OUTDOOR AND INDOOR PHYSICAL ACTIVITY PROGRAMS IN PARTICIPANTS' OPINIONS

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Abstract

The studies were conducted to determine the degree of dependence between the physical conditions of organizing school exercise classes and the accompanying emotions expressed by pupils. The factor differentiating the nature of these classes was the environment, which in one case was the natural environment in the vicinity of the school, and in the other one - school infrastructure facilities. The data were collected using The Physical Activity Group Environment Questionnaire PAGEQ in a group of 220 students participating in a kinesiology learning project. The results seem to indicate the role of the natural environment that positively shapes human feelings.

Keywords*: physical activity, cohesion, natural environment*

Introduction

The prevalent habits of modern humans, including the shortage of daily physical activity as well as common isolation from the surrounding natural world, are the cause of a growing scientific controversy. There is increasing evidence of the benefits of nature contact (Ten Brink et al., 2016). Outdoor physical activity is analyzed in order to combine these positive effects and even achieve synergy (Lahart et al., 2019). The advantages of taking up physical activity outdoors are typically greater than indoor activity (Thomson Coon et al., 2011). In addition to clear health benefits, outdoor activity is also associated with social benefits, including internal development and the strengthening of interpersonal relationships (Dickson et al., 2008). In the context of urbanization, insufficient physical activity, and growing disintegration between people and the natural environment, the question arises whether and to what extent outdoor activity can be a solution to these current problems. As far as school education is concerned, the postulates of increasing nature contact during physical education classes still remain important. A systematic review of initiatives to increase physical activity in school age children shows that information about such projects reaches a large population of children, but in the light of overly extensive curricula, the possibility of implementing health initiatives is rather insignificant (Kriemler et al. 2011). This may be partly related to the lack of adequate motivation of teachers to implement pedagogical innovations. As a consequence, an increasing abandonment of open spaces as a place for exercise classes can be frequently observed. At the end of the last century, about 40-50% of pupils participated in green schoolyard classes, and now it is only 10-15%. For too many students, physical education is associated almost exclusively with a gym (Pańczyk, 2011). The specificity of the environment in which school children live has a huge impact on their educational progress, development and well-being (Guardino et al., 2019). Thus, the resulting emotional balance, emphasized in the literature, (Humberstone & Stan, 2012) is also the result of effective isolation from such civilization stressors as noise, crowds and visual overload (Evans, 2006). Children involved in outdoor learning have better attention span and focus than during learning the same subject indoors (Largo-Wight et al., 2018). This type of contact also makes it possible to reduce stress (Chawla et al. 2014).

The aim of the study was to assess the cohesion in four dimensions: Individual Attractions to the Group - Task, Individual Attractions to the Group - Social, Group Integration - Task and Group Integration - Social, among students participating in two programs with a different structure of classes: outdoor and indoor.

Methods

Originally, the 35-item version of the Physical Activity Group Environment Questionnaire PAGEQ - an instrument for the assessment of cohesion in exercise classes, was limited to 21 items as

suggested by its authors (Estabrooks & Carron, 2000). Within Individual Attractions to the Group - Task and Social - 6 items were generated for each dimension, within Group Integration - Task – 5 items, and for Groups Integration - Social – 4 items respectively. Each participant was instructed to assess their feelings about personal involvement in their specific physical activity - outdoor or indoor. When assessing the level of consent to each of the statements, a 9-point Likert scale was used, for which 1 = strong disagreement and 9 = strong agreement. In statistical analysis, parametric descriptive statistics (Mean, SD) were applied to characterize variables. Student's T-test was used to study the differences between the means of the compared groups. The results which met the condition of $p < 0.05$ were considered statistically significant.

Table 1. Individual Attractions to the Group - Task in outdoor and indoor groups of students

Individual Attractions to the Group - Task	**Outdoor group Mean ± SD**	**Indoor group Mean ± SD**	**t**	**p**
1. I like the amount of physical activity I get in this program	4.95 ± 1.39	4.68 ± 1.35	1.44	0.151
2. This physical activity group provides me with a good opportunity to improve in areas of fitness I consider important	5.00 ± 1.41	4.95 ± 1.34	0.27	0.783
3. I am happy with the intensity of the physical activity in this program	5.33 ± 1.22	4.87 ± 1.31	2.66	0.008*
4. I like the program of physical activities done in this group	5.40 ± 1.36	4.93 ± 1.52	2.43	0.016*
5. I enjoy new exercises done in this physical activity group.	4.90 ± 1.40	4.75 ± 1.24	0.83	0.403
6. This physical activity group provides me with good opportunities to improve my personal fitness	4.69 ± 0.94	4.79 ± 1.00	-0.58	0.562

Table 2. Individual Attractions to the Group—Social in outdoor and indoor groups of students

