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**Parental perceptions of the effect of child participation
in hippotherapy programme on overall improvement
of child mental and physical wellbeing**

Wpływ uczestnictwa dzieci w hipoterapii na ogólną poprawę
ich stanu psychicznego i fizycznego w ocenie ich rodziców

Summary. The equine-facilitated sessions for a group of kids under the preschool integrated unit were carried out at the Felin Experimental Farm, University of Life Sciences in Lublin from May 2009 till June 2010. The data of patients including their medical history and physician's referral to the therapeutic horseback riding together with the 12 question-survey completed by parents provided the basis for evaluating the usability and appropriateness of the equine therapy in the subjective parental assessment. The study group comprised 14 people, i.e. 8 girls and 6 boys aged from 3.5 up to 6.5 years ($x = 5.21$ $S = 1.12$). Eight kids had infantile cerebral palsy (ICP, 57.14% of studied patients), two patients – autism (14.28%) and another two- psychomotor retardation, while one child was affected by a genetic disorder and one was blind. The equine-assisted services were conducted once a week. A planned number of hippotherapy ridings, that is 3–5 per month, was realized. A total number of 223 therapeutic sessions (28–39 a month) for children from integrated kindergarten was carried out. The average attendance rate (AAR) at the therapy sessions reached 72.39% (from the lowest 41.17 up to peak 100%) at $S = 14.00$. There were reported highly statistically significant differences between the AAR for the children with ICP (75.54%) and others (68.19%) that gave evidence that the parents of the former child group aimed to provide a more intensive horse-assisted therapy. All the parents answered the survey questions. Six children (42.9%) with ICP had attended the sessions for several years before, while 42.9% of the studied group owned a pet, which naturally promoted emotional bonding with the horse. Only three children did not participate in other rehabilitation treatments. The first meeting with a horse and its surroundings elicited positive responses in most kids (over 85%), yet the length of the kid's adaptive period varied. The parents of five patients (35.7%) reported lower susceptibility of their children to infections and diseases as a result of the equine therapy attendance, whereas the others did not observe any changes in this respect. Importantly, all the parents agree that their children bal-

ance, coordination and communicative goals (50% in all survey replies) have markedly improved due to hippotherapy as well. The information based on the parent surveys confirms that horse-assisted therapy is effective in causing positive changes in kids physical and emotional sphere.

Key words: hippotherapy, rehabilitation, patient, attendance

INTRODUCTION

Hippotherapy in Poland has increased in popularity over last decades mainly through its multilevel operation on a patient's organism (physical, cognitive, emotional, social). Equine-oriented rehabilitation treatment is an interdisciplinary method combining the medical, educative, didactic, recreational and sport elements that mutually interact to specifically fit the individual needs and goals of a client [Kanony... 2007, Strauß 1996]. The benefits of horseback riding as well as feeling the closeness to horses were addressed by many authors [Gadula 1994, Heipertz-Hengst 1997].

A conventional hippotherapy session with a patient includes a licensed therapist (sometimes two professionals are necessary), a horse handler (most often a trained volunteer) and a well conditioned and prepared horse. Obviously, a referring physician and one consulting the programme is a member of the therapeutic team as well (e.g. physiotherapist, neurologist, orthopedic surgeon, psychologist, pediatrician and other health professionals, subject to the nature of patient disability) [Kanony... 2007]. The more committed and efficiently cooperating a therapeutic team is, the better and more positive outcomes the hippotherapy brings. It should be incorporated as one of treatment strategies to improve holistically physical and mental challenges of a patient [Pluta 2008].

Numerous authors highlight different aspects of the equine-facilitated therapy [Kosiniak-Kamysz *et al.* 2000, Witkowska 2008] but the greatest challenge has remained, that is to provide the objective evidence-based assessment of the hippotherapy results [Wyżnikiewicz-Nawracała 2002]. A measurable and research-grounded conclusive evaluation of horse-therapy appropriateness can be made primarily by a referring physician and health professional as the parents' or patient's assessment may be unreliable [Rosińska 2009]. Therefore, on the basis of information in the medical history of patients referred to hipporehabilitation as well as parents surveys, the attempt was made to determine usefulness and appropriateness (improvement of preschool kids physical and mental wellbeing) of horse-assisted therapy in the subjective parental perceptions.

