

Assessment of the preferences of users of horses for recreation and sport

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A survey was conducted among users of horses from various parts of Poland to investigate their preferences regarding the basic behavioural characteristics of horses used in recreation and sport and to determine the importance of their main external and internal traits. The majority of respondents were women, and the largest age group was 21-25. The respondents most often chose geldings for use, due to their composure. The preferred age range was 6 to 10 years, with a height at the withers from 151 to 170 cm. The breed and external appearance of horses did not matter to most respondents, although they preferred Malopolski, Wielkopolski, and Polish Half-Bred horses. It was important to the survey participants for the horse to meet specific skill requirements and to have suitable traits for them, with no bad habits or stereotypic behaviours. Over 60% of respondents would like to buy their own horse. As many as 86% were very experienced riders who had been training and taking part in competitions for over 6 years, with 55% of the subjects training jumping and 40% dressage. Sixty-three per cent of respondents ride horses 3-4 days a week or every day.

KEY WORDS: horse, recreation, sport

Horses have accompanied human beings for centuries. Their role has changed from use as pack animals and for hard work on the farm to that of companions for people and use in recreation and sport. Horses were subjected to breeding work for many years. Some of them went through rigorous selection for traits that were important to people choosing individuals for the parental generation. In addition, horses with desirable traits were used in breeding for genetic improvement, due to which the gene pool was continually changing (Dzięciołowski, 2007). For many people who dream of having a horse, an important aspect is its appearance, e.g. its coat colour. The number of horse colours is large and linked to gene mutations perpetuated through artificial selection (Wilisowska, 2013a and b). An additional criterion is the occurrence of markings on the head and limbs. They may be innate or acquired, e.g. various types of scars, grey hair, white spots, stripes, or patches, or the occurrence of cowlicks a specific disturbance of the arrangement of the hair in which it naturally curls, revealing a fragment of bare skin (Stachurska et al., 2017). A fundamental parameter is the animal's psyche. Psychological characteristics are closely linked to the horse's response to the surrounding environment.

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Received: 27.11.2019

Accepted: 11.05.2020

(Piątek and Górecka-Bruzda, 2011). The psyche is associated with character, described as a set of psychological traits in a given animal, genetically determined but also influenced by human beings. It is not possible to define a horse's personality based on its external appearance (Ignor et al., 2010). Character consists of desirable and negative behaviours. The most common undesirable behaviours, which are dangerous for the rider and the horse, include attempts to bite, kicking, pressing against the wall, head throwing, bucking, bolting, and others (Kozak and Budzyńska, 2017). Bad habits and stereotypic behaviours are problematic and dangerous for people as well as for the health of the horse. Horses with a lively temperament have the greatest tendency towards bad habits and stereotypic behaviours (Cooper and Albentosa, 2005). The most common are kicking, head-shaking, biting, rearing and skittishness. Although skittishness is a natural trait, when manifested excessively it is counted among bad habits (Wickens and Heleski, 2010). Fortunately, bad habits and stereotypes can be suppressed. The task is simpler in the case of stereotypic behaviours, as it suffices to find something with which to preoccupy the horse. Controlling negative habits, however, requires time, consistent, thoughtful action, and above all patience. A good way to strengthen the horse's learning of proper behaviour in the effort to combat bad habits is to reward it (Kotowski and Kaszuba-Warpechowska, 1991).

