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The Youth Olympic Games as an arena for Olympic education: An evaluation of the school program, “Dream Day”

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ABSTRACT

The promotion of Olympic education through Olympic events has received increased attention among researchers. The aim of this paper is to evaluate the Youth Olympic Games (YOG) as an arena for Olympic education based on the perceptions of the pupils participating in the school programme “Dream Day” during the YOG 2016 in Lillehammer, a former Olympic city in Norway. Didactical principles for Olympic education (Naul, 2008) are adopted as an analytical framework. This is a qualitative case study using interviews, observations and personal essays of participating pupils as the main sources. Based on the findings in this paper, we argue that the YOG have significant potential as an arena for Olympic education. However, this potential is not yet utilized, and the following implications for future practices are presented. First, the International Olympic Committee (IOC) needs to put more effort into the implementation of Olympic education programmes. Second, the implementation of Olympic education programmes should be a collaboration between different groups and disciplines, including youth representatives. Third, corroborating Naul's (2008), the pupils' socio-cultural backgrounds have to be taken into account in order to meet the needs of the participating youth. Finally, the Olympic education programme should have a long-term perspective where the Games are used to increase the educational effect.

KEYWORDS

Olympic education; sports participation; intervention programme; local youth; demonstration effect; festival effect

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INTRODUCTION

The Youth Olympic Games (YOG) are a recent creation in the history of the Olympic Movement. The YOG was established in 2007 as an international elite multi-sport event for young athletes aged between 15 and 18 years. However, the International Olympic Committee (IOC) wants the YOG to be more than just a sporting event and has an ambition of reaching beyond the participating athletes. The YOG was promoted as a strategy to improve health, increase sports participation and re-establish interest in Olympic sports among the world's youth (IOC, 2007). The vision is to “inspire young people around the world to participate in sport and adopt and live by the Olympic values” (IOC, 2015a, p. 13). A central strategy to realise the ambitious goals of the YOG involves a variety of cultural and educational programmes. This paper evaluates the YOG as an arena for Olympic education based on the experiences of the pupils' participating in the largest school programme at the second Winter YOG 2016 in Lillehammer, Dream Day.

According to Chatziefstathiou & Henry (2008), during the 2000s, education and youth were placed higher on the Olympic agenda, and Olympic education gained a renewed interest. Olympic education can be understood as using the Olympic ideals to develop and reinforce positive values and actions among young people in sports as well as in everyday life (Binder, 2012). The Olympic values were also re-defined, and excellence, friendship and respect were highlighted as the three core values (Maass, 2007). Among several new initiatives and programmes targeting youth, the establishment of the YOG was defined as the IOC's main strategy for promoting Olympic education among youth (IOC, 2007; Naul, 2008).

The promotion of Olympic education through Olympic events has received increased attention among researchers. Studies have evaluated the Olympic education programmes prepared for the Olympic Games (OG) (Makris & Georgiadis, 2017; Kohe & Chatziefstathiou, 2017) and the YOG (Parry, 2012; Binder, Aplin, & Miang, 2017; Schnitzer, Walde, Scheiber, Nagiller, & Tappeiner, 2018). In their study on the OG in London 2012, Kohe & Chatziefstathiou (2017) criticised the past practices of Olympic education related to the OG and called for a reconceptualization and reshaping of the educational programmes. Based on the experiences from the 2010 YOG, Parry (2012) described the YOG as a promising development of Olympic education and wrote that “it seems that the YOG are bringing new ideas and setting new standards for the OG” (p. 96). However, critics have argued that the YOG primarily are an event for the participating athletes and youth already involved in sport (Krieger, 2012; Pound, 2008).

Two empirical studies, which focus on local youth's perception of the YOG and their programmes in retrospect, reveal that the general effect on local youth has been rather limited (Leng, Kuo, Baysa-Pee, & Tay, 2012; Schnitzer et al., 2018). According to Schnitzer et al. (2018), the established youth intervention programmes through the first Winter YOG in 2012 had limited influence on the pupils' perception of the Olympic values. Furthermore, they encourage future organisers to find “alternative, probably more innovative ways of engaging schools, pupils and their teachers on occasion of major sports events” (Schnitzer et al., 2018, p. 8). They also request future empirical studies on local youth as the target group.

At the 2016 YOG, Dream Day turned out to be the most comprehensive youth intervention programme and involved 20,000 youth in all the secondary and high schools in the two host counties (Oppland and Hedmark). Dream Day was a school programme initiated by the Lillehammer Youth Olympic Games Committee (LYO-GOC) and a new addition to the YOG concept. The idea was to give the pupils an experience they could literally dream about, and the aim was to inspire them to practice sport and introduce them to the Olympic values (Oppland County Governor [OCG], 2013). The new and integrated Dream Day concept can be considered an example of the innovative concept that Schnitzer et al. (2018) advocated in their paper.

The purpose of this paper is to evaluate the implementation of Olympic education through Dream Day and how it was perceived by participating high schools pupils (16–19 years). The research question is: How can the 2016 YOG be understood as an arena for Olympic education based on the perception of pupils participating in Dream Day? Didactical principles for Olympic education are used to evaluate the programme (Naul, 2008), which, together with previous research, form the basis of a more general discussion of the YOG as an arena for Olympic education. The paper is a qualitative case study using interviews with and the observations and personal essays of 43 high school pupils participating in Dream Day as the main sources.

Olympic education and Olympic events

The idea of educating youth through sport is as old as the Olympic Movement itself. The founder of the Olympic Movement, Pierre de Coubertin, developed the philosophy of Olympism in the late nineteenth century. Olympism is not only a philosophy for sports or life, it is also an educational philosophy (Binder, 2012; Chatziefstathiou, 2013; Naul, 2008). Olympism can be loosely defined as a philosophy for life that blends sport, culture and education and emphasises the balanced development of body, will and mind (IOC, 2015b).

Coubertin's goal was that the OG would serve as a means or framework for promoting Olympic ideals and their educational possibilities around the world (Wassong, 2006). However, scholars have identified an increased gap between the ideals of Olympism and the reality in the Olympic Movement (David, 2004; Segrave, 2000) and argue that there have been major failures in the Olympic Movement's quest to promote the Olympic values (Müller, 2004; Wassong, 2006). According to Naul (2008), the circumstances in the Olympic Movement, such as commercialisation, doping and corruption, have led to negative associations with the OG among parents, teachers and a large segment of the population. Consequently, scholars have suggested disconnecting the ideals of Olympism from the OG and the Olympic Movement (Culpan & McBain, 2012; Wamsley, 2004).

The literature on Olympic education can be divided between a fundamental critique of the concept of Olympic education (Lenskyj, 2008, 2012; Wamsley, 2004) and a more constructive, yet critical, evaluation of the implementation of Olympic education (i.e. Binder, 2012; Chatziefstathiou, 2013; Naul, 2008; Naul, Binder, & Rychtecký, 2017). The main purpose of this paper is not to address the fundamental discussion of the relevance of Olympic education, but to examine the YOG as an arena for Olympic education. Olympic education has traditionally been promoted by the IOC through the International Olympic Academy (IOA), National Olympic Academies (NOA) and

Olympic Youth Camps with programmes mainly being implemented in schools and sports clubs. During the last three decades, new strategies have been developed to use the OG and, more recently, the YOG as arenas to promote Olympic education among youth (Naul, 2008).

Regarding the OG, the IOC has expected the local organisers to implement Olympic education programmes targeting school pupils in the host region ever since the Winter Games in Calgary in 1988 (Naul et al., 2017). However, these programmes were mainly theoretical until the 2012 Summer Games when Olympic education programmes became more practical (Kohe & Chatziefsthathiou, 2017). Kohe & Chatziefsthathiou (2017) advocate for education based on a clear understanding of young people's localised lives and experiences and argue that "a relevant values-based framework that more appropriately resonates with the real experiences of young people's lives and concerns" (p. 70) will have the potential to facilitate development and change.

At the first ever YOG in Singapore in 2010, the Olympic Education programme (OEP) involved all pupils between seven and nineteen years (Binder et al., 2017). These authors showed how the historical relationship between physical education and sports training in schools prepared the ground for Olympic education through the 2010 YOG. While no studies have examined the educational effect of the OEP in Singapore, Leng et al. (2012) found that the 2010 YOG had a positive effect on the national pride of the local youth. Regarding the 2012 YOG, Schnitzer et al. (2018) found that intervention programmes had a positive influence on local youth's interest in the Olympic Movement. However, in order to influence their perception of the Olympic values, the programmes should not be mandatory, single, isolated activities. A main finding was that their perceptions of the Olympic values largely depends on their socio-demographic backgrounds, such as their prior interest in sports events, social capital and the extent to which they follow the event in the media.

The 2016 YOG

The IOC expects the LYOGOC to implement the Competition programme and the Learn and Share programme (an educational programme) targeting the athletes and the following four mainly programmes targeting the local youth: Try the Sport, Hello World, Torch Tour and the Culture programme. The aim of Try the Sport was to promote Olympic sports, and Hello World was intended to create cultural exchanges between school classes, while Torch Tour aimed to promote the YOG before the event (IOC, 2015a). Additionally, the LYOGOCs was encouraged to "develop strong relations with the school system" in order to develop and implement educational programmes targeting pupils in the region (IOC, 2015a, p. 63).

Regarding the 2016 YOG, several programmes initiated by local actors involved secondary school pupils, such as the Active Mind and Active Body, the School Olympic and the School Prize. Dream Day involved all high school pupils in the two host counties and was the only programme that can be characterised as an Olympic education programme. Dream Day aimed to inspire the participating pupils to practice sport and introduce them to the Olympic values (OCG, 2013) through three parts: 1) watching sports competitions, 2) trying Olympic sports and 3) attending a cultural program (a concert).

In order to begin understanding the high school pupils' experiences from Dream Day, their socio-cultural environment is briefly described. Nearly all Norwegian youth enter high school education, and the graduation rate is 75% (Statistics Norway, 2018). Sports is the most popular leisure activity among high school youth (40% are sports club members) (NOVA, 2016). While the dropouts rates in organised sport among high school youth are relatively high, unorganised physical activities have become increasingly popular.

When linking Olympic education programmes to the YOG, the participants are receiving a direct exposure to an Olympic event, which release the potential for a demonstration effect (Weed et al., 2012) and a festival effect (Chalip, 2006; Smith & Fox, 2007).

Didactical approaches to Olympic education

In this study, four didactic approaches to Olympic education are used as an analytical framework to evaluate the implementation of Olympic education through Dream Day: 1) knowledge-oriented, 2) experience-oriented, 3) physical achievement-oriented and 4) lifeworld-orientated (Naul, 2008). Related to the experience-oriented approach, festival effect (Chalip, 2006; Smith & Fox, 2007) and demonstration effect (Weed et al., 2012) are adopted.

The knowledge-oriented approach is a traditional learning approach where knowledge is transferred to the young people in the form of teaching and the use of different learning materials. The experience-oriented approach is learning by doing both inside and outside the school where children and young people can try out activities such as sports, music and other art forms at festivals and other events. The physical achievement-oriented approach is related to personal efforts to strive for one's best performance in sports and other activities while practising fair play and respecting one's opponent (Gessmann, 2004; Naul, 2008). According to Naul (2008), these three didactic approaches can lead to Olympic Education. However, a lifeworld-orientation is essential because the other three didactic approaches alone will have limited scope. In the lifeworld-oriented approach, the Olympic values are associated with the young people's own everyday experiences inside and outside the sports arena. The lifeworld approach can supplement, expand and integrate the other three approaches; however, it also needs a thematic and contextual supplementation.

The festival effect (Chalip, 2006; Smith & Fox, 2007) involves creating a festival that is bigger and goes beyond the sports competitions that are rooted in the lives of the participants. The key to involving the host population is to de-emphasise the sports element and instead to focus on promoting physical activity and the festival element (Weed et al., 2012). The demonstration effect is described as the process through which people are inspired to practise sports through watching elite sports, athletes and sporting events (Weed, 2010). No research confirms that the demonstration effect can inspire sports participation among those who are not or have never practised sport (Weed et al., 2012), and exposure to elite sport competitions can even push this group even more away from sports activities (Weed et al., 2009). However, Weed et al. (2009) have suggested that the OG, supported by leveraging strategies and investment, has the potential to inspire those who have played before to 1) play a little more, 2) play again or 3) perform "activity switching," wherein people give up one sport to

try another. According to Coalter (2007), the less “normal” the elite athletes appear, the less potential exists to inspire “normal” people.

METHODS

A qualitative case study approach has been selected as the method. Case studies are useful for studies that try to answer how and why something happens, and their ability to incorporate a variety of different data sources leads to a more balanced picture (Yin, 2014). The sources for this study are documents (archival material and personal essays), interviews, observations and surveys.

Data collection and participants

The data collection consisted of two main steps. First, archival materials (planning documents and reports) were collected, and interviews with representatives from the organisations involved in the implementation of Dream Day were conducted. Representatives from the LYOGOC (Representative 1: CEO, 11.06.2016 and Representative 2: manager of Dream Day, 29.08.2016), the OCG (17.11.2015), the Oppland County Council ([OCC], 25.02.2015 and 29.03.2017) and the Oppland District Sport Association ([DSA], 04.12.2015) were interviewed in order to gain knowledge of the planning and implementation of Dream Day. The second step was to recruit pupils participating in Dream Day in order to capture their perceptions of the programme. After gaining the initial approval of the headmasters at three different high schools, the contact with teachers of three first year high school classes at the Education Programme for General Studies were established. After the research project had been presented to the three classes, 43 pupils (18 boys and 25 girls) agreed to participate in the study. The sources used to collect the data from the pupils were surveys, observations and personal essays. Before the 2016 YOG, the informants answered an online questionnaire (Questback) in order to establish their background regarding participation in sports and physical activity, their interest in the OG and other sporting events and their expectations for Dream Day. Observations were made of an “Olympic Day” at one of the schools before the Games and of the pupils taking part in the Dream Day programme during the Games. The observations included informal conversations with the participating youth and their teachers, testing some of the activities and writing field notes afterwards. The personal essays written by the informants were the most important source of data in this study. The task given to the pupils was to reflect on their participation in Dream Day specifically and on the 2016 YOG in general. The writing of a personal essay was chosen because it was considered to be a suitable method for pupils of this age (16 years) to express their experiences and perceptions.

