

Mateusz Ziemia

WSB University in Poznan
Faculty in Chorzow
orcid.org/0000-0003-1040-4466
e-mail: mziemia@poczta.chorzow.wsb.pl
phone: +48 604 260 123

Krystyna Górna-Łukasik

The Jerzy Kukuczka Academy
of Physical Education in Katowice
Department of Physical Education
and Adapted Physical Activity
orcid.org/0000-0002-8410-328X
e-mail: gorna1@op.pl
phone: +48 602 112 165

Business Model for Adventure Tourism and the Barriers to Physical Activity

Abstract. *This is a research article. The theoretical introduction addresses the issues of adventure tourism and barriers to physical activity. The text was localized in the context of business models. The research covered 589 students of Silesian universities (337 women, 252 men). We adopted diagnostic survey as our research method and a questionnaire as the tool. We applied basic methods of statistical description and nonparametric tests: Mann-Whitney U test, Chi-square test and effect-size indices: Glass's biserial correlation coefficient (r_g) and Cramer's phi (V) to our statistical analyses. The main objective of the study was to identify barriers to physical activity of students, while taking the gender of our subjects into account. Analysis of the results allows us to create recommendations for business models in the context of barriers to taking physical activity and implement them in practice.*

Keywords: *physical activity, business model, physical activity barriers, physical recreation, adventure tourism*

1. Physical activity and adventure tourism

In the light of previous studies, the physical activity of various social groups does not meet the postulated health standards. This applies to both the volume and intensity of physical effort undertaken by both adults [Kubińska, Pańczuk 2018; Gorbaniuk, Chuchura 2018; Sińska et al. 2018] and children and youth [Górna et al. 2010; Wojtyła, Byliński, Bojar 2011; Vasickova et al. 2012; Humeniuk et al. 2018]. The available research results indicate the existence of relationship between physical activity and the following variables: age, gender, parents' level of

education, socio-economic status, self-efficacy, perception of benefits, perceived barriers, perceived behavioural control, parental support, parent modelling, peer support, physical activity, depressive symptoms, smoking, alcohol consumption and environmental determinants. However, they are not sufficiently documented to form generalizations for wider public [Hyoungsook, Kim 2008].

Active tourism occupies a special place among the dynamically developing forms of tourism participation. We can associate it directly with performing physical activity outside of your place of residence. This activity does not always require professional equipment, comprehensive preparation and specialist knowledge, but there are also forms where knowledge, competence and equipment are prerequisite [Cymańska-Grabowska, Steblik-Właźlak 2011]. The authors do not agree as to the definition of the concept of adventure tourism [Bończak 2013]. Active tourism forms include: adventure, discovery and extreme tourism [Cymańska-Grabowska, Steblik-Właźlak 2011]. Among the “tourism of physical activities” we also find sports tourism [Hinch, Highama 2001; Gammon, Robinson 2003; Mokrasa-Grabowska 2015]. There is an increasingly frequent use of the concept of sports/adventure tourism interchangeably with active tourism [Mokrasa-Grabowska 2015]. The most common criterion differentiating active and adventure tourism is the level of preparation and skills of the participant required. An adventure tourist should be psychophysically prepared, hardened to the hardships of participation [Bończak 2013]. The importance of being able to behave in the natural environment is also emphasized [Merski 2009; Cymańska-Grabowska, Steblik-Właźlak 2011], while at the same time adventure tourism can not be excluded in urban areas too [Merski 2009]. There are also forms of participation requiring qualifications confirmed by associations/unions and the requirement to effectively use specialized equipment [Cymańska-Grabowska, Steblik-Właźlak 2011].

Tourism forms involving the participant to a greater extent give something more than just rest. They allow you to experience phenomena directly. What is also of added value is the struggle with oneself or the natural environment; Crossing borders – but without “sporting” goals, and definitely more so for the pleasure of participating alone. Adventure tourism, due to its specificity, also provides, apart from impressions, new skills – often at an objectively high technical level. Mastering subsequent “levels of initiation” may form a condition for satisfactory participation in the activity for the adventure tourist.

2. Barriers to physical activity

Research of the condition of physical activity is conducted in multiple disciplines. Particular importance is attributed to three factors: forms, motives and

barriers. They are all associated with the process of making a decision on multifaceted participation in physical activities. Our behaviours are driven by expectations regarding: the situation, results of action and our own effectiveness [Bandura 1977]. The higher the sense of self-efficacy, the greater the motivation to act and better achievements, the more ambitious the goals of action [Locke 1990; Schwarzer 1996].

The issue of forms of physical activity was frequently raised in theory as well as in research. Attention was drawn to differences between men and women of different ages [Marcysiak et al. 2010; Pasek, Olszewski 2017; Pańczyk 2018; Gorbaniuk, Chuchura 2018].

Motivation is the activating focus of the current life activity on the positively assessed target condition [Rheinberg 2006]. Motives for undertaking physical activity were analyzed both in terms of review and research [Winiarski 1995; Górna 2001; Sas-Nowosielski 2003].