Recreational riding is the most common form of horse riding. A love of horse riding often begins in childhood, when the child first rides and cares for ponies and subsequently moves on to larger horses. Due to the pleasure of recreational use of horses, some people take part in low-level competitions, while others, who have sport ambitions and the desire to compete, begin to take part in various sporting competitions. Many people are motivated to ride not only by their passion for horses, but also by the need for active leisure and the desire to be with nature (Omelań and Kozłowska, 2017). This is less common in Poland than in some European countries, because riding schools are not geared towards young children, and furthermore for most people they are a dozen or even several dozen kilometres away, which makes this type of entertainment very difficult to organize. In Europe, family horse riding is observed, often including entire families, for which it is a passion and a tradition. They usually have their own stables near their home with horses used mainly for recreation. Interacting with horses, apart from providing satisfaction, has positive social, aesthetic, psychological, and health-promoting effects (Jeczeń, 2009; Omelań and Kozłowska, 2017). In Poland, horse breeding is generally limited to sport, while horse breeding for recreational purposes has never been a speciality of Polish breeders. Unfortunately, breeding of horses exclusively for sport means that recreational horses are mainly 'leftovers' that do not meet the expectations of athletes, and these are often not good candidates for training new riders (Nosal, 2017). There are eight basic equestrian disciplines: dressage, show jumping, eventing, driving, vaulting, endurance riding, western dressage and para-equestrian. Each of these can take place at all levels of competition, from regional competitions to championships. In Poland, the system of national competitions is established by the Polish Equestrian Federation. The international governing body is the International Federation for Equestrian Sports. Equestrian sports also include horse racing and polo. All of these disciplines are evaluated on the basis of points awarded by judges (Ogoński and Cieśla, 2009). The aim of the study was to examine the preferences of aficionados of horse riding in Poland regarding the basic features of horses used in recreation and sport and to determine the importance of the main external and internal traits of these animals.

MATERIAL AND METHODS

The survey was conducted in December 2018 and January 2019 among 113 horse lovers from various parts of Poland claiming to be continually in contact with horses. There were 82 questionnaires completed correctly, and these were used for the analysis, while 32 were rejected because they contained errors that prevented their objective use in the analysis. The questionnaire used for the survey consisted of single-answer multiple choice questions as well as open-ended and semi-open questions, in which the respondent could provide an answer other than those suggested. The answers were grouped according to preferences and requirements regarding the horse's external and internal traits as well as the type of use – for recreation, sport, or both. The survey contained questions regarding the breed, sex, and age of the horse, its body condition, the type of horse, type of use, height at the withers, coat colour, markings, appearance of the mane and tail, temperament, desired characteristics and abilities, and stereotypic behaviours and bad habits. The participants were also asked whether they owned a horse, if they were planning to purchase a horse, if they rode horseback, how many years they had been riding, how often they rode, what sport they took part in, and whether they took part in competitions. Respondents were also asked to give their gender and age. To examine the relationship between the horse's type of use and the age of the horse, its condition, height at withers, experience and desire to shop, and between horse's experience and age and sport.

The chi-square test with the Yates correction at a significance level of 0.05 was used to examine the relationship between the type of use of the horse and its age, its body condition, its height at the withers, its temperament, forms of ownership, riders' experience, and respondents' desire to purchase horse, as well as the relationship between the respondents' riding experience and age and between riding experience and participation in equestrian sports.

RESULTS AND DISCUSSION

When specifying the basic characteristics of horses, people are guided by different priorities, very often by their personal preferences or the knowledge they have acquired. The questions prepared in the survey were designed to prompt the respondents and help them determine the basic parameters and traits that would characterize horses used in recreation and sport.

Horse riding, despite the passage of time and a significant decline in horse breeding, is still popular in Poland. According to the present study, it is predominantly popular among women – 88%, compared to only 12% men. Sołek (2016) also found that the dominant gender in horse riding was women (90%), who described their riding skills as good and very good. Similar results were obtained by Sokół (2013) in an analysis of equestrianism in Podlasie, where mainly women (75%) under 50 years old enjoyed horse riding. Sieńko-Awierianów et al. (2013) obtained similar results in their research, in which 94% of those interested were women. In that study, the age of the respondents was highly varied, from 18 to >40. As many as 35% of them were in the 18-25 age range. In our research, age also varied widely, from 16 to <40. The largest age group was 21-25 (33%), and the smallest was people over 40 (5%) (Table 1).

Horse riding requires a high degree of physical fitness, so age is significant. Elderly people are more susceptible to various types of injuries resulting from unskilled handling of the horse, which is a very large, strong animal (Sokół, 2013). The chi-square test used to examine the relationship between the variables revealed a significant relationship between type of use and body condition;

type of use and riders' experience; respondents' age and riding experience; and riding experience and participation in equestrian sports (Table 2).

