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Ocena skuteczności postępowania terapeutycznego w Środowiskowym Domu Samopomocy „Chatka" w Nowym Targu

Streszczenie

Wstęp. Niepełnosprawność dotycząca coraz większej liczby osób jest istotnym problemem naszych czasów.

Cel. Celem badań była ocena wpływu postępowania terapeutycznego na stan osób przebywających w Środowiskowym Domu Samopomocy „Chatka" w Nowym Targu.

Materiał i metoda. Zbadano 10 kobiet i tyle samo mężczyzn w wieku od 23 do 40 lat. Wśród badanych, najwięcej, bo 8 osób wykazywało umiarkowany stopień niepełnosprawności. Badania przeprowadzono dwukrotnie, pierwsze – w październiku 2005 roku, drugie - w październiku 2008 roku. Do oceny stanu podopiecznych posłużyła skala Barthela.

Wyniki i wnioski. Trzyletni pobyt w placówce miał wpływ na czynności związane z utrzymywaniem higieny osobistej, korzystanie z toalety, umiejętność wchodzenia i schodzenia ze schodów, ubieranie i rozbieranie się, a także na przygotowywanie posiłków, co wykazano w grupie kobiet, potwierdzenie czego było wykazanie zależności istotnie statystycznej. U badanych mężczyzna różnice istotnie statystyczne stwierdzono w zakresie czynności związanych z utrzymaniem higieny osobistej, myciem ciała i kąpielą oraz ubieraniem i rozbieraniem się.

Słowa kluczowe: niepełnosprawność, rehabilitacja, skala Barthela.

Assesment of therapeuthic treatment efficiency in "Chatka" Theraphy Centre in Nowy Targ

Abstract

Introduction. Disability is a major problem of our times because of its sheer proportions

Aim. The purpose of the studies was to measure the impact of therapy on the basic daily living activities of a subject group at a therapy centre called Środowiskowy Dom Samopomocy "Chatka" (district self-help centre) in Nowy Targ, Poland.

Material and method. The subjects were, in total, ten women and ten men aged 23 to forty, the majority of whom showed a moderate level of disability. The studies were conducted twice. The first study took place in October 2005, and the second one in October 2008. The Barthel Index was used for the assessment.

Results and conclusions. A three-year stay at the therapy centre made a statistically significant difference to the female subjects in terms of their own personal hygiene, toilet use, their ability to climb and walk down the stairs, of dressing and undressing, as well as meal preparation. The male subjects, equally, showed statistically important changes to their personal hygiene, washing and bathing as well as dressing and undressing.

Key words: disability, rehabilitation, Barthel Index.

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INTRODUCTION

Disability is a major problem of our times because of its sheer proportions [1]. The lowered motor competence is a complex and multidimensional issue that is a subject of studies in the field of medicine, psychology, pedagogics, sociology, biology and philosophy. The aim of education and rehabilitation is to develop and improve the chances of the disabled for active adaptation and participation in various spheres of social life. "Attempts at defining what disability is, consist also in emphasizing varied social and cultural mechanisms of forming certain notional categories creating the phenomenon and linking it with meanings that in most cases classify and set up the "pathological" identities of the disabled persons" [2]. In 1994, the European Disability Forum, created by the representatives of 24 European or national organizations for the disabled, addressed the problems of that group in the light of the Standard Rules on the Equalization of Opportunities for Persons with Disabilities published by UN [3]. The Forum recognised that: "A disabled person is an individual enjoying his or her full rights yet finding himself in a situation of disadvantage due to community, economic, or social barriers that the person is unable to overcome, as other people do, because of his or her impairments. These barriers are too often heightened by depreciating attitudes on the part of the society. The society is supposed to reduce and eliminate such barriers in order for every individual to enjoy the public goods, and have his or her rights and privileges respected" [4]. The above definition emphasises, first of all, the obligation to provide assistance to people who might find it difficult to obtain help on their own; it also indicates how an individual with reduced chances for providing for his or her basic needs and necessities of life should be perceived.

The attempts at standardizing the term "disability", broad and very general in their content, do not come up to expectations and therefore there is still no single, universal definition. "Not infrequently, someone recognised as a disabled person in one country, could be classified otherwise just across the border" [5].

