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## **Impact of Occupational Therapy Activities On the Formation of Skills for Independent Living in Children Using Social Service**

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**ABSTRACT:** *A number of scientific studies give reasons to assume that children raised and educated in the „Family-type accommodation center” need additional targeted activities to learn and improve the various activities of everyday life. The aim of the present study is to determine the impact of additional occupational therapy activities on the formation of skills for independent living in children raised and educated in social services. **Scope of the study:** there were studied 21 children aged 7 to 12 years, users of social services with the test „Formation of skills for independent living”. Test „Leisure Management”, the evaluation is on a 3-point scale. Statistical methods are Wilcoxon rank test, t-test of Student. In the final results of the test in 80,95% of the examined children there was an improvement between 0,5 and 1 point, which is statistically significant on a 3-point scale. In the initial values of all groups of activities there is a slight difference (within 0,23), as the results are below the „average level” (2 points) in the skills for independent living. In the final measurements, the results are within 2,42; 2,38 for the second and third groups of activities and 2,08; 2,18 in the first and fourth groups of activities, which is more than the „average level”. Preparing for independent living is part of the overall process of working with children which are receiving social support. The good final results in the conducted research are due to the individual purposeful work on the implementation of the activities of the occupational therapy program for the formation of skills for independent living. The application of a set of activities for the formation of their skills for everyday life is a priority goal in the work of the responsible institutions and specialists for improving the quality of child care. The various and meaningful activities provided in their individual programs support the process of acquiring a set of knowledge and skills that they will need in the future independent life. The inclusion of appropriate occupational therapy activities for the formation of skills for independent living in children raised and educated in the „Family-type accommodation center” has a beneficial effect on the overall personal development and formation of social skills.*

**KEY WORDS:** children at risk, independent life, occupational therapy, activities of daily living

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## INTRODUCTION

Within the work on the research project „Study of the effect of inclusion of occupational therapy activities in the medical and social rehabilitation of children using social services „Six family-type accommodation centers” – Pleven”, funded by the Medical University – Pleven examined the need for applying occupational and occupational therapy activities for the formation of skills for independent living in disadvantaged children [9]. A number of scientific studies give reasons to assume that children raised and educated in the „Family-type accommodation center” need additional targeted activities to learn and improve the various activities of everyday life [7, 8, 13]. Purposeful activities with various labor and household activities have a positive effect on building skills for independent living, as well as for improving the quality of care in social services [6, 15]. The labor- and occupational therapy program developed and tested in practice is based on the current normative documents of the Bulgarian legislation and current research in the field of social services for children [5]. The application of appropriate activities proposed in the activity plan [14] of the project stimulate the process of their individual development and improve the quality of independent living within everyday life. The planned activities are adjusted to the specific needs of the users of the social service. The work with the children does not repeat the curricula in the general education school and the programs for pre-school education and training. The activities planned in the program are made by research team formed by professors and students from MU – Pleven, together with the support of social service employees.

**The aim** of the present study is to determine the impact of additional occupational therapy activities on the formation of skills for independent living in children raised and educated in social services.

## MATERIAL AND METHODS

### *Scope of the study*

Regardless of the created pandemic situation and the imposed anti-epidemic measures of physical and social isolation, the issue of forming skills for independent living of children raised and educated in social services remains relevant. In the conducted study are included children, users of the social service „Family Accommodation Center” in the Municipality of Pleven, Republic of Bulgaria. 21 users aged 7 to 12 years were studied, of which 6 were female and 11 were male (gender is important in the selection of appropriate labor and household activities).

All participants involved in the monitoring filled in an informed agreement about the program and research tests for scientific purposes.

### **Research methods and tools**

➤ Functional research (according to the age characteristics of the children), which includes: test „Skills for independent living”, „Health Care” test and „Leisure Time Management” test, taking into account the results from the end and beginning of the observed

period on a 3-point scale: 1 – low level, 2 – medium level, 3 – high level. The signs (+) and (-) are placed with an incomplete integer.