MATERIAL AND METHODS

The studies involved a group of 14 kids aged from 3.5 up to 6.5 years under the preschool integrated unit from Lublin and the region. The equine-facilitated sessions were conducted within the project of the Urban Family Assistance Center "Rehabilitation of children and youth with motor disabilities". There was chosen a group of kids from one center receiving the therapy services within the same organizational schedule. Hippotherapy was carried out at the Felin Experimental Farm, the University of Life Sciences in Lublin from May 2009 till June 2010 according to the project assumptions. In summer holiday (June-August) and December through April, the services were sus-

pended. Altogether, hippotherapy was conducted for seven months, a number of planned ridings was realized. The hipporehabilitation treatment was performed once a week and was organized so that at least two kids could participate in parallel therapy riding sessions. Thus the patients activity targets the motor, physical skills of a kid mounting a horse, that maintains a regular gait as well as satisfies psychosocial needs. Besides, children have opportunities for peer interaction within a preschool group, when the therapeutic situation promotes formation of social contacts, encourages mobilization and competition to overcome hardships, weaknesses. In the riding therapy, the patient has the experience of imitation leading to the acquisition of new skills, that is learning [Heipertz-Hengst 1997]. Importantly, hippotherapy benefits include improved self-confidence, trust, social acceptance and courage in getting over new unknown difficulties [Teichmann Engel 2004].

To obtain objective data from the patients' parents (tutors) on the horse therapy efficacy, they were asked to complete a questionnaire survey after the treatment completion. The survey along with the attached medical history provided important feedback and the basis for the patient characterization and drawing conclusions. Before the horse-assisted therapy onset, the detailed medical history was prepared by health care professionals who referred a child to the hippotherapy. If there were no contraindications, a physician permission was given to proceed with the horse therapy. The overt parent survey comprised twelve following questions:

1. Name of child;
2. Did child participate in hippotherapy before? a) yes, b) no;
3. If yes, for how long a) several days, b) several weeks, c) several months, d) several years;
4. Any pets at home? a) yes, what..., b) no;
5. Any other rehabilitation methods or forms beside hippotherapy the kid goes through a) Bobath, b) Voyta, c) Petö, d) other, e) no;
6. Does child participate (participated) in dog therapy? a) yes, b) no;
7. Emotional response from child to first session? a) positive, glad, curious, not afraid of horse or surrounding, b) quite positive, unsure at times, c) quite unresponsive, d) negative, fearful;
8. Present emotional response to sessions? a) positive, b) uninterested, c) positive, unresponsive at times, d) quite negative;
9. Is your child less or more susceptible to infections or diseases due to hippotherapy? a) yes, less susceptible, b) yes, more susceptible, c) no, no change;
10. According to you, hippotherapy services changed mostly your kid: a) self-help skills, b) balance, c) motor coordination, d) openness, e) communicativeness;
11. In your opinion, hippotherapy improves physical and mental wellbeing of your child? a) yes, b) no, c) indifferent;
12. How to improve hippotherapy sessions to make them more effective for your kids?

The survey comprises twelve questions but only the first one is of informative and record character. The questions 2–11 are closed, multiple choice ones. The question 5 and 10 may be answered with more than one response, thus total percentage may be over 100%. The last question is open that requires a descriptive answer.

The material collected from both documents created database and was analyzed mathematically and statistically using Microsoft Excel 2007 software.

RESULTS AND DISCUSSION

Table 1 presents characteristics of the kids under preschool integrated unit participating in hippotherapy. The first column – the number of kid-patient. There were eight girls (“f”) that made up 57.1% and six boys (“m”) –42.9% in three age groups: junior, intermediate, senior. It is noteworthy, that psychomotor and intellectual development of handicapped people may proceed differently as compared to their healthy peers [Zabłocki 1998]. It is frequently disharmonious and requires far-reaching individualization so that actual age can not determine allocation to the age group. The youngest girl was 3.5 year old (child No 1), while the oldest ones 6.5 years (No 8 and 10). Mean age in group was 5.21 at standard deviation 1.12.