Ethical statements

Ethical considerations have been made, and the study has been approved by the Norwegian Centre for Research Data (NSD) with the reference number 46094 on 21 December 2015. The study was presented to all informants, who all gave free and informed consent. In order to keep the pupils anonymous in the paper, they have been given fictive personal names as well as fictive school names (Midtbygda, Vestbygda, and Nordbygda). Thus, the possibility of identifying any of the informants should be very limited.

Data analysis

The content of the essays was coded and developed into four categories: 1) watching the competitions, 2) trying the sports, 3) attending the concert, 4) taking part in informal activities and 5) learning outcomes. Categories 1, 2 and 3 provide an insight into the pupils' perceptions of the main components of the Dream Day programme, while category 4 was created when the data showed that the informal activities were an integral part of the pupils' experiences. In order to capture an understanding of the pupils' general perceptions, positive and negative statements from the essays were summarised, and each essay was classified as either positive, negative or neutral. When the positive and negative statements in a given essay were equal in number, the essay was classified as neutral. This classification was compared to 1) membership of the Norwegian Olympic and Paralympic Committee and Confederation of Sports [NIF], 2) physical activity level and 3) interest in major sporting events. The results were then discussed in relation to Naul's (2008) four didactical principles in order to evaluate Dream Day as an Olympic education programme.

RESULTS

The implementation of Dream Day

According to LYOGOC representative 1, the main rationale for the Dream Day initiative was to implement the IOC's vision for the YOG and to "let the local youth take part in the Games." The data presented here will provide some answers to how the objectives of Dream Day were implemented.

The LYOGOC developed the concept for Dream Day together with the OCC and the OCG (school authorities). After taking the initiative to create Dream Day, the LYOGOC withdrew from the implementation process until six months before the Games, leaving the main responsibility with the OCC, the OCG and the DSA. The Dream Day concept consisted of two supporting programmes, the School Tour and the Sporty Norwegian programme, which were developed in order to prepare pupils for Dream Day. The School Tour involved school visits by the organisers to promote and spread information about Dream Day and the 2016 YOG. The Sporty Norwegian programme was aimed at teaching the high school pupils about the Olympic values through classroom discussions led by the authors based on a book they had read in advance (and included about 1500 pupils). Additionally, several schools made their own initiatives to prepare the pupils for Dream Day.

During the 2016 YOG, five consecutive editions of the programme were staged (Monday through Friday) with approximately 4000 pupils attending each day. The teachers, Dream Day hosts and sports instructors had a very important role in delivering the programme through direct contact with the participating pupils. The teachers followed their class before, during and after Dream Day. Two hundred and fifty Dream Day hosts were recruited from regional high schools and trained to guide the pupils through the day. The sports instructors were young athletes recruited from high schools and local sports clubs who provided an introduction to the various sports.

The participating pupils were invited to try an adapted version of three or more of the following sports at the sports arenas during the competitions: cross-country skiing, Nordic combined, ski jumping, biathlon, speed skating, ice hockey, alpine skiing,

snowboarding, bobsleigh and curling. The Try the Sports programme became integrated into Dream Day as the provider of the sports activities. The concert included the Norwegian artists Ravi, Samsaya and the chamber orchestra Allegria.

The perception of the participating pupils

The evaluation of Dream Day is mainly based on the perception of the participating pupils. In this chapter, the pupils' written perceptions of Dream Day and the 2016 YOG are presented in five parts: 1) watching sports, 2) trying sports, 3) attending the concert and 4) enjoying informal activities and 5) learning outcomes. Finally, the pupils' general perceptions are compared with their backgrounds.

Watching sports competitions

The pupils in this study were exposed to competitions in the following sports: skeleton, slalom, giant slalom, snowboard slopestyle with mixed teams, curling, and ice hockey. The findings show that snowboarding and ice hockey were the most popular competitions to watch, while the skeleton and alpine skiing were the least popular.

A majority of the pupils were inspired by the atmosphere at the ice hockey arena: "The hockey game was absolutely amazing! There was a great atmosphere in the hall, lots of people, lots of goals and high athletic performances" (Kjell, Vestbygda). Some pupils found inspiration in the skills, efforts and dedication of the competing athletes:

What inspired me most of all was the attitude of the athletes. Many of them seemed very professional, and it was obvious that they enjoyed doing what they were doing. I hope I'll find something that I'm burning so hard to do one day (Britt, Vestbygda).

According to the data, no previously inactive pupils were inspired to start practising sports; however, there were some indications that some of the pupils already practising sports were inspired by activity switching (Weed et al., 2009). Other sports competitions were less popular to watch. The skeleton competitions only gave the pupils the chance to see a glimpse of the racers as they passed, and the slalom competition was affected by a long wait.

Trying sports

The pupils participating in this study were given the opportunity to try curling, ice hockey, downhill skiing, snowboarding, sledging and a real full-size bobsleigh down a short track. The sporting activities were received very differently, and many pupils did not take part in any of the activities. Many pupils were positive about the ice hockey and the curling activities, while the alpine skiing and snowboarding activities were described as less exciting.

The ice hockey competitions seemed to inspire some pupils to try the sport themselves: "After watching the hockey game, I had to try it whilst I had the opportunity" (Petter, Vestbygda). Curling was perceived as interesting because it was a new activity to many of the pupils: "I and some other friends queued up to try out curling, and it was an exciting and new experience" (Sahid, Vestbygda). Others were rather negative about the sporting activities and argued that there were too few activities at the arena to engage them. One pupil wrote that "after trying the activities, we just waited for

the competitions. There should be more activities, and they should have been more exciting" (Rakel, Midtbygda). Another pupil wrote that "Dream Day mainly consisted of waiting, freezing and not knowing where to go or what to do" (Sigrid, Vestbygda). Some of the activities were not well adapted to the high school age group and were described as "childish."

Attending the concert

The majority of the pupils did not attend the concert, which was rather negatively received by the pupils who did attend. Several pupils noted that the artists were somewhat outdated and not well adapted to their age group: "I don't really know if it was because of the music or the audience, but anyway, the music did not fit with the youth group" (Marius, Vestbygda). The pupils' awareness of the contemporary and well-known artists performing in the official culture programme (Sjoggfest) influenced some of the pupils' perceptions of the Dream Day concert.

Taking part in informal activities

Informal activities that were not part of the official Dream Day programme, such as socialising with classmates, cultural exchange and their own organised physical activities, were an integral part of the Dream Day experience for many of the pupils. An example of the relevance of the informal activities is expressed by Therese from Nordbygda, who wrote, "I would like to say that my perception of Dream Day was generally positive, except the mandatory part." Several pupils valued the possibility of socialising with their classmates and meeting youth from different nationalities: "No matter where we turned our heads, we could see youth from other countries, which was exciting. It is good to see that sports can bring people together" (Merete, Nordbygda). In addition to (or instead of) taking part in the Try the Sports activities, some of the pupils created their own physical activities.

Learning outcomes

Several pupils said that the educational outcome was limited, and some pupils missed more learning opportunities before and during Dream Day. Emil from Midtbygda writes, "I didn't feel that I learned much about what the Olympic values are nor their relation to the event we took part in." The most critical voice questioned the whole Dream Day concept was, interestingly enough, from a pupil who enjoys physical education:

If this really is the way that the County Council is going to try to make young people more interested in sport and culture, they should reconsider. [...] I would much rather have had the math lesson and the physical education lesson that we usually have on Fridays (Heidi, Nordbygda).

Even though the formal learning outcome was limited, the data indicate that the pupils' experiences can be linked to the three Olympic values of excellence, friendship and respect. Sigurd from Midtbygda wrote that "we got to see and feel the atmosphere in and around an Olympic event, which was amazing." Regarding excellence, some pupils perceived the athletes as role models and inspirations to achieve high goals

in their own life. Respect for the rules can be related to watching what appeared to be fair competitions (for example no positive doping tests), and respect for different cultures can be related to the experiences from the cultural exchange. The value of friendship was experienced when the pupils used Dream Day to cultivate friendships with classmates.

General perception compared with background

Previous research of Schnitzer et al. (2018) found that participation and interest in sports influence the youth's perception of such an intervention programme. The survey examined whether membership in organised sport, level of physical activity and interest in the OG and other major sport events influenced the pupils' general perceptions of Dream Day.

Table 1 The pupils' membership in organised sport (NIF), physical activity level and interest in the OG combined with their perceptions of Dream Day (absolute numbers)

School	Member NIF		Physical activity level*			Follows OG and major sporting events			Pupils' general perception of Dream Day		
	Yes	No	High	Medium	Low	High	Medium	Low	Positive	Neutral	Negative
Midtbygda (15)	8	7	4/15	6/15	5/15	10/15	4/15	1/15	10/15	4/15	1/15
Vestbygda (16)	11	5	3/16	7/16	6/16	11/16	2/16	3/16	8/16	5/16	3/16
Nordbygda (12)	2	10	7/12	4/12	1/12	5/12	4/12	3/12	4/12	1/12	7/12
Tot. (43)	21	22	14	17	12	26	10	7	22	10	11

* **Measures** for physical activity are based on questions about how many sessions of physical activity (that makes them sweat) they participate in each week. Two sessions or fewer is regarded as low activity (physical education at school is considered one session), 3–4 sessions is average activity and 5 sessions or more is regarded as high activity.

Nordbygda had the pupils with the fewest NIF members and the lowest interest in major sporting events, but they did have a relatively high physical activity level. Midtbygda and Vestbygda had significantly more pupils who were NIF members and who had an interest in major sporting events, but their general physical activity level was comparatively more moderate. As Midtbygda and Vestbygda had the pupils with the most positive experiences of Dream Day, these findings indicate that previous participation in organised sport and interest in major sporting events had a positive influence on the general perception of Dream Day. The analysis of the personal essays also apparently confirms the same connection. The findings also indicate that a high physical activity level alone did not lead to a more positive perception of Dream Day. To summarise, the results in this study confirm the findings of Schnitzer et al. (2018) and reveal that participation in organised sport and interest in major sporting events had a positive influence on the pupils' perceptions of Dream Day, while participation in unorganised physical activity did not influence their perceptions.

DISCUSSION

Olympic education through Dream Day

The framework for the following discussion is the four didactic principles for Olympic education (Naul, 2008).

The knowledge-oriented approach

The supporting programmes, the School Tour and the Sporty Norwegian, were designed to raise the pupils' awareness of the Olympic values. Although the Sporty Norwegian programme was well received by the pupils who participated in it and to some extent raised their awareness of the Olympic values, the data indicate that the pupils did not comprehend their connection to Dream Day or the 2016 YOG. Except for these two programmes, the preparations for Dream Day was largely dependent on the initiatives at the various school and the individual teachers. Several schools had their own initiatives, such as Nordbygda, which staged an Olympic day with lectures on Olympic topics and training sessions. However, the teachers did not receive any educational material from the organisers (only a pamphlet containing mainly practical information). Thus, the transfer of knowledge through the Dream Day programme was rather limited.

The experience-oriented approach

The integrated Dream Day concept was characterised by a strong experience-oriented approach. There were indications of a festival effect, a demonstration effect and an increased interest in Olympic sports among pupils already involved in sports. Thus, Dream Day maintained the practical approach that Kohe & Chatziefstathiou (2017) advocated in their paper. Additionally, the findings have already revealed examples of how the pupils' experiences can be related to the Olympic values, such as excellence, friendship and respect.

The combination of the experiences of being exposed to sports competitions and medal ceremonies, trying sports, participating in cultural elements and informal activities and the atmosphere at an Olympic event contributed to the 2016 YOG being perceived as something more than a mere sporting competitions for many of the pupils. The adapted versions of the sports activities de-emphasised the competition element in order to make them more available to the participants (Weed et al., 2012). Despite the fact that most of the athletes were living an elite-sport life, their similarity in age seems to have contributed to the athletes being perceived by the pupils as more "normal" and easier to identify with (Coalter, 2007). According to Hilde from Midtbygda "it was very exciting that the athletes were our age, we could more easily relate to them." However, many of the pupils who were previously not active in sports did not participate, and some of the pupils already active in the sport did not find the activities exciting enough. While the sports instructors took an active role in presenting the sports, the rather passive role of many of the Dream Day hosts resulted in many pupils missing out on practical information during Dream Day. The data revealed indications of a demonstration effect when some of the pupils already practising sport were inspired to activity switching (Weed et al., 2009) and to an increased sports participation. However, there were no indications that previously

inactive pupils were inspired to start practising sport through Dream Day as this group were less interested in watching the competitions and had low participation in the sports activities.

The experiences of watching the sports competitions and the atmosphere at the sports arenas made the strongest impression on the majority of the participating pupils. Thus, the main effect of Dream Day on the participating pupils seemed to be an increased interest in Olympic events, which is defined as a main goal for the YOG (IOC, 2007). Although increased interest in Olympic events have the potential to create a demonstration effect, some scholars find Olympic education's becoming a promotion of Olympic events and the Olympic Movement instead of a promotion of the Olympic values problematic (Culpan & McBain, 2012).

The physical achievement-oriented approach

The physical achievement-oriented approach was only fulfilled to a limited degree through Dream Day. The sports activities only challenged the pupils' physical abilities to a lesser extent as they mainly provided introductions to the different sports. This approach implies a long-term effort to improve performance in sports, while Dream Day had a limited lifespan.

The lifeworld-oriented approach

This section discusses how the Olympic values were linked to the lives of the participating pupils through the three previous approaches: knowledge-oriented, experience-oriented and physical achievement-oriented.