➤ Statistical methods – the obtained results are processed with the statistical program SPSS, t-test of Student. The significance of the results for conclusions was determined at  $p < 0.05$ .

All subjects received an individual number (IN – from 1 to 21) in alphabetical order of their own names.

**The working hypothesis** of the study is: the applied occupational therapy program will have a positive effect on the development of skills for independent living in children raised and educated in social services.

## RESULTS

The developed and tested occupational therapy program is adjusted with the age and individual characteristics of users of social services and was conducted in the period June 2021 – May 2022 [14]. For the purpose of this message, only the results of the „Independent Living Skills“ test are reported and analyzed, in which the following groups of activities are identified:

1. „Skills for proper nutrition“ (mastering hygienic and cultural norms of nutrition; knowledge of different foods and their proper combination; knowledge of the problems of unhealthy eating; learning skills for proper and safe handling of kitchen utensils and equipment; building skills for preparing easy and healthy meals);

2. „Hygienic skills“ (building skills for compliance with anti-epidemic measures; familiarization with the necessary materials and tools for maintaining personal and household hygiene; maintaining order and cleanliness in the premises; knowledge and compliance with public hygiene standards);

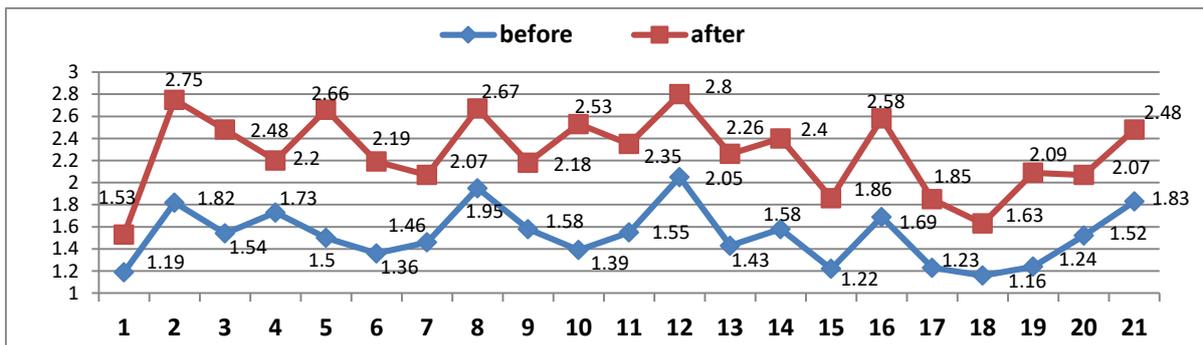
3. „Skills for appropriate dressing and putting on footwear“ (acquisition of skills for selection of appropriate clothes and shoes according to the season and their purpose; maintaining a clean and tidy appearance; taking care of clothes and shoes);

4. „Money and shopping skills“ (building shopping skills - price, purchase, change; skills for the distribution of personal funds; learning cultural behavior when shopping – greeting, waiting in line, greeting „thank you“ and „goodbye“).

The obtained data from the beginning and the end (before and after the application of the occupational therapy program), as well as the difference from the end and the beginning of the studied period (improvement) are subjected to statistical processing. The arithmetic mean ( $\bar{X}$ ) of the numerical image from the relevant test scale is used.

