

CHARACTERISTIC OF DEMAND FOR RECREATIONAL ACTIVITY IN ROPE PARKS OF LUBLIN PROVINCE

CHARAKTERYSTYKA POPYTU NA AKTYWNOŚĆ REKREACYJNĄ W PARKACH LINOWYCH WOJEWÓDZTWA LUBELSKIEGO

Anna Mazurek-Kusiak^{1(A,B,C,D,E,F,G)}

¹Uniwersytet Przyrodniczy w Lublinie

Mazurek-Kusiak, A. (2017). Characteristic of demand for recreational activity in rope parks of Lublin Province. *Rozprawy Społeczne*, 11(4), 36-42. <https://doi.org/10.29316/rs.2017.36>

Wkład autorów:

- A. Zaplanowanie badań
- B. Zebranie danych
- C. Dane – analiza i statystyki
- D. Interpretacja danych
- E. Przygotowanie artykułu
- F. Wyszukiwanie i analiza literatury
- G. Zebranie funduszy

Summary

Introduction. The study was conducted using a diagnostic survey method as well as a direct questionnaire technique.

Material and methods. The research based on an original questionnaire that was distributed among 1202 inhabitants of Lublin Province in 2014. Statistica software ver. 13 PL, including non-parametric tests: Mann-Whitney U test (for two groups) and Kruskal-Wallis rank test, as well as a median test (for a higher number of groups) were applied for statistical computations.

Results. Leisure activities in rope parks are more often done by men than women. Among the studied population, 63.86% of the men and 59.04% of the women visited the rope park at least once a year. It is the young people up to 30 years old (69.11%) who exhibit the strongest demand for activities in rope parks at least once a year during their leisure time. The demand for this type of entertainment decreases with age. Besides, Lublin Province inhabitants' activity in rope parks is also dependent on one's professional status. Most clients are freelancers (73.49%). The next professional group consists of managers, directors and governors (71.88%), followed by students and pupils (69.89%).

Conclusions. In conclusion, it can be stated that the most likely customer in rope parks is a young man up to 30 years, doing a freelance job.

Keywords: rope park, recreation activity, quantitative and qualitative features, Lublin Province

Streszczenie

Wstęp. Celem badań było określenie cech ilościowych i jakościowych grupy mieszkańców województwa lubelskiego korzystającej z parków linowych.

Materiał i metody. Badania przeprowadzono metodą sondażu diagnostycznego, przy wykorzystaniu techniki ankiety bezpośredniej. W badaniach wykorzystano autorską ankietę, która została przeprowadzona w 2014 roku wśród 1202 mieszkańców wyżej wymienionego województwa. Do obliczeń statystycznych wykorzystano program *Statistica*, wersję 13 PL, a w nim testy nieparametryczne: test U Manna-Whitneya (dla dwóch grup) oraz test rang Kruskala-Wallisa i test mediany (dla większej ilości grup).

Wyniki. Częściej z aktywności rekreacyjnej w parkach linowych korzystają mężczyźni niż kobiety. Przynajmniej raz w roku z parku linowego korzysta 63,86% mężczyzn i 59,04% kobiet. Największy popyt w parkach linowych kreują osoby młode do 30 lat, aż 69,11% z nich przynajmniej raz w roku korzysta z takiej aktywności w swoim czasie wolnym. Popyt na tę usługę zmniejsza się wraz z wiekiem. Aktywność mieszkańców województwa lubelskiego w parkach linowych jest zależna też od statusu zawodowego. Najczęściej klientami parków linowych są wykonujący wolny zawód (73,49%), menadżerowie, dyrektorzy i prezesi (71,88%) oraz uczniowie i studenci (69,89%). Najczęstszym klientem parków linowych jest młody mężczyzna do 30 lat, wykonujący wolny zawód i do tej grupy należałoby kierować oferty i promocję parków linowych.

Wnioski. Dalsze badania powinny skupić się na ocenie jakościowej parków linowych w opiniach respondentów, żeby podnieść jakość świadczenia usług i bardziej wypromować tę formę aktywności ruchowej.