The disabled are fully entitled to participate in social life as far as their capacities allow. They are not just "recipients", often perceived as burden right from the moment of conception up to the old age. Persons suffering from physical, or mental, health impairment can benefit from various forms of assistance provided by particular institutions in accordance with their rights, powers and scope of operation, from prophylaxis, diagnostics, therapeutic treatment and rehabilitation, to social services and material or financial benefits [6].

Respect for somebody else's rights – despite their disability – as well as generosity and empathy are conducive to building friendly community relations and family atmosphere in a social welfare centre. In a sense, a disabled person and his or her overall condition provokes the willingness to help and bring relief in suffering. The work of a therapist, or a tutor, and the ability to meet a disabled person's needs, all have a decisive impact on the charge's achievements and progress of the supportive and therapeutic treatment. The person providing support understands the needs and complaints of the sick, learns alternative communication channels and "gets to know his charge" as far as the varied idiosyncrasies in the patient's feelings, emotions, thinking and reasoning are concerned. Such care itself, or even organising various forms of support, does not warrant the final success of the rehabilitation treatment in the form of regaining full health or motor competence. Irrespective of the above exertions, regress or lack of recovery and stagnation can occur in the development of particular brain functions or in the general condition of the disabled person. Therefore, the latest and best measures and methods are applied while assessing the efficiency of the therapeutic treatment. Such a treatment, implemented by a support and rehabilitation team, requires periodic evaluation and verification.

AIM

The purpose of the studies was to assess – using the Barthel Index – the impact of therapy on the ability to perform basic daily living activities of the disabled persons residing at the therapy centre called Środowiskowy Dom Samopomocy "Chatka" in Nowy Targ, Poland. Further aims were specified by the following research questions:

1. Has the three-year rehabilitation period contributed to the improvement of the therapy centre residents' ability to perform the basic daily living activities?
2. In performing which activities have significant changes occurred?
3. Has the initial condition of patients at the moment of their admission to the therapy centre determined their achievements related to the examined activities?

MATERIAL AND METHODS

The subjects were a group of twenty persons - ten women and ten men aged 23 to forty. Their average age was 32. The difference in age structure of the men and women within the research group was not significant. The most patients in the group – as many as eight – showed moderate level of disability; subjects with the remaining disability levels, though less numerous, frequently showed additional disorders such as epilepsy, diabetes, spastic paresis of limbs, etc. The subjects' disability levels are presented in Table 1.

TABLE 1. Disability level of the subjects.

Disability level	Number of women	Number of men
Slight	1	2
Moderate	5	3
Considerable	2	3
Severe	2	2
All	10	10

Source: Home study

The Barthel Index (Table 2) was used to assess the therapy centre residents' performance [7]. The first study took

TABLE 2. Points for activity assessment according to Barthel Index.

No	Kind of activity	Points
1.	Feeding:	0 – unable to eat unassisted 5 – needs help in cutting, spreading butter and handling the cutlery 10 – independent
2.	Transfers (bed to chair and back), sitting:	0 – unable, no sitting balance 5 – major help (one or two people, physical), can sit 10 – minor help (verbal or physical) 15 – independent
3.	Grooming:	0 – needs help with personal care 5 – independent at face washing, hair combing and teeth brushing (implements provided)
4.	Toilet use:	0 – dependent 5 – needs some help, but can do something alone 10 – independent (on and off, dressing, wiping)
5.	Bathing:	0 – dependent 5 – independent (or in a shower)
6.	Mobility (on level surfaces)**:**	0 – immobile or < 50 metres 5 – wheelchair independent, including corners, > 50m 10 – walks with help of one person (verbal or physical) > 50m 15 – independent within city limits
7.	Climbing and walking down the stairs:	0 – unable 5 – needs help (verbal, physical, carrying aid) 10 – independent
8.	Dressing and undressing:	0 – dependent 5 – needs help but can do about half unaided 10 – independent (including buttons, zips, laces, etc.) 15 – can select clothes suitable to the current season of the year
9.	Bowels (sphincter control):	0 – incontinent (or needs to be given enemas) 5 – occasional accidents 10 – continent
10.	Bladder sphincter control:	0 – incontinent or catheterized and unable to manage alone 5 – occasional accidents 10 – continent
11.	Meal preparation:	0 – dependent 5 – needs some assistance 10 – can prepare something independently; for instance, sandwiches

place in October 2005 and the second in October 2008. In the meantime, the following therapeutic activities were performed in relation to the research subjects:

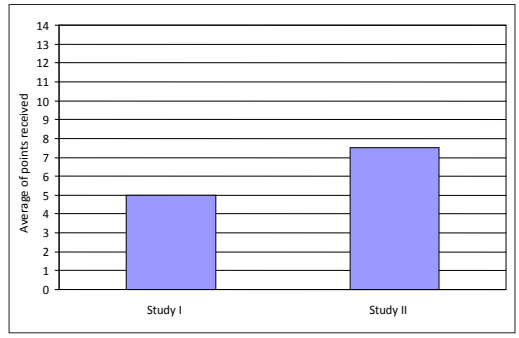
- Sustaining and developing the basic everyday life abilities;
- Improvement of their psycho-motor performance through participation in rehabilitation, therapeutic and recreation training, and in cultural events;
- Integration with the local community and providing psychological and direct support for the families of the disabled.

On the basis of the Barthel Index, it was determined to what extent the patients were able to cope with the basic everyday life activities (e.g. personal hygiene, dressing and undressing) and loco-motor skills or to control their physiological activities. The scale enabled the researchers to assess the patients' competence – which activities they were, or were not, able to perform on their own or with some help and which activities they were not able to perform at all. Following this scale, the maximum number of points that a person could receive was 100 and the minimum number – 0. According to the index, the patients were divided into three groups depending on their psycho-motor condition [3]:

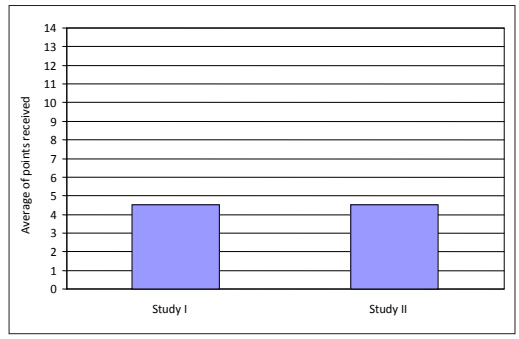
- "very poor" condition (0 - 20pts.),
- "quite poor" condition (21 - 85pts.),
- "quite good" condition (86 - 100pts.).

RESULTS

The analysis of the results related to the first activity – feeding – showed that in the second study the women received, on the average, 2.5 points (or 25 percent) more than in the first. No improvement was observed among the men, who in the second study received the same number of points as they had three years earlier. The results of both the groups are presented in Figure 1.



Women

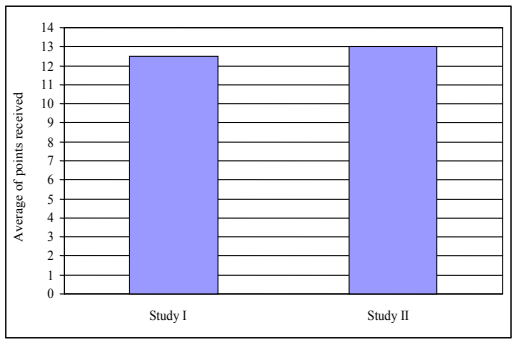


Men

FIGURE 1. Average of points received for feeding by the men and women.

The second activity was the transfer from bed to chair and back, and sitting. The results, presented in Figure 2, showed that after the three-year stay in the therapy centre the women, on the average, improved by 0.5 point (or three percent), while the men received, on the average, one point (or seven percent) more in the study of 2008, than they had in the study of 2005.

The third activity to be examined was grooming. The personal care of the subjects was assessed on a very low level at the moment of their admission to the therapy centre. Yet it was just in this respect that the biggest improvement was observed. Figure 3 shows that in the second study both the men and the women received, on the average, three points (or sixty percent) more, than in the first.