The complexity of determinants of human behaviour, as well as a diverse research approaches to the issue, make it difficult to clearly determine the reasons for the lack of physical activity in significant percentage of society. One of the research approaches is to identify the reasons for not taking physical activity. Currently, this issue is most often referred to as the concept of physical activity barriers. Compared to motives and forms, barriers are, so far, the least analyzed in the subject literature. National reports [Jodkowska, Oblacińska 2015; Baj-Korpak et al. 2016] and above all foreign literature [Booth et al. 1997; Allison et al. 1999; De Sousa et al. 2012; Ibrahim et al. 2013; Aceijas et al. 2016] emphasize the importance of physical activity barriers as a foundation for taking action not only for the activity itself but also for a healthy lifestyle. This can be directly related to participation in adventure tourism. The review of subject literature demonstrates, that with age, the most frequently perceived barriers are those health-related. What was listed by a group of 139 residents of stationary care – most often at the age of 70 and more – were: poor health, lack of knowledge about the benefits of regular physical activity, lack of social contact, lack of encouragement from healthcare professionals, and inaccessibility of exercise equipment and trainers [Aro et al. 2018]. Similar conclusions stem from studies of people over 60 years of age by subsequent authors [Booth et al. 1997]. Teachers' research also demonstrated that age alters the most significant barriers – after 45 years of age health appears as one of them [Janasa, Kovar 2010]. A particularly common reason for not taking up physical activity is the lack of time [Allison et al. 1999; Janasa, Kovar 2010; De Sousa et al. 2012; Ibrahim et al. 2013; Aceijas et al. 2016]. There are also reports emphasizing the lack of strong will or low motivation to undertake physical activity [Booth et al. 1997; Daskapan, Emine, Levent 2006; Janasa, Kovar 2010; Ibrahim et al. 2013]. Attention is also drawn to the lack of resources and opportunities to participate in physical activity [De Sousa, Fonseca, Barbosa 2012; Ibrahim et

al. 2013; Aceijas et al. 2016]. Research also found that less active people underestimated the health benefits of exercise [Leavy 2010]. The less active people also see more barriers to physical activity [Serrano 2017]. Adventure tourism is directly dependent on the “attitude” of the potential participant.

3. Business model and barriers to physical activity

Multi-path analysis was considered justified in the case of present work. This allows for the implementation of conclusions in practice, which in the authors’ opinion forms an additional value of the study.

A business model is a combination of a strategic concept of the company and the technology for its practical implementation understood as building a value chain allowing for efficient operation and renewal of resources and skills [Oblój 2002]. The business model answers the questions of how, and for whom the organization creates value, what is the source of the organization’s competences, what position does the organization occupy with respect to its competitors in the market, how does it generate profits, and what are the organization’s plans regarding: the horizon of its activities, and the scope and size of organization [Drzewiecki 2013]. What counts in the business model is that the business entity makes profit. Comprehensively, it is a set of activities, methods and times of their implementation, using resources, in order to offer benefits to customers [Michalak 2012]. Attention should also be paid to flexibility in the activities of economic organizations. The dynamics of phenomena of both the external and internal environment affect the modification of the business model [Jabłoński, Jabłoński 2013; Grzywa 2015]. Values also form a significant element in creating business models [Jabłoński, Jabłoński 2013; Brzóska 2015]. Active tourism – and therefore adventure tourism – is frequently used in promotional materials of Polish regions, determining its importance for promotional activities of tourism in general [Cholewa, Hadzik, Tomik 2012]. Knowledge of barriers to participation in physical activity also allows us to effectively create the idea of place and service [Kaczmarek, Stasiak, Włodarczyk 2002; Fijałkowski 2003]. In such a characteristic field of tourism, as adventure tourism, the idea takes on special significance. The scope of adventure tourism gives many opportunities for marketing activities – it allows us to focus not only on the product, but especially on values (health, sport, victory, communing with nature, joy, active leisure or contacts with people, family). Attention is paid, ever more often, to the problems of mature tourist resorts [Twardowski 2016]. The effective implementation of adventure tourism in tourist resorts in the stagnation phase may protect them from downfall. Such activities will allow them to benefit from potentially unattractive assets of the region. It is enough to adapt the space to the appropriate form of physical activity to defi-

nately increase its tourist and recreational attractiveness. Postindustrial areas are a simple example here. It is possible to adopt unused facilities for purposes of climbing or the modern forms of urban gymnastics – parkour. Mining spoil tips adopted as an area for “mountain” cycling, or former mine tunnels for diving. In addition, the low level of physical activity of the general public proves great potential for activities directed at “movement” and gives additional importance to adventure tourism. What is formed here is a niche market. The possibilities of its filling concern practically every recipient, regardless of their level of mobility, preferences or age. Adventure tourism can also be treated as a way of raising the level of general physical activity, which is of great importance in the context of the reviewed literature.

4. Material and method

The basis for determining the barriers to physical activity, taking into account the gender of the respondents, are the results regarding the perception of physical activity barriers by students. The research was conducted in 2017 among first and second year students of the Academy of Physical Education in Katowice and the WSB University in Poznan, Faculty in Chorzow. A total of 589 people were surveyed, including 337 female and 252 male students. The persons conducting the survey were academic teachers familiarized with its aims and methodology¹. Participation of students in the study was voluntary and anonymous. The research was conducted in an auditorial manner. Before starting the research, students were thoroughly acquainted with the main purpose of the research and the expected use of its results. The “RM 5-FM: Barriers to Physical Activity Quiz” questionnaire was translated into Polish, in accordance with scientific principles.² The questionnaire consists of 21 statements, three statements each verifying the following as barriers: lack of time, social impact, lack of energy, lack of strong will, fear of injury, lack of skills and lack of resources. Each statement was rated by respondents on a scale of 0 (very unlikely barrier) to 3 points (very likely). The individual index of each barrier is the sum of the score for three statements, a maximum of 9 points, and the individual index is the sum of all points. In accordance with the instructions of the authors of the questionnaire, it was assumed that the respective barrier is present, when the sum of scores for the three evaluated theorems (components) equalled at least 5 points.