Słowa kluczowe: park linowy, aktywność rekreacyjna, cechy ilościowe i jakościowe, województwo lubelskie

Tabele: 2

Ryciny: 6

Literatura: 20

Otrzymano: czerwiec 2017

Zaakceptowano: listopad 2017

Adres korespondencyjny: Anna Mazurek-Kusiak, Uniwersytet Przyrodniczy w Lublinie, ul. Akademicka 15, 20-950 Lublin, e-mail: anna.mazurek@up.lublin.pl tel.: 81 445 66 46

Copyright by: Copyright by: Państwowa Szkoła Wyższa im. Papieża Jana Pawła II w Białej Podlaskiej, Anna Mazurek-Kusiak

Czasopismo Open Access, wszystkie artykuły udostępniane są na mocy licencji Creative Commons Uznanie autorstwa-użycie niekomercyjne-na tych samych warunkach 4.0 Międzynarodowe (CC BY-NC-SA 4.0, <http://creativecommons.org/licenses/by-nc-sa/4.0/>).

Introduction

Physical activity is a key component of a healthy lifestyle. Without it, a proper psychophysical development of children and adolescents, but also adults, is impossible (Żukowska, 2008). Appropriately harmonized recreational activity positively influences on the development of the organism and health (Ok, Kyung, Bo, Hee, Eun-Ok, 2016). Physical activity affects the proper growth and posture of a young person, develops the muscles, respiratory and circulatory system, as well as increases the overall efficiency and fitness (Jarosz, 2008). Nowadays, the ever-growing civilization and urbanization of the world leads to an increase in the pace of life and the amount of time devoted to mental work (Pate et al., 1995). This reduces the amount of leisure time spent on physical activity, especially recreational activity and sports (Hudson, 2010). In this situation, it is reasonable to introduce changes in the lifestyle of Europe's inhabitants, the essential element of which is planned and organized motor activity as a means to regenerate human psychophysical forces (Koprowiak, Lubczyńska, Nowak, 2011).

In today's world, it is important to promote such forms of physical activity that are attractive both to children, adolescents and adults, while helping to create a self-fulfilling lifestyle (Ostrowska, 2006). The response to this demand may be recreation in the rope parks. This is a safe way to practice a motorized activity similar to Alpine climbing, and on the other hand, the rope parks are adapted to every age and skill of the customer. Whole families can participate in the fun. Recreation in rope parks allows to overcome the weaknesses of participants, believe in oneself, maintain good physical condition, and at the same time, have fun while spending time outdoors (King, Littb, Hale, Burnieced, Center, 2015). No specialized equipment or courses to practice this form of movement is needed (Philips, 2005), because all equipment is included in the price of the ticket, and trained instructors care for safety. The only limitation may be poor health. Rope parks usually have several routes with varying degrees of difficulty that are adapted to the age and height of the participants (Legierska, 2014).

The purpose of the paper is to determine the group of Lublin province inhabitants that uses the rope parks. Recreational activities in rope parks were analyzed in terms of gender, age, education, place of residence, and occupational status.

Material and methods

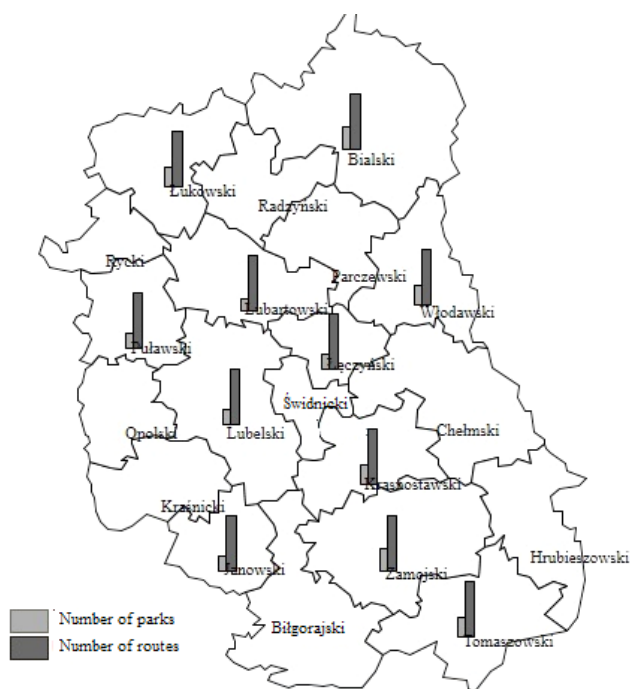
The study was conducted by the diagnostic survey method, using the direct questionnaire technique. The research used an original questionnaire, which was spread among 1202 inhabitants of Lublin province in 2014. In the preliminary stage, a random selection was used with a help of a layered test. The population was divided in terms of residential place into rural, small towns up to 20 thousand inhabitants, and cities over