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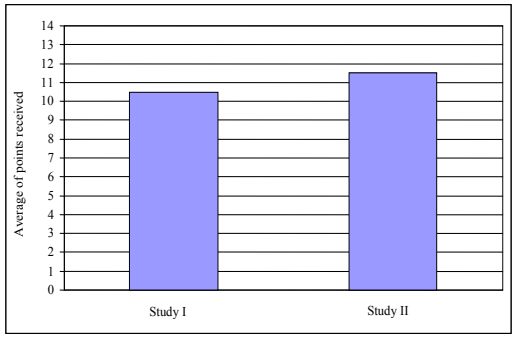
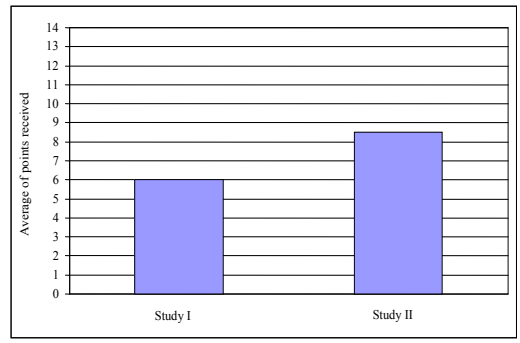


Men

FIGURE 2. Average of points received for transfers by the men and women.



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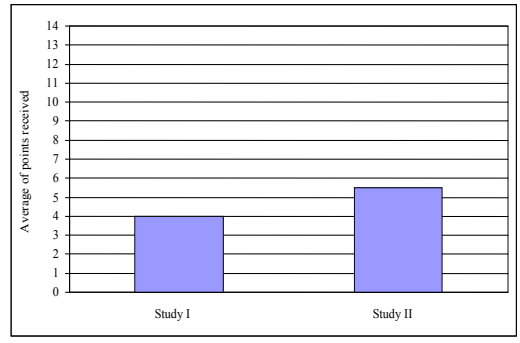
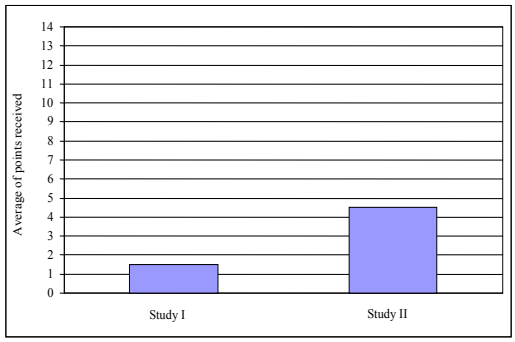
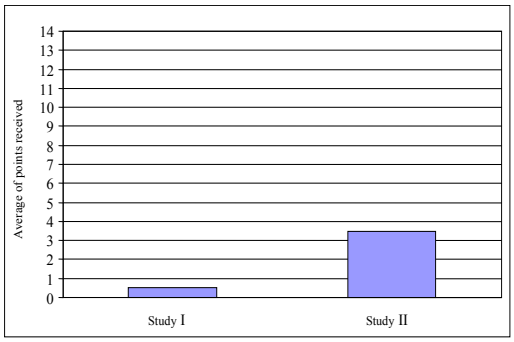


Men

FIGURE 4. Average of points received for independent use of toilet by the men and women.

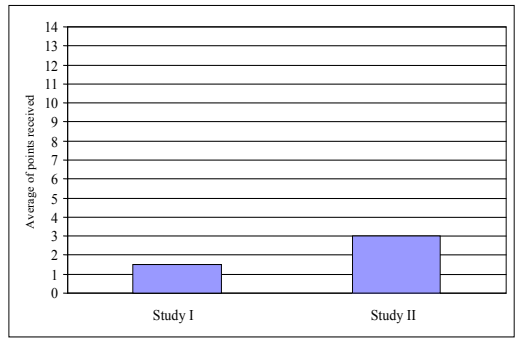


Women



Men

FIGURE 3. Average of points received for grooming by the men and women.



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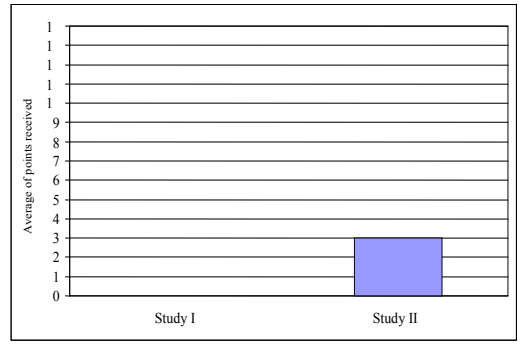

Men

FIGURE 5. Average of points received for self-dependent bathing by the men and women.

The next examined activity was the patients' ability to use the toilet. The results are presented in Figure 4. In 2008, the group of women received, on the average, 2.5 points (or 25 percent) more than in 2005. Among the men, the improvement in the second study in comparison to the first was, on the average, 1.5 points (or fifteen percent).