In order to make the Olympic values and the experiences from Dream Day relevant to the participating pupils, the socio-cultural background is essential for the organisers to consider in order to meet their needs. When implementing a programme targeting 20,000 secondary and high school pupils, the differences in age and interests becomes evident. As the OCC representative points out, "it is almost impossible to create a programme that is adapted to the age group between 12 and 19 years (2017)." The findings confirm that the programme only to a lesser extent met the different needs of the high school age group, especially the pupils who were not already involved or interested in organised sports. When making Dream Day mandatory for all pupils in the region, more efforts could be made by the organisers in order to satisfy this group of pupils. While the pupils already involved in sport were significantly more satisfied with the Dream Day programme, many did not find the sports activities exciting enough. An explanation for this may be that this group of pupils had already been exposed to the real format of the same sports in schools and/or in organised sport.

Dream Day was mainly characterised by an experience-oriented approach as the knowledge-oriented approach and physical achievement-oriented approaches were underdeveloped. The various experiences of watching sports competitions and trying sports in a festival atmosphere contribute to Dream Day being perceived mainly positive by the majority of the participating pupils. However, their limited awareness of the Olympic values made them less able to make these experiences relevant to their own lives. While the experience-oriented approach can lead to Olympic education alone, the scope will be limited without a lifeworld-orientation (Naul, 2008).

The implementation of Dream Day was constrained by high ambitions, scarce resources, late involvement by the LYOGOC and limited experience with Olympic education among the organisers. Several organisations with competence in Olympic education, such as the IOC, the NIF, the Norwegian NOA and the Norway Olympic Museum (NOM), could have been more involved in the implementation of the programme. Elements from the educational materials prepared for the local schools for the 1994 OG in Lillehammer or the more modernised "Teaching values: An Olympic education toolkit" (Binder, 2007) could have been prepared for the teachers.

The YOG as an arena for Olympic education

The main focus of this paper is the relevance of the YOG as an arena for Olympic education. The following sections present some advantages and challenges, which form the basis for suggestions for future practices.

Advantages and challenges

Two main advantages of linking an Olympic education programme to the YOG are suggested. First, this study confirms the potential for a demonstration effect and a festival effect when giving the participants direct exposures to the competitions, ceremonies and cultural exchanges at the YOG. Second, considering the similar aims of using sports as a means to develop positive values among youth, there is a great potential in linking Olympic education to physical education in the schools. Using Norwegian schools as an example, the goals in the curriculum for physical education have similarities to those of Olympic education, considering the similar emphasis on creating a joy of sport as well as using sport and physical activity to develop social behaviour and moral values (Norwegian Directorate for Education and Training, 2015). Thus, the teachers can use the experiences from watching competitions to inspire sports participation and raise awareness of the Olympic values in physical education classes.

However, several potential challenges may arise in the implementation process. First, the main focus for the IOC, the YOG organising committees (YOGOC) and the National Olympic Committees (NOC) is the athletes and the majority of the resources are reserved for the Competition programme and the Learn and Share. Second, the findings in this study supports Pound's (2008) predictions and findings in previous studies (Weed et al., 2012; Schnitzer et al., 2018) that intervention programmes have limited influence on participants who were not already involved in organised sports. The third challenge is creating a legacy or a long-term effect of the Olympic education programmes. The nature of an Olympic event is that the lifespan is very short as the IOC moves on to next event and the organising committee dissolves. Regarding the host population, the period of intense enthusiasm for a major event is short-lived (Ritchie, 2000).

Implications

Based on the findings of this study and previous research on Olympic education some implications are given here in order to improve future practices. First, the IOC needs to put more effort into the implementation of Olympic education through the YOG. The IOC is in a position to put pressure on the YOGOC, the NOC and the NOA in order to release more resources and competence into the implementation of Olympic

education. In order to ensure the quality of the programme, sufficient human and financial resources must be allocated. In particular, the role of the teachers, hosts and instructors in direct contact with the participants must be supported. Second, the planning and implementation of Olympic education should be a collaboration between different groups, and disciplines, such as the IOC, the NOC, the NOA, the school authorities, scholars, teachers and youth representatives. Youth representatives are especially important in order to understand the socio-cultural environment of the participants. The IOC, the NOC and the NOA should provide competence on Olympic education, while the local organisations are integral in the practical implementation of the programmes. Third, Naul's (2008) four didactic principles for Olympic education should be considered in the implementation of the programmes. Importantly, the pupils' socio-cultural background should be understood and taken into account in order to meet the needs of the participating youth. The organisers should put extra effort into making the programme relevant to youth not already involved in sport. We support Schnitzer et al. (2018) in the argument that youth intervention programmes should preferably be voluntary and combined with other related activities. Finally, as Parry (2012) points out, the education of a child or a youth takes place over a long period of time and the "YOG should be seen not as an end, but as a means – as a motivating event, that needs to be followed up at home in various ways in order to be effective" (p. 95). Thus, the Olympic education programme should start before the Games and be followed up afterwards in schools in order to create a long-term educational effect. Because of their shared aims, the Olympic educational programmes should be linked to physical education in schools.

CONCLUSION

The main purpose of this paper is to evaluate the YOG as an arena for Olympic education through the Dream Day programme at the 2016 YOG. As an analytical framework, Naul's (2008) four principles for Olympic education are adopted.

The Dream Day programme, which consisted of watching sports competitions, trying sports and attending a cultural event in a festival atmosphere, was a new concept in the YOG context and meet the criteria of an Olympic education programme. The findings in this paper show that the outcome of the programme did not fulfil all the expectations for a "Dream Day" from either the participating pupils or the organisers. However, the evaluation of the Dream Day programme forms the basis for a more general discussion of the advantages and challenges of linking an Olympic education programme to the YOG.

Based on the findings in this paper, we argue that the YOG has significant potential as an arena for Olympic education. However, this potential is not yet utilized, and the following implications for future practices are presented. First, the IOC needs to put more effort into the implementation of Olympic education programmes. Second, the implementation of Olympic education programmes should be a collaboration among different groups and disciplines, including youth representatives. Third, the pupils' socio-cultural background must be considered in order to identify the needs of the youth target groups. Finally, the Olympic education programme must include a long-term perspective in order to increase the educational effect.

This study signifies our best attempt to present and discuss the participating pupils' perception of Dream Day. However, we are aware of the limitations. First, our sample does not represent all participants, and it would be interesting to include the perceptions of secondary school pupils as well as the outcomes of the other youth intervention programmes at the 2016 YOG. Second, with the written essays as the main source, the writing skills of the pupils did potentially affect their ability to express themselves. Third, the data is based on the pupils' perception shortly after the 2016 YOG and does not reflect the long-term effects of Dream Day.

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A critical evaluation of the development and use of values in coaching

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ABSTRACT

The use of values in the coaching process by Czech basketball coaches is examined in light of the development of intrinsic, added and instrumental values in sport through history. Hard work and respect were seen to be dominant guiding and developmental values of the 73 FIFA licensed coaches surveyed, with fun and moral values rarely given mention. The argument is made that coaches must change to succeed in engaging today's athletes, to maintain athletes in their clubs, and even for future competitive balance. Values-driven leadership, as has proven successful in the business world, is proposed as a way forward for coaches striving to build players, teams, clubs and a sport. The intentional implementation of incarnational values by a coach can have an amplification effect on the team and club to engage as many athletes as possible in "good" sports.

KEYWORDS

values; sport coaching; basketball; Czech Republic; positivity

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INTRODUCTION

Values-driven leadership is a well-researched realm of academic and practical study (Dean, 2008; Fernandez & Hogan, 2002; Grojean, Resick, Dickson, & Smith, 2004; Kluckhohn, 1951). Sport coaching from a values foundation also has a significant body of research (Duda, Balaguer, Jowett, & Lavalley, 2007; Janssen & Dale, 2002; Stupuris, Šukys, & Tilindienė, 2013; Yi-Ling Lai & McDowall, 2014). Even more significant is that sport is still largely assumed to be loaded with positive value, and coaches are often assumed to be led by and aware of said values. Parry has referred to sport as a laboratory “for values experiments” (2010, p. 320). Much research shows that these values are often forgotten or suppressed by other factors driving today’s sport culture (Burton & Welty Peachey, 2014; Crone, 1999; Peel, Cropley, Hanton, & Fleming, 2013; Sagas & Wigley, 2014). Other research suggests that many of the values which we expect to be conveyed via sport are in reality not inherent to the sport, but rather added onto sport (Fraleigh, 1983; Martínková, 2012). With this in mind we have undertaken to examine the awareness and use of values in coaching basketball in the Czech Republic. Using surveys we assess the prevalence of values-driven coaching, the values chosen for emphasis, and the way in which these values are (or are not) conveyed across varying age and competition levels in Czech basketball.

It was expected that most Czech basketball coaches do not lead from a set of pre-determined values. However the values stated, whether true guiding values, or only lightly held ideals, flow from a cultural and historical framework from which the coach defines success (Callary, Werthner, & Trudel, 2013; Camiré, Trudel, & Forneris, 2014; Hassanin & Light, 2014; Kretchmar, 1994; Lumpkin, Stoll, & Beller, 2002). These values need to be evaluated from a developmental perspective as well as from a management perspective. “Sport managers must learn to identify and evaluate values related to the bureaucratic and business aspect of sport. They must then seek to evoke positive change so ethical behaviour and practices are championed” (DeSensi, 2010, p. 16).

This study was motivated by the experience of four Czech FIBA A level basketball coaches in the USA for a tour of NCAA basketball. One of the things repeatedly observed by the coaches was the clear prevalence of values emphasized on almost every team visited. Most teams had their 3–5 values painted on the walls of their locker rooms. Coaches frequently began practice by telling a story which emphasized one of the values which the staff felt was currently being neglected. The values were on team t-shirts, in media guides, and in their social media posts. Each time we sat down with a coach one-on-one, they began to tell us about their values very early in the conversation. This element of a values-driven coaching approach was thought by the Czech coaches to be lacking in the Czech basketball environment. Thus this study has been undertaken at the request of the Czech Basketball Federation to examine this observation and propose a way forward in the Czech basketball context.

Here are a few examples of the values stated and emphasized by the NCAA basketball programmes visited:

- Humility, Passion, Unity, Servanthood, Thankfulness – University of Virginia
- Hard Work, Selfless, Honest, Resilient, Caring, Positive, Grateful – Duke University

- Commitment, Trust and Caring – Davidson University
- Care, Commitment, Servant Leadership, Confidence, Discipline and Perspective – University of North Carolina
- Hard work, Effort, Sacrifice and Accountability – Wake Forest University

We are certainly not trying to say that in the Czech Republic basketball needs to be played or developed the American way, but this emphasis (or lack of emphasis) on values is nonetheless worthy of reflection. The American sport system is closely tied to the educational system, so the idea that a coach is also educating players for life is inherently more prevalent and expected (Brand, 2006; Burton & Welty Peachey, 2014; Hassanin & Light, 2014; Parry, 2010). Additionally, many of these coaches are being paid millions of dollars to create winning teams. This market-driven sports environment, with its high emphasis on recruiting and retaining the best athletes, often draws not only on the best sport practices, but also the best business practices in building teams. Though NCAA players are not professionals, the level of facilities, amount of media attention, hours of practice time, etc. often far exceed the professional conditions common in Europe. The NCAA coaches are primarily being hired and fired based on their wins and losses, not based on how they educate players for life. Thus we would like to consider whether there is a pragmatic, managerial, and winning logic for coaches to develop social character. We will review the development of values-based leadership in sport before turning to our examination of the use of values in coaching Czech basketball.

LITERATURE REVIEW

Sports build character

It is traditionally accepted, and often generally stated, that sports build character. However many studies show a different reality (Doty, 2006; Gerdy, 2000; Kleiber & Roberts, 1981; Rees, Howell, & Miracle, 1990; Sage, 1998). While the acquisition of motor skills and sport-specific abilities are significant benefits of sport involvement, other elements contributing to athletes' development, such as life skills and values, must also be considered. Several longitudinal studies have shown that the longer athletes stay in sport, the more morally calloused they become (Beller & Kay Stoll, 1995; Russell, 2011; Stoll & Beller, 2012). Beller and Stoll propose that the increasing commercialization, emphasis on winning, early specialization and limited non-sport relationships all contribute to a decrease in moral reasoning and moral development of athletes (1995). The Josephine Institute found that "boys and girls who play sport are actually more likely to cheat in school, and engage in other dishonest, deceptive and dangerous practices without regard for the rules or traditional notions of fair play" (Josephson Institute, 2006, p. 1). Poor sportsmanship, decline in moral reasoning, discrimination, racism, aggression, and win-at-all cost attitudes, which distort fair play, have also been associated with sport participation (Bredemeier, Weiss, Shields, & Cooper, 1987; Burton & Welty Peachey, 2014; May, 2001). So we must ask the question, "What is good in sports?" or stated differently, "What values does sport truly inhabit?"

Baier laid out two characteristics which make sports "good" in a moral sense as being meant for everybody and for the good of everyone alike (Baier, 1965). Many

attempts to define this “good” in the sense of values have followed. Beller and Stoll define morally good as “the notion that we as a people judge certain motives, intentions, and actions as acceptable and positive as compared to other motives, intentions, and actions which are judged unacceptable” (1995, p. 353). In history this moral good has often been defined in terms of values. We can sort the definition of values into (minimally) five groups:

1. Values are generally valid norms of human behaviour.
2. Values are subjects of our effort.
3. Values are special traits or qualities.
4. Values are a motivational construct. They refer to the desirable goals which people strive to attain.
5. Values transcend specific actions and situations. They are abstract goals.

The most influential contemporary definition proceeds from these last two, and says that values are “desirable trans-situational goals that vary in importance, and serve as guiding principles in the life of a person or other social entity” (Development of this definition comes from Kluckhohn (1951) to Rokeach (1973); the final version is from Schwartz (1994)).

A question is where values are located. There are two basic approaches: values form a special independent realm (esp. Max Scheler), or they are purely personal entities (esp. Jean Paul Sartre). We plead for the position of compromise laid out by Gabriel Marcel (1998): values are part of the transcendent area, yet can be manifested only as *incarnate* in human reality (Bednář, 2009). Values which are deeply rooted in the heart have the power to shape personality. This incarnational aspect, which has influenced personality, is the type of value which has true potential to influence the coaching process. This incarnational aspect is also reflected in how a coach defines success.