20 thousand inhabitants. At the next stage, the number of women and men was proportionally determined. These actions allowed to determine the sample size, in which the confidence level was set at 0.95 and the maximum error was set at 0.05. In the subsequent stage, non-random selection was used, consisting of responding to the availability of respondents, up to a certain number of respondents in groups.

Statistica software ver. 13 PL, including non-parametric tests: Mann-Whitney U test (for two groups) and Kruskal-Wallis rank test, as well as median test (for more groups), was applied for statistical computations.

Characteristics of the research area

Lublin province is located in Central-Eastern Poland, between the Vistula river and the Bug river (Turski, Wyszowski, 2006). This area occupies over 25 thousand square kilometers and is inhabited by nearly 2.5 million people. The province is divided into 20 counties, including four cities having the status of county (GUS, 2012).



Map 1. Number of rope parks along with the number of routes in particular counties of Lublin province
Source: Own study.

The region borders on the east with Belarus and Ukraine, from the south - with the Podkarpackie province, from the west - with the Świętokrzyskie province, and from the north-west - with the Mazovian province (Turski, Wyszowski, 2006). There are both typical agricultural areas in the Lublin region (among 1 792 230 ha of agricultural land, 47% are arable land, of which more than 80% is soils of I-IV bonitation class), and urbanized ones: Lublin, Świdnik, Puławy,

Chełm, Biała Podlaska, Zamość, Biłgoraj, and Kraśnik cities (Nowak, Nowak, 1996). It is worth emphasizing that 22.7% of the above mentioned area is occupied by legally protected areas.

Based on the data presented on Map 1, two rope parks are located each in Biała Podlaska county (7 routes in total) and Zamość county (6 routes in total). One rope park each is located in the following counties: Janów Lubelski (4 routes), Krasnystaw (3 routes), Lubartów (5 routes), Lublin (4 routes), Łęczna (4 routes), Łuków (3 routes), Puławy (4 routes), Tomaszów Lubelski (3 routes), and Włodawa (3 routes). For a total of 24 counties, in 8 of them there is not even a single company offering such type of recreation.

Results

Prior to analyzing, multivariate normality was verified by examining each variable for the normal distribution. The data did not show a normal distribution, because the W. Shapiro-Wilk test was 0.88713, while the level of $p = 0.000$ which was lower than $\alpha = 0.05$, thus the hypothesis of normal distribution was rejected.

At first, two opposite hypotheses were put:

H₀: frequency of the rope parks use does not depend on gender;

H₁: frequency of the rope parks use depends on gender.

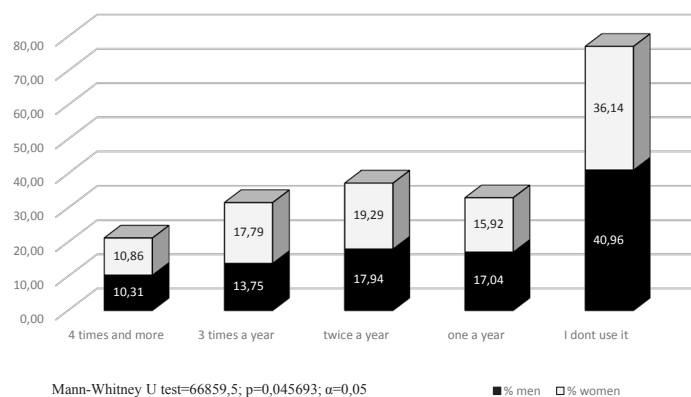


Figure 1. Frequency of the rope parks use depending on gender
Source: Own study based on diagnostic survey and statistical analysis.