Table 1

Age of respondents and years of riding experience

Age of respondent	Years of riding experience						
	<0.5 yrs	<1 yr	1-2 yrs	3-5 yrs	6-10 yrs	11-15 yrs	>15 yrs
<16 yrs	0	1	4	7	4	0	0
17-20 yrs	1	0	0	3	10	3	0
21-25 yrs	2	0	0	0	9	6	10
26-30 yrs	0	0	1	0	1	3	4
31-40 yrs	0	0	0	2	0	1	6
>40 yrs	0	0	0	0	1	2	1

Table 2

Chi-square value for the relationship between features

Relationship tested	Chi-square value	P-value
Type of use to sex of the horse	6.63	0.356
Type of use to age of the horse	9.09	0.877
Type of use to body condition of the horse	41.20 ^x	0.000
Type of use to height at the withers	18.27	0.308
Type of use to temperament of the horse	13.87	0.085
Type of use to form of ownership	9.07	0.169
Type of use to intent to purchase a horse	0.48	0.784
Type of use to riding experience	24.54 ^x	0.017
Respondent's age to riding experience	93.27 ^x	0.000
Riding experience to participation in sports	124.97 ^x	0.000

^x Significant at $P \leq 0.05$

The analysis of the respondents showed that 46% (40% women, 6% men) used horses for sport and recreation, 37% (31% women, 6% men) rode only for recreation, and just 17% (only women) used them for sport. According to Sieńko-Awierianów et al. (2013), many enthusiasts of active horse riding choose this form of relaxation due to a passion for horses. The authors found off-road riding to be the most popular – 54%, while riding in designated areas was slightly less popular – 31%. Fewer people chose jumping – 9%. The fewest respondents expressed a preference for endurance riding – 6%, which is a difficult discipline, showing the horse's ability to cover long distances at high speed and under a heavy load (Richardier, 2001; Trachsel et al., 2016; Polak, 2017). In the Podlasie region, riding horseback is the most popular (83%), while there is much less interest in driving, skijoring, or riding on paths shared with cyclists (Sokół, 2013).

According to the respondents, geldings are the most suitable for use in recreation, followed by mares. In use for sports and recreation, the majority of survey participants indicated that sex was not important, followed by those expressing a preference for geldings. For sport, geldings were the predominant choice, followed by mares (Fig. 1).

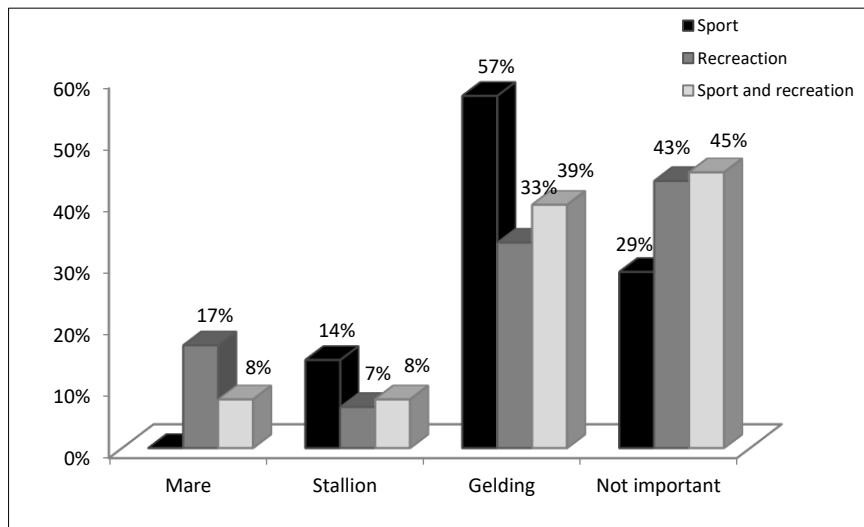


Fig. 1. Percentage distribution of horses used according to respondents' preferences

According to Mickunas (2004) and Wolińska et al. (2012), geldings are the most suitable for recreational use, as they are calm and mentally stable. Mares are more disobedient, especially during heat. Nevertheless, they are widely popular because they can be used for breeding purposes. According to the respondents, the age of horses used in recreation or in sport and recreation should be in the range of 6-15 years, while sport horses should be 6-10 years old (Fig. 2).

