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Characteristics of hippotherapeutic horses in Poland

Charakterystyka koni hipoterapeutycznych w Polsce

Summary. This study analysed selected traits of hippotherapeutic horses and the ways of using them in Poland. The studies were carried out with 86 horses from 18 hippotherapy centres. Based on the collected data, it was concluded that, on average, 4.8 horses per centre were used for hippotherapy purposes. These were most commonly Huculs (30%) or cross-bred horses (18%) and, less often, Polish koniks (13%) and Fjord horses (10%). Geldings (63%) constituted the majority of the population. The average age of a horse used in hippotherapy was 10.4 years. The choice of horses for hippotherapeutic purposes in the analysed centres does not raise any objections, although the way they are used is alarming. As many as 41% of the horses started working too early, before turning 5 years of age. Moreover, the horses worked too intensively during one day (on average for 4.9 hours) while being irregularly used in a week (for 3.2 days per week, on average). Such a method of use reduces the level of animals' welfare and may result in their premature elimination from hippotherapy.

Key words: hippotherapy, horses, welfare

INTRODUCTION

There are a variety of breeds and types of horses that can be chosen for hippotherapy. Methods for evaluating the suitability of horses for this form of use have also been developed. They consider horses temperament and behaviour [Anderson *et al.* 1999, Wieczorek *et al.* 2012] or body conformation [Matsuura *et al.* 2008]. However, the potential of a horse to be used for hippotherapeutic purposes depends not only on its physical and mental characteristics but also on its preparation and way of use. The standards of Polish hippotherapy [Kanony polskiej hipoterapii 2007] provide a detailed description of the ideal horse for hippotherapy as well as the conditions for its use. An ideal horse is

a gelding, at least 5 years old, not too high and even-tempered. The horse should work in hippotherapy at most 4 hours a day. But how does it work in practice? Studies on horses used in hippotherapy in Poland were also conducted by other authors, but all of them analysed only body conformation parameters of horses [Kaproń and Nowak 2000, Cieśla 2007, Palacz and Cieśla 2007]. They did not consider strains to which horses are exposed. Most of these studies was carried out on small groups of animals. Therefore, the current study was conducted on a larger group of hippotherapeutic horses to analyse the selected traits and use of these horses.

MATERIAL AND METHODS

The study was carried out on 86 horses from 18 hippotherapy centres in Poland. All centres were under the auspices of the Polish Hippotherapy Association. This patronage

Name of the center (Nazwa ośrodka):			
Horses are working in hippotherapy days a week and hours a day. (Konie pracują w hipoterapii dni w tygodniu i godzin dziennie).			
Horses working in hippotherapy (Konie pracujące w hipoterapii):			
1. name (imię) age (wiek) breed (rasa)
		 sex (płeć)
	- has begun the work in hippotherapy at years of age, (rozpoczął pracę w hipoterapii w wieku lat),		
	- is working also in recreation, sport, driving* (pracuje także w rekreacji, sporcie, powożeniu*)		
2. name (imię) age (wiek) breed (rasa)
		 sex (płeć)
	- has begun the work in hippotherapy at years of age, (rozpoczął pracę w hipoterapii w wieku lat),		
	- is working also in recreation, sport, driving* (pracuje także w rekreacji, sporcie, powożeniu*)		
* Delete as appropriate / Niepotrzebne skreślić			

Fig. 1. Pattern of the survey questionnaire
Rys. 1. Wzór ankiety

guarantee an appropriate standard of hippotherapy in these centres [Wymagania dla... PTHip]. The study was based on a survey. The answers to the questions featured in the questionnaire were obtained by telephone or e-mail from persons involved in hippotherapy (Fig. 1). Of the 26 centres, eighteen responded to the survey. The collected data were compiled in tables and as graphs, which allowed us to characterize the population of horses by their work intensity, breed, gender, age, coat colour and other ways of their use.