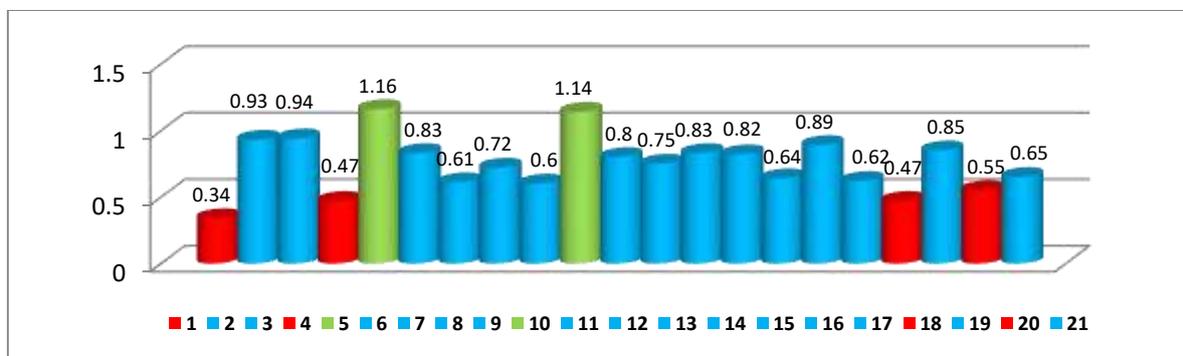
In fig. 1 are presented the average values of the individual results of the examined children at the beginning and the end of the study, which show an improvement in the independence of all examined children. At the end of the observed period, only 4 of the results (19.05%) were below the “average” level, which is due to the very low initial level (1.19; 1.22; 1.23; 1.16), which most probably is a result of the shorter stay of the children in the social service.

At the end of the study, 8 of all observed children (38.10%) reported grade in the range of 2.48 – 2.8 („high level”) in the test „Development of skills for independent living”, as a result of activities from an individual occupational therapy program. The remaining 9 children (42.86%) show initial data around the „average level”, which is due to the low entrance results and the specifics of their individual characteristics.



**Figure 1 Individual results of the respondents from the test „Skills for independent living” before and after the program**

Figure №2 presents the individual results of the improvement (difference between the end and the beginning) of all examined children, which shows that the children with improvement between 0.5 and 1 point are 15 (71.4%). For 2 (9.52%) of the children (PN№ 5 and 10) an improvement over 1 point was reported, which can be explained by the very low initial level due to negative conditions in the family environment, low personal and health culture of parents and lack of interaction of educational factors before the child enters the social service. The good final results of most of the children are due to the individual purposeful work on the implementation of the activities of the occupational therapy program for the formation of skills for independent living. The remaining 4 children (19.05%) (PN№ 1, 4, 18, 20) have less improvement as a result of individual intellectual characteristics or lack of interest in the activities of the occupational therapy program.

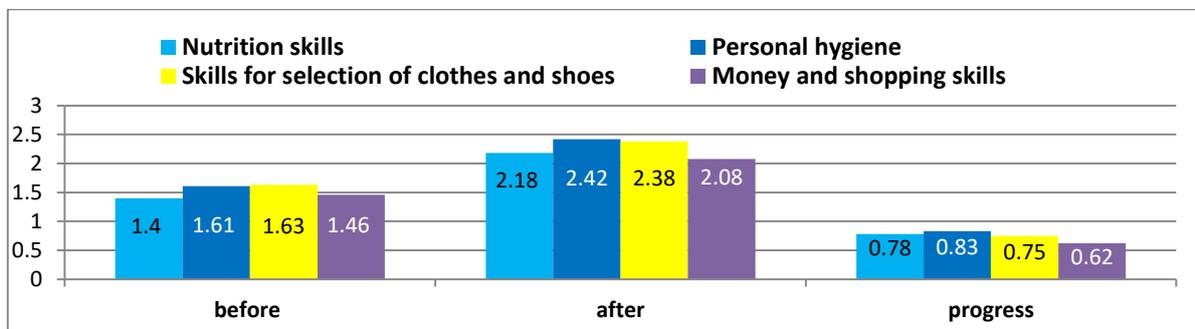


**Figure 2 Individual results of the improvement (difference between the end and the beginning) of all subjects**

Figure 3 shows the results of the test "Skills for independent living" by groups of activities (1. „Skills for proper nutrition”, 2. „Hygienic skills”, 3. „Skills for appropriate dressing and putting on footwear”, 4. „Money and shopping skills”) at the beginning and end of the observation period, as well as their improvement. The graph demonstrates the identity of independent living skills in different groups of activities. There is a slight difference in the baseline values for all groups of activities within 0.23, taking into account a slight predominance of the second and third groups of activities (hygiene – 1.61 and dressing – 1.63).