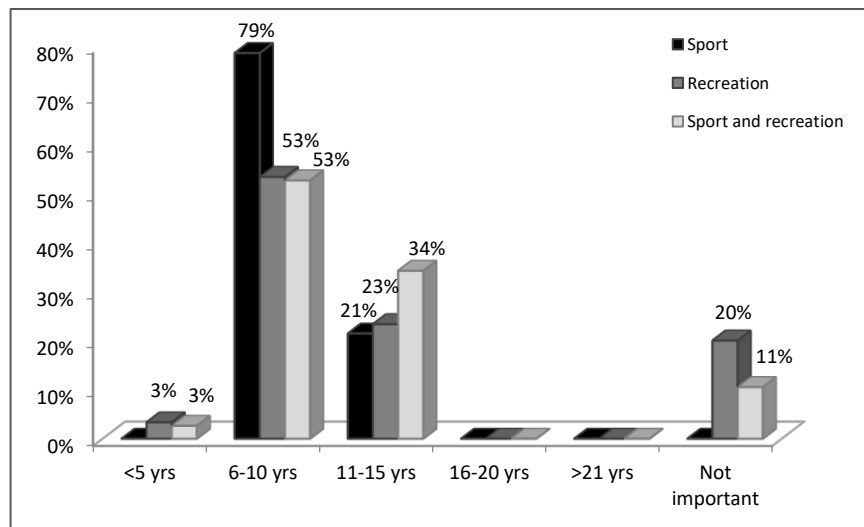


Fig. 2. Percentage distribution of horse age for each use type according to respondents' preferences

Ogoński et al. (2010) examined sport horses (stallions, geldings and mares) aged 4-15 years and recreational horses (geldings and mares) aged 6-17 years during various periods of training to check their individual exercise potential. The authors found that sport horses achieved very good parameters irrespective of age and sex. The results indicated that the horses were well prepared for the season and used correctly. In recreational use, older horses achieved better results. According to Krumrych (2007) and Ogoński and Cieśla (2009), horses should not be used too intensively, as this reduces the animal's physical capacity. Proper horse training increases haematological parameters and antioxidant potential. Well-prepared horses remain fit throughout the season in both recreational and sporting use (Ogoński et al., 2010). Research conducted by Kamińska and Geringer (2010) to assess horses subjected to racing performance tests showed that mares and stallions react similarly to the most stressful situation – entering the starting gate. Kamieniak et al. (1999) also observed no differences in the behavioural responses of stallions and mares. Wolińska et al. (2012) found that the largest group of horses used for recreation at equestrian centres was horses between 8 and 12 years of age and even up to 16 years. This trend was observed in our study as well.

To the question regarding the preferred breed of horse for recreation, the respondents chose the breeds Malopolski (24%), Wielkopolski (21%) and Arab (17%), followed by Silesian (10%) and Felin Pony (10%). For the remaining respondents, breed was unimportant. According to most of those surveyed, the body condition of horses should be suited for sport or work (Fig. 3).

