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OCCUPATIONAL THERAPY INTERVENTIONS TO IMPROVE OCCUPATIONAL PARTICIPATION AND REDUCE THE RISK OF FALLS IN ELDERLY PEOPLE WITH OSTEOARTHRITIS

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Abstract. Global trends show an increase in life expectancy. A similar trend in life expectancy growth is typical for Ukraine. However, even a positive trend towards an increase in average life expectancy cannot stop the inevitable process of aging, which leads to a decrease in the functional and physiological capabilities of all body systems.

Osteoarthritis is the most common disease of elderly. Osteoarthritis of the joints of the lower extremities is a risk factor for falls syndrome. Falls lead to a decrease in physical functioning, independence and occupational participation, increase the fear of the next fall, and bring serious injuries, even death. The role of an occupational therapist in falls prevention is undeniable. It helps maximize the ability to participate in the occupational activity that is meaningful to the client, and modifies the client's lifestyle and living environment for safe occupational performance.

The aim of the research. To scientifically justify and develop a comprehensive program of occupational therapy interventions to reduce the risk of falls for elderly women with osteoarthritis of the lower extremities by means of occupational therapy.

Materials and methods. In order to fully solve the tasks and study the activity of elderly women with osteoarthritis of the joints of the lower extremities, the following research methods were chosen: analysis of special and scientific and methodical literature; content analysis of medical records, interviews, observations; WOMAC Osteoarthritis Index and assessment of fear of falling according to Falls Efficacy Scale International.

48 women aged 62 to 89 took part in the ascertainment experiment. Women were divided into 2 groups - main (MG) and control (CG), 24 people in each. The main group included women with osteoarthritis of the lower extremities. In the control group people were without damage to the joints. The program lasted for 6 (six) months. The people of CG received recommendations about general physical activity with reference to WHO guideline. The people of MG received therapeutic exercises on strength, balance, coordination, endurance, improvement of walking skills and occupational therapy interventions with: training to perform occupations safely; creation of a new stereotype of behavior to avoid falling; modification of the environment; review of medications which can provoke a fall; learning to use assistive equipment; techniques to get up safely and effectively after a fall.

Research results. Based on the obtained data, it is evident that both groups experienced an increase of independence level in functioning, less of pain, stiffness and fear of falling.

Conclusions. Both falling and the fear of falling significantly reduce the ability to lead a full and independent life, bring undesirable consequences, including serious injuries, and interfere with the ability to do what is most important for a person. In the foreign literature, there is a lot of evidence about the contribution of occupational therapy to the prevention of falls. The results of the conducted research give grounds for asserting that the application developed by us a multi-component program of occupational therapy interventions developed for elderly people with osteoarthritis of the joints of the lower extremities is an effective means of reducing the risk of falls in this category of people. The advantages of the developed program are confirmed by the results of own research.

Keywords: osteoarthritis; falls; fear of falling; occupations, occupational therapy; elderly; interventions; WOMAC; pain; function; independence.

Introduction. Global trends show an increase in life expectancy. According to the World Health Organization (WHO), the number of elderly people in the world is growing by 3% every year. A similar trend of increasing life expectancy is also characteristic of Ukraine [1]. However, even a positive trend towards an increase in average life expectancy cannot stop the inevitable process of aging, which leads to a decrease in the functional and physiological capabilities of all body systems.

Analytical data from various sources indicate the accumulation of a significant number of diseases in the elderly, which often become chronic [2]. Age polymorbidity leads to geriatric syndrome. Falling is one of the geriatric syndromes, which according to the severity of the consequences researchers refer to the so-called "geriatric giants". The frequency of falls increases

significantly after the age of 60. Thus, at the age of 65 and older, 35% of all healthy people fall annually [3]. Falls of the elderly bring very serious consequences. Approximately 10% of falls leads to serious injuries [4]. More than 95% of hip fractures in elderly people are caused by falls. In approximately half of cases of hip fracture, the ability to walk is not restored, 20% of cases end in death within six to twelve months. Half of those who have already fallen are at risk of falling again within a year [5]. Falls are dangerous not only because of injuries, but also with psychological and social consequences. They significantly affect the quality of life, accelerate the loss of physical and cognitive functioning, reduce self-care skills, occupational participation, increase the fear of the next fall and the need for outside help and care.