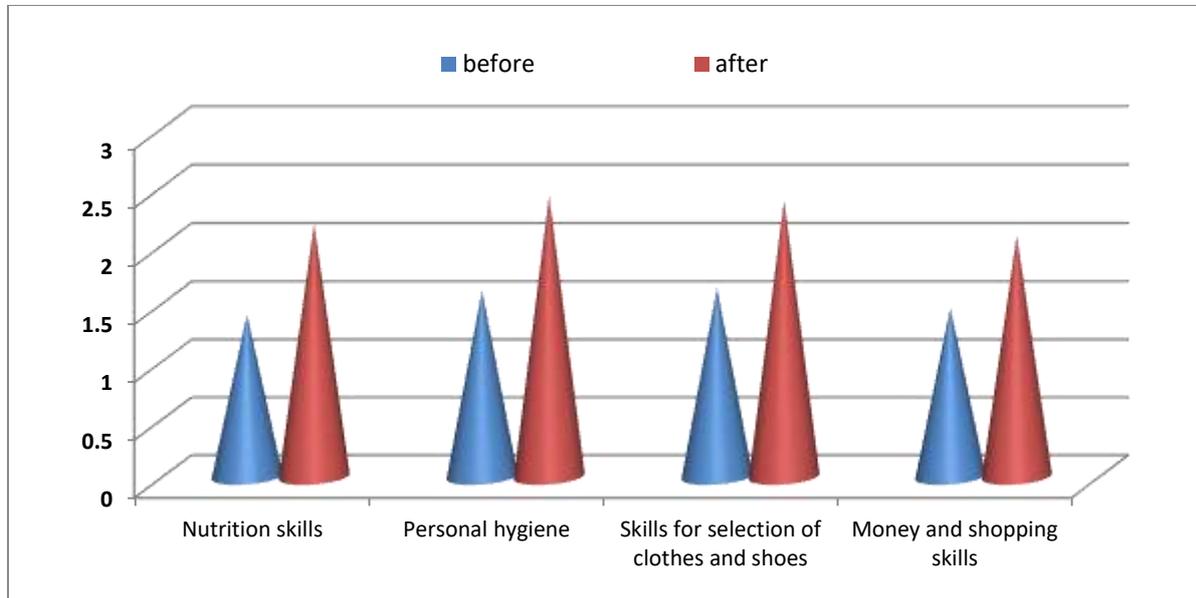
The results in all groups are below the „average level” of initial skills for independent living. In the final results the trend is similar and is within 2.42; 2.38 in the second and third groups of activities, which is significant on a 3-point scale (more than „average level”). Slightly lower are the results in the first group of activities („Skills for proper nutrition”) – 2.18, which is most likely due to the studied indicators related to rational nutrition.

The formation of such skills requires a longer period of time, stability of the acquired knowledge and building habits for proper nutrition. The improvement in the fourth group („Money and shopping skills”) is 2.08, which is within the „average level” and can be explained by the lower possibility of children raised and brought up in a social service to have access to personal funds and to do independent shopping and communication in retail outlets.



**Figure 3** Results of the test „Skills for independent living” by groups of activities – before, after and the improvement of the program

The results from the beginning and the end of the observed period of the test for building skills for independent living of the subjects are presented in fig. 4, which demonstrates that it is essential in all sections of the test and proves the effectiveness of the applied program in the Family-type Accommodation Centers. The acquisition and improvement of new knowledge and skills during the epidemic situation create conditions for purposeful, organized and filled with various content activities to build skills for independent living.



**Figure 4** Results of the test „Skills for independent living” by groups of activities at the beginning and end of the observed period (improvement)

Table 1 presents the data from the statistical processing of the results of the test „Skills for independent living” from the beginning, end and difference (improvement) of the conducted monitoring by groups of activities.