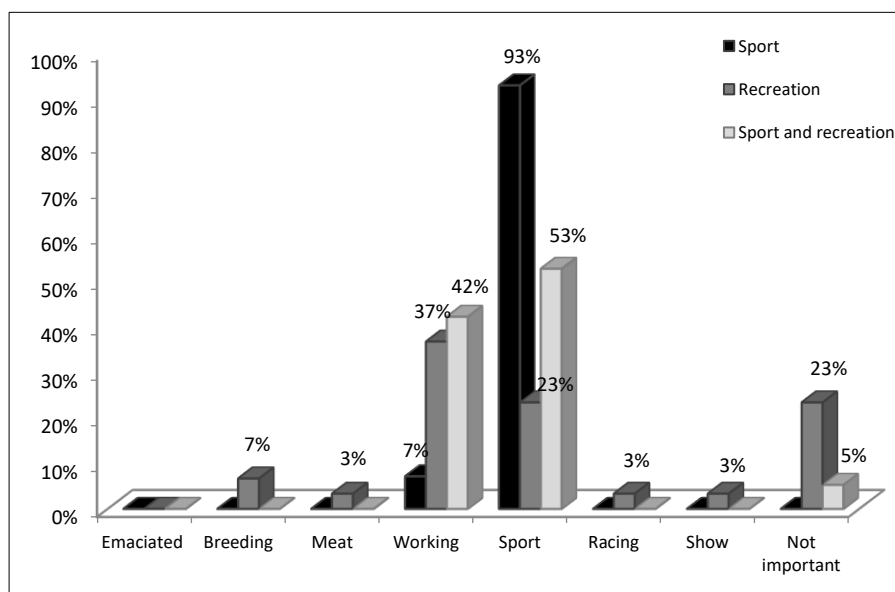


Fig. 3. Respondents' preferred horse body condition

According to Sokół (2013), the most people ride Polish Half-Bred horses (54%), followed by Malopolski (18%), Wielkopolski (15%), Hucul (5%) and Thoroughbred (1%). In sport and in sport and recreation, the respondents would most prefer Polish Half-Bred (33%), Wielkopolski (28%), and Malopolski (28%). For the remaining respondents, breed was unimportant provided it was a hot-

blooded breed whose body condition was suited to sport (Fig. 3). According to Wilczyńska et al. (2017), the Malopolski breed accounts for only 10% of all horses taking part in competitions. Geringer and Kasprzak (2000) observed that Polish Half-Bred horses adapted quickly to stress conditions before and during a race. In horses of the Malopolski, Wielkopolski and Arab breeds, mares proved to be more stress-resistant than stallions, whereas Polish Half-Bred stallions received better scores than mares (Kamińska and Geringer, 2010). Other research by Kamińska et al. (2007) shows that the best horses for sport are Polish Half-Bred mares and Malopolski horses, which manage stress 80% better than other breeds.

Another horse trait included in the survey was the preferred height at the withers. The respondents considered the height of 161-170 cm to be the most desirable, followed by 151-160 cm (Fig. 4).