¹ We would like to thank the following academic teachers of the Academy of Physical Education in Katowice for their participation in the research: dr hab. Dorota Groffik, dr Wojciech Chudy, dr Monika Marszołek, mgr Arkadiusz Mynarski, dr Agnieszka Nawrocka, dr inż. Robert Rocznik.

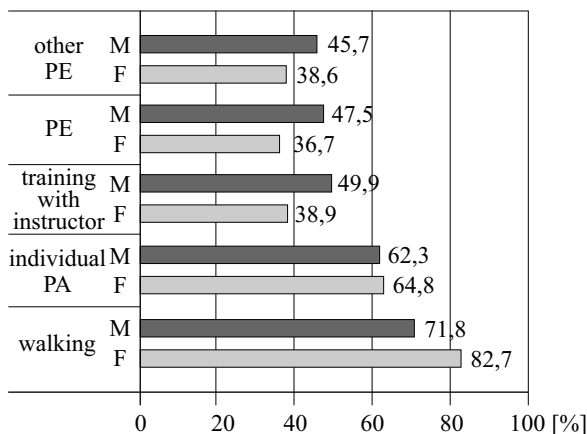
² The translation was made in cooperation with Pawlik as part of master’s thesis.

Information on the forms of physical activity undertaken by respondents was obtained through a closed survey question with a gap. We applied basic methods of statistical description and nonparametric tests: Mann-Whitney U test, Chi-square test and effect-size indices: Glass's biserial correlation coefficient (r_g) and Cramer's phi (V) to our statistical analyses.

5. Results

The survey question diagnosing the forms of physical activity undertaken by students allowed them to indicate more than one answer, therefore the data does not add up to 100% (Chart 1). The dominant forms of physical activity of students are walking (walks) and individual physical activity. Walking (walks) is most often mentioned by the respondents. Women undertake this form of physical activity more often (83%) than men (72%). Almost 2/3 of respondents undertake individual physical activity, which should be welcomed. Almost half of the respondents – 11% more men than women, participate in recreational and sports activities under the guidance of an instructor, in physical education classes, but also in other various forms, including sports training as an instructor or participant.

Chart 1. Forms of physical activity undertaken by (F) and (M) students



Source: own elaboration.

The individual barriers to physical activity, as perceived by the respondents, are characterized by assessments covering almost the full spectrum of scores – from 0 to 9 points (Table 1). The highest average values for both female and male students refer to the lack of time, lack of energy and lack of strong will (3.70 to 4.04 points; 2.75 to 3.16 points, respectively). The lowest rated barriers are lack

of skills and fear of injury ($M < 1.5$). Women perceive, statistically significantly, more barriers to their physical activity ($p < 0.05$). The differences between male and female students, as assessed by the Mann-Whitney U test are statistically significant, except for the perception of lack of funds as a barrier ($p > 0.05$). According to the effect-size ratio (r_g), the relationship between the perception of barriers and gender is not strong, and the barrier: lack of strong will demonstrates the strongest value thereof.

Table 1. Barriers to physical activity by total points

Barrier	Gender	<i>n</i>	min	max	<i>M</i>	<i>Mo</i>	<i>Me</i>	Average rank	U	<i>p</i> (<i>r_g</i>)
Lack of time	F	337	0	9	3.77	3	4	286.43	30442.5	0.0032 (0.13)
	M	252	0	9	3.16	3	3	247.30		
Social impact	F	337	0	9	2.56	2	2	294.30	28216.0	0.000 (0.19)
	M	252	0	8	1.85	0	2	238.47		
Lack of energy	F	337	0	9	3.70	4	4	294.48	28165.5	0.000 (0.19)
	M	252	0	9	2.84	2	2	238.27		
Lack of strong will	F	337	0	9	4.04	3	4	302.31	25949.0	0.000 (0.25)
	M	252	0	9	2.75	0	2	229.47		
Fear of injury	F	337	0	8	1.27	0	1	256.08	32286.0	0.048 (0.09)
	M	252	0	9	1.49	0	1	281.38		
Lack of skills	F	337	0	9	1.47	0	1	285.46	30716.5	0.003 (0.13)
	M	252	0	7	1.00	0	0	248.39		
Lack of resources	F	337	0	9	2.24	0	2	268.83	35432.0	0.894 (0.01)
	M	252	0	9	2.27	0	1	267.07		
Total score	F	337	0	49	19.04	15 ¹	19	293.12	28548.5	0.000 (0.20)
	M	252	0	40	15.35	16	16	239.79		

F – female students; M – male students; ¹ – smallest modal; Mann-Whitney U test; r_g – Glass's biserial correlation coefficient – confidence interval [-1, 1].

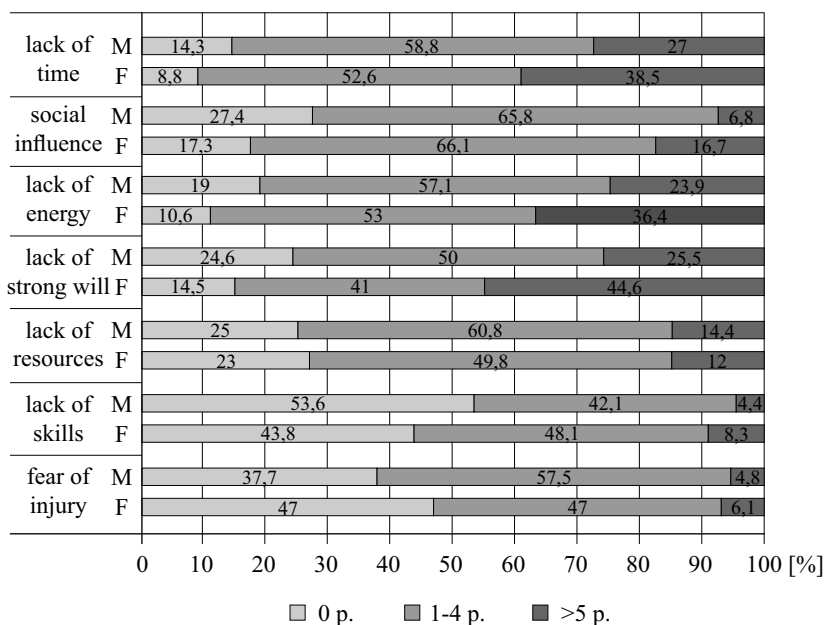
Source: our own elaboration.