Olympic values

With that said there have been many attempts to implement values via sport. At this point we will review some of these efforts which would be expected to be reflected in at least the Czech sport context. The Olympic values are perhaps the most globally recognized and historically influential set of values we can see in sport. The Olympic values are a result of the long history of the Olympic Games beginning in antiquity. *Epifaneia* shows a close connection between the Olympic Movement and religion. The social dimension is manifested in the value of *ekecheiria* (Pax Olympica). Yet perhaps the most influential have been the two values aimed at the personal growth of the athletes: *kalokagathia* and *arête*. Both survive in modern Olympism. The former – expressing a desire for harmony – was transformed in the contemporary Olympic Charter to read: “Olympism is [...] exalting and combining in a balanced whole the qualities of body, will and mind.” The latter – expressing a desire for perfection – has found its continuation in the Olympic motto: “Citius – Altius – Fortius” (Faster – Higher – Stronger).

Another part of the Olympic Charter speaks of the Olympic spirit, “which requires mutual understanding with a spirit of *friendship, solidarity and fair play*” (Fundamental principles of Olympism, № 4). Special attention is given to *fair play* which is a fruit of modern sport penetrating into wider society. We will return to fair play shortly.

Sokol values

If we are to speak about values conveyance in Czech sport, then we must address the Sokol, or Falcon, Movement which heavily influenced the first republic of Czechoslovakia and the consequent development of sport therein. Sokol values were highlighted especially by the founder of Sokol, Miroslav Tyrš beginning in 1862 (Tyrš, 1926). He worked as a teacher of aesthetics, steeped in the old ideal of *kalokagathia*. Yet his new ideal was closer to that found in antiquity than that located within the Olympic Movement: harmony ought to be gained through proper balance of aesthetic and ethical values. It is not surprising that gymnastics (specially in their mass or collective form) was thus primary within this movement. The other supported values were health and courage with fitness, serving the goals of civil defence, not sport. This sport movement promoting Czech nationalism remained strong until being brutally suppressed, and then banned, by the Nazis and then the communists. We will return to examine the prevalence or lack thereof of each of these values today among Czech basketball coaches.

Kretchmar values

Philosophical synthesis in the field of sport and physical activities was brought by the American philosopher of sport, Scott Kretchmar. Kretchmar divided the corresponding values into two groups: basic (1) and moral (2) (1994).

Group (1) includes *fitness, relevant knowledge, motoric skills and pleasure*.

Fitness is seen here in relation to health and an active lifestyle; *relevant knowledge* is knowledge of our body, physical activities and health problems; *pleasure* ought to be part of well-being and is viewed as a result of proper challenge.

Group (2) includes *trust, altruism, love, conscientiousness, courage, integrity, reputation* and values forming the concept of fair play (*friendship, respect of others, respect for rules, self-control*). Kretchmar has identified here generally accepted and comprehensible values – the problem in the sport world lies in their “incarnation.”

Kretchmar modified these with several shifts (2005): instead of fitness, *health* is named – intensive activities ought to be changed with less demanding but regular activities; instead of (only) motoric, *relevant* skills are named, and instead of pleasure *fun* is named (perhaps a reaction to the increasing penetration of the entertainment industry into sport?). The moral values from the second group are not changed, with the exception of the addition of the value of *family friendly relations*.

Inherent, added and instrumental value

Before we turn to the new emphasis on values-based leadership for organizational development, and our research results, we need to address the debate about the inherent versus added nature of values in sport. Martínková, who has written extensively on this topic, states that sport needs to have an educational component which includes “added” values, which she asserts arose from the humanistic aims of the Olympic Movement (2012, 2013). At the core of this distinction is a delineation between values arising from sports based on how they are played, and sport having value in and of itself. Fraleigh (1983) was one of the early advocates of sport having limited value in and of itself.

Fraleigh states that one of the few inherent values of sports is knowledge of relative abilities:

The inherent value of the good sports contest is its capacity to provide complete and accurate knowledge of relative abilities to move mass in space and time and that capacity becomes a value because of its dependency upon the intrinsic value of the experience of quality of closure (Fraleigh, 1983, p. 56).

We see here again the use of the word “good” in connection with sports. Fraleigh draws a further classification of sport containing the potential for instrumental value in that it can serve a utilitarian economic, health, political or enjoyment value, but this is only possible when sport has a dependent value relation to these other values; they are not in and of themselves inherent in sport. Thus, US collegiate sport has a dependent relationship with education and thus collegiate sport can be said to have the potential for education. This value of education is thus measured relative to different programmes and schools, and the sport itself is in some form evaluated based on the fulfillment of this instrumental value. Even the values contained within the fair play movement, coming out of the Olympics and further defined by Kretchmar, can be termed as instrumental when viewed through the dependent relationship sport has with economics. The most economically profitable leagues are those with the most parity between teams. In order to achieve maximum parity between teams it is essential that the playing field is as fair as possible. Thus fair play actually becomes an instrumental value of profit as well as an inherent value of sport itself. The former president of the NCAA Brand’s emphasis on fair play within the NCAA system can also be viewed as instrumental to university sport maintaining its privileged position in educational institutions (2006).

Pragmatic benefit of values on performance

The study of values in leadership is commonly found in social science research to be based on positive psychology, virtue ethics, and organizational scholarship. This movement has been termed values-based leadership. We examine it here because it both illustrates the instrumental value of values on performance, and proposes a pragmatic explanation of the use of values seen in NCAA basketball earlier. Studies from the business realm show that extraordinary individual and organizational effects are produced by emphasis on virtues, values and positivity (K. Cameron & Dutton, 2003). At the individual level values-driven leadership has been found to produce physiological health benefits (e.g. less illness), emotional benefits (e.g. resistance to depression), and psychological benefits (e.g. longer memories) (K. S. Cameron & Quinn, 2005). These characteristics make it attractive to companies wishing to achieve competitive advantage through their labor force. The research indicates that, at an organizational level, values-driven companies are found to have higher profitability, higher productivity, higher quality, and higher levels of satisfaction by both employees and customers. At the individual and organization level these results from value driven leadership need to be examined as per their potential effects on sport teams.

Kim Cameron has found that values-based leadership has an “amplifying effect” (2006). This type of amplifying effect would be a desired outcome on any sports team. The three factors contributing to this amplifying effect are positive emotions, social capital, and prosocial behaviour. Positive emotions are spread through the organization through a contagion effect when those in leadership positions display positive values (Camiré et al., 2014). This corresponds to our position that true values are

incarnational. We will examine the potential application of these three contributing factors for coaches in the discussion section.

Olympism, Sokol, and the NCAA each added values onto sport in attempts to build character or create “good” sport. In spite of these efforts to add value to sport, the research appears clear that the current state of sport does not ensure “good” sport. The NCAA and fair play movements have instrumentally used values in order to achieve success, while attempting to hold onto the added benefit of character development. Whether or not this character development is successful is not the argument of this article, but rather is used in order to understand the use of values in the coaching process. It is argued that the NCAA coaches, having been heavily influenced by the business interests of sport, have instrumentally embraced the use of values in order to maintain competitive balance, increase productivity, and increase the satisfaction of athletes and fans alike. However, this coaching from a values-based framework is dependent on the incarnation of these values by the coach due to the amplification effect. Therefore, we will examine what values guide Czech basketball coaches in their coaching process, and what values they add or use instrumentally as they develop their athletes.

METHODOLOGY

This study was designed at the request of the Czech Basketball Federation in order to examine which values Czech basketball coaches are emphasizing at which age levels. Questions were constructed to progress from an open-ended perspective to a clarifying, application level. The purpose of this construction was that several within the basketball federation expected that coaches might lie in their initial responses in order to avoid embarrassment. By asking follow-up questions regarding application of the previously stated values, it was believed a more accurate picture of reality would emerge (Callary et al., 2013). The second portion of the survey provided the coaches with values to choose from based on those values recognised in sport by De Coubertin, Tyrš, the fair play movement, and Kretchmar. In using these particular values, it was hoped that we could negate or even eliminate what Kohlberg identified as a relativist “bag of virtues” (1981).

All surveys were conducted between January and May 2016. The introduction of the survey was done by a representative of the Czech Basketball Federation and completion of the survey was not mandatory. The response rate was 58% (73 surveys returned of 126 requested). Surveys were conducted in the Czech language by the primary researcher; interpretation and translation were conducted by both researchers.

RESULTS AND DISCUSSION

Demographic data

Table 1a Survey demographics (sex)

	Sex of coach		Sex coached
Men	52	Men/boys	48
Women	21	Women/girls	25

Table 1b Survey demographics (age and experience)

Experience		Age		Age coached		Level coached	
1–4 Yrs.	24	Age 19–25	18	U8–U14	32	Regional league	21
5–9 Yrs.	16	Age 26–33	12	U15–U19	41	Second league	2
10–15 Yrs.	13	Age 34–40	10	Men/women	9	First league	21
16–20 Yrs.	8	Age 41–50	25			Extraleague	25
20+ Yrs.	12	Age 51–62	6				

The average age of coaches surveyed was 36. The average years coached was 11.4.

Table 1c Survey demographics (education)

License level		Education level		Head or assistant coach	
FIBA A	20	High school	37	Head	56
FIBA B	25	University	35	Assistant	17
FIBA C	28	PhD	1		

The youngest FIBA A licensed coach was 36 years old.

Correlations

Correlations occurred where we would naturally expect them: Older coaches have more experience (0.778), higher FIBA license (0.519), more education (0.4016) and are more likely to be head coaches (0.431). Those who have high levels of FIBA licensing have more experience (0.617), are more likely to be head coaches (0.461) and coach on high levels (0.425). Additionally there was a higher correlation between sex of the coach and gender coached (0.498).

Defining success

Coaches were asked about success as the first and last question of the survey. At the beginning of the survey they were asked to define success as a coach, and at the conclusion they were asked what they considered to be success as a coach. These two questions were designed to discover why the coaches coached, or what they hoped to accomplish through their coaching. In this question we hoped to see the incarnational motivation of the coaches.

Success generally

The definitions of **success** (generally) identified can be divided into 3 main groups: player oriented (41 occurrences or 56%), performance/achievement oriented (32 occurrences or 44%), and coach oriented (8 occurrences or 11%). (Because the question was open-ended some coaches wrote more than one response, thus there are more responses than the total number of surveys.) These responses are further extrapolated in Table 2 below.

Table 2 Definitions of general coaching success

Player oriented 56%	Performance/achievement oriented 44%	Coach oriented 11%
Player development • Continue with basketball – 8× • Skill mastery – 5×	Fulfill team goals (without concrete description) – 10×	Self-orientation – 6× • Do what I enjoy • Do things excellently • Reach my goals
Personal development • Goal achievement satisfaction – 5× • Fulfill personal ambitions – 2×	Relevant knowledge leading to success – 10× • Develop skills to win • High quality games • Ability to win important matches	Positive player reaction – 2× • Players thank me • Players give me credit
Develop players for sport and life – 4×	Winning – 7×	
Experiences, Enjoyment • Enjoyment of games and trainings – 9× • Enthusiasm and even love for basketball – 5× • Joy of movement – 2×	Reach concrete result – 5× • Play-off • Produce national team players • Reach European level	

We can see here a general focus on player skill development and building the sport of basketball. In the player oriented responses, we can observe three tendencies: orientation on player development, personal development/growth, or on experience/joy of players. Yet even here the responses reveal that game development is more important than personal development for these coaches. And it must be emphasized from Table 1b that 64 coaches from the 73 total respondents (88%) work with youth teams. In the performance/achievement oriented responses, we observe two strong tendencies: fulfilling team goals, and orientation on know-how leading to team success; and then two lesser views: winning, and reaching concrete results. While many of these responses are focused on the individual players being coached, they are all based on the results achieved and the physical competence. Finally, in the coach oriented responses, we observe an orientation on the self and obtaining a positive response from players coached.

Personal success

The question of success was revisited at the end of the survey after coaches had seen the lists of value choices, and was asked from a more personal viewpoint. The responses for definitions of personal success can be divided into five main groups: oriented on sport growth or player engagement (20 occurrences or 30%), oriented on the emotional dimension of players (18 occurrences or 27%), oriented on the personal growth of players (6 occurrences or 9%), performance/achievement oriented (13 occurrences or 19%), coach oriented (10 occurrences or 15%). Six coaches chose not to answer this question, thus the percentages are calculated from 67 total responses. It is evident that player oriented success from question one received a more nuanced response when coaches were asked to define the type of success they expect from themselves, thus we have divided it into three categories. If we combine these three player oriented categories: oriented on sport growth or player engagement, oriented on the personal growth of players, oriented on the emotional dimension of players, the response rate totals

66% of responses which is similar to the 56% observed when asked about coaching success generally. Detail of these responses is given in Table 3(a and b) below.

Table 3a Definitions of personal coaching success (player oriented)

Player oriented 66%		
Player development or engagement 20%	Emotional dimension of players 27%	Personal growth of players 6%
Skill mastery – 6×	Players enjoy games – 10×	Goal achievement
Good basketball foundation – 2×	Life-long love for sports – 3×	Healthy lifestyle
Remain in basketball – 7×	Joy from movement – 3×	Active lifestyle
Remain in sports – 4×	Satisfied teams – 2×	Respectful youth
		Friendly relations

Table 3b Definitions of personal coaching success (performance and coach oriented)

Performance/achievement oriented 19%	Coach oriented 15%
Individual player success – 8×	Special coach – 7×
• Reach professional level	• Be a good promotor of sports
• Reach top Czech level	• Be a good basketball teacher
• Reach NBA level	• Be able to succeed with any team
	• Have many children at trainings
Fulfill team goals – 4×	Positive reaction from others – 3×
• Consistently reach play-offs	• Players show gratitude
• Win important matches	• Players give me credit
• High quality games	• Respect from other coaches
Winning – 1×	

It was expected that results and game development would be more appreciated than personal growth – yet the disproportion is alarming: only 7 times was personal growth mentioned (once in combination with winning) from 67 answers altogether (10%). That said, in both questions those who defined success by performance or achievement (45 cumulative responses) were primarily youth coaches. Only 4 total responses came from those coaching men or women at the professional level, representing 3 of the 9 professional level coaches represented. In the player oriented and coach oriented responses, we see a strong motivation among coaches to build into players a love for the game. There appears to be an incarnational desire to pass on their love for the game of basketball. We also see a more developmental motivation in the responses to this question than to the initial question asking them to define success.