Table 1. Characteristics of children participating in hippotherapy
Tabela 1. Charakterystyka dzieci uczestniczących w hipoterapii

No kids Nr dziecka	Sex Płeć	Age (year) Wiek (lata)	Diagnosis Rozpoznanie	Walking- skills Chodzi	Height Wzrost (cm)	Weight Waga (kg)
1.	f/z	3.5	ICP, paraplegia spastica MPD, n.s.k. dolnych	no/nie	91	13
2.	m/m	4	ICP, diplegia spastica MPD, n.s. czterokończynowy	no/nie	92	13.5
3.	f/z	4	ICP, diplegia spastica MPD, n.s. czterokończynowy	no/nie	94	11
4.	f/z	4	ICP, paraplegia spastica MPD, n.s.k. dolnych	yes/tak	92	13
5.	f/z	6	ICP, paraplegia spastica MPD, n.s.k. dolnych	yes/tak	110	14.5
6.	f/z	6	ICP, diplegia spastica MPD, n.s. czterokończynowy	no/nie	116	21
7.	m/m	6	ICP, diplegia spastica MPD, n.s. czterokończynowy	yes/tak	113	18
8.	f/z	6.5	ICP, hemiplegia spastica MPD, n.s.k. lewostronny	yes/tak	111	19.7
9.	f/z	4.5	autism/autyzm	yes/tak	105	15
10.	m/m	6.5	autism/autyzm	yes/tak	110	22
11.	m/m	4	blindness/niewidomy	yes/tak	98	17
12.	m/m	6	dwarfism/karłowatość	yes/tak	82	14
13.	f/z	6	psychomotor retardation/ opóźnienie psychoruchowe/	yes/tak	111	16
14.	m/m	6	psychomotor retardation/ opóźnienie psychoruchowe	yes/tak	120	28
x		5.21			103.21	16.84
S		1.12			11.50	4.56

nsk – niedowład spastyczny kończyn

The major disorders caused by cerebral palsy in children disturb and block the normal developmental progress of children, which commonly proceeds intensively in the early years of life. As many as eight kids, 6 girls and 2 boys, had ICP (57.14% of studied patients). Among numerous ICP classification systems, the most common and based on topographic distribution of motor impairment proves to that given by T. Ingram [Heipertz-Hengst 1997, Krupiński 2007]. Thus taxonomically, three examined kids had spastic paraplegia (child No 1. 4. 5.), four of them – spastic diplegia (child No 2. 3. 6. 7.) and one kid was affected by spastic hemiplegia (child No 8.). All children with ICP developed spasticity whose frequency in this handicap is the highest and reaches ca.70% [Joseick *et al.*,1999]. The kids No 9. and 10. had recognized autism. The child No 11. was a boy blind since birth, kid No 12. with achondroplasia dwarfism (disordered limb axis, where joint contractures induce varus knee deformity). The children No 13., 14. had a general diagnosis – psychomotor retardation.

Independent movement of disabled kids is of primary importance (as their parents stress) and even if uncoordinated and sluggish, it still allows to defeat various barriers [Rosińska 2009]. Therefore, this feature is displayed in the column “walking”. Four kids are not able to walk (No 1., 2., 3., 6.), yet the first girl aged 3.5 years begins, as parents emphasize, to make her first steps being assisted by another person.

The kid body size parameters like height, weight do not deviate from the age norm. Only a six-year boy (No 12) is 82 cm tall but it is a main clinical manifestation of his disability. Mean height of all the kindergarten kids is 103.21 cm (S = 11.50) and mean body weight 16.84 kg (S = 4.56). Therefore, the hippotherapy services were performed by horses with mean height at the withers 135,6 cm (S = 4.51). The horses varied in height (from 128 up to 140cm) so patients safety could be ensured from the ground “off horse” by sidewalking or “on horse” safety insurance with a back rider. The latter safety measure was applied working with the child No 2., 3., 6. Hippotherapy was carried out on five mares Felin Pony breed and one gelding Hutzul Horse and their age ranged between 8 and 16 years. The horses of both breeds underwent the assessment of their interior and exterior properties and special training and have been used in the hippotherapeutic treatment programme for over three years [Drewka *et al.* 2010, Kosiniak-Kamysz *et al.* 2000, Pluta and Firlej 2006].