Figure 5 represents the achievements of the men and women in self-dependent bathing. It was observed that in the second study the women received, on the average, 1.5 points (or thirty percent) more than in the first. However, the men's score was, on the average, three points better than three years earlier (or sixty percent).

Another activity to be examined was the patients' mobility on level surfaces. The results are presented in Figure 6. In the second study both the men and the women received, on the average, 0.5 point (or four percent) more than in the first.

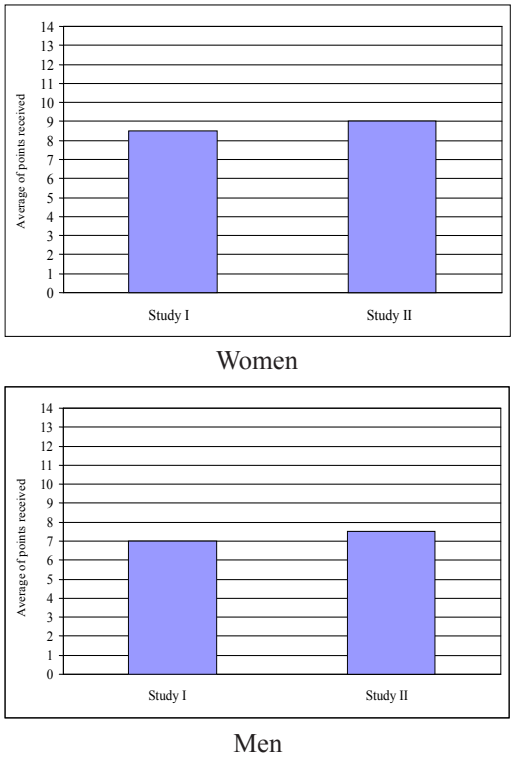

FIGURE 6. Average of points received for mobility on level surfaces by the men and women.

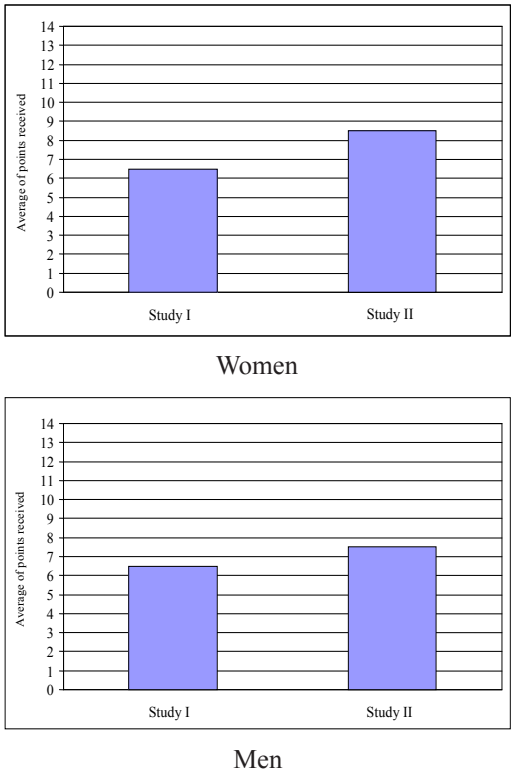

FIGURE 7. Average of points received for climbing, and walking down the stairs by the men and women.

In the comparison of the subjects' ability to climb and walk down the stairs (Figure 7), in the second study the women received, on the average, two points (or twenty percent) more, than in the previous study, while the men's results of the second study were, on the average, one point better than in the research of 2005.

The next activity to be analysed was the patients' ability to dress and undress. Figure 8 presents the research results. In both groups of the subjects the three-year stay at the therapy centre had an improving impact on their ability to cope with this activity. The women received, on the average, three points (or twenty percent) more, than in the moment of their admission to the therapeutic institution. Among the men, the improvement in relation to the first study was, on the average, 2.5 points.