Values identified

At this point we turn our attention to the values recognised. We began with two open-ended questions asking what values guide them as coaches, and what values they hope to develop in the team they are currently coaching. It was expected that the answers to the open-ended questions would more accurately reflect the true values of the coaches, while the closed questions would more likely expose the ideals of the coaches. We will compare these two types of questions, as well as compare across age coached, FIBA license level, education and sex.

What 3–5 values guide you as a coach?

When asked to list the top 3–5 values which guide them, coaches listed on average 3.8 values. This was higher than the number of values they were able to list which they felt they could develop in their athletes (3.3). We have labeled these values as guiding values for the coaches. As seen in Table 4 below, respect appears to be the dominate guiding value of coaches, being mentioned 19 times. Several times the coaches were more specific with two types of respect mentioned, respect for others (6×) and respect for the rules (3×). This respect for the rules is very close to the value of fair play which coaches said they were often guided by (12×). Fair play was also closely related to the value of fairness (13×) where coaches expected themselves not to show preference between players. The values of hard work (10×) and closely related diligence (10×) were also very prominent in the guiding values of the coaches. Coaches stated that they believed in team work, which they mentioned in different forms such as team spirit, team work, and team atmosphere. In order for team work to function there must be trust, thus the coaches listed this as a guiding value 9 times. The final value we will mention that showed prominence among all the coaches was fun, which only 9 of the 73 coaches listed as one of their 3–5 guiding values.

Table 4 Guiding values (age coached, open-ended)

All (73)	U8–12 (15)	U13–14 (17)	U15–17 (19)	U19 (13)	Coaches of adult teams (9)
Respect (19)	Respect (5)	Team work (4)	Respect (6)	Trust (4)	Fair play (3)
Fairness (13)	Fairness (3)	Respect (3)	Diligence (4)	Fairness (3)	Fairness (2)
Fair play (12)	Team work (3)	Courage (3)	Hard work (3)	Fair play (2)	Respect (2)
Hard work (10)	Humility (3)	Fun (3)	Fairness (3)		Team work (2)
Diligence (10)	Trust (3)	Hard work (2)	Fair play (3)		Friendliness (2)
Team work (11)	Hard work (2)		Consistency (3)		Passion (2)
Trust (9)					Fun (2)
Fun (9)					

When we examine closer by the age group coached (in Table 4 above), we see that while respect is still prominent throughout, the younger coaches are governed by team work, humility and fun, while the coaches of the older age groups begin to emphasize hard work, diligence and fair play. It is significant that fun was pretty equally represented, even among the coaches for adult teams, while surprisingly missing from those coaching the youngest age groups.

Table 5 Guiding values (certification and education, open-ended)

FIBA A (20)	FIBA B (25)	FIBA C (28)	High school (37)	University (36)
Respect (7)	Respect (6)	Fairness (5)	Trust (8)	Respect (11)
Fair play (5)	Fairness (5)	Trust (5)	Respect (7)	Fairness (9)
Fairness (3)	Fair play (3)	Humility (5)	Hard work (7)	Fair play (7)
Team work (4)	Diligence (3)	Hard work (4)	Diligence (6)	Team work (6)
Communication (3)	Hard work (2)	Diligence (2)	Team work (7)	Fun (5)
Consistency (3)	Team work (3)	Respect (4)	Fair play (5)	Diligence (4)
Hard work (0)		Team work (3)	Fairness (4)	Consistency (4)
			Humility (4)	Hard work (3)
			Discipline (4)	
			Aggression (4)	
			Fun (4)	

When we examine the results in terms of licensing level (Table 5) we do not see significant differences beyond the mention of communication and lack of emphasis on hard work from the most qualified FIBA A coaches. Similarly the more educated coaches who had a university education mentioned hard work and diligence less frequently than their only high school educated counterparts.

Table 6 Guiding values (sex, open-ended)

Male Coaches (52)	Female Coaches (21)	Coaches of males (48)	Coaches of females (25)
Fair play (12)	Respect (8)	Fair play (10)	Respect (10)
Fairness (8)	Fairness (5)	Fairness (7)	Fairness (6)
Respect (9)	Team work (5)	Team work (8)	Team work (5)
Diligence (8)	Humility (4)	Hard work (8)	Trust (4)
Hard work (7)		Diligence (7)	Patience (4)
Consistency (6)		Respect (7)	
Fun (8)		Fun (7)	
Team work (6)		Trust (5)	
Trust (6)		Aggression (5)	
		Discipline (4)	
		Humility (4)	

What 3–5 values do you as a coach hope to develop in the team/players you are currently coaching?

Table 7 Developmental values (age coached, open-ended)

All (73)	U8–12 (15)	U13–14(17)	U15–17 (19)	U19 (13)	Coaches of adult teams (9)
Team work (19)	Respect (4)	Team work (6)	Team work (5)	Team work (5)	Diligence (3)
Hard work (11)	Team work (3)	Respect (4)	Diligence (4)	Trust (3)	Respect (2)
Diligence (10)	Responsibility (3)	Hard work (3)	Hard work (3)	Communication (2)	Perseverance (2)
Respect (11)	Fair play (2)	Responsibility (2)	Humility (4)		
Humility (10)	Humility (2)	Discipline (2)	Active (3)	Diligence (2)	
Responsibility (6)	Friendship (2)	Obedience (2)	Aggression (2)	Discipline (2)	
Active (6)		Active (2)	Competitiveness (2)	Respect (2)	
Friendship (6)		Courage (2)		Humility (2)	
Fair play (5)			Honesty (2)	Competitiveness (2)	
Discipline (5)					
Motivation (5)					
Perseverance (5)					

We have termed these values which coaches hope to develop in their players as “developmental” values. The developmental values listed by coaches (Table 7) do not differ significantly from those which guide them. However, we see that team work and hard work, with its closely associated value of diligence, have replaced respect and fairness as top values. Respect and responsibility appear to be more important to those coaching younger athletes, while team work is relatively believed to be developmental at all age groups. We see less variation in developmental goals between licensing and education levels than we did among the coaches guiding values as illustrated in Table 8 below.

Table 8 Developmental values (certification and education, open-ended)

FIBA A (20)	FIBA B (25)	FIBA C (28)	High school(37)	University (36)
Team work (7)	Team work (10)	Responsibility (5)	Team work (13)	Team work (10)
Diligence (5)	Hard work (4)	Humility (5)	Humility (6)	Respect (6)
Discipline (4)	Diligence (3)	Hard work (3)	Hard work (6)	Hard work (5)
Hard work (3)	Respect (3)	Active (3)	Diligence (5)	Diligence (5)
Humility (3)	Competitive (3)	Respect (3)	Active (5)	Motivation (4)
	Fun (3)		Aggressive (4)	Humility (4)
			Responsible (4)	

Table 9 Developmental values (sex, open-ended)

Male Coaches (52)	Female Coaches (21)	Coaches of males (48)	Coaches of females (25)
Team work (19)	Responsible (5)	Team work (16)	Team work (7)
Hard work (9)	Team work (4)	Diligence (10)	Diligence (6)
Diligence (8)	Respect (3)	Hard work (9)	Responsibility (4)
Respect (8)	Humility (3)	Humility (8)	Competitiveness (3)
Humility (7)	Diligence (2)	Respect (7)	Friendship (3)
Discipline (5)	Hard work (2)	Fair play (5)	
Fair play (5)	Perseverance (2)	Aggression (4)	
Aggression (4)	Friendship (2)	Discipline (4)	
Motivation (4)		Active (4)	
Active (4)			
Friendship (4)			
Fun (4)			

We will now compare these open-ended responses for top values to the closed responses from the surveys. The coaches were asked to mark up to five values which guide them as a coach, as well as up to five values which they would like to see developed in their players/team. The values which they had available to choose from were drawn from the Olympic Movement, the Sokol movement, the fair play movement, Kretchmar (1994, 2005), Christianity and the NCAA (Brand, 2006). For the sake of readability, Table 10 below only includes values ranked by 15% or more of the coaches. Values which were not ranked at all, or were ranked very low, will be referred to later. Of primary significance to us are the top ranked values and the values which coaches chose not to value.

In Table 10 we see even more clearly than in the open ended questions that Czech basketball coaches hold hard work, an inherent value required to improve in sport, as their highest value (40% and 37%), both as the value that guides them as coaches and that which they hope to develop in their athletes. In every age category coached except the youngest U8–12, where health leads values with 60%, hard work is one of the top five values guiding coaches and which they hope to develop. Most of the time hard work is the top value. Where we see exception to this is with women coaches who value friendship (43%) and fun (38%) as guiding values, and winning and losing with grace (48%) as a developmental value higher than hard work (33% and 43%). It is also interesting that those with a university education, just under 50% of respondents, also had a higher value than hard work, though hard work remained in their top five.

Respect for others, a value of the fair play movement, is the second highest ranked value (34% and 26%), and if we combine it with respect for the rules (21% and 14%), then it would again be the top value for coaches as it was in the open-ended questions where respect for what was often not specified.

Table 10 Top ranked values (>15%)

	Frequency	N	Hard work	Respect for others	Friendship	Fun	Health	Patience	Both winning and losing with grace	Responsibility	Respect for the rules	Humility	Conscientiousness	Trust	Fairness
Total	Guiding	73	40%	34%	33%	33%	27%	26%	23%	21%	21%	19%	16%	16%	16%
Total	Developing	73	37%	26%	29%	18%	25%	11%	33%	30%	14%	19%	15%	11%	7%
Total	Both	73	19%	12%	14%	7%	11%	1%	7%	10%	5%	10%	5%	1%	4%
Sex															
Male coaches	Guiding	52	42%	38%	29%	31%	29%	23%	21%	25%	19%	13%	15%	17%	15%
Male coaches	Developing	52	37%	21%	25%	15%	25%	10%	27%	25%	12%	17%	15%	12%	6%
Female coaches	Guiding	21	33%	24%	43%	38%	24%	33%	29%	10%	24%	33%	19%	14%	19%
Female coaches	Developing	21	43%	38%	38%	24%	29%	14%	48%	43%	19%	24%	14%	10%	10%
License level															
FIBA A	Guiding	20	55%	35%	20%	20%	20%	20%	30%	30%	30%	15%	20%	20%	10%
FIBA A	Developing	20	40%	30%	10%	15%	20%	10%	10%	50%	15%	10%	15%	5%	5%
FIBA B	Guiding	25	36%	28%	32%	40%	20%	12%	16%	16%	16%	16%	12%	4%	24%
FIBA B	Developing	25	28%	24%	32%	20%	36%	12%	32%	28%	16%	20%	16%	8%	8%
FIBA C	Guiding	28	24%	43%	38%	33%	43%	43%	19%	24%	14%	24%	24%	24%	14%
FIBA C	Developing	28	43%	29%	38%	19%	24%	10%	57%	14%	5%	24%	19%	14%	10%
Education															
High School	Guiding	37	51%	41%	32%	41%	38%	35%	27%	19%	19%	24%	8%	16%	16%
High School	Developing	37	35%	16%	32%	16%	24%	11%	19%	22%	16%	27%	11%	11%	8%
University	Guiding	36	28%	28%	33%	25%	17%	17%	19%	22%	22%	14%	25%	17%	17%
University	Developing	36	42%	36%	25%	19%	28%	11%	47%	39%	11%	11%	19%	11%	6%
Sex coached															
Males	Guiding	52	40%	33%	35%	31%	29%	21%	27%	23%	21%	21%	15%	19%	13%
Males	Developing	52	44%	19%	25%	19%	27%	13%	35%	25%	15%	21%	19%	15%	6%
Females	Guiding	21	40%	36%	28%	36%	24%	36%	16%	16%	20%	16%	20%	12%	24%
Females	Developing	21	28%	40%	36%	16%	24%	8%	24%	40%	12%	16%	8%	4%	8%
Age coached															
U8–12	Guiding	15	20%	27%	47%	40%	60%	47%	13%	7%	7%	27%	27%	13%	20%
U8–12	Developing	15	40%	20%	40%	20%	33%	27%	40%	27%	13%	13%	0%	7%	7%
U13–14	Guiding	17	59%	35%	35%	53%	47%	29%	29%	35%	29%	12%	12%	18%	6%

U13–14	Developing	17	47%	12%	41%	18%	29%	12%	35%	18%	18%	24%	18%	24%	6%
U15–17	Guiding	19	32%	47%	26%	32%	5%	26%	32%	26%	16%	21%	26%	21%	21%
U15–17	Developing	19	37%	26%	21%	11%	21%	11%	32%	42%	11%	26%	26%	0%	5%
U19	Guiding	13	46%	31%	38%	8%	15%	8%	15%	8%	38%	31%	8%	23%	23%
U19	Developing	13	31%	38%	15%	15%	15%	0%	31%	31%	15%	23%	8%	23%	8%
Adult teams	Guiding	9	44%	22%	11%	22%	0%	11%	22%	22%	11%	0%	0%	0%	11%
Adult teams	Developing	9	33%	44%	22%	33%	33%	0%	22%	33%	11%	0%	22%	0%	11%

The other values which make up the top five guiding values for coaches, friendship (33%), fun (33%) and health (27%), were hardly observed when coaches were asked the open-ended questions. (Health was never mentioned.) Perhaps this is because the coaches take them for granted and subconsciously value them automatically. More likely, they are not true guiding values for the coaches, but rather they know intellectually that they should be guided by these values, especially fun and health. Of these three, friendship (29%) is the only one that is ranked in the top five of the values they hope to develop in their athletes, though both, particularly health (25%) are still ranked highly. Friendship is seen to decrease in percentage as coaches advance in license level (FIBA C 38% and 38%, FIBA B 32% and 32%, FIBA A 20% and 10%). Female coaches and those coaching female teams placed higher value in friendship than their male counterparts or those coaching male teams. Also, the value of friendship became less important as the age coached went up, with the exception of those coaching adult teams (developmental percentages: U8–12, 40%; U13–14, 41%; U15–17, 21%; U19, 15%; adult, 22%). The value of fun follows a similar pattern in that it is more important to women coaches, and becomes less important as the age coached increases, but only to the U19 category (developmental percentages: U8–12, 20%; U13–14, 18%; U15–17, 11%; U19, 15%; adult, 33%). Health is the most significant guiding value for the youngest group of youth coaches at 60%, and follows the same pattern of decreasing in importance as the age category coached increases, until we get to the adult age (developmental percentages: U8–12, 33%; U13–14, 29%; U15–17, 21%; U19, 15%; adult, 33%). It is expected that the high ranking of these values among coaches of adult teams, even though they decreased as age categories increased, can be attributed to there being only two extra-league coaches among those coaching adult teams. Thus these coaches of adult teams are not coaching professional teams, so they must instrumentally value friendship, fun and health in order to keep players playing, since these teams are not professional.