Table 2. summarizes the number of therapeutic ridings and kid attendance at sessions at each month according to the schedule. The number of ridings is given in brackets beside each month, e.g. V(4) – May (4 ridings). A total of all riding days throughout the whole hippotherapy period was 29. In the total row at the bottom of Table 2., there was given the sum of ridings of kid participants in a month, while in a row “No kids” – the number of kid participants in this period. During the first two months, 10 children commenced their equine-facilitated treatments. After two months, two kids, No 7. and 10. were excluded from the preschool integrated unit due to their age and consequently, rejected from the therapy so, kids No 1., 3., 9., were admitted. That is why the empty spaces in the Table, in the rows for each kid mean absence from the therapy. As for patients No 8. and 13., there are 0 (zero) values between these illustrating the number of ridings and the zeros (no riding)were caused by kid hospitalization, diseases and other reasons. The monthly means were calculated on the grounds of kids attendance rate at each month of the programme. Only the values from May and June 2010 showed highly

statistically significant differences due to the difference in the number of therapeutic sessions at these periods (28 and 39, respectively). Significant statistical differences were noted between May, September, October 2009 and June 2010.

Table 2. Number of ridings per month and children attendance percentage
Tabela 2. Liczba jazd w miesiącach oraz procentowa wartość frekwencji dzieci

No kids Nr dziecka	Month (n of riding days) Miesiąc (n dni jazd)							Total ridings Jazdy razem	Σ riding days/ n month Σ dni jazd/ n miesięcy	Attendance Frekwencja (%)
	V(4)	VI(5)	IX(4)	X(4)	XI(4)	V(3)	VI(5)			
1.			1	3	4	3	4	15	20	75.00
2.	3	4	4	2	4	2	4	23	29	79.31
3.			2	4	3	3	4	16	20	80.00
4.	2	3	3	3	3	3	4	21	29	72.41
5.	3	3	4	4	4	3	3	24	29	82.75
6.	3	5	4	2	4	3	4	25	29	86.20
7.	2	4						6	9	66.66
8.	3	4	3	3	0	2	3	18	29	62.06
9.			4	4	4	3	5	20	20	100.00
10.	4	2						6	9	66.66
11.	2	4	1	3	4	3	5	22	29	75.86
12.	4	2	3	1				10	17	58.82
13.	3	0	3	1				7	17	41.17
14.					4	3	3	8	12	66.66
Total Razem	29	31	32	30	34	28	39	223	298	
n child n dzieci	10	10	11	11	10	10	10			14
x	2.90a	3.0	2.91a	2.73a	3.40	2.80 A	3.90 bB			72.39
S	0.74	1.45	1.14	1.10	1.26	0.42	0.74			14.00

Means denoted by different letters are significantly different – ab $P \leq 0.05$; highly significant – AB – $P \leq 0.01$
Średnie oznaczone różnymi literami różnią się istotnie – ab – $P \leq 0.05$; wysoko istotnie – AB – $P \leq 0.01$

While organizing the activities, hippotherapeutic as well, a comprehensive holistic approach to the therapy is vital, especially in the case of children with ICP [Należyty and Strumińska 1994]. The essence of each therapy is its replicability, extension of patient engagement time, exposure to grading scale problems and primarily, regularity [Witkowska 2008]. A regularity indicator proves to be attendance rate (AR) which is presented for each kid in the last column Table 2. The attendance rate for each patient was calculated from “total ridings” and the sum of riding days at each month (riding days/month). The patients received therapeutic sessions at various months so they performed the required number of ridings. The attendance rate was presented as percentage. Mean AR for all participants was 72.39% ($S = 14.00$), for the kids with ICP (child 1–8) reached 75.54% and was higher and highly significant statistically from the mean 68.19% ($S = 19.45$) recorded for the other three patients (child 9–14). Among the children with ICP, only two kids (No 7 and 8) showed a markedly lower attendance rate as compared to the general mean. The lowest value was noted for the girl No 13. with psy-

chomotor retardation, whereas the highest possible – 100% had the autistic girl (No 9). Generally, the kid group with ICP showed attendance in the narrower range (62.06–86.20) than the children with other disabilities (41.17–100.00). Obviously, patient attendance, regardless of absences for any reasons, may also point out to some value of the therapy and its need. Therefore, it is vital to share and disseminate knowledge on hippotherapy among the interested parties [Gadula 1994, Kanony... 2007].