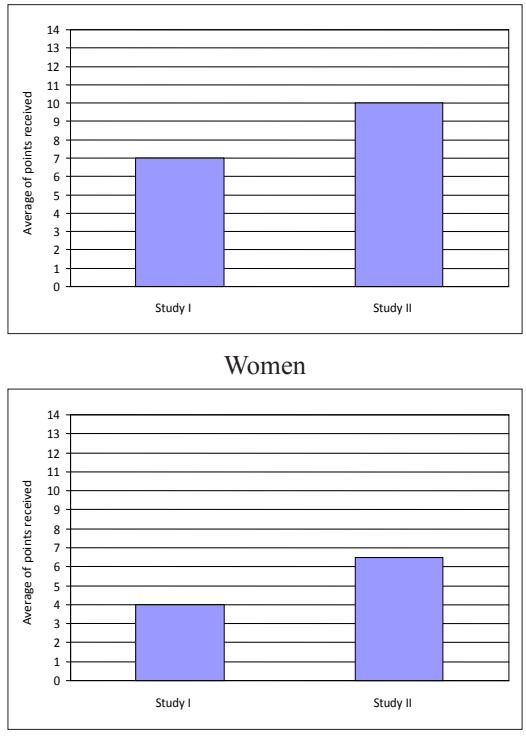

FIGURE 8. Average of points received for dressing and undressing by the men and women.

As shown in Figure 9, the patients' ability to control their bowels (the anal sphincter) was also examined. In the study of 2008, an average improvement of half a point was observed among the women in comparison with their performance in the study of 2005. The men received, on the average, one point more than in the study conducted three years earlier.

The next examined activity was the patients' ability to control their bladder sphincter. During the 2005 study, the subjects' ability to cope with this problem was assessed quite highly; therefore, in the examination of 2008 no significant improvement was observed. Figure 10 shows that among both the men and the women there was an incerease of, on the average, half a point (or five percent) in comparison to the previous study.

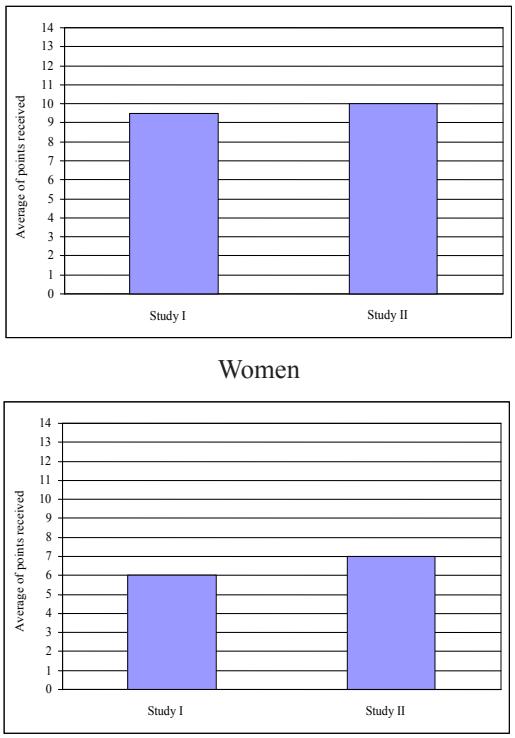

FIGURE 9. Average of points received for bowels control by the men and women.

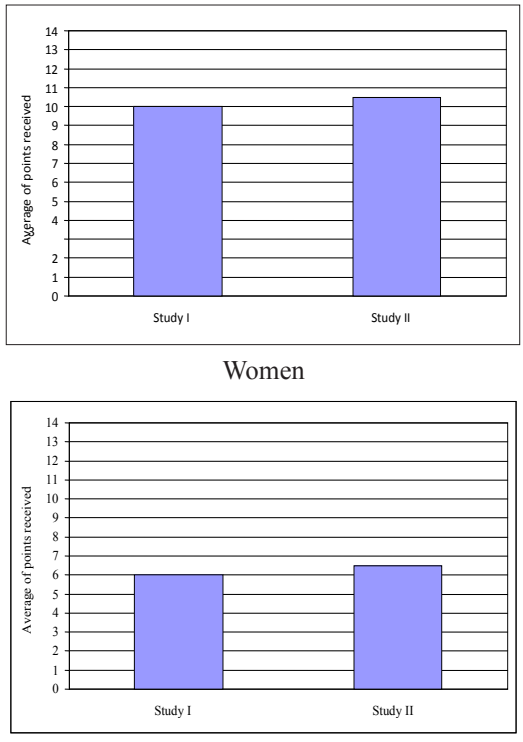

FIGURE 10. Average of points received for the ability to control the bladder sphincter by the men and women.

