from EG increased in a positive direction, while it did not change for CG. Undoubtedly, the indicator "satisfaction with life" is a subjective feeling, but the application of the complex methodology has an impact on the personal perceptions of each person and depends on their individual characteristics. The rehabilitation program applied in CG is not characterized by individual impact and possibility of personal unfolding, therefore no dynamics in the level of satisfaction is observed.

### **BACCGROUND: "From the Past to the Present" - a methodology with possibilities for practical application**

Humans are social by nature and quality social relationships can help them live longer and healthier lives. Social isolation is the lack of social contact and regular interaction with a small circle of people. People can live alone and not feel lonely or socially isolated, yet they can feel lonely while with other people. Social isolation is described as an undesirable and often harmful experience.

The results obtained after conducting the study show that through the "From the past to the present" methodology in EG, a positive change was found in relation to the experienced loneliness. The main aim of the methodology is to enable the old person to realize how the past defines his present and continues to influence it. Reminiscence is not just a recollection of facts, but rather a process that allows people to experience their experience as significant and vivid. Undoubtedly, recollection has a *communicative, diagnostic and corrective* role.

In world science and practice we find a variety of **practical approaches to influence the feeling of loneliness in elderly and old people**, such as reminiscence therapy (B. D. Karvasarski, 2000), life story books, photo album, family

tree, life lines, memory box, life review, autobiographical method (F. Gibson, 1993), etc.

The **algorithm** of the application of the methodology "From the past to the present" includes: goal, tasks, material and technical preparation, organization of the sessions, rules of communication and behavior and creation of rituals. The *aim* of the complex methodology is to help the elderly and old people to return to the past through memories, enabling them to realise and make sense of the meaning of their own lives and helping to reduce the feeling of loneliness. The *objectives* of the complex methodology are: to preserve and expand the social activity of the participants by changing the feeling of loneliness; to improve the quality of life through active contacts with group members, satisfying the needs for communication and recognition; to help awareness, understanding and acceptance of life events and to awaken new interests; to facilitate the establishment of friendly contacts by increasing the personal activity of the participants; to form a positive outlook on life. *Material and technical preparation* for the implementation of the complex methodology 'From the past to the present': provision of a room in which to hold the sessions; provision of materials to be used during the sessions; development of a programme and a work plan. *Organisation of the sessions*: the sessions are conducted in groups and are formed on the basis of the physical abilities, needs and interests of the older people. The groups are thematically oriented, where participants focus on a topic that is meaningful to them. These groups operate for a relatively short time, i.e. until the specific topic is exhausted and the participants' problems are resolved. Group meetings are usually held once every two weeks and last 60 to 90 minutes. Participants are related by age, interests and social experience. The group is closed and throughout the art therapy process, the composition of the participants does not



change, it remains closed. The actions of individual members allow for greater spontaneity. Verbal communication plays an important role in the activity, which also includes individual work, group discussion and physical exercise. Participants in groups should be 6-8 people. It is a good idea to have the sessions before lunch because of the fatigue that occurs in old people. *Rules* for inclusion in the group: do not include people with psychosis and in the acute phase of depression and people who react inadequately to criticism and often get into conflicts.

At the beginning of the first meeting with the group it is necessary to develop *rules of communication and behaviour* to be respected by the participants: confidentiality, patience, sincerity, openness, the right to express one's own opinion, acceptance of different opinions and goodwill. The *aims of group work* with the 'third age' are: to improve their physical and emotional well-being by activating and developing their communicative abilities; to help them overcome feelings of uselessness by strengthening their sense of belonging. It is of utmost importance in the very first session to create an atmosphere of trust in the group, to help the participants to get to know each other better, to relax and discover. Spend more time explaining the tasks and how to complete them. With age, there is a narrowing of the field of attention and increased sensitivity to external disturbances that leads to distraction. *Establish rituals* when working with a group of elderly and old people. This will help them overcome cognitive deficits more easily. Rituals can be devised by both the facilitator and the group members. The bacCGround music will help to tune in the participants and become a kind of positive anchor (an anchor is a stimulus that triggers a certain mental state) to activate mental processes and create a favorable psychological atmosphere. The *qualities that the professional who will lead the sessions*

*needs to possess:* empathetic; optimistic; tolerant; communicative; accepting; possess leadership skills (to manage and direct the attention of the participants).