Osteoarthritis is the most common joint disease and is observed in more than half of the population at retirement age. 80% of patients with this disease have movement restrictions, 25% cannot perform their main activities in everyday life [6]. Osteoarthritis of the joints of the lower extremities is a risk factor for falls syndrome.

Research rationale. Since osteoarthritis and falls affect the quality of life of individuals, the role of an occupational therapist in the therapy of such patients is undeniable. It helps maximize the ability to safely participate in the occupational activities which are meaningful to the client, and modifies the client's lifestyle and living environment for safety.

The occupational activities in occupational therapy are divided into activity of daily living (personal hygiene, eating, dressing, communication, mobility), instrumental activity of daily living (household duties, cooking, shopping etc), work and education, leisure time (play, hobby, rest) [7]. As noted by Clemson L et al., occupational therapists make an important contribution to falls prevention by focusing on occupational participation. They play a significant role in falls prevention as they address personal safety issues and the negative consequences of falls to enable occupational performance.

Analyzing foreign sources, we identified the following areas of occupational therapy interventions aimed at preventing falls. These are support of physical activeness, home safety, management of osteoarthritis and fall management. So, in order to maintain normal life activities, a person must remain active and be able to feel safe. Safety at home is a comprehensive assessment of the environment in which a person is mainly located (lives) for the purpose to identify potential dangers and optimizing the performance of activities. With the help of an occupational therapist, older adults can reduce their fear of falling; leading to increased participation in activities they value and want to do. Numerous studies have demonstrated that many falls can be prevented through adequate assessment and effectively selected interventions [8].

Despite the high prevalence of fall syndrome among the elderly, including those with osteoarthritis of the lower extremities, this topic is not addressed in Ukraine. The profession of occupational therapist is a new profession, and it is mainly represented in the field of neurorehabilitation and pediatrics. Unfortunately, there is still no occupational therapy in the community. Thus, there are no programs aimed at improving the prevention of falls in people with osteoarthritis.

Connection of work with scientific plans, topics. The work will be carried out in accordance with the NUPESU National Development Plan for 2021–2025 under topic No.4.1 "Increasing the level of functional independence and occupational participation of persons of various nosological groups with the help of programs of occupational therapy interventions" (state registration number 0121U107532).

The aim of the research. To scientifically justify and develop a comprehensive program of occupational therapy interventions to reduce the risk of falls for elderly women with osteoarthritis of the lower extremities by means of occupational therapy.

Materials and methods. In order to fully solve the problem and study the activity of elderly women with

osteoarthritis of the joints of the lower extremities, the following research methods were chosen: analysis of special and scientific and methodical literature; content analysis of medical records, interviews, observations; WOMAC Osteoarthritis Index and assessment of fear of falling according to Falls Efficacy Scale International.

48 women aged 62 to 89 took part in the ascertainment experiment. Women were divided into 2 groups - main (MG) and control (CG), 24 people in each. The main group included women with osteoarthritis of the lower extremities. In the control group people were without damage to the joints.

The diagnosis of "osteoarthrosis" was confirmed by data from the medical records of the mentioned persons, complaints of pain, stiffness (especially in the morning), impaired function of the lower extremities, and the results of X-ray examination of the hip joints and ultrasound of the knee joints. The duration of osteoarthritis in MG patients ranged from 5 to 10 years, the average duration of an exacerbation was 8.0 ± 1.5 weeks. In the majority of patients, the II radiological stage of osteoarthritis was established (69.4%), the radiological stage III - (30.6%). 18 people (75%) had coxarthrosis, while 6 people (25%) were diagnosed with gonarthrosis. The vast majority of people in both groups ($n=21$), which is 87.5% of MG and CG, had excessive body weight. 3 persons (12.5%) of MG and 1 person (4.16%) of CG suffered from obesity. In the group of patients with osteoarthritis, not significantly, but more chronic diseases were detected compared to persons with CG. Thus, arterial hypertension was more often diagnosed in MG. MG participants had a greater number of injuries in the past (the majority of which are extremities fractures). MG representatives had problems with vision and feet 3 times more often. By 20%, representatives of MG had worse sleep (slept little, badly, woke up often) than individuals with CG. These facts should be taken into account as additional fall risk factors.