Based on data presented in Figure 1, it can be noted that 40.69% of women and 34.16% of men do not use the activity in the rope parks in Lublin province. Once a year, 15.92% of men and 17.04% of women run rope parks, twice a year - 19.29% of men and 17.94% of women go to the park, and 17.79% of surveyed men and only 13.75% of women – three times a year, whereas 4 or more times a year - 10.86% of men and 10.31% of women spends their free time in rope parks.

The Mann-Whitney U test is 166859.5 and the level of $p = 0.046$, which is less than the assumed

significance level of 0.05, thus it is true that the activity of Lublin inhabitants in rope parks is gender-dependent, namely men are more likely to use this form of physical activity than women.

For more groups, the Kruskal-Wallis rank test and median test were used. Following hypotheses have been made:

H₀: frequency of the rope parks use does not depend on gender;

H₁: frequency of the rope parks use depends on gender.

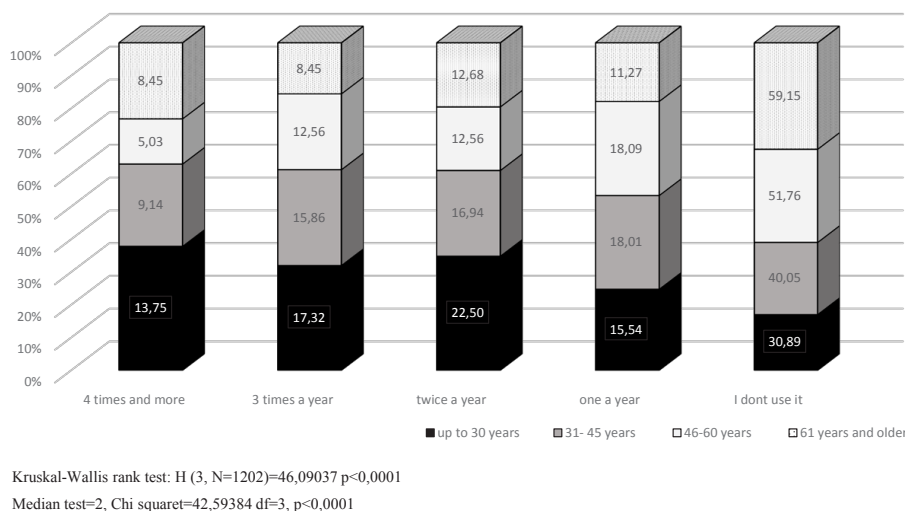


Figure 2. Frequency of the rope parks use depending on age
Source: Own study based on diagnostic survey and statistical analysis.

For the Kruskal-Wallis test and median test, the statistical significance level is $p = 0.00$, which is lower than the accepted level of $\alpha = 0.05$, thus hypothesis H_0 was rejected and hypothesis H_1 accepted, which indicates that the recreational activity of the inhabitants of Lublin province in rope parks depends on age (Figure 2). The rope park activities are most often enjoyed by people under the age of 30. The largest number of people visits the rope parks twice

a year. Frequency of rope park use decreases with age. The older people, 61 years and older, are less likely to use this form of activity. Up to 59.15% of people in this age group not even once visited the rope park.

Multiple comparisons of mean scores for all samples showed that significant differences occurred between age below 30 years and the remaining age groups, as well as between 31 and 45 years vs. 46-60 years, as shown in Table 1.

Table 1. Multiple comparison of mean ranks for all samples depending on age

Variable: Rope parks	The p value for multiple (bilateral) comparisons Kruskal-Wallis test: $H(3, N = 1203) = 46.09037$ $p = 0.0000$			
	Up to 30 years R:661,83	31-45 years R:587,19	46-60 years R:501,81	61 years and older R:479,99
Up to 30 years		0,007838	0,000000	0,000192
31-45 years	0,007838		0,030608	0,102556
46-60 years	0,000000	0,030608		1,000000
61 years and older	0,000192	0,102556	1,000000	