Table 3. Parents' responses to survey questions
Tabela 3. Odpowiedzi rodziców na poszczególne pytania kwestionariusza

No kids Nr dziecka	Number of question and response ticked Numer pytania i wybrany wariant odpowiedzi										
	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	a	d	b	a, b, c, d	a	b	a	a	a, b, c, e	a	+
2.	a	d	b	b, d	a	b	a	c	b, e	a	-
3.	b	-	b	a	b	d	a	a	b, c, e	a	-
4.	a	d	b	b	a	b	a	c	c	a	-
5.	a	d	a	a, d	a	a	a	a	b, c	a	-
6.	a	d	a	a, b	a	b	a	c	b	a	+
7.	a	d	a	c	a	a	a	c	c, d	a	-
8.	b	-	b	b, d	a	a	a	c	c, e	a	+
9.	b	-	a	d	a	a	a	c	-	a	+
10.	b	-	b	d	b	c	a	c	e	a	+
11.	b	-	a	e	a	b	a	a	b, d, e	a	+
12.	b	-	b	d	a	a	a	a	c	a	-
13.	b	-	b	e	b	b	a	c	d, e	a	-
14.	b	-	a	-	a	a	a	c	b	a	-
Variant Wariant	Response distribution (%) Rozkład odpowiedzi (%)										
a	42.9		42.9	28.6	78.6	42.9	100.0	35.7	7.1	100.0	
b	57.1		57.1	35.7	21.4	42.9			50.0		
c				14.3		7.1		64.3	50.0		
d		100.0		50.0		7.1			21.4		
e				14.3					50.0		
No response Brak odpowiedzi				7.1					7.1		57.1

Table 3. presents parents' replies to each survey question and percent distribution depending on a chosen variant (a, b). Question 2 filters responses to select a certain group. Six parents-respondents (42.9%) gave "yes" reply to this question, which means their children had attended hippotherapy before. For the other kids (57.1%), it was the first contact with the horse. The selected group of six parents (100%) answered question 3 ticking "d" several years. The parents emphasized that equine-assisted treatment is a continuation of therapy taken before. Importantly, the first two kids (No 1., 2.) commenced hippotherapy programme being only 1,5 years. It is not a rule but especially parents of children with ICP are observed to start their kids rehabilitation very early [Teichmann Engel 2004] as evidenced in the responses to question 2 and 3. Question 4 was answered in the negative by eight respondents (57.1%), the others gave positive answers describing a pet. The children No 5.,6.,7.,9. own a dog at home, the girl No 6.

also has a rabbit. A blind boy (No 11.) possesses a cat and the boy No 14. with psychomotor retardation cares for a hamster. The animal presence at home contributes to building new relations not only between the animal and its owner but all the home-dwellers as well. A child has a chance to learn pet responsible ownership, sense of duty and how to handle a pet, which gives unconditional love and is always well-disposed. It is believed that a pet owner is able to make easy contact with bigger animals, e.g. horses [Gadula 1994, Jeziorska and Ustian 2009, Strauß 1996].

The question 5 regarding kid rehabilitation methods used was answered with “e” do not participate by the parents of child No 11. and 13., whereas of child No 14. left it unticked. The others, especially those with ICP kids gave different responses. The mentioned methods: a) Bobath, b) Voyta, c) Petö are only a fragment of broad range of conventional kinezotherapy, so the parents could extend their reply in “d”. The first child with ICP goes into (a, b, d – PNF and SI) and went into in a wide variety of conventional and unconventional rehabilitation procedures. Child No 2. was also rehabilitated with the sensory integration SI method and vision therapy due to eyesight impairment. The parents of kid No 8. added hydrotherapy in “d”, whereas those of the autistic girl No 9. ticked one option – “d” SI and W. Sherborne body-oriented technique. As for this latter patient, such a comprehensive treatment (including hippotherapy) are of key importance as they develop self-awareness of the body, the space around it and activities within it and what is crucial – sharing the space with others and making contacts with them [Gracjar-Szydłowska 2009]. The parents of the remaining children ticked 1–2 answers.

Question 6 concerning kid participation in dog-assisted therapy was answered in the negative (21.4%) by the parents of child No 3., 10., 13. The dog therapy, alike hippotherapy, was conducted under the kindergarten integrated unit project. A therapist brought a dog to the kindergarten sessions, so the therapy accessibility was even higher than during horse therapy. An interesting dependence was found then, namely the aforementioned three children that did not attend the sessions do not own any pets at home.