RESULTS

Based on an analysis of the collected data, it was concluded that there were, on average, 4.8 hippotherapeutic horses per centre. This number varied in the individual centres, ranging from 2 to 10. These horses worked 4.9 hours per day for 3.2 days in a week, on average (Tab. 1). In 39% of the centres horses were used in hippotherapy maximum 4 hours per day, but in most centres horses worked over 4 hours per day. In 4 centres the horses worked even for 7 hours per day (Fig. 2). Most commonly used were Hucul horses (30%). Other ponies such as Polish koniks (13%) and Fjord horses (10%) were used more rarely (Fig. 3). The high percentage (18%) of cross-bred horses should

Table 1. The characteristic of use of horses in hippotherapeutic centres in Poland
Tabela 1. Charakterystyka użytkowania koni w ośrodkach hipoterapeutycznych w Polsce

Specification Wyszczególnienie	n	\bar{x}	Min.	Max.	sd
Number of horses in a centre Liczba koni w ośrodku	18	4.8	2	10	2.7
Work intensity during a day (h) Intensywność pracy w ciągu dnia (h)	18	4.9	2	7	1.6
Work intensity during a week (days) Intensywność pracy w tygodniu (dni)	18	3.2	1	5	1.0

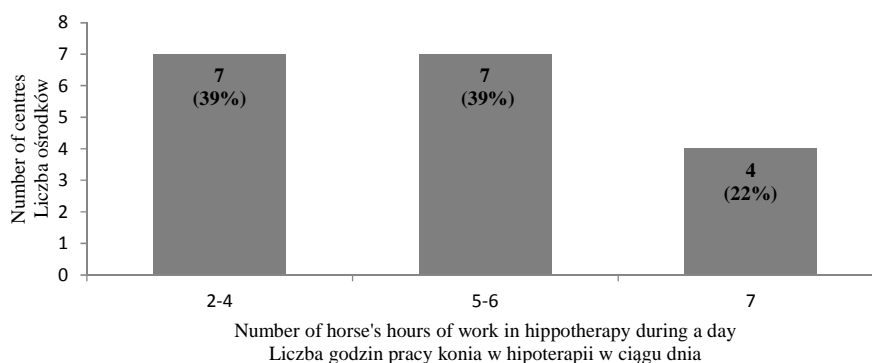
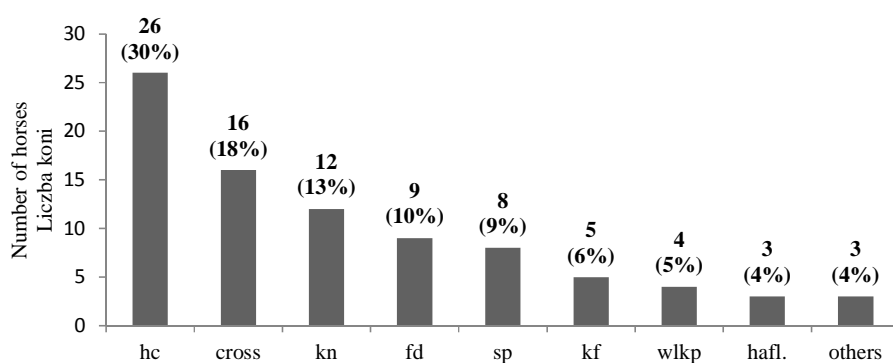


Fig. 2. Intensity of horses' work during a day in hippotherapeutic centres in Poland
Ryc. 2. Intensywność pracy koni w ciągu dnia w ośrodkach hipoterapeutycznych w Polsce



huc – Hucul horse/ koń huculski), cross – cross-bred horses/ krzyżówki międzyrasowe, kn – Polish konik/ konik polski, fd – Fjord horse/ koń fiordzki, sp – Polish halfbred horse/ polski koń szlachetny półkrwi, kf – Felin horse/ kuc feliński, włkp – Wielkopolski horse/ koń wielkopolski, hafl. – Haflinger, others/inne

Fig. 3. Breeds of horses used in hippotherapy in Poland
Rys. 3. Rasy koni użytkowanych w hipoterapii w Polsce

also be noted. Other breeds constituted a minor percentage: these were Polish halfbred horse (9%), Feliński pony (6%), Wielkopolski horse (5%), Haflinger (4%) and other breeds (4%). Most of the surveyed horses were geldings. They constituted 63% of the examined horses (Fig. 4). Less frequently represented were mares (35%) and only one stallion was used for hippotherapeutic purposes.