The last activity to be examined was meal preparation. In 2005, the subjects' performance was quite poor; this was, perhaps, due to the fact that at home they had been relieved of this task by their families. During the patients's stay at the therapy centre it was noted that their attempts at self-dependent meal preparation were giving them much satisfaction. After the three-year sojourn at the "Chatka" therapeutic institution, the examined women improved, on the average, by four points (or 24 percent); while among the men an average increase of three points was noted (Figure 11).

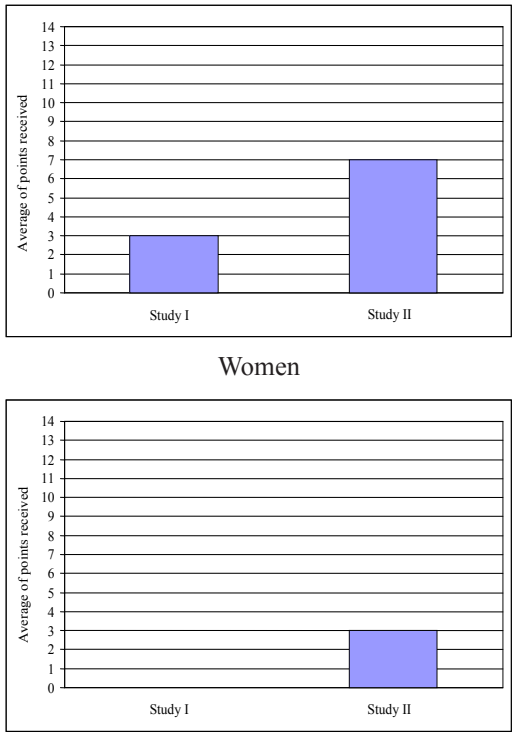

FIGURE 11. Average of points received for meal preparation by the men and women.

The average point values for individual activities, presented in Table 3., demonstrate that in the second study, conducted after a three-year stay at the therapy centre, the women received, on the average, 20.5 points more than in the first examination.

TABLE 3. Average point values received for individual activities by the women.

Examined activity	I Study	II Study	Difference [in pts.]	p
1	5	7.5	2.5	p>0.05
2	12.5	13	0.5	p>0.05
3	1.5	4.5	3	p<0.05
4	6	8.5	2.5	p<0.05
5	1.5	3	1.5	p>0.05
6	8.5	9	0.5	p>0.05
7	6.5	8.5	2	p<0.05
8	7	10	3	p<0.05
9	9.5	10	0.5	p>0.05
10	10	10.5	0.5	p>0.05
11	3	7	4	p<0.05
All $\bar{x}$	71	91.5	20.5	

$\bar{x}$ – average of points received
p – test probability
p > 0.05 – differences are not significant
p ≤ 0.05 – differences are significant

Table 4 shows that in 2008 the men received, on the average, seventeen points more for all the activities than during the study conducted in 2005.

TABLE 4. Average point values received for individual activities by the men.

Examined activity	Test probability - p – for women	Test proba--bility - p – for men	Difference [in pts.]	p
1	4.5	4.5	0	p>0.05
2	10.5	11.5	1	p>0.05
3	0.5	3.5	3	p<0.05
4	4	5.5	1.5	p>0.05
5	0	3	3	p<0.05
6	7	7.5	0.5	p>0.05
7	6.5	7.5	1	p>0.05
8	4	6.5	2.5	p<0.05
9	6	7	1	p>0.05
10	6	6.5	0.5	p>0.05
11	0	3	3	p>0.05
All $\bar{x}$	49	66	17	

In order to verify the research outcome, the resulting differences were analysed to check their statistical significance. The analysis is presented in Table 5. In the case of the examined women, statistically significant differences occur in relation to activities no. 3, 4, 7, 8 and 11; i.e. grooming, toilet use, climbing and walking down the stairs, dressing and undressing, and meal preparation. In the case of the men, statistically significant differences were observed in relation to activities no. 3, 5 and 8 (i.e. grooming, bathing, and dressing and undressing).

TABLE 5. Test probability as calculated by the MS Excel software.

Examined activity	Test probability - p – for women	Test probability - p – for men
1	0.052177	0.167851
2	0.343436	0.167851
3	0.005121	0.005121
4	0.014956	0.081126
5	0.081126	0.005121
6	0.343436	0.343436
7	0.036787	0.167851
8	0.005121	0.014956
9	0.343436	0.167851
10	0.343436	0.343436
11	0.010708	0.081126

$p > 0.05$ – differences are not significant
$p \leq 0.05$ – differences are significant
p – test probability as calculated by the MS Excel software.