During the interview, the level of physical activity was assessed. Insufficient physical activity is a significant factor in increasing the risk of falling due to muscle weakness/atrophy. Physical activity of 41.66% of both groups was insufficient. This indicates the need to include into intervention programs clarifications of the benefits of a healthy lifestyle, and, in particular, the need to improve physical activity.

20 people (83.33%) of MG answered "Yes" to the question "Have you had falls during the year?" There were only 9 (37.5%) of such persons in the CG, which is 2.2 times less.

To the question "Do you have a fear of falling", 22 people out of 23 MG answered "Yes", that is, 2 more people than those who fell during the year. In CG, only those 9 people who had an actual fall in the last year had a fear of falling. This demonstrates a stable connection between the fear of falling and the fact of falling.

The WOMAC Index (Western Ontario McMaster Universities Osteoarthritis Index) was used to assess the subjective feelings of a patient with osteoarthritis and the level of his functional limitations. This is a questionnaire that helps determine the severity of pain syndrome at rest and when walking, stiffness and functional capacity when performing normal daily activities.

To determine the level of fear of falling, the Falls Efficacy Scale International (FES) was used, which is the most popular method for assessing the effectiveness of falls in the world, and determines a person's confidence in his ability to avoid falls during 16 activities important to him, including: taking a bath or shower, cleaning, shopping, long distance walks and others.

The program lasted for 6 (six) months. The people of CG received recommendations about general physical activity with reference to WHO guideline. The people of MG received therapeutic exercises with an emphasis on strength, balance and coordination, endurance, and improvement of walking skills and occupational therapy sessions which included a set of the interventions with following blocks:

- training to perform activities important for individuals in the field of self-care and the household sphere safely;
- creation of a new stereotype of behavior and actions to avoid falling;
- modification of the environment for the purpose of safe movement and performance of activities;
- review of medications, the use of which can provoke a fall;
- mastering the skills of foot care and selection of shoes for safe movement;
- learning to use assistive adaptive equipment and technical devices that ensure safe movement and participation;
- techniques to get up safely and effectively after a fall.

All of these interventions were hypothesized to have an effect on confounding fear of falling.

Mathematical processing of the data of the dissertation was carried out using the methods of variation statistics. Analysis of conformity of the type of distribution of quantitative indicators to the law of normal distribution was checked by the Shapiro-Wilk (W) test. The Falls Efficacy Scale International scores corresponded to a normal distribution. The mean value (M) and standard deviation (SD) were determined for them. The WOMAC Osteoarthritis Index had a non-normal distribution, defined as the median (Me) and lower and upper quartiles (25%; 75%), and additionally M and SD. In order to assess the significance of the difference, in the presence of a normal distribution of research results, the Student's t-test was used (for dependent and for independent groups), and for indicators that had a distribution other than normal, the Mann-Whitney U-test was used (for independent groups) and the sign criterion (for dependent groups).

Research results. The results of data evaluation according to the WOMAC index were analyzed separately for all indicators: pain, stiffness, function and total.

Statistical analysis of the results of the "Pain" section of the WOMAC index revealed that the average value of the section indicators in MG was 13.92 ± 1.98 points, and in CG - 3.96 ± 3.54 points. Me indicators (25%; 75%) in MG were 14 (12.75; 16) and in CG - 1 (1; 7), respectively.

Thus, the pain syndrome of MG persons exceeded the corresponding indicator of the control group by 3.5 times. Differences between groups according to this indicator were statistically significant ($p < 0.01$).

According to the indicators of the "Stiffness" section, the following data were obtained - the average value of the indicators in MG persons was recorded at the level of 6.21 ± 0.87 points, which was 2.8 times higher than the corresponding indicator of CG (2.21 ± 1.38 points). Me rates (25%;75%) were 6 (6;7) in MG and 1 (1;4) in CG, respectively. Differences between groups according to this indicator were statistically significant ($p < 0.01$).