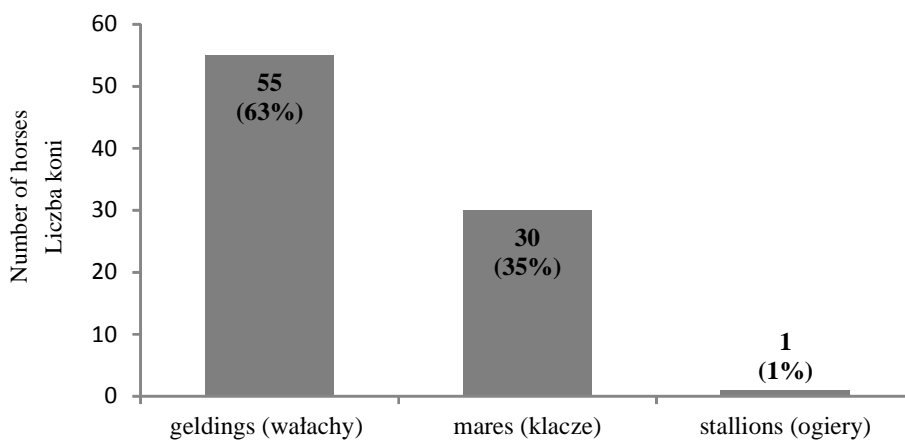


Fig. 4. Gender of horses used in hippotherapy in Poland
Ryc. 4. Płeć koni użytkowanych w hipoterapii w Polsce

The average age of horses used in hippotherapy in the surveyed centres was 10.4 years and it ranged from 2.5 to 23 years (Tab. 2). Older horses (≥ 16 years of age) constituted the smallest percentage - only 15%. In the other three age groups,

the numbers of horses were comparable and oscillated around 30% of surveyed group (Fig. 5). The average age at which a horse was introduced in a hippotherapy program was 5.6 years and it ranged from 2.0 to 14.0 years (Table 2). The thorough analysis demonstrated that the considerable number of horses included in the study (41%) began working before 5 years of age (Fig. 6). Most of horses (53%) began the work between 6 and 10 years of age.

Table 2. The analysis of the age of horses used in hippotherapy in Poland
Tabela 2. Analiza wieku koni użytkowanych w hipoterapii w Polsce

Horses' age (years) Wiek koni (lata)	n	\bar{x}	Min.	Max.	sd
Current Aktualny	86	10.4	2.5	23.0	4.9
Beginning of the work in hippotherapy Początek pracy w hipoterapii	86	5.6	2.0	14.0	2.7

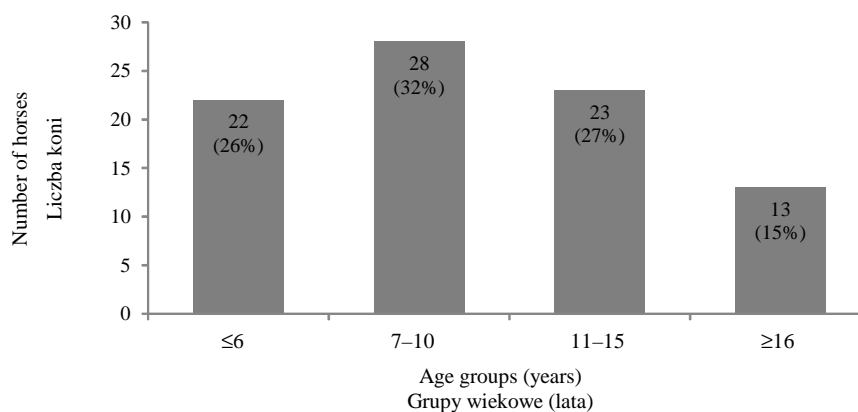


Fig. 5. The age diversity of horses used in hippotherapy in Poland.
Ryc. 5. Zróżnicowanie wiekowe koni użytkowanych w hipoterapii w Polsce

Based on the collected data, the colouring of horses used in hippotherapy was also analysed. The results of the survey demonstrate that, in the majority of the centres, bay horses (34%) were used (Fig. 7). Other popular coat colours were: blue-dun (17%), tobi-ano (16%) and bay dun (13%).