DISCUSSION

The total of points received by all the subjects at the moment of their admission to the therapy centre in October 2005 was 1220; the average per person was 61 points. Three years later the total received by the group was 1580, thus the average result equalled 79. In relation to the highest score possible for each activity, an improvement was observed in all the eleven abilities for the whole group of twenty patients. In the second study, the women received, on the average, 20.5 points more than in the first. The men's results of 2008 were, on the average, seventeen points better than those of 2005.

The results indicate a slight difference in the level of improvement in favour of the women. Surely, the success of the rehabilitative process is linked with the 'lower starting position' of the men at the moment of the admission to the therapy centre. The patients experiencing more severe problems at the beginning of their stay at the institution had by 2008 developed a lower level of capability in the examined activities, and of the motor competence.

Various distempers of the communication function are among the major obstacles in treating the disabled. A portion of the subjects communicate without words – using gestures, facial expressions or signals such as crying, shouts and laughter, or inarticulate sounds – and through linguistic signs starting from monosyllables and single words. Below, the two cases with extreme results have been compared:

Case no. 1: the achievements of the subject were assessed at 0 pts at the moment of admission to the therapy centre, and no progress had been observed by the time of the second study. The patient was absolutely not self-reliant and the person's existence totally depended on other people in each area of everyday life. The family was resourceful and its material conditions were evaluated as 'good'. In the patient, a severe mental disability was diagnosed, accompanied by additional disorders, i.e. the quadriplegia, epilepsy and permanent bone deformities. The patient's contact was limited to wordless communication with selected persons.

The description of the above case suggests some serious obstacles to the progress of the therapeutic treatment. For comparison, the patient who achieved the greatest progress according to the Barthel Index is presented below:

Case no. 2: disability assessment on the day of admission to the therapy centre: 70pts; in the second study: 100pts. Moderate disability level combined with the epilepsy. The patient comes from a resourceful family with average material conditions. The subject participated in various events in the therapy centre and showed openness for contacts with the environment (through verbal communication). The patient also showed good memory for texts and tasks and was highly motivated to work and exercise. The level of her adaptation to group norms and conditions was evaluated as 'average'. The patient had been under the care of her family who properly performed their protective and educational functions. The family also showed a positive attitude towards any forms of collaboration with the therapy centre.

A disabled person should be perceived, first and foremost, in the light of his or her problems and needs, and not as an individual with a set of deficiencies and distempers. "The most important element should not be the evaluation of the detriment to the person's health, but rather an assessment of his or her limitations in performing various social and vocational roles" [3]. A disabled person

functions in a different way in the family or therapy centre environment. The impact of therapeutic treatment depends also on the subject's family situation. The third crucial element is high motivation to collaborate with therapists, acceptance of the norms of coexistence within the group, and adaptation to the conditions of the therapy centre. Depending on individual predispositions, various factors can be listed that motivate patients to cognitive, and motoric activity; for instance, contact with other people, self-expression through art, music, or various theatrical forms, work with the use of physical strength and suitable tools, exercises and sport training, games, trips, etc.

The results of the studies conducted in the "Chatka" therapy centre explicitly indicate positive assessment of the efficiency of the therapeutic treatment. Although the work with disabled persons is very difficult, and its progress often barely perceptible, the support and rehabilitation team realizes the attainable goals connected with increasing the patients' motor competence. In the present group of subjects, the team succeeded in achieving an increase of the patients' capability in relation to each of the examined activities. On the basis of the research results, the authors of the present paper are persuaded that, with a proper selection of methods and their regular application, the effects of the future therapeutic treatment may turn out to be equally satisfying.

CONCLUSIONS

1. In the case of the examined women, the three-year stay in the therapy centre had a statistically significant impact in relation to the activities connected with the personal care, as well as to using the toilet, climbing and walking down the stairs, dressing and undressing and meal preparation. Their sojourn in "Chatka" had no statistically significant influence as far as the remaining activities were concerned.
2. In the case of the examined men, statistically significant differences were observed in relation to the activities connected with the personal care, bathing, and dressing and undressing.
3. The patients' condition in 2008 – at the time of the second study – was not determined by their initial condition of 2005.

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