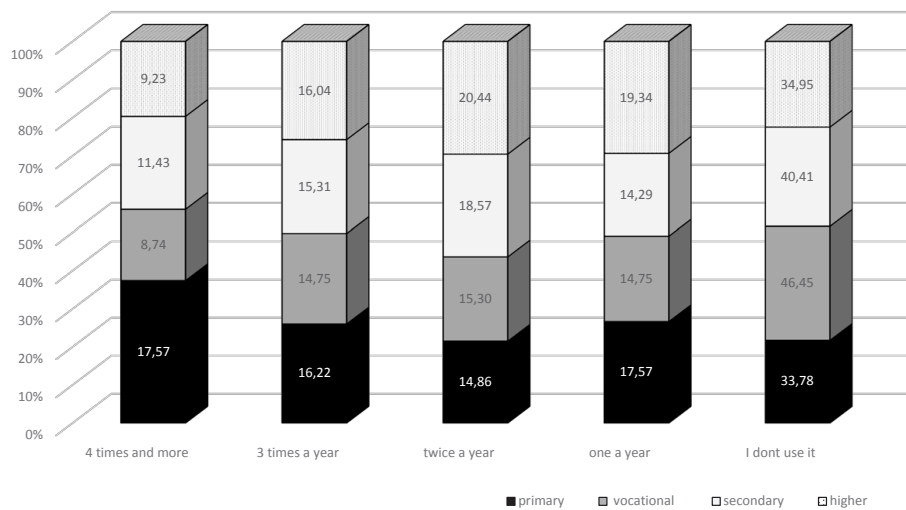
Source: Own study based on diagnostic survey and statistical analysis.

Subsequently, the activity of Lublin province inhabitants was investigated according to the education level. The results are shown in Figure 3.

H_0 : frequency of the rope parks use does not depend on education;

H_1 : frequency of the rope parks use depends on education;

For the Kruskal-Wallis test, the significance level is 0.1232, which is higher than 0.05, therefore there is no reason to reject the null hypothesis. Likewise, the median test can be interpreted that the activity in the rope parks of Lublin residents does not depend on their education level. Differences between groups are statistically insignificant.



Kruskal-Wallis test: $H(3, N=1202)=5,772597$ $p=0,1232$
 Median test=2, Chi square=3,307967 $df=3$ $p=0,3465$

Figure 3. Frequency of the rope parks use depending on education

Source: Own study based on diagnostic survey and statistical analysis.

Subsequently, the frequency of rope park use was examined according to the place of residence. Two opposite hypotheses were put forward:

H_0 : frequency of the rope parks use does not depend on place of residence;

H_1 : frequency of the rope parks use depends on place of residence.

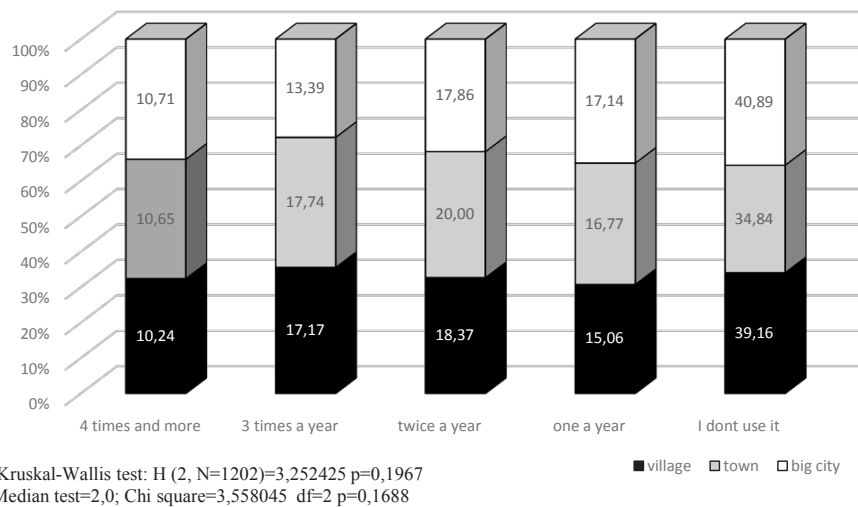


Figure 4. Frequency of the rope parks use depending on place of residence
 Source: Own study based on diagnostic survey and statistical analysis.

For the Kruskal-Wallis test, the statistical significance level p was 0.1967 and median test 0.1688, therefore the activity of Lublin province

inhabitants in rope parks does not depend on the place of residence (Figure 4). Differences between groups are statistically insignificant.