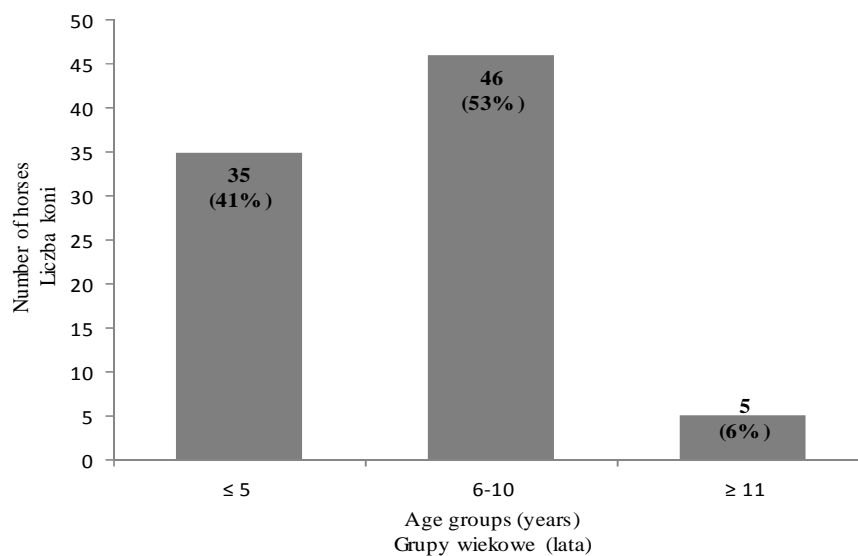


Fig. 6. The age at which horses began to work in hippotherapy

Ryc. 6. Wiek rozpoczęcia pracy koni w hipoterapii

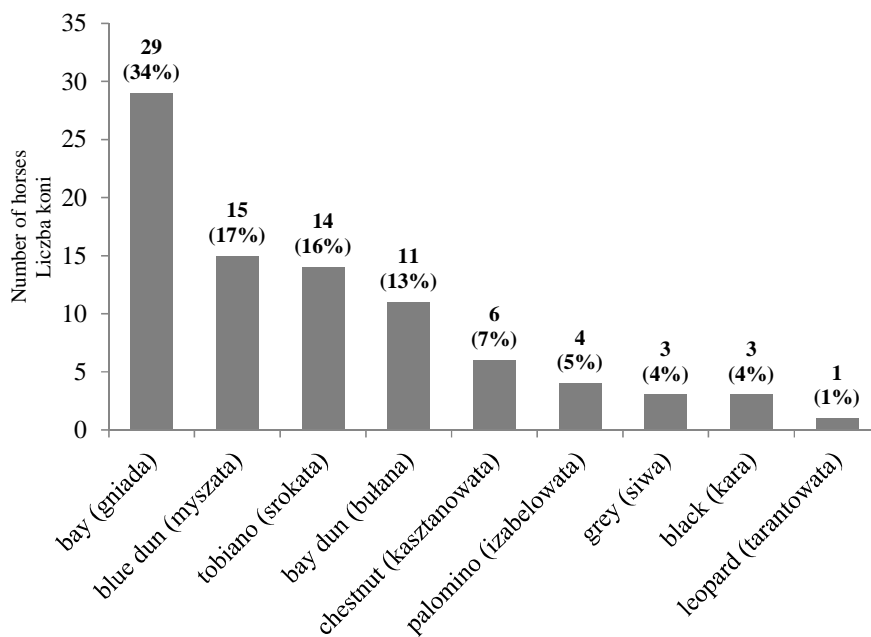
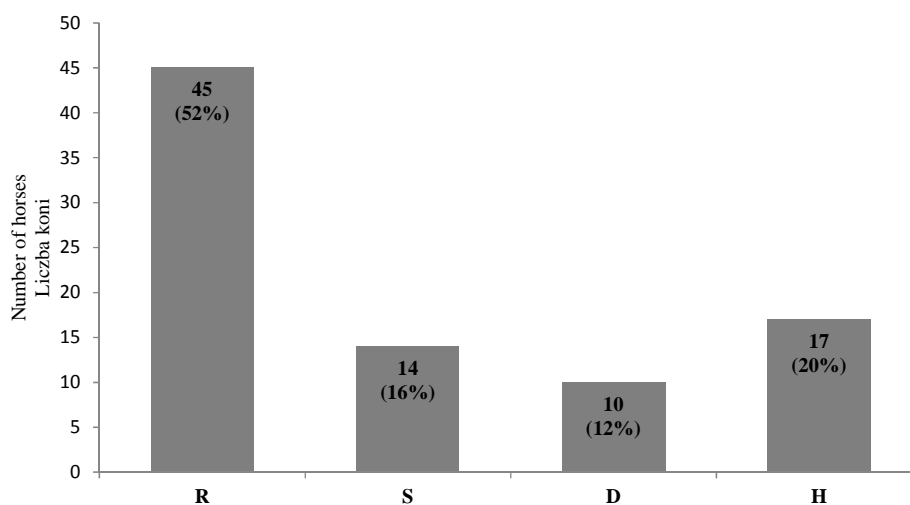