Out of four responses suggested to question 7, parents have chosen mainly the first two. The response “a” was chosen by six parents of child No 5., 7., 8., 9., 12., 14 (42.9%). The response “b” was chosen by six parents respectively. Tenth child’s parents chose the response “c” whereas the “d” was chosen by the parents of the third child. Behaviour and showing positive emotions “a” at the first session may be affected by child age (kids No 5., 7., 14. are 6 years) and pet ownership (kid No 5., 7., 9., 14.). The parents of the blind boy have chosen “b” even though the boy mounted a horse as late as at the seventh session (Tab. 2. riding in September). It was a long process before he felt confident in this “hippotherapeutic situation”, starting with a therapist, then the setting (manege area, stable, wagon, pointed stake, bridle, platform etc.) and finally, the horse. It was a challenge for him to get used to unfamiliar sounds made by unknown animal, like snorting, neighing, rustling of picked grass or hoof-tread sounds. Actually, the challenge had been taken up by both, parents and the therapist and was a success. A blind child perceives the surroundings and the horse by all his senses: hearing, smell, touch and even taste [Witkowska 2006]. However, gaining his confidence and acceptance was well-worth effort as it resulted in weakened fears and boosted safety feeling of the kid that led him to the world of new experience and stimuli [Jeziorska and Ustjan 2009].

There was the same response given by all the parents to question 8, i.e. “a” positive. The seven month-work with children, that actually took a year, benefited in development

of positive emotions through beneficial relationship with horse, even in the kids responding with some anxiety and fears at the hippotherapy start. This question corresponds to question 7, where the parents observing their kids ticked different answers (b, c and d, not only positive: "a" and gives evidence that therapy is largely affected by time, regularity and attendance [Pluta 2008].

Question 9 regarding the horse therapy effect on kid health improvement was replied positively ticking "a" by five parents (35.7%), while the rest (64.3%) did not find any changes and chose "c". Participation in therapeutic horseback riding outdoors with fresh air, as some authors report [Gadula 1994, Należyty and Strumińska 1994, Wyżnikiewicz-Nawracała 2002] is undoubtedly healing physical and emotional disorders of patients who have to get over various barriers every day. One of such barriers is the time of long strenuous exercises at the gym or hospitalization.

Question 10 focused on the kid features that have changed most due to hippotherapy. The most often mentioned features (7 times) (50%) were: "b) balance" and "c) motor coordination" and "e) communicativeness", 3 times (21.4%) "d) openness" and once (7.1%) "a) self-help skills". The highest number of features was ticked by the parents of the first girl with ICP, who exhibited genuine progress throughout the treatment sessions (e.g. started walking on her own). Three features were indicated by the parents of kid No 3 and the blind boy (No 11.), while two features by five parents of child No 2., 5., 7., 8., 13. One feature was ticked by the parents of kid No 4., 6., 10., 12., 14. It should be emphasized that although, kids progress is not attributed solely to hippotherapy, its beneficial influence can not be ruled out. The parents of the autistic girl No 9. who has been receiving this form of occupational therapy for five months have not observed any changes yet so they did not give any answer. That may support and confirm a hypothesis of Grajcar-Szydłowska [2009] that calm, regular, highly individualized guided work, often long-term because every child is unique, to obtain even the slightest successful experience may build the bridge between the autistic person and the world.

Alike the answer to question 8, the parents chose the same reply to question 11, i. e. "a" that confirms the positive impact of hippotherapy on kid physical and mental wellbeing. Importantly, only parents constantly and thoroughly observe children and they can objectively state beneficial changes proceeding in the physical and mental sphere of kids.

The last and the only descriptive (so called open) question encouraged the parents' remarks, if any, to make hippotherapy services more enjoyable for kids. Six parents (42.9%) replied (Tab. 3., those denoted with "+"), the others did not answer (-). The parents of kid No 1. suggested that a session should run for 45 min (30 min at present) and recommended more changes of the kid position on horse. However, a ca. 30 min – hippotherapy session in length is considered as optimal. It is the approximate average time given in the Canons for Polish Hippotherapy [2007] but it primarily depends on a handicapped person's endurance and needs. Taking into account the physical condition of a 3.5 year-old girl (kid No 1.), 30 minutes of work (riding without physical exercises is still therapy) is sufficient. The concept of time is associated with a response to the next problem. In hippotherapy, especially patients with ICP, two working models are used: the first neurophysiological that addresses maintenance of sitting posture control of a patient (no exercises) paired up to a specific horse when he is a recipient of an appropriate walking pattern [Krupiński 2007]. The other model comprises suitable exercises and folding positions performed to improve trunk stability and appropriate sitting pos-

ture first, followed by introduction of relevant exercise set [Witkowska 2008]. A choice of a model for a kid should be based on a constructive debate between a therapist and the parents. The parents of the kid No 7., a six-year boy, objected to the increased number of exercises on horseback which indicates that therapist's work requires high flexibility in the choice of methods and creativity [Teichman Engel 2004]. While parents of kid No 9. suggested that their child worked with two therapists. A therapeutic team includes some members and it is possible (or necessary) that two therapists assist one child, e. g. the other may be a trained experienced volunteer [Strauß 1996]. In the opinion of the parents of kid No 11., 12., 13. the hippotherapy services were conducted professionally with good communication between therapists and kids so nothing should be changed.