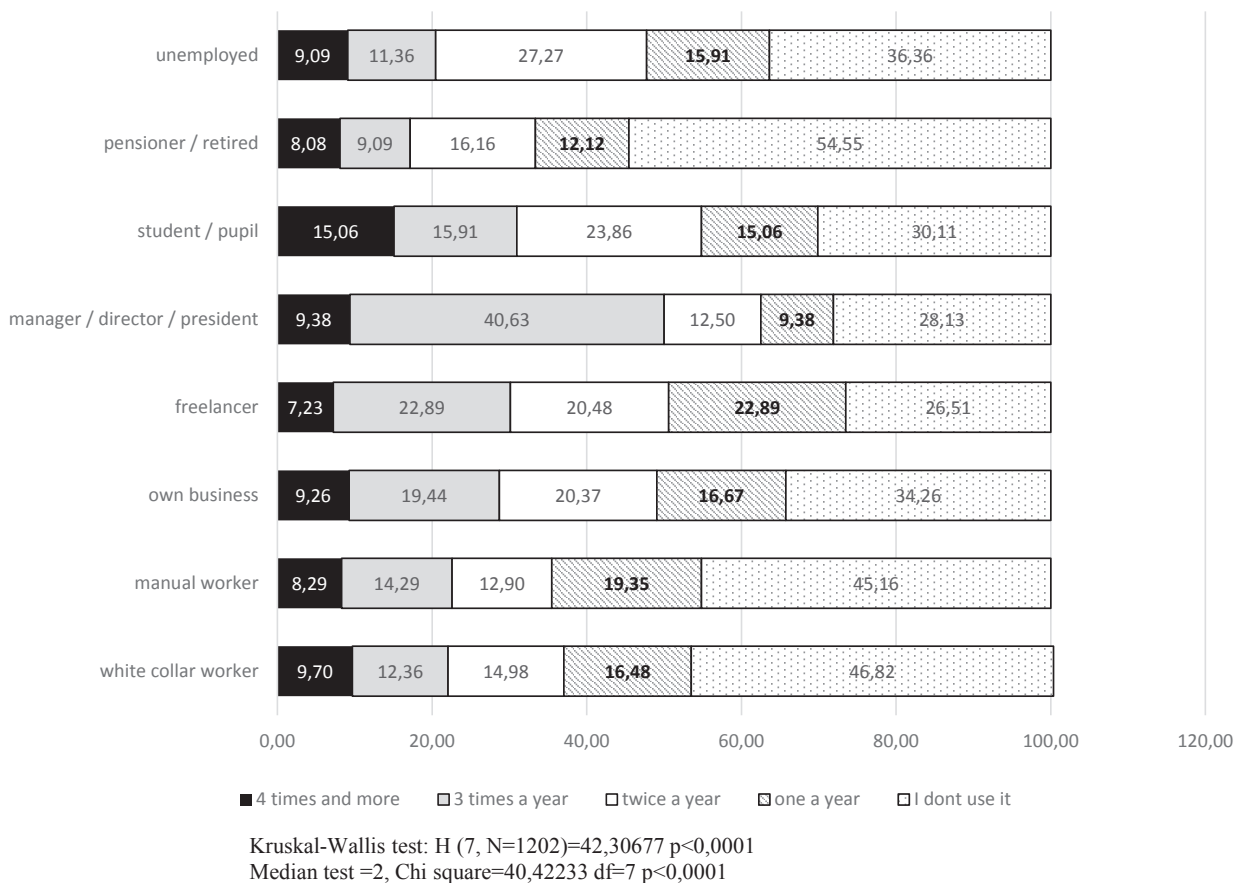


Figure 5. Frequency of the rope parks use depending on occupational status
 Source: Own study based on diagnostic survey and statistical analysis.

Subsequent hypotheses were based on the occupational status:

H_0: frequency of the rope parks use does not depend on occupational status;

H_1: frequency of the rope parks use depends on occupational status.

The level of p , both for the Kruskal-Wallis test and for the median test, was 0.00, so the activity of Lublin inhabitants in rope parks is dependent on the occupational status of the residents, as the test p level is less than the assumed significance

level of 0.05. Most often, freelancers, managers, directors and president, pupils, and students are the customers of rope parks. Less often, rope parks are used by pensioners, which is probably due to their health (Figure 5).