To assess what percentage of respondents perceive the assessed barriers as significant obstacles to undertaking physical activity, three categories of people were distinguished, based on the value of the individual indicator: a given barrier does not exist (0 points), occurs to a limited extent only (1-4 points), it is a significant obstacle (5 points and above) (Chart 2).

In relation to most barriers, the most numerous group are female (41-66%) and male (42-66%) students, who perceive numerous difficulties in undertaking physical activity, but their intensity is small. There is a considerable diversity of the examined barriers in terms of the number of people indicating that these do not constitute an obstacle at all – in case of female students ranging from 9% to 47%, and in case of male students from 14% to 54%. Similarly, there is a large diversity

of barriers in terms of the number of people assessing them as significant obstacles to their physical activity (women: from 6% to 45%; men: from 4% to 27%). For the most numerous group of women and men surveyed the lack of strong will, lack of energy and lack of time were indicated as significant barriers. The least people indicate fear of injury (F – 6%, M – 5%) and lack of skills (F – 8%, M – 4%) as significant barriers.

Chart 2. Distribution of respondents according to their assessment of respective barriers to PA



F – female students; M – male students.

Source: own elaboration.

The subsequent analysis was aimed at assessing, whether the three statements (situations) indicating the existence of a respective barrier are homogeneous in terms of student assessment, or whether there are differences between them (Chart 3). The assessment of individual statements was ordered in two categories, based on the structure of the questionnaire itself:

- I. total – 0 points (very unlikely) and 1 point (rather unlikely),
- II. total – 2 points (quite likely) and 3 points (very likely).

Family responsibilities, free time and time that should be allocated to physical activity are three constituents of the lack of time. The time to meet their obligation was most frequently (with over 40%) assessed as significant barrier by students. Not much fewer people indicated the lack of free time, with 10% more women

than men. This difference was confirmed as significant by the Chi-squared test ($p = 0.01$). Over 1/5 of respondents, regardless of gender, said that undertaking exercises would come at the cost of failure to fulfill their other obligations.

Social impact as a barrier to physical activity was verified by statements regarding the attitude of friends and family to physical activity, their own appearance and the type of social gatherings. For the majority of respondents (some 90%) the interest in physical activity among their friends and relatives did not form a barrier for their physical activity. Concerns about appearance are more important for women (1/5 of respondents) than for men (10%) – and this difference is statistically significant $p < 0.01$. In this group of claims, the biggest obstacle – for more than 1/3 of respondents regardless of their gender – was the way they spent free time with friends and family, because it was not linked with physical activity.

Among the components of the “lack of energy” barrier, excessive fatigue after work and the need to rest at the weekend are indicated, as barriers to their physical activity, by a significant proportion of respondents – some 1/3 of the male students, and even more – some 50% – of female students. Differences in the context of gender are statistically significant ($p = 2.00E-08$; $p = 0.004$, respectively).

Restriction of sleep time as a consequence of physical activity is an important reason not to exercise for about 1/5 of respondents, regardless of their gender.

Among the statements indicating the existence of the “lack of strong will” barrier, these were, in descending order of their number: fear of regularity, lack of perseverance (excuses), and the issue of mobilization to start exercises. In all cases, they are indicated as significant reasons for the lack of physical activity by a significant percentage of respondents, more female students (from 41% to 50%) than students (about 1/4-1/3). Chi-squared test differences in distribution of scores between male and female students are statistically significant ($p < 0.000$) for each of these theorems.

The fear of adverse health effects of physical activity in terms of the risk and likelihood of injury and the experiences of others is not a significant obstacle for some 90% of the respondents. There are also no differences in the score distributions (Chi-square) between female and male students ($p > 0.05$) in all theorems.