The difference between male and female coaches has been mentioned above, but it is worthy of being expounded on. The top five values for men, representing 71% of the coaches surveyed is the same as the full sample: hard work (42%), respect for others (38%), fun (31%), friendship and health (both 29%). Women coaches, however, expressed a slightly different set of values: friendship (43%), fun (38%), hard work, patience, and humility (all 33%). Similarly, they differ in values they hope to develop in their players: male coaches (hard work 37%, winning and losing with grace 27%, friendship, health, and responsibility all 25%), and female coaches (winning and losing with grace 48%, hard work and responsibility both 43%, respect for others and

friendship 38%). Significantly, the women coaches also indicated much higher percentages of desiring to develop the added moral values of bravery (19% women to 8% men), love (10% women to 2% men), and hope (14% women to 4% men). However, there is not so much difference found between those who coach opposite sexes. Here we see the previously mentioned higher emphasis on respect for others and friendship by those coaching women as compared to men, and an increased desire to develop responsibility in those coached (40% for females and 25% for males). Finally, it appears that those coaching females are guided more by fairness (24%) than those coaching males (13%).

Table 11 Values not valued

Guiding Values		Developmental Values	
Resilience	5%	Self-control	5%
Striving for excellence	5%	Relevant knowledge	5%
Relevant knowledge	5%	Faith	4%
Morality	5%	Love	4%
Civility	4%	Morality	4%
Hope	4%	Integrity	3%
Family friendly relationships	4%	Strength	3%
Relevant skills	4%	Unselfishness	3%
Reputation	3%	Wisdom	3%
Integrity	1%	Family friendly relationships	1%
Unselfishness	1%	Mental and body balance	1%
Wisdom	1%	Relevant skills	1%
Mental and body balance	1%	Reputation	0%
Balanced life	1%	Balanced life	0%
Strength	0%	Welfare	0%
Welfare	0%		

DISCUSSION

We will first evaluate the values cited as per their source, Olympism, Sokol, Fair Play, Kretchmar, and the NCAA, as they illustrate for us the changing of values globally in sport through time. The values of the Fair Play movement and those codified by the NCAA and Kretchmar are dominant among Czech basketball coaches. As illustrated in Table 11, those promoted by Miroslav Tyrš in the Sokol movement and Pierre de Coubertin occupy the lower rankings along with those of Christianity. It is interesting to note that these three movements, Christianity, Olympism and Sokol have primarily tried to add values into sport to suit their purposes. The NCAA and the Fair Play movement also desire to shape sport in a particular direction, but the values they promote are either inherent to sport or instrumental to sport. This instrumentality pragmatically flows out of the definitions of success offered by the coaches, where we saw that individual player development, performance and building a love for the game dominated. Given the development of sport as a business which has occurred in the Czech context (as well as globally although later) this should not surprise us.

It is evident from the leading values of hard work, respect, fairness and diligence that the majority of Czech coaches are firmly rooted in the inherent values of sport. Instrumental values come into play in order to increase team work which flows out of their desire for performance or achieving team goals. Other instrumental values such as friendship, fun, patience and humility are relied upon depending on age and gender coached, and appear to increase with education and licensing. However, the added values evidenced in Olympism, the Sokol movement or Christianity are largely absent in Czech basketball. This lack of added values was also visible in the almost non-existence of sport as a builder of character, or “good sport” from the definitions of success given by the Czech coaches.

Values-based coaching as a prescription

This study has its germination in a group of Czech coaches visiting NCAA basketball programmes. Thus at this point we will attempt to understand why the NCAA programmes appear to be guided by a higher prevalence of instrumental and even added values. We will rely on the values-based leadership model introduced previously to explain this and consequently propose that this model could in fact help reach the success which the Czech coaches indicated they desire.

Both sets of coaches, Czech and NCAA, desire to develop individual players, which leads to reaching team goals. Both of these contribute to the success and recognition of the coach. In terms of the NCAA coach he will receive a higher salary, and be able to recruit better players if he achieves success. The Czech coach is trying to produce national team and professional players. The NCAA coach is dependent on recruiting and the Czech coach is developing players who will move up within age categories of the club. The NCAA coach is only dealing with players aged 18–24, while the Czech coaches are dealing with all age categories. Yet the NCAA coaches have many more athletes to choose from, and more competitive balance than the Czech coaches. However, for both of them, developing players leads to an increased likelihood of reaching team goals which may result in coach recognition.

So why is values-driven coaching so much more prevalent in the NCAA context and largely absent from the Czech context, and of what benefit is it in achieving success? The NCAA, which exists within the university system, is a highly profitable enterprise (almost topping \$1 billion dollars in 2014). Thus they have borrowed the best practices from business and applied them to sport in order to succeed. Czech sport, just over 20 years removed from socialism, has not been exposed to these business impulses to as high a degree, and it is removed from the educational sector.

Cameron & Quinn assert that, in the workplace, values-driven leadership has been found to produce physiological health benefits (e.g. less illness), emotional benefits (e.g. resistance to depression), psychological benefits (e.g. longer memories) (Cameron & Quinn, 2005). If we were to extrapolate this out to the sport team environment, we could speculate that teams with value driven coaches would be less likely to have player injury and sickness; their players would be more likely to recover from defeat and be less affected by inconsistent referees; and be more likely to remember team plays and respond to scouting reports (Peel et al., 2013). Koh et al. found similar results among youth in Singapore school sport (2016). If, at the organizational level, values-driven companies are found to have higher profitability, higher productivity,

higher quality, and higher levels of satisfaction by both employees and customers, then we extrapolate that values-led teams can expect more wins, more effective practices, better concentration, and greater loyalty between teammates and from fans.

Applying Cameron's amplifying effect to the incarnational role of values in the role of a coach, we can postulate the positive effect on a sports team or organization. Cameron identified the three factors contributing the amplifying effect as positive emotions, social capital, and prosocial behaviour (Hess & Cameron, 2006). While we have termed this as incarnational, Cameron terms it a contagion effect with the first amplified value to be positive emotions. For example, Cameron found that when leaders value compassion, love and highlight spectacular performance, then employees are inspired; their organizational pride increases; their work enjoyment is increased, and their job satisfaction is elevated. Inspired players, club pride, enjoyment of practice and games, and club satisfaction are values that any sport club would like to see and was even partially expressed in our results. These are all positive emotions which appear to have a high correlation to leaders/coaches who demonstrate the values they espouse (Callary et al., 2013; Peel et al., 2013). Unfortunately, compassion and love remain on the list of values which Czech coaches do not value.

Cameron's second factor that contributes to the amplifying effect of leaders who are value driven is social capital (Hess & Cameron, 2006). Social capital is the development of positive relationships between employees. In sport terms social capital is good team cohesion, a value expressed by the majority of Czech basketball coaches in one form or another. The use of values in building team cohesion could mean coaches can more easily motivate players, get players to communicate with each other and work together, be more committed to the team, be motivated to learn on their own, and win more often.

The third factor Cameron found when leaders incarnationally display the positive values they desire to see is prosocial behaviour. Prosocial behaviour is the tendency to engage in helpful behaviour toward others, or to want to make a contribution to others (Hess & Cameron, 2006). This is an intrinsic motivation to help others; which was evident in the wording of values from the NCAA teams, but almost completely lacking among Czech basketball coaches. Servanthood, servant-leadership, selflessness (all seen in the illustrative NCAA examples) are some of the values which lead to this prosocial behaviour which produces trust and speeds up both the individual and team development process. When players observe and believe that their coach truly desires to help them, then they are more likely to help their teammates. Values-led leadership can help reduce the cancer to selfishness in sport. This prosocial behaviour builds character and leads to positive sport.

CONCLUSION

By surveying Czech basketball coaches we have assessed the use of values in the coaching process as well as the origin of these values-based on their definitions of success. In contrast to the NCAA basketball coaches who instrumentally use values to guide them and develop their players, Czech coaches rely primarily on the inherent values of sport such as hard work and respect. While many movements such as the Olympics, Sokol and even the NCAA have attempted to encourage added values in sport in order to

build character or create “good” sport, it has been argued that coaches are more likely to instrumentally use values in a pragmatic effort to maintain competitive balance, player and fan satisfaction, and increase productivity. The Czech coaches are guided by their achievement goal of success and their desire to build the sport of basketball in their culture. However, with only a few exceptions, sport appears to have little to no added positive value for them, and so they do not rely on moral values in their coaching process. It is argued that the use of values-driven coaching, as was evidenced in the NCAA, and as developed in business, could help Czech coaches to reach their performance and achievement goals, and further develop the sport. This pragmatic instrumentality of values, which appears to come with the commercialization of sport, is regulated by the incarnation of these values by the coach and the consequent amplification by his/her athletes. Thus the successful implementation of moral values by a coach in order to produce the desired positive emotions, social capital, and prosocial behaviour on his/her team appears to be wedded to the character of the coach.

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EMG analysis of the influence of a water environment on the rehabilitation of patients with Parkinson's disease

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ABSTRACT

The main goal of the experiment was to compare electrical activity in selected muscles: m. tibialis anterior, m. gastrocnemius, m. rectus femoris, m. biceps femoris and mm. erector spinae, at the TH/L transition level patients with Parkinson's disease when walking on dry land and in a water environment, using surface electromyography.

The experimental set consisted of five subjects, two men and three women, aged 67.4 ± 7.1 . A surface EMG was used to measure muscle activity in the m. tibialis anterior, m. gastrocnemius, m. rectus femoris, m. biceps femoris and mm. erector spinae at the TH/L transition level. The resultant EMG signal was rectified and then the normalized muscle activity level was evaluated for walking in various environments: on dry land and in water.

Results showed identical normalized activity of monitored muscles in a water environment, which indicates a permanent effect of the pathological central programme accompanying Parkinson's disease, where the coordination pattern typical for a water environment fails to occur.

KEYWORDS

walking/gait; Parkinson's disease; aqueous environment; surface EMG; WaS EMG

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INTRODUCTION

Flawless gait depends on a combination of perfect balance, coordination of motion and information on our surroundings obtained through our senses, such as sight and perceptions providing us with information about the terrain (Mečíř, 1997). Gait is complex sequential phased motion taking place according to certain timing. This movement involves the entire motoric system, thus perfectly adapting to the complex characteristics and shape of the terrain in which we are walking. Gait occurs as a rhythmic pendulum-like translation of the body. It begins at an initial position, describes an arc via a zero point to one extreme position, and continues to the next extreme position. Clearly separated gait phases occur (Véle, 2006). Both legs go through three separate phases of movement. The swing phase – the leg moves forward without contact with the underlay, the stance phase – the leg is in contact with the support surface, also called the single support phase, and the double support phase, during which both legs are simultaneously in contact with the support base (Cuccurullo, 2009). Gait is one of the activities most often evaluated with EMG. In light of its high variability of muscle activity during each step for each individual, it is good to measure at least 6–10 steps to determine average values for selected parameters. Each individual has a characteristic gait speed that may affect surface EMG, which is why speed is standardized using a metronome or with a pre-set speed on a treadmill (Hug, 2011).

Gait in water is quite different from gait on ground, depending on immersion depth as well as whether the water is moving or not. The deeper the immersion, the lower the weight force due the Archimedes' Law, which also reduces the effect of the reactive force needed for support. Simultaneously the resistance of the environment increases, which is higher than air resistance. Gait patterns in water are quite different, which is why a water environment cannot be used for re-education of walking on dry land (Véle, 2006; Miyoshi et al., 2004; Masumoto et al., 2004; Veneziano et al., 2006; Shono et al., 2007; Kaneda et al., 2008).

Those with Parkinson's disease walk more slowly in comparison with healthy individuals, the duration of the gait cycle and individual gait phases is longer, the ratio between the supported and unsupported phase shifts toward the support phase, and the duration of the double support phase is longer than in healthy individuals (Dupalová et al., 2005). Patients with Parkinson's disease have shorter steps and drag their feet. When practicing walking, it is especially important to include rhythmic elements in the exercise. Walking is often practiced to music or as marching, or accompanied by the therapist's rhythmic and energetic commands (Tupá, 2013). Equally important is the therapist's guidance in maintaining step length, gait regularity, lifting of the knees, attendant movement of the arms, and ensuring the patient does not shorten his steps and does not return to poor gait stereotypes. The therapist's supervision and vocal stimulation of the patient is very important. External voice or other sound stimuli were found to have a positive effect. The effects of rhythm lasted even after dopamine medication was discontinued (Ressner & Šigutová, 2001). Having to overcome visual barriers and walk along marked routes is also useful during training. The use of aids is possible, e.g. various sizes of balls thrown rhythmically to the ground, or kicking balls or other objects alternately in front of oneself (Dupalová et al., 2005). Treadmills can also be used to practice walking. This training has an effect on the manifestation

of motor skills in patients with Parkinson's disease (Cakit, 2007; Herman, 2007, 2009; Hong, 2008; Lo, 2010; Miyai, 2002; Pelosin, 2009; Pohl, 2003).