Table 2. Multiple comparison of mean ranks for all samples depending on occupational status of respondents

Variable: Rope parks	The p value for multiple comparisons; Independent variable (grouping): education Kruskal-Wallis test: $H(7, N = 1202) = 42.30677$ $p = 0.0000$							
	white collar worker R:547,33	manual worker R:550,35	own business R:629,27	freelance R:657,98	manager/ director/ president R:721,77	student / pupil R:668,91	pensioner / retired R:503,19	unemployed R:602,26
white collar worker		1,000000	1,000000	0,313549	0,202361	0,000446	1,000000	1,000000
manual worker	1,000000		1,000000	0,455872	0,255162	0,002123	1,000000	1,000000
own business	1,000000	1,000000		1,000000	1,000000	1,000000	0,253323	1,000000
freelancer	0,313549	0,455872	1,000000		1,000000	1,000000	0,076545	1,000000
manager / director / president	0,202361	0,255162	1,000000	1,000000		1,000000	0,054844	1,000000
student / pupil	0,000446	0,002123	1,000000	1,000000	1,000000		0,000760	1,000000
pensioner / retired	1,000000	1,000000	0,253323	0,076545	0,054844	0,000760		1,000000
unemployed	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	1,000000	

Source: Own study based on diagnostic survey and statistical analysis.

Multiple comparison of mean ranks for all samples showed that significant differences exist between pupils and students, mental and physical workers, as well as between pupils and students vs. pensioners and retired, as shown in Table 2.

Discussion and conclusions

The lifestyle studies in the meaning of motor recreation most often involve children and adolescents and older people, with far fewer studies on adults. There is also no research on the activity of Poles in rope parks (Lipko, 2013).

The first rope parks in Poland were created in 2005 in the number of 4, and three years later there were already 45, and by the end of 2012 there were 170 in Poland (Kruczek, 2011), however, they are often associated with "entertainment" and not with recreation (Leśny, 2014). In opinion of Palamer-Karbacińska, Leśna (2012), rope parks should develop and educate people and teach them to work in groups. In the USA, Canada, Germany, and France, rope parks are most often built in educational and sociotherapeutic centers (Leśny, 2013). According to Leśna (2014), exercises in rope parks shape the character of a person, teach the teamwork, and have a great impact on the health and physical development of man. Philips' survey (2005) shows that rope park recreation is suitable for people of all ages.

References:

1. GUS (2012). Rocznik Statystyczny Województwa Lubelskiego. Lublin: GUS.
2. Hudson, S. (2010). Wooing zoomers: Marketing to the mature traveler. *Marketing Intelligence and Planning*, 28(4), 444-461.

Studies by Mogiła-Lisowska (2010) revealed that degree of urbanization does not affect the frequency of participation in motor activity, which is confirmed by own research. Activity in rope parks is dependent on the gender, age and professional status of respondents, but does not depend on their education and place of residence.

The results provide the following conclusions:

1. Leisure activities in rope parks are more often used by men than women. Among the studied population, 63.86% of men and 59.04% of women use the rope park at least once a year.
2. The largest demand in rope parks is created by young people up to 30 years old as 69.11% of them use it at least once a year during their free time. The demand for this service decreases with age, because among people over 61 years that do not use this activity, there are as much as 59.15% of respondents.
3. Activity of Lublin province inhabitants in rope parks is also dependent on professional status. Largest number of clients are freelancers (73.49%). The next professional group consists of managers, directors and governors (71.88%), followed by students and pupils (69.89%).

In conclusion, it can be stated that a young man up to 30 years old, performing a freelance occupation is the most frequent customer of rope parks.