*The methodology of "From Past to Present"* includes five themes and a final stage, which take place in six sessions:

- I. "Childhood"
- II. "Family - Marriage and Children"
- III. "Friendship"
- IV. "Profession"
- V. "Favourite activities and interests"
- VI. Final stage

Each topic is worked on within three weeks. In the first and third week, users participate in group sessions on the specific topic, and in the second week, they independently complete the tasks set during the session (Tab. 7):

*Tab. 7. Plan-schedule of activities included in the methodology "From Past to Present"*

Period	Activities	Duration	Team Member
<b>1 week</b>	Group work Making an album (with sub crepe if needed) Application of exercises Appropriate music	60-90 min.	Doctor Psychology Physiotherapist Occupational Therapist Social worker
<b>2 weeks</b>	Standalone activity for users (collection of materials)		Psychology Social worker Occupational Therapist
<b>Week 3</b>	Group work Album completion (with support if needed) Application of exercises Appropriate music	60-90 min	Doctor Psychology Physiotherapist Occupational Therapist Social worker

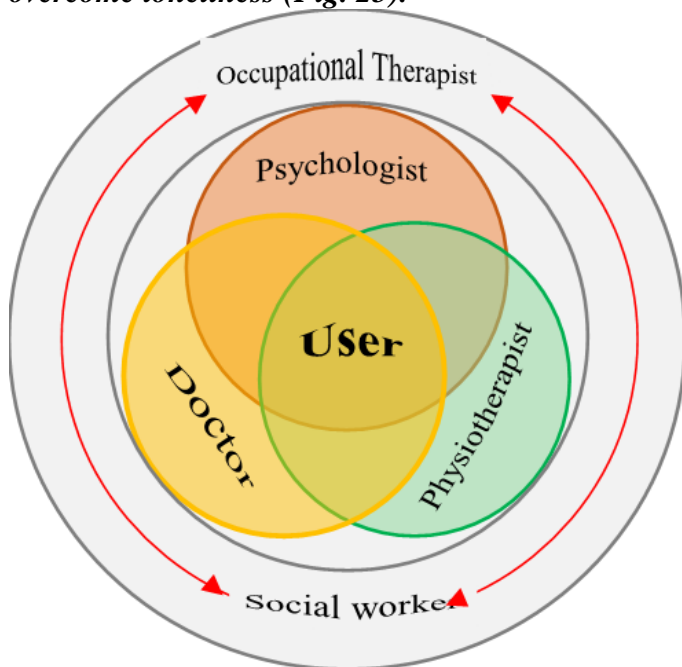
The final stage takes place during the last week (Tab. 8):

*Table 8. Final stage plan*

Period	Activities	Duration	Team Member
1 week	Group work Examination of the made albums. Survey participants give feedback Application of exercises Appropriate music	60-90 min.	Doctor Psychology Physiotherapist Occupational Therapist Social worker

Our experience at HE “Gergana” has shown that the successful application of the complex methodology requires the involvement of a team of collaborators: a doctor, a psychologist, an occupational therapist, a social worker and a Physiotherapist, who are familiar with the purpose and methodology of the study.

*A team approach to implementing rehabilitation care to overcome loneliness (Fig. 25):*



**Fig. 25.** Interaction in the multidisciplinary team

Of paramount importance is the assistance and support of the staff and especially the multidisciplinary team, which plays a coordinating role in solving the complex of problems that arise for users of the social service HE. It is necessary to work in close cooperation and collaboration in order to stabilise the psychological status and adaptation of the elderly in the care home. Effective organisation, to ensure quality of life and health in the elderly and the elderly, requires diagnostic, therapeutic, rehabilitative and preventive measures.

The main question concerning the application of the methodology in our opinion is whether it is suitable only for elderly and old people, users of social services in specialized institutions? Or can it find a wider application for elderly people from social rehabilitation and integration centres, from day care centres, from retirement club as a form of social integration of people from the "third age"? This motivated us to do a pilot study on how the methodology works in the environment of a retirement club.

Retirement club "Hope" in "Vinitsa" has the opportunity to organize and conduct activities and events according to the interests and capabilities of its members in the field of culture, health, social, education, sports and tourism, etc. The members of the club are over 65 years old, they are self-supporting and most of them take care of their houses and gardens by themselves. Their level of education varies from primary to higher education. Some of them have a variety of interests: they sing in the community choir, take part in organised excursions and nearby hiking, sew and knit. On holidays they make various products with which they participate in competitions organized by the Cultural calendar of the club. They willingly welcomed our offer to join the methodology. Twelve members of the retirement club participated. We applied all the sessions, considering the five

themes of the complex methodology "From the past to the present" (childhood; family and marriage; Friendship; profession; favorite activities and interests; final stage). The participants went back to their past through their memories in the photos and cards that each of them brought; recited poems from their childhood; sang their favourite songs; told folk tales and parables on the different themes; prepared and offered different culinary recipes that they had learned from their grandmothers and mothers; and shared experiences from their daily lives. We also applied the physical exercises included in the complex methodology. The sessions were held every week due to the proximity of the participants to their homes and the ability to get the necessary materials in a timely manner. During the final stage, the seniors shared that:

- have understood the importance of loving themselves and smiling more often;
- have realized how much they have accomplished in their lives;
- see with "new eyes" the people around them;
- have found it in themselves to forgive past "betrayals";
- have created new friendships;
- have the right to enjoy their lives;
- feel satisfaction in socialising with younger people;
- feel more energised and able to carry out their daily activities (quoted statements).