Statistical analysis of the signs of the total indicators of the "Physical function" section revealed that their average value in MG persons was 59.29 ± 7.10 points, which is 3.85 times more than the CG indicator (15.38 ± 15.08 points). Me indicators (25%;75%) were 80 (70.5;89) in MG and 7 (6;31.25) in CG, respectively. Differences between groups according to this indicator were statistically significant ($p < 0.01$).

The average value of the total result of the WOMAC index in the MG was 59.46 ± 7.19 points, while in the CG the average value was recorded at the level of 17.88 ± 16.81 points with Me indicators (25%;75%) at the level of 80 (70.5;89) in MG versus Me (25%;75%) at level 7 (6;31.25) in CG, respectively. Thus, the total score of WOMAC in MG exceeded the level in the comparison group by 3.3 times ($p < 0.01$).

Positive dynamics of WOMAC Osteoarthritis Index results were observed in both groups of people on all 17 points at the final stage of the research. Summary information on all indicators before and after the research is presented in Table 1.

Going to details of fear of falling according to FES scale, it's worth to mention that people in the MG were least worried about falling due to the following tasks: "getting to the phone", dressing/undressing" and "cooking simple meals". 75%, 58.3% and 58.3% of people gave these activities 2 points. While "walking on slippery surfaces" (such as wet or icy surfaces), "walking on uneven surfaces" (rocky ground, poorly maintained pavement) and "going to a social event" (religious service, family gathering, club meeting) caused the greatest concern about falling. The percentages for these activities were distributed among MG: 87.5% - 4 points, 75% - 4 points, and 62.5% - 4 points, respectively. Thus, in activities requiring more advanced walking skills and endurance, individuals with lower extremity osteoarthritis demonstrated the greatest fear of falling.

As a result, the average value of the total result of FES scale of the MG people was 49.83 ± 3.62 points, which brings this group closer to a serious concern about falling, in contrast to the CG people, whose average value of the total result was 20.33 ± 3.99 points, which shows that the people of this group were hardly bothered by the fall.

The dynamics of the results of the FES scale at the end of the research are shown in Table 2.

Table 1
Statistical indicators according to the WOMAC Index scale (n=48) before and after the research, points

WOMAC indicators	Statistical data	MG (n=24)		CG (n=24)	
		Before	After	Before	After
Pain	M±SD Me (25 %;75 %) p*	13,92 ± 1,98 14 (12,75; 16)	7,92 ± 1,66 8,00 (6,00; 9,00) < 0,01	3,96 ± 3,54 1 (1; 7)	1,54 ± 2,00 0,00 (0,00;3,00) < 0,01
Stiffness	M±SD Me (25 %;75 %) p	6,21 ± 0,87 6 (6; 7)	3,38 ± 0,63 3,00 (3,00; 4,00) < 0,01	2,21 ± 1,38 1 (1; 4)	0,79 ± 0,91 0,00 (0,00;2,00) < 0,01
Physical Function	M±SD Me (25 %;75 %) p	59,29 ± 7,10 60 (51,75; 66)	33,46 ± 5,18 32,50 (29,50; 37,00) < 0,01	15,38 ± 15,08 5 (4; 20,25)	6,29 ± 8,05 1,00 (1,00;8,00) < 0,01
Total Indicator	M±SD Me (25 %;75 %) p	59,46 ± 7,19 60 (52;66,25)	33,25 ± 5,04 33 (29,50;37) < 0,01	17,88 ± 16,81 6 (5;24,25)	7,21 ± 9,04 1 (1;10) < 0,01

Note: p* - reliability of differences according to the criterion of signs within the group.