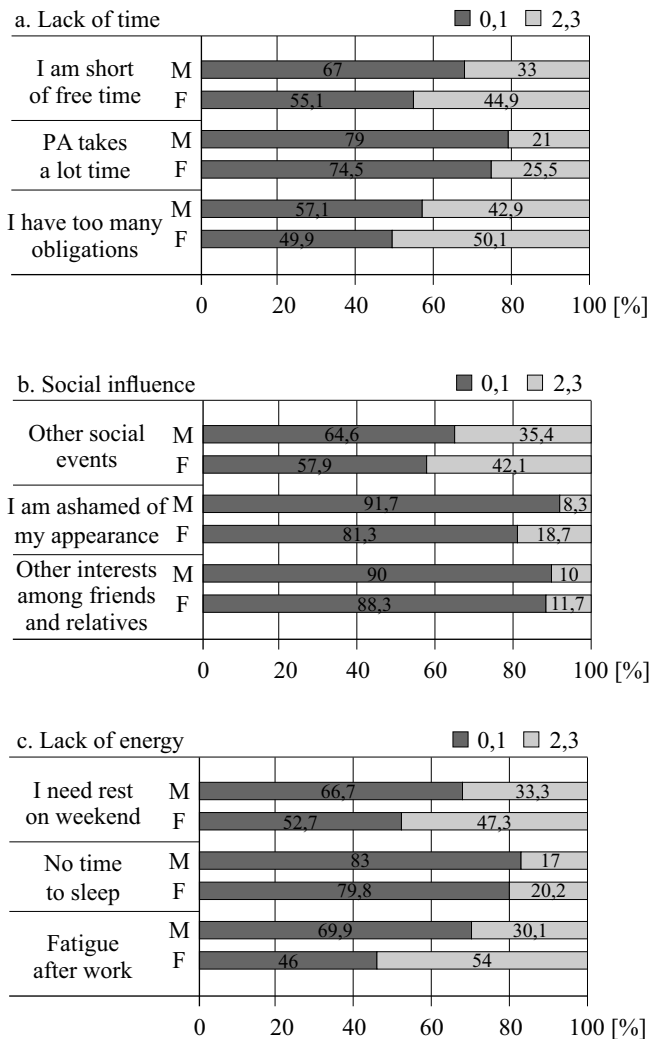
Lack of skills, opportunities to learn new sports or lack of pleasure from physical exercise are an obstacle for less than 9% of students. In students, skills deficiencies are slightly more frequently indicated as barriers (12%), especially in case those that would be pleasing to practice (approx. 14%). Comparison of assessments by genders demonstrates that lack of pleasure from exercise is more often indicated as a barrier by female students. The difference, as assessed by the Chi-square test, is statistically significant ($p < 0.01$).

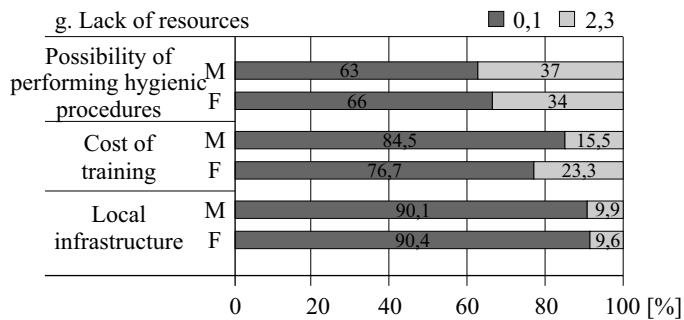
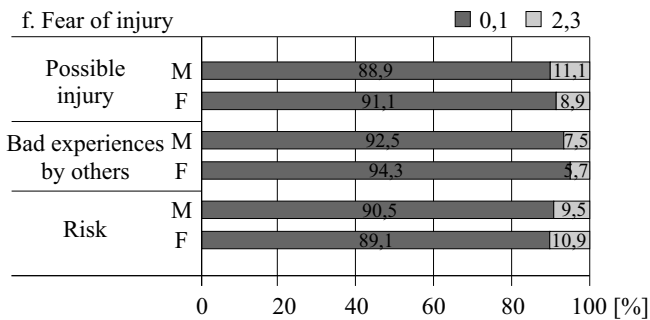
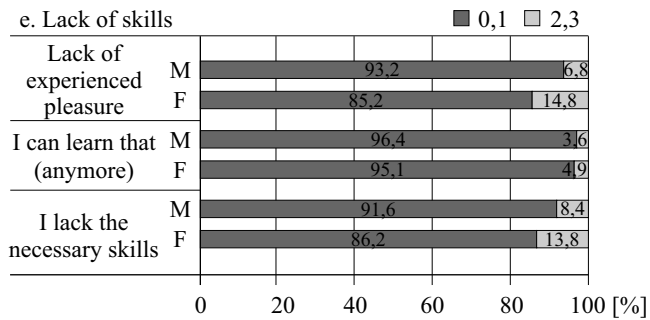
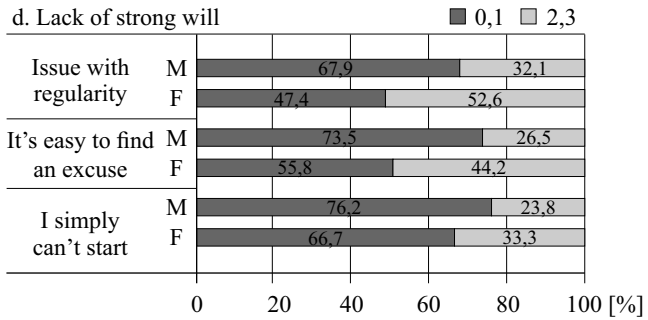
Of the obstacles that make up the barrier, the lack of resources is the least often experienced, as the lack of base for exercise (approx. 10%), and the cost

of training is indicated by almost twice the number of respondent. The lack of the possibility of using hygienic procedures after physical activities is most often indicated, by some 1/3 of respondents of both genders, as a barrier. Compared to men, the cost of training is a greater obstacle for women ($p = 0.026$).

The Cramer's V coefficients calculated for statistically significant ($p < 0.05$) differences indicate that even with high statistical significance of these differences the relationship between the perception of barriers to physical activity and gender is weak.

Chart 3. Components of the respective barriers to physical activity





Source: own elaboration.