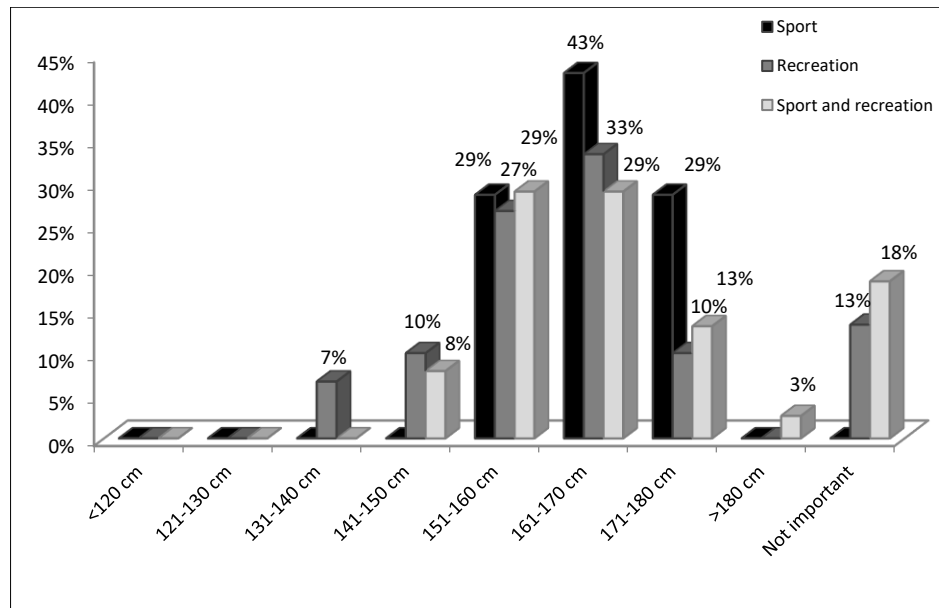


Fig. 4. Respondents' preferred horse height at withers

Most respondents had no preference for the shape of the head (54%), coat colour (65%) or markings (62%), considering these features to be unimportant. However, some of the respondents would like a horse used for recreation to have markings (38%), such as a star or stripe, a bay or black coat (18%), and a straight (38%) or concave (2%) head shape. In the case of horses used in sport or in recreation and sport, colour and markings are also not important to the respondents (73%). Preferences for these features do not differ between recreational and sport horses and are not important to the respondents. According to those surveyed, a horse used in recreation or in sport and recreation should have a calm or stable temperament, but in the case of sport alone it should be stable and lively (Fig. 5).

The horse should have a specific temperament and psyche depending on the discipline it is used for. For example, horses used in endurance riding must have a stable temperament. They are prepared for this purpose for several years with appropriate training. Harmony between the rider and horse is

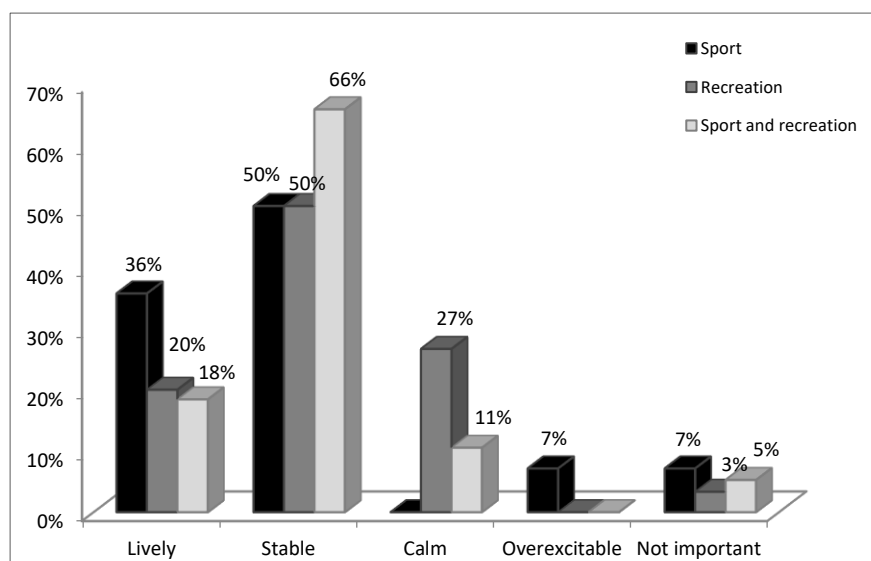


Fig. 5. Respondents' preferred horse temperament

extremely important. The natural balance must not be disturbed. The horse must be able to withstand prolonged exertion while walking in difficult environmental conditions (Polak, 2017). According to Jezierski et al. (2006), extremely important features of a horse used both in sport and recreation are its temperament, excitability, and ability to remember and learn. According to our respondents, the horse should be patient, flexible, energetic, intelligent, gentle, submissive, hard-working, calm, sensible, trusting, and characterized by endurance and a good sense of balance. As many as 90% of respondents stated that a horse used for recreation must not exhibit stereotypic behaviours or bad habits. A horse used in sport, according to the respondents, should be above all be flexible, energetic, intelligent, gentle, resilient, brave, composed, obedient, hard-working, strong, trusting, sensible and with a sense of balance and no stereotypic behaviours or bad habits (100%). According to Pieszka et al. (2014), the degree of these traits in a horse used for sport should be about 5% higher than in one used for recreation. Research by Kamińska and Geringer (2010) shows that a sport horse used in racing should have a certain level of excitability. Kamieniak et al. (1999), Geringer et al. (2001) and Ignor (2002), observed that calm, phlegmatic race horses performed worst on the race tracks. According to Jezierski et al. (2006), an immediate, strong response to stimuli is desirable in racing and jumping horses, while other sport disciplines require emotional stability and willingness to cooperate with a human being. In the case of horses used for recreation or therapy, preference is given to calm, stable horses that are not very excitable or skittish in response to external stimuli. They should also be tolerant of amateur riders. Knowledge of a horse's behavioural traits and its reactions to various stimuli and signals given by people is very important in equestrianism (Wolińska et al., 2012; Ijichi et al., 2013). Training riders and horse handlers regarding horse behaviour is essential (Hawson et al., 2010). Behavioural tests and physiological indicators are very helpful in selecting a horse for use (Jezierski and Górecka, 2000; Visser et al., 2002; Sondergaard and Halekoh, 2003).