Table 2
Dynamics of indicators on the FES scale before and after the research (n=48)

The item	Main group (n=24)		P*	Control group (n=24)		P*
	Before (M±SD), Me (25%,75%)	After (M±SD), Me (25%,75%)		Before (M±SD), Me (25%,75%)	After (M±SD), Me (25%,75%)	
1. Cleaning	3, 25±0,44 3 (3;3,5)	2,00±0,00 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
2. Dressing/ undressing	2,42±0,50 2 (2;3)	1,38±0,49 1 (1;2)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
3. Cooking simple dishes	2,42±0,50 2 (2;3)	1,13±0,34 1 (1;1)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
4. Bath/shower	3,13±0,45 3 (3;3)	1,92±0,28 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
5. Shopping	3,04±0,36 3 (3;3)	1,92±0,28 2 (2;2)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
6. Getting up/ sitting/chair	2,75±0,44 2 (2,5;3)	1,71±0,46 2 (1;2)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
7. Stairs	3,38±0,49 3 (3;4)	2,04±0,28 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
8. Around the house	2,96±0,20 3 (3;3)	1,83±0,38 2 (2;2)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
9. Reaching	3,17±0,38 3 (3;3)	1,88±0,34 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
10. Going to take a phone	2,25±0,44 2 (2;2,5)	1,04±0,20 1 (1;1)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
11. Walking on slippery surface	3,88±0,34 4 (4;4)	2,13±0,34 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
12. Visiting a relative or friend	3,00±0,29 3 (3;3)	1,96±0,36 2 (2;2)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
13. Walking in a crowded place	3,50±0,50 4 (3;4)	2,17±0,38 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
14. Walking on uneven ground	3,75±0,41 4 (4;4)	2,13±0,34 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
15. Walking up or down	3,38±0,49 3 (3;4)	2,08±0,28 2 (2;2)	<0,01	1,54±0,50 2 (1;2)	1,00±0,00 1 (1;1)	<0,01
16. Going to the social event	3,58±0,58 4 (3;4)	1,96±0,36 2 (2;2)	<0,01	1,00±0,00 1 (1;1)	1,00±0,00 1 (1;1)	>0,01
Total	49,83±3,62	29,25±2,98	<0,01	20,33,±3,99	16,00±0,00	<0,01

Note: p* - reliability of differences according to Student's criterion.

Discussion of results. The repeated results of the research showed good dynamics in the group of people suffering from osteoarthritis. For many of them, pain and stiffness decreased and the possibility of physical function increased significantly while performing occupations, and the fear of falling decreased.

It should be noted that at the stage of the initial examination of the research according to WOMAC Index of participants of MG, such indicators as pain "when going up/down the stairs", "significant stiffness of the joints in the morning", limitation of function during, "walking on the street", "getting in/out of the bath" and "when doing heavy housework" were the worst for them, and persons with MG scored them from 3 ("extremely") to 4 ("very strong" on the listed points) points. According to the results of the re-evaluation, all the mentioned items, except for the items "getting in/out of the bath" and "while performing heavy housework" were rated at the level of 1 ("easy") and 2 ("moderate") points. The range for the items "getting in/out of the bath" and "while doing heavy housework" also improved and became 1 to 3 points. This further reveals the reliability of improvement in indicators of all sections of the WOMAC index in MG individuals ($p < 0.01$).

Speaking about fear of falls, at the stage of initial testing, all the MG individuals were more or less concerned about falling while performing the activities of the FES scale, and the values of the indicators were found at the levels of 2 points and 4 points. At the final stage of the research, the MG demonstrated good dynamics of results on all indicators of the scale ($p < 0.01$), and the range of extreme values shifted from 1 to 3 points. Thus, there were no individuals left in this group who were very concerned about falling (4 points), which indicates an excellent result that was achieved thanks to the intervention program. The best result was obtained in the following indicators of the scale: "concern about falling while going up or down stairs"; "walking on a slippery surface"; "walking in a crowded place"; "walking on uneven ground"; "going to a social event". Thus, the average value of the total result of the main group persons was 29.25 ± 2.98 points, which reduced by 20.58 points the fear of falling of this category of persons, bringing them closer to persons who do not worry about falling. The difference between the results of the main group at the initial and final stages of the research was reliably significant ($p < 0.01$).

The results of the research suggest that occupational therapist interventions are important for individuals who have a history of falling, are at risk of falling, or have a fear of falling.

People with osteoarthritis often experience joint pain and stiffness. They avoid movements that may increase the pain. However, if the joints do not move, the stiffness and pain will only increase.