Fig. 7. Coat colours of horses used in hippotherapy in Poland

Ryc. 7. Maści koni użytkowanych w hipoterapii w Polsce



R – recreational riding/ jazda rekreacyjna, S – equestrian sport/ sport jeździecki, D – driving/ powożenie, H – only hippotherapy/ wyłącznie hipoterapia

Fig. 8. Additional activities of hippotherapeutic horses in Poland
Ryc. 8. Dodatkowe formy użytkowania koni hipoterapeutycznych w Polsce

The investigation of additional activities in which the horses were involved revealed that only 20% of the animals included in the study worked solely in hippotherapy, whereas the rest were also used for other purposes (Fig. 8). Over a half of the horses (52%) were used in recreational riding. Equestrian sport and driving involved 16% and 12% of the horses, respectively.

DISCUSSION

The results show that in every centre was at least minimal number of horses working in hippotherapy for the proper functioning of a hippotherapy centre. There should be used different horses, both in their conformation and temperament. A centre is then sufficiently flexible in providing therapy for people with different health problems and of different heights and weights [Nowicka-Posłuszna and Bielawska 1993]. The results of this study also indicate that the horses in some of the hippotherapy centres could have been excessively strained with work on one day with inconsistent and irregular use throughout the whole week. It would be much more beneficial for the animals to distribute work evenly throughout the week. It would reduce the intensity of work on a single day. The standards of Polish hippotherapy [Kanony polskiej hipoterapii 2007] include the recommendations about conditions of these horses usage. According to it horses should not work in hippotherapy longer than for 4 hours per day. Also Kaiser *et. al.* [2006] point at the necessity of limitation of therapeutic horses work daily and weekly.

The widespread usage of Hucul horses for hippotherapeutic purposes is consistent with opinion that this is the most appropriate breed for hippotherapy [Grodzki 2003]. However in the study conducted by Cieśła [2007] Wielkopolski horses were more often used as therapeutic horses (25%) than Huculs (21%). Although her analysis involved a significantly less numerous group of animals (34 individuals), which could have influenced the recorded results. The use of typical riding horses (such as Wielkopolski horse or Polish halfbred horse) for hippotherapy results from a need to use these breeds in sports activities for handicapped people, in therapy of adults and in therapies of addiction [Dzięciołowski 2002]. Other primitive breeds, such as Polish konik or Fjord horses were less frequently used than Huculs, but their presence in surveyed centres confirm, that Huculs are not the only breed appropriate for hippotherapy. These breeds are also predestined for hippotherapy [Kosiniak-Kamysz *et al.* 2000, Pluta and Firlej 2006, Golonka 2006]. The Standards of Polish hippotherapy [Kanony polskiej hipoterapii 2007] and Fedorski [2003] indicate that the division into “hippotherapeutic” and “non-hippotherapeutic” breeds is not justified. However, in individuals of some breeds there are more traits desired for this type of use. Interesting is numerous group of cross-bred horses. This may be associated with higher availability and lower prices of this horses with their similar physical and mental traits as in horses of definite breeds. The popularity of these horses results also from the optimal conformation parameters, such as low height, straight back, correctly built and angled legs as well as strength, health and endurance [Chachuła 1991]. It is accompanied by mental characteristics such as gentle nature, calmness, steadiness, mental strength and non-timidity. All of these descriptors should characterize a horse for hippotherapy [Cieśła 2009]. Cieśła [2007] reported little lower percentage of corss-bred horses (15%) but higher percentage of Polish konik (18%).

The gender of a horse should be also taken into account when choosing a horse for hippotherapy. Most of the horses in the surveyed centres were geldings. This is the gender predestine for this form of use [Kanony polskiej hipoterapii 2007]. Cieśła [2007] reported a slightly higher result. In her study geldings constituted 70.5%. This gender is preferred because of its steady nature which is impacted by castration (the removal of testosterone). Geldings are more predictable, do not show fluctuations of mood and can be thus consistently used for working purposes [Cieśła 2000]. Mares are also used in hippotherapy but due to lower emotional stability they were less frequently represented. The results confirm that stallions are very rarely used for hippotherapy. It is only possible with less excitable individuals.