Regarding the question about owning a horse, respondents were divided: 51% of them rode their own horses, 25% used horses from riding schools, and the rest (24%) used private horses (hired or belonging to acquaintances). Respondents who owned a horse were predominantly those using horses for sport, among whom 64% owned a horse, 27% hired horses, and only 9% used horses from riding schools. As many as 86% of respondents were very experienced riders that had been training and participating in competitions for over 6 years. Fifty-five percent of respondents train jumping and 40% dressage (Table 3). In the case of respondents using horses for recreation, 41% have their own horses, 10% hire horses, 34% make use of equestrian centres, and 14% borrow horses from friends. In the case of sport and recreational use, 48% have their own horses, 15% hire, 33% use horses from equestrian centres, and 3% use horses owned by their friends.

Table 3

Sport disciplines and years of experience

Sport	Years of experience						
	<0.5 yrs	<1 yr	1-2 yrs	3-5 yrs	6-10 yrs	11-15 yrs	>15 yrs
Polo	3	0	0	0	0	0	0
Hunting	0	0	0	1	0	0	1
Jumping	0	0	1	7	13	12	12
Dressage	0	0	2	8	12	3	8
Eventing	0	0	0	1	1	0	1
Racing	0	0	0	0	0	0	1

Research by Sokół (2013) found that most people using horses for recreation (72%) ride horses belonging to equestrian centres. Some of them have their own horses (23%) or use those belonging to friends or family members (5%). Omelan and Kozłowska (2017) and Lisik et al. (2014) report similar observations, only 32% of respondents had their own horses. Owning a horse entails very high costs associated with the purchase itself and subsequently with maintenance: living conditions, veterinary care, insurance, feed, equipment, and training fees. According to the authors cited above, 60% of survey participants believe that owning and using a horse is very expensive, which is why most respondents are satisfied with horses that do not belong to them. Those surveyed in the Sokół (2013) study also consider horse riding to be an expensive hobby. In our survey, 10% of respondents planned to buy their own first horse or additional horse for use in sport, 17% for recreational use, and 23% for use in sport and recreation. In the research by Lisik et al. (2014), markedly fewer respondents planned to purchase horses – only 11%. Recreational riders in our study said they rode 3-4 days a week or every day (63% of respondents), while 28% of respondents rode 1-2 days a week and the rest only occasionally, because they consider this type of relaxation to be expensive (Table 1, 3). According to the study by Sokół (2013), 49% of respondents rode a horse 3-4 times a week and as many as 51% rode only 1-2 times a week.

To sum up, the majority of respondents were women. The largest age group practicing equestrianism was people between 21 and 25 years old. The vast majority of riders do not have their dream horse. Most often they choose mares and geldings, due to their temperament. The preferred age is from 6 to 15 years old, with a height of 151 to 170 cm at the withers. The breed of horse and appearance were not important to most respondents. It was sufficient that the horse met certain skill requirements and had traits that suited them. Significant relationships were found between the type

of use and body condition of the horse; type of use and respondents' riding experience; respondents' riding experience and age; and riding experience and participation in equestrian sports.

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The work was paid for with university research funds, no. 56/20/B