6. Discussion

There is a wide range of possibilities that the tourist forms of physical activity offer, catering for the needs of very differentiated groups of service recipients. Our own research revealed “walking” as the main form of physical activity of respondents. It fits perfectly into many forms of adventure tourism – by adding additional attractiveness to “walking,” e.g. Nordic walking in various areas and conditions, we can effectively sell it as a service. What may prove to be of particular importance for the offer of adventure tourism is the fact that majority of respondents prefers individual training. Different results were discovered during a study of a group of 300 Canadians over 18 years of age. Nearly 80% preferred to satisfy their physical activity needs in their household or through lifestyle rather than by organizing or planning exercises. What’s more, men and women believe that engaging in physical activity in this way is a more natural and enjoyable part of the day than exercising. This approach fits in with the modern trend to promote physical activity through daily activities and lifestyle modifications, not just intentional physical activities [Cavallini et al. 2017].

The main barrier to undertaking physical activity regardless of the gender of respondents was the lack of time. Similar results were reported in many scientific works. Studies of over 700 men at the age of over 20 years from Malay and China have shown that the amount of time forms a frequent barrier to undertaking physical activity [Ibrahim et al. 2013]. We also find a similar research report – concerning 1084 students from Brazil [De Sousa, Fonseca, Barbosa 2012]. It also follows, from the study of 1041 high school students in the Toronto District, that the trending barrier to physical activity is lack of time after completing duties [Allison et al. 1999]. Similar conclusions can be drawn from the research of 468 students from United Kingdom [Aceijas et al. 2016]. A study of 2,298 adult Australians also revealed lack of time as a major barrier to physical activity [Booth et al. 1997]. When the age criterion is considered, lack of time was used to justify the lack of physical activity of teachers aged 35-45 [Janasa, Kovar 2010]. This is not confirmed by the results of youth research – the lack of time was only significant for boys [Jodkowska, Oblacińska 2015]. The lack of time for exercises is also noted by office workers ($n = 937$) [Kowalczyk, Kozłowska 2015]. On this basis, it can be concluded that the lack of time is one of the main barriers to undertaking physical activity throughout the world. More research should be undertaken, providing detailed answers to the questions arising here. Are we really lacking time, or is it just a matter of inappropriate organization? The solution to this problem may be applications available via a smartphone. One of their functions is monitoring physical activity – it can be motivating – as well as showing actual daily physical activity, not just the effects of intentional recreational or tourist activi-

ties. Also competitions in the use of applications – by correspondence – can be motivating for activities, which is especially important in the context of individual training as one of the most frequently mentioned forms of physical activity. The organization of time is also important. Information on the most easily accessible places for physical activity speeds up searching and facilitates transport.

In our own research, one of the most important reasons for not taking physical activity was a lack of energy. Nevertheless the subject literature does not perceive this reason as significant. Studies of 937 office workers of the Lubelskie Voivodeship revealed fatigue as one of the three most important barriers to undertaking physical activity [Kowalczyk, Kozłowska 2015].

The responding students drew attention to the lack of strong will as a reason for not being active. Self-discipline appears, also in the research of further authors, as a barrier to undertaking physical activity [Booth et al. 1997; Ibrahim et al. 2013]. The BPAQ questionnaire (used for our own research) was also used in the study of a group of 303 students in Turkey. The results deviate from the research of the authors of the above study. The main barrier to physical activity was the lack of strong will [Daskapan, Emine, Levent 2006]. Regardless of age, laziness was one of the main barriers among the surveyed teachers ($n = 750$) [Janasa, Kovar 2010]. Also the office workers indicated similarly [Kowalczyk, Kozłowska 2015]. Therefore, regular physical activity should be given importance in all promotional campaigns. Focusing on value and, to a lesser extent, the proposed service could be an effective way of working.

Our own research demonstrated statistically significant differences between male and female students in case of almost all barriers to physical activity. Only the barrier related to lack of funds proved to be statistically insignificant. It was also not mentioned by the respondents as significant. This barrier appears in literature as a significant obstacle to undertaking activity in Malay and China [Ibrahim et al. 2013], Brazil [De Sousa, Fonseca, Barbosa 2012], and the United Kingdom [Aceijas et al. 2016].

Adventure tourism requires relatively high skills. What can discourage us to undertake the activity is also the awareness of the risk associated with the level of its difficulty. Own research proved that the importance of lack of skills and fear of injury as a barrier to physical activity is very limited. There are few reports from the literature that would raise these two factors as significantly discouraging for physical activity. Studies have revealed this barrier among girls [Jodkowska, Oblacińska 2015].

It should also be noted that women, in general, perceive more barriers than men. In our own research, for most of the barriers investigated, we found statistically significant differences in terms of gender. Other studies show similar results [Jodkowska, Oblacińska 2015]. Different results are found in the research of 392 university students of physical education course. Gender did not differentiate

between motives or barriers to undertaking physical activity [Baj-Korpak et al. 2016]. Furthermore, the studies of 100 Vancouver students did not reveal statistically significant differences between women and men [Chu et al. 2015].

The selection of participants for the study was purposeful, therefore it cannot be generalized to the entire population. The present analysis allows to take into account another factor, when creating business models for adventure tourism. As shown by studies carried out by the authors as well as literature reports: barriers to physical activity significantly affect the undertaking of activities in the field of physical culture. What is thus the most significant for an effective business model of an adventure tourism enterprise will be to focus on counteracting three phenomena: lack of time, energy and strong will.