The present author is aware of the fact that similar studies should be carried out on a larger scale with medical research participation. However, the information collected from parent surveys reporting the discussed hippotherapeutic situations in one riding center evidences the mostly positive effect of equine-assisted therapy on handicapped kids. Improvement in emotional and physical wellbeing is directly related to therapy regularity and thus, patient attendance. Importantly, seven children have continued hippotherapy in this centre and that is the strongest evidence supporting appropriateness of rehabilitation process chosen by parents as well.

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Streszczenie. Na terenie Gospodarstwa Doświadczalnego Felin Uniwersytetu Przyrodniczego w Lublinie od maja 2009 r. do czerwca 2010 r. prowadzone były zajęcia hipoterapii z grupą dzieci z przedszkola integracyjnego. Na podstawie danych o pacjentach, zawartych w dokumentach wypełnionych przez lekarzy kierujących na terapię oraz kwestionariusza składającego się z 12 pytań skierowanego do rodziców, podjęto próbę określenia przydatności i celowości hipoterapii w subiektywnej ocenie rodziców. Czternastoosobowa grupa badawcza to 8 dziewczynek i 6 chłopców w wieku od 3,5 do 6,5 lat ($x = 5,21$ $S = 1,12$). Ośmioro dzieci było z mózgowym porażeniem dziecięcym (MPD, 57,14% badanych), po dwoje z diagnozą autyzmu (14,28%) i opóźnieniem psychoruchowym, jedno z chorobą genetyczną (7,14%) oraz jedno niewidome. Zajęcia odbywały się raz w tygodniu. W każdym miesiącu przeprowadzono z góry ustaloną liczbę jazd – od 3 do 5. Razem dla wszystkich przedszkolaków odbyły się 223 jazdy (od 28 do 39 w miesiącu). Średnia frekwencja na ćwiczeniach wyniosła 72,39% (od najniższej 41,17 do maksymalnej 100,0%) przy $S = 14,00$. Pomędzy średnimi frekwencjami dla przedszkolaków z MPD (75,54) a pozostałymi (68,19) wystąpiły wysoko istotne różnice statystyczne, mogące świadczyć o tym, że rodzice tych pierwszych chcieli, aby ich podopieczni pełniej skorzystali z terapii konnej. Wszyscy rodzice odpowiedzieli na pytania kwestionariusza. Sześcioro dzieci (42,9%) z MPD już wcześniej, od paru lat, uczęszczało na hipoterapię. Również 42,9% przedszkolaków posiada w domu jakieś zwierzę, co niewątpliwie może sprzyjać łatwiejszemu nawiązywaniu kontaktu z końmi. Tylko troje dzieci nie uczestniczyło w innych metodach rehabilitacyjnych. Pierwsze spotkanie z koniem i jego środowiskiem wyzwoliło u badanych w większości pozytywne emocje (ponad 85%), chociaż czasy aklimatyzacji u dzieci były zróżnicowane. U pięciorga z nich (35,7%), w wyniku uczestnictwa w hipoterapii, rodzice stwierdzili mniejszą podatność na infekcje i choroby. Reszta nie stwierdziła zmian w tym zakresie. Rodzice zgodnie stwierdzają, że wiele cech ich dzieci, a głównie równowaga, koordynacja ruchowa i komunikatywność (wszystkie po 50% odpowiedzi) uległy, także pod wpływem hipoterapii, pozytywnym zmianom. Na podstawie informacji zebranych od rodziców za pomocą kwestionariusza można stwierdzić, że terapia z obecnością konia ma pozytywny wpływ i daje w większości przypadków korzystne efekty u dzieci w sferze fizycznej i psychicznej.

Słowa kluczowe: hipoterapia, rehabilitacja, pacjent, frekwencja