Swimming and exercise in pools is recommended as a suitable activity for Parkinson's patients (Kolář et al., 2009; O'Nihill et al., 2001; Haggerty, 2009; Rosenstein, 2008), and the Parkinson Society also organizes pool exercises in its clubs. The American Parkinson Disease Association (<http://www.apdaparkinson.org>) also states that water is an excellent environment for anyone diagnosed with Parkinson's disease. The water's buoyancy gives the human body a feeling of freedom and release, and of easier movement. Exercise in water is promoted especially as a way to prevent falls and resultant injuries, and of strengthening of the posture muscles and releasing rigidity (O'Nihill et al., 2001; Haggerty, 2009). In her book on exercise in pools for Parkinson's patients, Rosenstein (2008) writes that any exercise, especially in water, helps the body improve stability and problems with walking, as well as improving their sense of well-being. He also states that patients whose hamstring strength is less than 2/3 that of the quadriceps are more prone to falls. When the quadriceps is stronger, the body is pushed forward, causing instability. This is why it is important to keep the strength of the front and rear thigh muscles in equilibrium, thus improving patients' stability. We can achieve this through exercise in water, because this causes muscles to work in pairs – for each muscle that pulls back, the opposing muscle pulls forward. It is estimated that water increases body resistance by 12–14%.

Most published works in the area of a water EMG deal with normal or modified gait. In dynamic modes, it is recommended that movement in water be performed at half the rate it is on land. The greater viscosity of water compared to air can lead to changes in EMG records, especially during more rapid movements. Water temperature is also important. Optimum water temperature is between 27 and 34 °C. Colder water leads to reduced electrical activity in muscles. Warmer water is unpleasant for performance of movement (Pánek et al., 2012; Miyoshi et al., 2004; Masumoto et al., 2004; Veneziano et al., 2006; Shono et al., 2007; Kaneda et al., 2008).

METHODOLOGY

This paper is an analytic experimental study that includes an experiment focusing on the difference of normalized EMG activity of selected muscles while walking in water and on dry land for subjects with Parkinson's disease.

Research set

Five subjects with Parkinson's disease aged 67.4 ± 7.1 participated in the experiment. Parkinson's was diagnosed at an average age of 57, and the set contained three women and two men. All of the subjects stated that they attend group exercise organized by the Parkinson Society once per week. None of the subjects reported increased fatigue, pain or a high degree of fatigue, and they were medicated as per usual.

Methods used

In the experiment, a telemetric 16-channel TelemetryMini 16 EMG instrument from Neurodata was used, which in basic configuration includes its own EMG instrument, a transmitter with an amplifier connected to bipolar electrodes, and two independent

antennas for receiving signals from the transmitter; a video camera was simultaneously used to record the subject's movement. Additional equipment was required to record EMG signals in water: a waterproof pouch for the EMG amplifier and transmitter, special bipolar electrodes with a set of double-sided adhesive collars required to firmly adhere the electrodes to skin, waterproof covering adhesive stickers for electrodes, EMG conducting gel, universal multi-use silicon (Pánek et al., 2010) and Patex carpet tape.

Applications of electrodes to skin

Special bipolar electrodes are used to record EMG signals in water. They are AG/AgCl disk electrodes 5 mm in diameter, encased in plastic so that only the central part that contacts the skin is left exposed. As the electrodes should be placed on well-cleaned and degreased skin, we used abrasive paste and petrol alcohol. We applied double-sided adhesive tape to the plastic electrode disk, which copies the electrode's round shape and is supplied along with the electrodes. We then applied a conducting paste to the electrode. It is very important to apply the correct amount: if there is too much the electrode can come loose, while if there is too little, the electrical signal can be weak or nonexistent. To securely attach the electrode to the skin, it is covered by a special round adhesive patch with a central opening that is positioned precisely above the electrode, and also covers the electrode cable. Experience shows that individual covering patches can overlap by approximately 1/3 of their diameter, which maintains optimum electrode spacing (Pánek et al., 2010). We had good results with also covering electrodes and preamplifiers with carpet tape for increased water resistance and to reduce the likelihood of electrodes coming loose.

In light of work in a moist environment, the EMG instrument and laptop must be protected from damage.

Data collection

Muscle selection

Muscle activity in the right leg was recorded: m. gastrocnemius, m. tibialis anterior, m. biceps femoris, and m. rectus femoris. Potentials in the paravertebral muscles at the TH/L transition level were recorded bilaterally.

Electrode placement

The electrodes were placed along the centreline of the muscle belly for the aforementioned muscles. A ground (reference) electrode was placed in the C7 spinous process area.

The experiment

The experiment was performed at the FLUM – training pool of the Faculty of Physical Education and Sport of Charles University, with a water temperature of 32 °C. Measurements were performed over the course of one day, and were preceded by the collection of important medical history data using a questionnaire. We applied special bipolar surface electrodes for recording in water to the subject, on selected leg and paravertebral muscles as specified above. Initially, maximum voluntary contraction (MVC) measurements were performed out of the water for all muscles according to



Figure 1 Electrode application



Figure 2 Securing the electrodes with carpet/duct tape

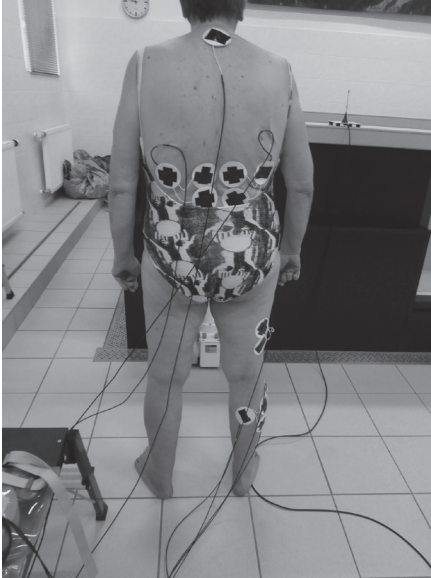


Figure 3 Electrode placement – rear view

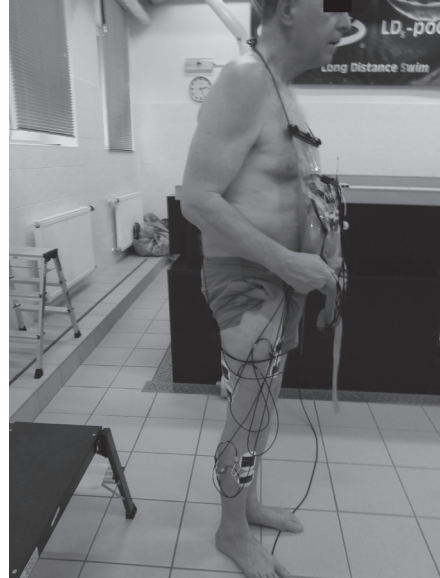


Figure 4 Electrode placement – side view

defined positions in the muscle test. Each of the subjects was asked to perform maximum contraction against resistance, 3× in a row. The maximum contraction lasted 10 s, and there were 2-minute pauses between individual maximum contractions.

Measurement was split in two parts.

- 1) The subject was asked to walk on dry land for 15 m at 70 steps per minute to the ticking of a metronome. The EMG recorded the activity of selected muscle groups.
- 2) The subject entered the pool (water depth 120 cm) using the access stairs and accompanied by a measurement assistant; he was once again asked to walk to a metronome at a rate of 40 steps per minute. The assistant held the pouch with the EMG receiver steady in order to reduce the number of artefacts caused by cable movement. The EMG recorded the activity of selected muscle groups. Afterwards, the subject exited the pool using the steps.

It was necessary to check the electrodes prior to immersion, as after contact with water it would have been impossible to reapply them.

Data analysis – statistical data processing

MyoResearch XP Master Edition 1.08.27 software from NORAXON was used to evaluate and process the resultant data. This application allows the EMG signal to be viewed in synchronization with the video recording, allowing a visual check to be performed during evaluation. Artefacts were first removed from the signal, which was then rectified and smoothed. Maximum voluntary contraction (MVC) was evaluated from three maximum 2 s intervals of a stabilized EMG signal in each 10 s of measurement. These values were averaged to obtain the resulting MVC.

RESULTS

The EMG data obtained was processed as recommended by Hug (2011). We selected six consecutive step cycles. Each cycle began with the double support phase, when

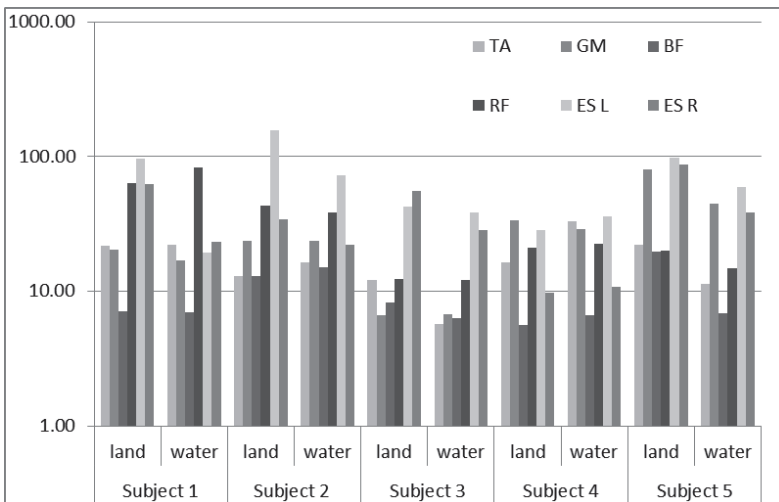


Figure 5 Normalized EMG activity values for selected muscles for all subjects when walking on dry land and in water, where TA = m. tibialis anterior, GM = m. gastrocnemius, RF = m. rectus femoris, BF = m. biceps femoris, ES L/R = mm. erectors spinae left/right

the tip of the support (recorded) leg was being rolled up, and ended with the rolling up of the support leg of the next step. The beginning and end of the cycle in the EMG signal was defined by the beginning of m. tibialis anterior activity. The signal was then rectified and the mean amplitude over six step cycles obtained. The mean amplitude was normalized to maximum voluntary contraction (mean/MVC × 100). All recorded muscles were evaluated in this way, and then were compared against each other using Pearson’s correlation. Correlation was also performed from normalized values for identical muscles in various environments.

Table 1 Normalized EMG activity values for selected muscles for all subjects when walking on dry land and in water, where TA = m. tibialis anterior, GM = m. gastrocnemius, RF = m. rectus femoris, BF = m. biceps femoris, ES L/R = mm. erectors spinae left/right

	Subject 1		Subject 2		Subject 3		Subject 4		Subject 5	
	land	water	land	water	land	water	land	water	land	water
TA	21.64	21.96	12.88	16.33	12.07	5.69	16.29	33.10	22.12	11.31
GM	20.32	16.84	23.55	23.77	6.68	6.76	33.81	28.94	80.05	44.77
BF	7.12	6.94	12.98	15.19	8.28	6.34	5.62	6.64	19.53	6.90
RF	63.00	82.73	43.43	38.53	12.32	12.16	21.14	22.47	19.86	14.87
ES L	95.95	19.30	156.06	72.85	42.56	38.23	28.27	36.00	98.26	59.19
ES R	62.17	23.22	34.03	22.05	55.71	28.47	9.78	10.87	87.25	38.31

	Subject 1		Subject 2		Subject 3		Subject 4		Subject 5	
	land	water	land	water	land	water	land	water	land	water
TA	21.64	21.96	12.88	16.33	12.07	5.69	16.29	33.10	22.12	11.31
GM	20.32	16.84	23.55	23.77	6.68	6.76	33.81	28.94	80.05	44.77
BF	7.12	6.94	12.98	15.19	8.28	6.34	5.62	6.64	19.53	6.90
RF	63.00	82.73	43.43	38.53	12.32	12.16	21.14	22.47	19.86	14.87
ES L	95.95	19.30	156.06	72.85	42.56	38.23	28.27	36.00	98.26	59.19
ES R	62.17	23.22	34.03	22.05	55.71	28.47	9.78	10.87	87.25	38.31

Table 2 P-value TAI – TAw = m. tibialis anterior on dry land – m. tibialis anterior in water, GMI – GMw = m. gastrocnemius on dry land – m. gastrocnemius in water, RFI – RFw = m. rectus femoris on dry land – m. rectus femoris in water, BFI – Bfw = m. biceps femoris on dry land – m. biceps femoris in water

Muscle l/w	P-value
GMI – GMw	0.004942
TAI – TAw	0.6301
RFI – RFw	0.003256
BFI – Bfw	0.3432

Comparison of muscle activity when walking on dry land and in water

Analysis results showed that for four subjects (1–4), leg muscle activity was unchanged when walking in water as compared to dry land, but subject 1 exhibited a 20% increase in activity of m. rectus femoris. Similarly, subject 4 differs from the others in having increased activity in m. tibialis anterior. Subjects 2 and 3 had no change in m. gastrocnemius activity whatsoever (see Figure 6). Subject 1 also had no changes in activation of m. tibialis anterior and m. biceps femoris due to environment. On average, muscle activity in Parkinson's patients increased by 1.5% in water. It was statistically proven that for subjects 1–4, m. gastrocnemius activity in a changed environment remained the same (p-value = 0.004942). In subjects 1–4, m. rectus femoris also exhibits significant statistical correlation between activity on dry land and in water (p-value = 0.003256). Subject 5 exhibited a mean reduction in muscle activity of 16%, with the greatest difference in activity on dry land and in water (35% more in water) being exhibited by m. gastrocnemius. Subjects also had variable participation of paravertebral muscles, but except for subject 4, their activity declined in water by an average of 30%. The different activities of paravertebral muscles in subject 4 from others in the set, as far as percent difference when walking on dry land and in water is concerned, could be caused by the fact that he was significantly taller than the rest.

The above results thus show comparable activity when walking on dry land and in the water for subjects 1–4 in the m. tibialis anterior, m. gastrocnemius, m. rectus femoris and m. biceps femoris, which was the main focus of the experiment. For paravertebral muscles, individuals exhibited significant difference, but overall their activity declined in water.