References

- Aceijas, C., Bello-Corassa, R., Waldhausl, S., Lambert, N., Cassar, S., 2016, Barriers and determinants of physical activity among UK university students, *European Journal of Public Health*, 26.
- Allison K.R., Dwyer Ph.D., Makin S., Ed M., 1999, Perceived Barriers to Physical Activity among High School Students, *Preventive Medicine*, 28, 608-615.
- Aro A.A., Agbo S., Omole O.S., 2018, Factors influencing regular physical exercise among the elderly in residential care facilities in a South African health district, *African Journal of Primary Health Care & Family Medicine*, 10(1), 1493.
- Baj-Korpak J., Korpak F., Szepeluk A., Sudoł G., 2016, Czynniki warunkujące motyw i bariery aktywności fizycznej studentów kierunku wychowanie fizyczne, *Rozprawy Społeczne*, 10(4), 60-72.
- Bandura A., 1977, Self-efficacy. Toward a Unifying Theory of Behavioral Change, *Psychology Review*, 84, 191-215.
- Bończak B., 2013, Aktywne formy turystyki – problemy terminologiczne, in: R. Wiluś, J. Wojciechowska (eds.), *Nowe-stare formy turystyki w przestrzeni. Warsztaty z geografii turystyki*, t. 3, Łódź: Wyd. UL.
- Booth ML, Bauman A, Owen N, Gore CJ., 1997, Physical activity preferences, preferred sources of assistance, and perceived barriers to increased activity among physically inactive Australians, *American Journal of Preventive Medicine*, 26(1), 131-137.
- Brzóska J., Jelonek D., 2015, Koncepcja pomiaru wartości tworzonej przez aplikacje modeli biznesu : podstawy teoretyczne i studium przypadku, *Przegląd Organizacji*, 9, 48-55.
- Cavallini M.F., Kolen A.M., Sui X., Spriet L.L., King B., Kraft E., Heischmidt K., Blair S.N., 2017, Introducing My House Activity and My Work Activity: A Paradigm Shift towards Lifestyle Physical Activity Supported by Evidence from a Focus Group Study, *Journal of Physical Activity Research*, 2(1), 61-67.
- Cholewa J., Hadzik A., Tomik R., 2012, Turystyka aktywna w materiałach promocyjnych województw w Polsce, in: *Wyzwania współczesnej polityki turystycznej. Problemy współczesnej polityki turystycznej*, Wrocław: Wyd. UE we Wrocławiu.
- Chu E., Liang J., Lu T., An X., 2015, Perceived barriers to becoming physically active for students at UBC, *UBC Undergraduate Research*, 1-8.
- Cymańska-Grabowska B., Steblik-Wlazlak B., 2011, *Podstawy turystyki*, Warszawa: WN PWN.
- Daskapan A., Emine H.T., Levent E., 2006, Perceived Barriers to Physical Activity in University Students, *Journal of Sports Science and Medicine*, 5(4), 615-620.

- De Sousa T.F., Fonseca S.A., Barbosa A.R., 2012, Perceived barriers by university students in relation the leisure-time physical activity, *Braslian Journal of Kinanthropometry and Human Performance*, 15(2), 164-173.
- Drzewiecki J., 2013, Model biznesu jako narzędzie zarządzania strategicznego: zastosowanie, dylematy i wyzwania, *Przedsiębiorczość i Zarządzanie*, 14(13), 65-75.
- Fijałkowski D., 2003, Produkt turystyczny w ujęciu marketingowym a turystyka, *Śląskie Prace Geograficzne*, 1, 81-90.
- Gammon S., Robinson T., 2003, Sport and tourism: a conceptual framework, *Journal of Sport Tourism*, 8(1), 21-26.
- Gorbaniuk J., Chuchra M., 2018, Aktywność fizyczna kobiet i mężczyzn w czasie wolnym od pracy, *Roczniki Teologiczne*, 10, 161-175.
- Górna K., 2001, *Przygotowanie młodzieży do uczestnictwa w kulturze fizycznej*, Katowice: AWF.
- Kowalczyk, A., Kozłowska, E., 2015, Motywy i ograniczenia aktywności fizycznej w grupie zawodowej pracowników biurowych, *Journal of Education, Health and Sport*, 5(9), 413-438.
- Górna K., Groffik D., Fromel K., Skalik K., Wąsowicz W., 2010, Aktywny i zdrowy styl życia, *Wychowanie Fizyczne i Zdrowotne*, 8, 11-15.
- Grzywa E., 2015, Modele biznesu w naukach o zarządzaniu – główne nurty badawcze, *Przegląd Organizacji*, 3, 20-27.
- Hinch T.D., Higham J.E.S., 2001, Sport tourism: a framework for research, *International Journal of Tourism Research*, 3(1), 45-58.
- Humeniuk E., Dąbska O., Pawlikowska-Łagód K., Rumińska M., 2018, Ocena wybranych zachowań zdrowotnych młodzieży z terenu Polski środkowo-wschodniej, *Rozprawy Społeczne*, 12(2), 73-81.
- Hyoungsook P., Kim N., 2008, Predicting Factors of Physical Activity in Adolescents: A Systematic Review, *Asian Nursing Research*, 2, 113-121.
- Ibrahim S., Karim N.A., Oon N.L., Ngah W.Z.W., 2013, Perceived physical activity barriers related to body weight status and sociodemographic factors among Malaysia men in Kang Valley, *BMC Public Health*, 13, 275.
- Jabłoński A., Jabłoński M., 2013, Modele biznesu w cyklu życia przedsiębiorstwa – wyzwania strategiczne, *Przegląd Organizacji*, 9, 17-22.
- Jabłoński M., Jabłoński A., 2013, Cykl życia wartości przedsiębiorstw wobec kondycji modelu biznesu, *Kwartalnik Nauk o Przedsiębiorstwie*, 4, 57-63.
- Janasa P., Kovar K., 2010, Wybrane determinanty zivotniho stylu ucitelu zakladnich skol, *Telesna Kultura*, 33, 57-68.
- Jodkowska M., Oblacińska M., 2015, Perceived barriers to physical activity among Polish adolescents, *Przegląd Epidemiologiczny*, 69(1), 73-78.
- Kaczmarek J., Stasiak A., Włodarczyk B., 2002, Produkt turystyczny, *Turystyka i Hotelarstwo*, 1, 33-54.
- Kubińska Z., Pańczuk A., 2018, Potrzeby zdrowotne realizowane przez aktywność fizyczną osób starszych, *Rozprawy Społeczne*, 12, 73-79.
- Leavy B., Aberg A.C., 2010, 'Not ready to throw in the towel': Perceptions of physical activity held by older adults in Stockholm and Dublin, *Journal of Aging and Physical Activity*, 18(2), 219-236.
- Locke E.A., Latham G.P., 1990, *A theory of goal setting and task performance*, New York: Prentice Hall.
- Marcysiak M., Zagroba M., Ostrowska B., Wiśniewska E., Marcysiak M., Skotnicka-Klonowicz G., 2010, Aktywność fizyczna a zachowania żywieniowe dzieci i młodzieży powiatu ciechanowskiego, *Problemy Pielęgniarstwa*, 18(2), 176-183.
- Merski J., Warecka J., 2009, *Turystyka kwalifikowana, turystyka aktywna*, Warszawa: Almammer Wyższa Szkoła Ekonomiczna.