Individual Attractions to the Group - Social	**Outdoor group Mean ± SD**	**Indoor group Mean ± SD**	**t**	**p**
1. This physical activity group is an important social unit for me.	4.73 ± 0.1.41	5.02 ± 1.27	-1.58	0.114
2. I enjoy my social interactions within this physical activity group.	4.79 ± 1.36	4.90 ± 1.42	-0.58	0.560
3. I like meeting the people who come to this physical activity group.	5.75 ± 1.31	5.08 ± 1.27	3.84	0.000*
4. If this program was to end, I would miss my contact with the other participants.	4.86 ± 1.38	4.91 ± 1.29	-0.27	0.780
5. In terms of the social experiences in my life, this physical activity group is very important.	5.07 ± 1.28	4.94 ± 1.35	0.72	0.472
6. The social interactions I have in this physical activity group are important to me.	4.95 ± 1.25	4.91 ± 1.46	0.20	0.841

Tabela 3. Group Integration - Task in outdoor and indoor groups of students

Group Integration - Task	Outdoor group	Indoor group	t	p
	Mean ± SD	Mean ± SD		
1. Our group is united in its beliefs about the benefits of the physical activities offered in this program.	5.24 ± 1.24	4.85 ± 1.36	2.19	0.029*
2. Our group is in agreement about the program of physical activities that shoul be offered.	4.87 ± 1.31	5.02 ± 1.41	-0.82	0.412
3. Members of our group are satisfied with the intensity of physical activity in this program.	5.37 ± 1.48	4.86 ± 1.37	2.67	0.008*
4. Members of our group enjoy helping if work needs to be done to prepare for the activity sessions.	5.07 ± 1.36	4.88 ± 1.42	1.04	0.296
5. We encourage each other in order to get the most out of the program.	4.88 ± 1.33	4.89 ± 1.38	-0.03	0.976

Table 4. Group Integration - Social in outdoor and indoor groups of students

Group Integration - Social	Outdoor group	Indoor group	t	p
	Mean ± SD	Mean ± SD		
1. Members of our physical activity group often socialize during exercise time.	4.89 ± 1.34	4.81 ± 1.36	0.44	0.657
2. Members of our physical activity group would like to spend time together if the program were to end.	4.93 ± 1.47	4.92 ± 1.33	0.05	0.959
3. Members of our group sometimes socialize together outside of activity time.	4.81 ± 1.34	4.74 ± 1.32	0.38	0.702
4. We spend time socializing with each other before and after our activity sessions.	5.00 ± 1.27	4.76 ± 1.36	1.34	0.181

The analysis of own research results showed five statistically significant differences between the attitudes of outdoor group students and indoor group students. All of them proved the advantage of positive opinions expressed by the representatives of the former group. Taking the total number of statements into account, this may be envoked as an argument for having more frequent exercise classes in natural environments. This opinion appears to support the information included in the subject literature. The information concerns, among others, a project that arose out of the need to assess whether the outdoor physical activity classroom would allow students to pursue other subjects indoors without difficulty. The benefits of outdoor learning are well-known and include indicators of educational achievement and children's mental and physical well-being (Waite, 2011), clearly demonstrating the stimulating role of the natural environment (Aronsson et al., 2015). The project also linked school initiatives and access to green spaces with increased physical activity, thus suggesting possible positive long-term health effects. Students who have the opportunity to engage in outdoor learning demonstrate greater creative and critical thinking abilities and better results in standard tests (Ballantyne & Packer, 2002). Clearly positive results in favor of students taking part in outdoor physical education classes compared to the statements of students from indoor groups were obtained by analyzing the questionnaire "My opinion on physical education indoors and outdoors" filled in by exercisers. The results of the second study conducted on a sample of 1,099 people, confirm the opinions of 1,218 students participating in the first study (Pańczyk, 2009). Outdoor adventure education experiences of 10-12 year old pupils show a slight positive benefit measured after the completion of a week long project, which was however lost 10 weeks later. Therefore, the systematic nature of this type of pedagogical interventions should be considered necessary. Characteristically, however, students who perceived themselves as having relatively poor personal and social skills benefited the most during the project and lost the least afterwards (Scrutton, 2015). One of the latest announcements on this issue confirms that participation in the one-year environmental education program brought about a significant improvement in the mental and physical well-being of children, which continued throughout the project. On the other hand, improvement in well-being was not observed in the control sample of children who did not participate in classes (Harvey et al., 2020).

Conclusion

When green schoolyards are not used as an outdoor classroom, important opportunities to maximize students' potential are lost. This potential can be viewed in terms of behavior, recreation, health, and ecology. Therefore, despite the growing negative trends related to the consumption lifestyle and extensive aversion to physical exercise, outdoor physical activity should still be promoted, both in schools of various types and in adult community. Otherwise, physical education and lifelong health-related physical activity will have greatly reduced effects. Hence, the postulate of man's return to nature, which, on the one hand, proves trust in the oldest educational concepts, and on the other hand, testifies to a modern understanding of the development of modern man.

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