Occupational therapists work with individuals with osteoarthritis of the lower extremities to increase or maintain their mobility so that they are able to participate in meaningful activities in areas such as self-care, house-keeping, work and recreation, productivity, education, social participation, but performed these classes ergonomically.

They explain and show how to reduce the load on the joints during activities, adapt the environment to

reduce movements that can aggravate the manifestations of osteoarthritis. They can also make orthoses (splints) for extremities to stabilize when walking or resting, recommend aids for activities such as driving, bathing, dressing, walking, housework, any productive activity.

The obtained results are difficult to compare with the conclusions and data of other studies, since there are almost no works investigating the issue of falls among the elderly with osteoarthritis in Ukraine.

Conclusions.

Both falling and the fear of falling significantly reduce the ability to lead a full and independent life, bring undesirable consequences, including serious injuries, and interfere with the ability to do what is most important for a person. In the foreign literature, there is a lot of evidence about the contribution of occupational therapy to the prevention of falls. The results of the conducted research give grounds for asserting that the application developed by us a multi-component program of occupational therapy interventions developed for elderly people with osteoarthritis of the joints of the lower extremities is an effective means of reducing the risk of falls in this category of people. The advantages of the developed program are confirmed by the results of own research.

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ЕРГОТЕРАПЕВТИЧНІ ЗАХОДИ ДЛЯ ПОКРАЩЕННЯ ЗАНЯТТЄВОЇ УЧАСТІ ТА ЗМЕНШЕННЯ РИЗИКУ ПАДІНЬ У ЛЮДЕЙ ПОХИЛОГО ВІКУ З ОСТЕОАРТРОЗОМ

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Резюме. Остеоартроз суглобів нижніх кінцівок – поширена хвороба літніх людей. Таке захворювання є фактором ризику синдрому падіння, що негативно впливає на відчуття незалежності людини у суспільстві, применшуючи таким чином її участь через обмеженість у виконанні відповідних функцій, що відповідно посилює страх падіння та може призвести до серйозних травм. Безперечно, ерготерапевт відіграє значну роль у профілактиці падіння, тому що він максимізує здатність до занять, які є життєвоважливими для клієнта, змінює спосіб життя та середовище для безпечного переміщення.

Мета дослідження. Науково обґрунтувати та розробити програму ерготерапевтичних втручань щодо зниження ризику падіння.

Матеріали та методи. Для вирішення завдань обрано такі методи: аналіз літератури, аналіз медичних карт, інтерв'ю, спостереження, WOMAC Osteoarthritis Index та Falls Efficacy Scale International.

В експерименті взяли участь 48 жінок віком 62-89 років, яких було поділено на 2 групи — основну (ОГ) і контрольну (КГ). До ОГ увійшли жінки з остеоартрозом нижніх кінцівок. В КГ були жінки, які не мали проблем із суглобами. Програма тривала 6 місяців. Клієнти з КГ отримали рекомендації щодо загальної фізичної активності. Клієнти ОГ виконувати вправи на силу, рівновагу, координацію, а також щодо них були застосовані такі ерготерапевтичні втручання, як: навчання безпечному виконанню завдань; створення нового стереотипу поведінки для уникнення падіння; зміна середовища; огляд ліків, що провокують падіння; навчання щодо використання допоміжного обладнання; техніки безпечного підйому після падіння.

Результати дослідження. Доведено, що клієнти ОГ підвищили рівень самостійності, зменшили біль, стали менш скутими та більш впевненішими у подоланні страху падіння.

Висновки. Як падіння, так і страх падіння знижують здатність повноцінно жити, призводять до небажаних наслідків, заважають займатися важливими заняттями. У зарубіжній літературі є чимало свідчень про внесок ерготерапії у профілактику падіння. Результати досліджень дають підстави стверджувати, що розроблена програма щодо ерготерапевтичних втручань для людей похилого віку з остеоартрозом суглобів нижніх кінцівок має на меті сприяти зниженню ризику падіння у цієї категорії людей. Переваги розробленої програми підтверджені результатами власних досліджень.

Ключові слова: остеоартроз, падіння, страх падіння, заняття, ерготерапія, люди похилого віку, втручання, WOMAC, біль, функція, незалежність.

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