- Michalak J., 2012, Model biznesowy i jego wpływ na odwzorowanie sytuacji finansowej jednostki w systemie rachunkowości, *Zeszyty Teoretyczne Rachunkowości*, 66(122), 133-142.
- Mokras-Grabowska J., 2015, Turystyka aktywna – zagadnienia terminologiczne i klasyfikacje, *Wczoraj, dziś i jutro turystyki aktywnej i specjalistycznej*, 10, 11-20.
- Obłój K., 2002, *Tworzywo skutecznych strategii*, Warszawa: PWE.
- Pańczyk W., 2018, Aktywność fizyczna jako element polityki zdrowotnej społeczeństwa konsumpcyjnego, *Facta Simonidis. Zeszyty Naukowe Państwowej Wyższej Szkoły Zawodowej w Zamościu*, 11, 313-337.
- Pasek M., Olszewski J., 2017, Aktywność fizyczna studentów turystyki i rekreacji w świetle dostępności do terenów zieleni, *Turyzm*, 2, 89-94.
- Rheinberg, F., 2006, *Psychologia motywacji*, Kraków: WAM.
- Sas-Nowosielski K., 2003, *Wychowanie do aktywności fizycznej*, Katowice: AWF.
- Schwarzer R., Fuchs R., 1996, Self-efficacy and Health Behaviours, in: M. Conner, P. Norman (eds.) *Predicting Health Behaviour*, Buckingham-Philadelphia: Open University Press.
- Serrano S., Pizarro P., Casterad Z., Villar Á. del, García-González, L., 2017, Barreras percibidas para la práctica de actividad física en estudiantes universitarios. Diferencias por género y niveles de actividad física, *Universitas Psychologica*, 16(4), 303-317.
- Sińska B., Kucharska A., Sienkiewicz Z., Dykowska G., 2018, Wpływ systemu zmianowego pracy pielęgniarzek na ich sposób odżywiania i aktywność fizyczną, *Zdrowie Publiczne i Zarządzanie*, 16(2), 105-111.
- Twardowski D., 2016, Problemy dojrzałych ośrodków turystycznych na tle koncepcji cyklu ewolucji obszaru turystycznego, *Problemy Rozwoju Miast*, 3, 57-66.
- Vasickova J., Górna-Lukasik K., Groffik D., Fromel K., Skalik K., Svozil Z., Wąsowicz K., 2012, Knowledge in adolescent girls and boys related to physically active and health lifestyle, *Acta Universitatis Plackianae Olomucensis, Gymnica*, 42, 27-33.
- Winiarski R., 1995, *Aktywność sportowa młodzieży. Geneza – struktura – uwarunkowania*, Kraków: AWF.
- Wojtyła A., Byliński P., Bojar I., 2011, Aktywność fizyczna młodzieży gimnazjalnej w Polsce, *Problemy Higieny Epidemiologicznej*, 92(2), 335-342.

Model biznesu dla turystyki kwalifikowanej a bariery aktywności fizycznej

Streszczenie. Artykuł ma charakter badawczy. We wprowadzeniu poruszono problematykę turystyki kwalifikowanej oraz barier podejmowania aktywności fizycznej. Całość umiejscowiono w kontekście modeli biznesu. Badaniami objęto 589 studentów śląskich uczelni (337 kobiet, 252 mężczyzn). Metodą badawczą był sondaż diagnostyczny, a narzędziem kwestionariusz ankiety. Do analizy statystycznej zastosowano podstawowe metody opisu statystycznego oraz testy nieparametryczne: test U Manna-Whitneya, test Chi-kwadrat oraz wskaźniki effect-size: współczynnik korelacji dwuseryjnej Glassa (r_g) oraz V-Cramera (V). Celem badań było określenie barier aktywności fizycznej z uwzględnieniem płci badanych. Analiza wyników pozwala na stworzenie rekomendacji dla modeli biznesu w kontekście barier podejmowania aktywności fizycznej i wdrożenie ich do praktyki.

Słowa kluczowe: aktywność fizyczna, model biznesowy, bariery aktywności fizycznej, rekreacja fizyczna, turystyka kwalifikowana