3. Jarosz, M. (2008). *Zasady prawidłowego żywienia dzieci i młodzieży oraz wskazówki dotyczącego zdrowego stylu życia*. Warszawa: Instytut Żywności i Żywienia.
4. King, D.K., Littb, J., Hale, J. Burnieced, K.M., Center, C.R. (2015). The park a tree built': Evaluating how a park development project impacted where people play. *Urban Forestry & Urban Greening*, 14, 293–299. doi.org/10.1016/j.ufug.2015.02.011
5. Koprowiak, E., Lubczyńska, A., Nowak, B., (2011). Styl życia osób podejmujących wspinaczkę wysokogórską wybrane aspekty. *Ekonomiczne Problemy Usług*, 78, 46-47.
6. Kruczek, Z. (2011). Gnieźnieńskie Forum Ekspertów Turystyki Kulturowej. W jakim kierunku zmierza rozwój nowych atrakcji, jakie czynniki determinować będą ich treść i formę? *Turystyka Kulturowa*, 11, 37–4.
7. Legierska, M. (2014). Dawka adrenaliny dla wszystkich. W: W. Franczukowski (red.), *Polskie parki rozrywki* (s. 48–49). Poznań: Press-Forum.
8. Leśny, A. (2014). Działania w parkach linowych – rozrywka czy edukacja? W: A. Bąk, A. Leśny, E. Palamer-Kabacińska (red.), *Przygoda w edukacji i edukacja w przygodzie. Outdoor i adventure education w Polsce* (s. 300-317). Warszawa: Wydawnictwo Fundacja Pracownia Nauki i Przygody.
9. Leśny, A. (2013). Parki linowe w edukacji – możliwości budowania kapitału społecznego w lesie. *Studia i Materiały CEPL w Rogowie*, 34/1, 65-73.
10. Lipko, M. (2013). Physical recreation, lifestyle and health of people living in rural areas, *Turystyka i Rekreacja*, 10, 157-162.
11. Mogiła-Lisowska, J. (2010). *Rekreacyjna aktywność ruchowa dorosłych Polaków - uwarunkowania i styl uczestnictwa*. Warszawa: AWF.
12. Nowak, M., Nowak, J. (1996). *Lubelszczyzna*. Warszawa: Wydawnictwa Szkolne i Pedagogiczne.
13. Ok, K.H., Kyung, M.S., Bo, G.L., Hee, W.C., Eun-Ok, I., (2016). Transtheoretical Model Based Exercise Counseling Combined with Music Skipping Rope Exercise on Childhood Obesity. *Asian Nursing Research*, 10, 116-122.
14. Ostrowska, U. (2006). Aksjologiczne podstawy wychowania. W: B. Śliwerski (red.), *Pedagogika* (s.96-132). Gdańsk: GWP.
15. Palamer-Kabacińska, E., Leśny, A. (red.) (2012). *Edukacja z przygodą. Outdoor i Adventure Education w Polsce: teoria, przykłady, konteksty*. Wrocław: Wydawnictwo Fundacja Pracownia Nauki i Przygody.
16. Pate, R.R., Pratt, M., Blair, S.N., Haskell, W.L., Macera, C.A., Bouchard, C., Buchner, D., Ettinger, W., Heath, G.W., King, A.C., Kriska, A., Leon, A.S., Marcus, B.H., Morris, J., Paffenbarger, R.S., Patric, K., Pollack, M.L., Rippe, J.M., Sallis, J., Wilmore, J.H. (1995). Physical activity and public health. A recommendation from the Centers for Disease Control and Prevention and the American College and Sports Medicine. *Journal of the American Medical Association*, 15, 273, 402–407.
17. Philips, K. (ed.) (2005). *Basic technical rescue*. Arizona: Grand Canyon National Park.
18. Turski, S., Wyszowski, M. (2006). *Lubelszczyzna przewodnik*. Lublin: Wydawnictwo BESPOL.
19. Zawadzka, B. (2011). Aktywność fizyczna dorastającej młodzieży warunkiem lepszej jakości życia. W: Z. Żukowska, R. Żukowski (red.), *Zdrowie – ruch – fair play* (s. 38-52). Warszawa: Wydawnictwo Estrella.
20. Żukowska, Z. (2008). Aktywność fizyczna w prozdrowotnym stylu życia współczesnego człowieka. W: A. Kaźmierczak, A. Maszorek-Szymala, W. Dębowska (red.), *Kultura fizyczna i zdrowotna współczesnego człowieka – teoretyczne podstawy i praktyczne implikacje* (s. 10-11). Łódź: Wydawnictwo Uniwersytetu Łódzkiego.