If necessary, topics can be increased by structuring sessions to meet the needs of specific users. The application of the complex methodology "From the past to the present" in settings other than the HE social service environment has the potential to improve the health status of people in the third age and to change their quality of life, as well as to influence their relatives.

## **FINDINGS**

1. The elderly represent one of the largest social groups with a marked sense of loneliness, which makes them a vulnerable group in society with social service needs. Studying the needs of users is an important condition for planning specific care, which is largely reflected in the creation of the Individual Care Plan, which allows to design their activity, development of autonomy and independence.

2. Occupational therapy and art therapy as components of rehabilitation help to overcome loneliness and social isolation in elderly and old people. Existing practical approaches for dealing with age-related crises occurring in the aging process have significant potential for improving interpersonal communication, enhancing the quality of life of older people and overcoming loneliness;

3. The characterization of the users of HE shows a significant vulnerability of this group:

-need for support and assistance in activities related to their daily life due to low level of independence;

-insufficient financial security due to the high costs inherent in high age and low income (pension of between 200-300 lv);

-medium (51.2%) and high (27.9%) sense of loneliness;

4. After the intervention with the complex methodology "From the past to the present" to overcome/reduce the feeling of loneliness, significant differences were found between the EG and the CG in the direction of reducing the feeling of loneliness in the users of the social service HE in the EG, who after the experiment:

-are able to do things on their own without feeling unhappy and have become more confident in themselves and their own abilities;

-in the process of communicating with new interlocutors, they meet greater understanding, which strengthens their belonging to the group;

-overcome the need to communicate with their loved ones and reduce the feeling of loneliness;

-build a new approach to communicating with others, mobilizing their own resources to present themselves in a more favorable light;

-realize the power of quality connection in new Friendships without striving for multiplicity in contacts and feel included and accepted in the social circle of the HE.

5. The EG subjects, before and after the experiment, showed a high degree of satisfaction compared to the CG subjects, where no such data were found:

-satisfaction with the EG increased significantly (almost twofold) after applying the complex methodology;

-the proportion of CG respondents maintaining satisfaction levels in the "slightly satisfied" range before and after the survey;

-following the implementation of the complex methodology "From the past to the present", the overall level of life satisfaction in the EG shows an increase in a positive direction, compared to the CG, where it does not change.

6. The methodology for reducing feelings of loneliness and improving life satisfaction in elderly and old people has potential for wider application.

## **CONTRIBUTIONS**

### **Contributions of a theoretical nature:**

1. A purposeful and in-depth study of loneliness and satisfaction in older and elderly people from HE has been done.

2. Practical guidelines for reducing loneliness in older and elderly people in HE are proposed.

3. A complex methodology "From the past to the present" has been developed.

**Contributions of practical-applied nature:**

1. The developed complex methodology "From the past to the present" has been tested and good results have been obtained.
2. The established patterns are the basis for future studies, tracking the investigated processes.
3. The results can be used by directors of HE to reduce loneliness, social isolation, improve adaptation and increase life satisfaction in elderly and aged people.
4. Reminiscence therapy can serve in the work of staff working in care homes because of its wide therapeutic potential.

**RECOMMENDATIONS**

**1. To the Municipality of Varna and the Social Activities Directorate:**

- To recommend the complex methodology "From the past to the present" for reducing loneliness in elderly and old people in nursing home service, Centers for Social Rehabilitation and Integration and Retirees Clubs.
- To stimulate the creation of multidisciplinary teams working with elderly and old people to reduce loneliness and social isolation.

**2. To the Universities, where training is carried out in the specialties "Rehabilitation Therapist", "Medical Rehabilitation and Occupational Therapy", "Occupational Therapy", "Psychology", "Social Activities", etc.:**

- to get acquainted with the results of the conducted methodology and at their discretion to infiltrate in the thematic units of the specialized disciplines, the possibility of providing theoretical knowledge and practical skills to the



students to work with the complex methodology "From the past to the present";  
-training of multidisciplinary teams in the framework of the Postgraduate education of the universities of the specialists working in "Housing for the Elderly".

### **PUBLICATIONS AND PARTICIPATION IN SCIENTIFIC FORUMS RELATED TO THE DISSERTATION :**

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2. Dicheva S, A. Atanasova A, B. Mehmedova, K. Yordanova-Nestorova, D. Nikolova. Study of the attitudes of the users of the social service "Home for the elderly" regarding physical activity. Scientific conference with international participation "Aging, health, geriatric care". 2017;247.
3. Nikolova D, Pavlova S. The impact of loneliness and social isolation on human health. "Management and education". Burgas. 2019;15(4):147. ISSN 13126121.
4. Nikolova D. The role of ergo- and art therapy in the complex rehabilitation of elderly and old people. "Management and education". Burgas. 2019;15(4):154. ISSN 13126121.
5. Nikolova D, Pavlova S. Loneliness as a psychosocial phenomenon in the elderly and old people. "Management and education". Burgas. 2020;16(4):114. ISSN 13126121.