The average age of hippotherapeutic horses was slightly higher than reported by Cieśła [2007] (8.4 years). At this age, a horse should be both mentally and physically mature [Janiszewska and Cieśła 2008]. The current age of surveyed horses was diverse, because the period in which horses are suitable for hippotherapy is relatively long. While the bottom age limit for horses used in hippotherapy is precisely defined, there are no specific restrictions as to the upper limit. The physical and mental condition of a horse is a major factor that determines how long a given animal can be used [Nowicka-Posłuszna and Bielawska 1993, Wasilewska 2001]. However, the risk of health problems increases with age, which is associated with excluding a horse from hippotherapy. It is reflected in the results which indicate that the group of older horses was much smaller than groups of younger horses.

The age at which a horse is introduced in a hippotherapy regime is a relatively important factor. It is disturbing that too-young horses are introduced into such specific and demanding work. The standards of Polish hippotherapy [Kanony polskiej hipoterapii 2007] suggest that horses of at least 5 years of age can be used for hippotherapeutic purposes. It is justified mainly with emotional steadiness and acquisition of suitable skills [Janiszewska and Cieřła 2008]. Introduction of younger horses may reduce the period of their use.

Coat colour of a horse is not a basic trait which determines the choice of a horse for hippotherapy, but it is also taken into consideration. Interesting colouring (e.g. tobiano) may be an appealing aspect of the therapy. On the other hand, an even colour may be indicated for people suffering from visual hypersensitivity [Janiszewska and Cieřła 2008]. Most colours of surveyed horses were neutral, suitable for almost any type of therapy and easy to care for. It is not, however, a result of deliberate choice of horses with such colours. Bay is a typical colour of Hucul horses, which were predominant breed in the investigated population. Similarly blue dun is a typical colour of Polish koniks, which were also frequently used in hippotherapy. According to Stachurska [2008] almost every Polish konik (96.6 %) is blue dun. Hucul horses are mostly bay (49.2 %). Less frequently they are blue dun (17.2 %) or tobiano (19.7 %). Tobiano is also typical colour of Felin horses (13.3 %). It was also popular colour in surveyed centres just as bay dun which is typical colour of Fjord horses [Stachurska *et al.* 2001].

Most of the hippotherapeutic horses were involved in additional activities. It gives them opportunity to release energy, relax and exercise. Even though horse is mainly walking during hippotherapy, it can be a burden for him, because of a long breaks, halts, monotonous rate and uneven strain. Therefore, it is recommended to make the work more attractive and varied for horses [Bird 2004]. The horses were mainly used in recreational riding, because most of the centres offer this kind of activity besides hippotherapy. This is understandable, because often riding lessons and then recreational riding are a natural consequence of hippotherapy [Strumińska 2003].

CONCLUSIONS

Summarizing the results of the study, it is emphasized that the choice of horses for hippotherapy was consistent with the guidelines in the standards of Polish hippotherapy [Kanony polskiej hipoterapii 2007] in the majority of the surveyed centres. However, the way the horses were used is disturbing since the animals often work too intensively during one day, which reduces the level of their welfare and may result in premature elimination. The use of too-young horses in hippotherapy is particularly alarming as it may also limit the period of their use. There is thus a need for further studies on the effects of excessively intensive use of horses for hippotherapeutic purposes.

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Streszczenie. Badania dotyczyły analizy wybranych cech koni hipoterapeutycznych oraz sposobu ich użytkowania w Polsce. Materiał badawczy stanowiło 86 koni z 18 ośrodków hipoterapii. Średnia liczba koni pracujących w ośrodku hipoterapeutycznym wynosiła 4,8. Najczęściej były to konie rasy huculskiej (30%) bądź konie pochodzące z krzyżówek międzyrasowych (18%). Nieco rzadziej użytkowane były koniki polskie (13%) i fiordingi (10%). Większość stanowiły wałachy (63%). Przeciętny wiek konia użytkowanego w hipoterapii wyniósł 10,4 roku. O ile wybór koni w analizowanych ośrodkach nie budzi zastrzeżeń, o tyle sposób ich użytkowania w hipoterapii jest niepokojący. Aż 41% koni rozpoczęło pracę w hipoterapii zbyt wcześnie – zanim ukończyło 5 lat. Ponadto konie pracowały zbyt intensywnie w ciągu jednego dnia (średnio 4,9 godzin), przy nieregularnym ich wykorzystaniu w całym tygodniu (średnio 3,2 dnia w tygodniu). Taki sposób użytkowania tych zwierząt obniża poziom ich dobrostanu i może prowadzić do zbyt szybkiego eliminowania z hipoterapii.

Słowa kluczowe: hipoterapia, konie, dobrostan