**Table 1** Results of the statistical processing of the test „Skills for independent living” by groups of activities

Groups of activities	n	Beginning of the study			End of the study			Improvement			t-test
		$\bar{X}$	S	CI	$\bar{X}$	S	CI	$\bar{X}$	S	CI	
1. Nutrition skills	21	1,4	0,3	±0,13	2,18	0,45	±0,19	0,78	0,3	±0,13	7,29
2. Personal hygiene	21	1,61	0,23	±0,10	2,42	0,41	±0,18	0,83	0,26	±0,11	7,30
3. Skills for selection of clothes and shoes	21	1,63	0,38	±0,16	2,38	0,4	±0,17	0,75	0,29	±0,12	2,73
4. Money and shopping skills	21	1,46	0,23	±0,1	2,08	0,35	±0,15	0,62	0,22	±0,09	3,61

## DISCUSSION

Studies on the problems of children raised and educated in the conditions of social service show that to varying degrees they are at risk of lagging behind and insufficient formation of skills for independent living [10]. Policy aimed at these children require a strategy for protection, social

security and support for their successful realization, based on developmental forecasting. Preparing for independent living is part of the overall process of working with children receiving social support. Planning the transition to independent living is a process of managing the change related with their personal growth and helps to adapt more easily to the new realities associated with increasing responsibility and strengthening the independence of the individual [11]. The application of a set of activities for the formation of skills from everyday life is a priority goal for the responsible institutions and specialists for improving the quality of child care. This aim is lying on the basis of the legislative framework [5], guaranteeing the rights of the child, as well as in the national strategies, plans and programs for their implementation in social practice.

Charlyn Harper Browne and his team in a 2015 article share their research on adolescents who have suffered social trauma. The authors recommend that efforts must be focused on therapeutic effect by combining it with work that helps young people identify, discover and upgrade their capabilities, and ultimately develop and prosper. This specifically directs the attention of employees and therapists to the establishment and maintenance of protective and stimulating factors, which research shows that are related to healthy development and well-being of adolescents. The staff needs assist to help young people learn and even use their experience to overcome adversity. Such an orientation will allow workers to help young people to take advantage of those qualities that are all too often overlooked or even identified and considered as part of young people's problem behaviour [2].

Rose Ann M. Renteria presents a study that provides information on how to promote personal and cultural values and how to identify positive youth development practices in special education and family strengthening services. This study also includes information on working with young people in special schools, day schools for special education and family strengthening programs [12].

As a result of a research project G. Mehandzhiyska points out that occupational therapy and therapeutic recreation are used among the range of interventions in clinical social work and have methodological and functional potential to serve the purposes and needs of users [4].

Arjen van Assen and his team publish the results of a study on the well-being of children growing up outside families with a strong need for services aimed at developing skills for independent living. Providing appropriate training programs for these children experiencing complex and numerous problems requires knowledge of social care activities [1].

Chien-Chung Huang, Keqing Han published a review in a special issue of the magazine "Children and Youth Services Review" under the theme of "Social innovation in services for children and youth.". It begins with a description of the problem, and then discusses individual documents that include innovative programs from around the world, outlining how each country deals with its pressing social problems. Studies about the approach to social demand, societal challenge, application of a systemic change approach and own initiatives are discussed. The

most enduring problems require creative and innovative solutions like using new ideas, procedures and programs [3].

The social service is differentiated as a therapeutic environment, in the center of which stands the child with his individual features and needs. Practical and applied activities for formation, development and enrichment of skills and competencies for independent living are organized and carried out.

## CONCLUSION

The inclusion of appropriate labor and occupational therapy activities for the formation of independent living skills in children, the upbringing and education of children in the "Family-type accommodation center" has a favorable impact on the overall personal development and formation of social skills. The various and meaningful activities provided in their individual programs support the process of acquiring a set of knowledge and skills that they will need in the future independent life.

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