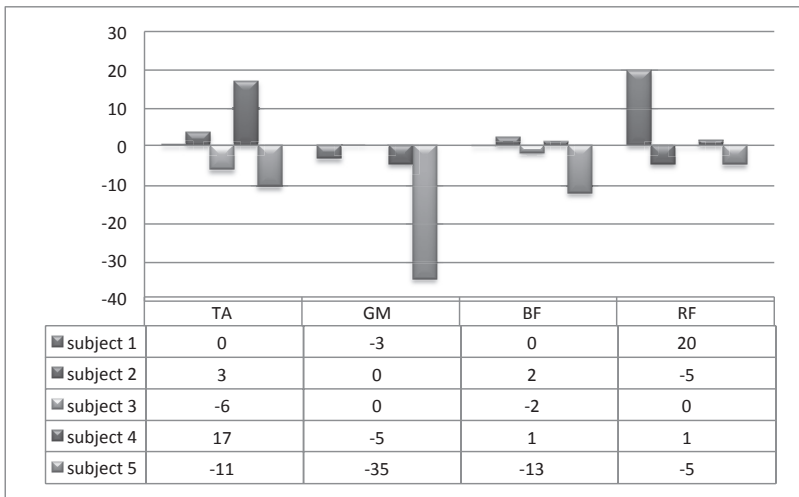


Figure 6 Percent difference in muscle activity (TA, GM, RF, BF) for individual subjects when walking on dry land and in water, where TA = m. tibialis anterior, GM = m. gastrocnemius, RF = m. rectus femoris, BF = m. biceps femoris, and where the y-axis scale is in %

DISCUSSION

Swimming and exercise in pools is recommended as a suitable activity for Parkinson's patients (Kolář et al., 2009; O'Nihill et al., 2001; Haggerty, 2009; Rosenstein, 2008; ADPA), but more detailed studies on have not been done in this area. Our EMG study focused on comparing differences in electrical muscle activity when walking on dry land and in water for patients with Parkinson's disease. Walking speed in water was 40 steps/min, where the water level was up to the proc. xiphoideus, and 70 steps/min on dry land. Our results did not prove a trend towards reduced leg muscle activity when walking in water as it is in the healthy population regardless of age, as stated by Masumoto et al. (2004, 2007a, 2007b, 2008) and Barela (2006). Fujisawa (1998) and Hollander (2011) also describe reduced electrical muscle activity during muscle activity in water, but these studies do not deal with walking in water. Barela (2006) showed in his study that the activation pattern in water did not change for the m. gastrocnemius. This was also confirmed in this experiment, along with unchanged m. rectus femoris activity in water, except for subject 5. Subject 5 was in a more advanced phase of the illness than the others; he exhibited stiffness and prominent arm tremors. He was the last to be tested, and the effect of his chronic medication could have had a reduced effect. With Parkinson's patients it was difficult to affix electrodes securely in water due to their increased production of skin oils, which is related to the vegetative symptoms of Parkinson's disease (Pahwa, 2004; Berger et al., 2000; Roth et al., 2005, 2009). The results of the experiment show the serious impairment of motor control in patients with this diagnosis, because typical changes in movement patterns in water as described by Vele (2006), Masumoto et al. (2004, 2007a, 2007b, 2008) and Barela (2006) for healthy individuals did not occur. The effect of the pathological motor programme due to impaired basal ganglia function has a much stronger effect on movement behaviour than the effect of water on the biomechanical and kinetic behaviour of the afflicted individual. From the results obtained, we do not agree with Rosenstein's claim (2008) that exercise in water and practicing walking in water can increase muscle strength in patients with Parkinson's disease.

CONCLUSION

Regular movement therapy for patients with Parkinson's disease is as important as regular administration of drugs. Rehabilitation is generally recommended for patients with Parkinson's disease, but its effectiveness has not yet been fully proven. The results of our study indicate that in these patients, the contraction strategy of muscles does not change in water compared to movement on dry land. For this reason, rehabilitation in water does not provide any benefit for rehabilitation of Parkinson's patients over that on dry land, and the suitability of indicating this auxiliary treatment will to a great degree depend on the relationship of the given individual to water.

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The effect of military boots on front kick dynamics

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ABSTRACT

Front kicks are often used in combat activities that involve the use of kicks and punches, including close combat military training. To mimic real-life combative environments where soldiers execute forceful front kicks while wearing military boots, it is logical to wear these boots during close combat training. However, the effect of military footwear on front kick forces remain unknown. Therefore, the aim of this study was to compare the effects of military boots on front kick dynamics. Six male soldiers (23.3 ± 1.7 yr, 74.3 ± 6.2 kg, 175.5 ± 4.5 cm) performed eight individual front kicks with no military boots, in bare feet (*NB*) and with military boots (*MB*). Peak force (N), impulse (N.s) and time to reach peak force (ms), were measured during each kick. Data were analyzed using paired sample t-tests or nonparametric Wilcoxon pair test and Cohen's *d*.

Results. Neither peak force (3180 ± 647 N) nor impulse (367 ± 40 N.s) of *MB* were different than *NB* (3157 ± 291 N and 360 ± 48 N.s, respectively) ($p = 0.85$; $d = 0.04$ and $p = 0.36$; $d = 0.12$, respectively). Peak force was reached in a significantly shorter time during *MB* (39 ± 16 ms) compared to *NB* (56 ± 8 ms; $d = -0.88$).

Conclusion. Peak force was reached in a shorter time using *MB* compared to barefoot (*NB*) front kicks. The use of military boots changes the time course of peak force during the front kick.

KEYWORDS

close combat; military equipment; kinetics; impact forces

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INTRODUCTION

Although there are many different types of combat activities, one of the most common is close combat. In contrast to other types of combat, such as martial paths, martial sports, or others that are performed for different purposes (Martínková & Parry, 2016; Martínková & Vágner, 2010), close combat is characterized by maximal effort punches, kicks, and throws intended to strike, disrupt, or immobilize another individual (Vágner, 2008). Specifically, when talking about pragmatic techniques within the military, close combat comes to mind.

In combat environments, military personnel wear personal protective equipment (*PPE*) that typically consists of a helmet and thorax-protection system (i.e. a vest with ceramic plates) (Swain, Onate, Ringleb, Naik, & Demaio, 2010), military boots, and other tactical gear depending on the soldier's purpose. To mimic real-life combative scenarios, it is logical that close combat should be performed while wearing military equipment and military boots, but the physiological, kinetic, and kinematic effects of wearing such equipment have not been heavily investigated.

Of the multitude of close combat striking techniques, the front kick is one of the most commonplace. The kinetics and kinematics of front kicks have been investigated previously, (Wasik, Czarny, Malolepszy, & Drozdek-Malolepsza, 2015), and although these studies provide valuable data regarding front kick velocity (Pozo, Bastien, & Dierick, 2011; Wilk, McNair, & Feld, 1983) and forces (Dworak, Dziewiecki, & Maczynski, 2005; Kuragano & Yokokura, 2012), they have all been conducted in the absence of *PPE* and military boots. One study has shown that wearing *PPE* increases the impact force of front kicks (Vágner et al., in press), but the effect of military boots was not investigated. However, the *PPE* elements used in this study did not contain military boots either. Given that front kick kinetics are influenced by kicking technique (Sorensen, Zacho, Simonsen, Dyhre-Poulsen, & Klausen, 1996) and the goal of the kick (Ortenburger, Wasik, & Gora, 2016), it is possible that wearing military boots can result in different front kick dynamics.

Therefore, the aim of this study was to investigate the influence of military boots (*MB*) on front kick dynamics. Based on previous research (Wilk et al., 1983; Vágner et al., in press; Ortenburger et al., 2016), we hypothesized that front kicks performed in *MB* would result in greater impact forces and a quicker time to reach peak force compared to front kicks performed without military boots, in bare feet (*NB*).

MATERIAL AND METHODS

This quantitative study was based on an intrapersonal comparison using a quasi-experimental design. Ethical approval was obtained from the Ethics Committee of the Faculty of Physical Education and Sport (No. 025/2016, 5 February 2016). All participants signed the informed consent before the commencement of the experimental testing. All procedures were performed in accordance with the Declaration of Helsinki.

Participants

Six male soldiers (22.2 ± 1.5 y, 78.8 ± 5.8 kg, 180.6 ± 4.8 cm) from the Military Department at the Faculty of Physical Education and Sport, Charles University participated

in the study. The soldiers were able to execute a front kick with proper technique, regularly participating in close combat training. All of the soldiers were healthy for the duration of the experiment and did not suffer from any health problems during measurements.

Experimental protocol

All measurements were completed in a single laboratory visit, which lasted approximately 40 minutes. After a 10-minute dynamic warm-up consisting of exercises for kicking in combat activities, each participant executed pre-test five front kicks of progressively increasing intensity from 50% maximum effort with *NB* and *MB* to get used to the feeling of kicking against the force plate. The familiarization phase was also used to measure the distance from the force plate for each participant to execute each kick in the same, comfortable position during the testing. These individualized distances were then recorded and used to ensure the same starting position for each kick. All front kicks began with a front posture and were executed so that the foot made contact at a mid-range height, typical of the abdomen or solar plexus (Vágner et al., in press). The order of testing conditions was randomized, and participants executed a single set of eight front kicks with *NB* or *MB*. Between each kick, participants were given 30 s of rest, and after the eighth kick of the first condition, 6 min rest was given before repeating the same protocol with the remaining condition.

Measuring device and the gear of participants

The dynamics of each front kick was measured using a triaxial force plate Kistler 9281 (Kistler, Winterthur, Switzerland) measuring at 1000 Hz (Svoboda, Soukup, Jelen, & Kubový, 2016). In the familiarization phase, the lower limit of the magnitude of acting force was set to 100 N to reduce noise on the force plate and to mark the beginning and the end of the interaction between a participant's foot and the force plate (Vágner et al., in press). The force plate was adjustable along the vertical axis to ensure that the height of the plate was individualized to each participant's "mid-range" height (Dworak et al., 2005; Kuragano et al., 2012). A kick pad (Figure 1) was used to cover the metal surface of the force plate to minimize any potential risk of injury. Using a unique impact device of own design, it was empirically verified that the kick pad absorbed some of the energy of the kick and it reduced the transmission of force. The device allowed us to analyze the influence of various impact velocities and a different size of contact surface on the impact force measurements. Supposing that the impact velocity of a foot does not exceed 10 m/s during a front kick, the absorption coefficients of the kick pad for the impulse and the peak force were found constant up to this value. Specifically, the absorption coefficients were 0.844 for the impulse and 0.167 for the peak impact force. It was also shown that there was no significant influence of a contact surface size ranging by $\pm 30\%$ on the absorption coefficients. The absorption coefficients were used to determine absolute values of physical quantities measured in this research. The absolute values can be compared to the results of other similar studies.

All participants wore standardized military field clothing and boots designed for the Armed Forces of the Czech Republic. The standardized military boots (model 2000) had a hydrophobic cow leather upper and a SLAVEX rubber sole.



Figure 1 Force plate with kick pad (Hayashi, Size: 75 × 35 × 15 cm)

Measurement procedure and data collection

Several physical quantities describing the dynamics of a front kick were determined for both conditions (Vágner et al., in press). Peak force (\vec{F}_{peak}) was determined as the sum of force exerted in all three directions x, y, z (Dworak et al., 2005) (Eq. 1).

$$|\vec{F}_{peak}| = \max \left(\sqrt{\vec{F}_x^2 + \vec{F}_y^2 + \vec{F}_z^2} \right) \quad (\text{Eq. 1})$$

The time to reach peak force (t) was defined as the time period between the initial contact of participant’s foot with the force plate (t_0) and the peak force reached (t_{peak}) (Eq. 2).

$$t = t_{peak} - t_0 \quad (\text{Eq. 2})$$

The impact force acting during the whole time (t_{max}) of a front kick was derived from the formula for the impulse (Eq. 3).

$$\vec{I} = \int_{t_0}^t \vec{F} dt \quad (\text{Eq. 3})$$

Equation 3 was modified for the discrete data measured in this study. For each time period (Δt), defined by the sampling frequency, the impulse was calculated. By summing them together, the overall net impulse of a whole front kick was determined (Eq. 4). The impact force for a whole kick was then derived.

$$\vec{I}_{net} = \sum_{i=1}^n (\vec{F})_i \cdot \Delta t_i \quad (\text{Eq. 4})$$

An example of a force-time curve for one front kick without military boots is shown in Figure 2. Time to reach peak force was defined as the time difference between the initial foot contact (t_0) and the peak force (F_{peak}). For impulse analysis, we used the course of the whole kick.

An example of a force-time curve for one front kick with *MB* is shown in Figure 3.

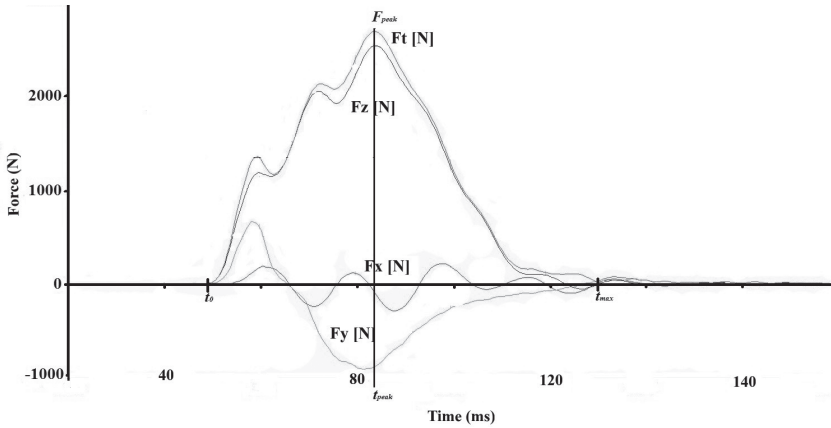


Figure 2 The time course of the kinetic force of one front kick with NB

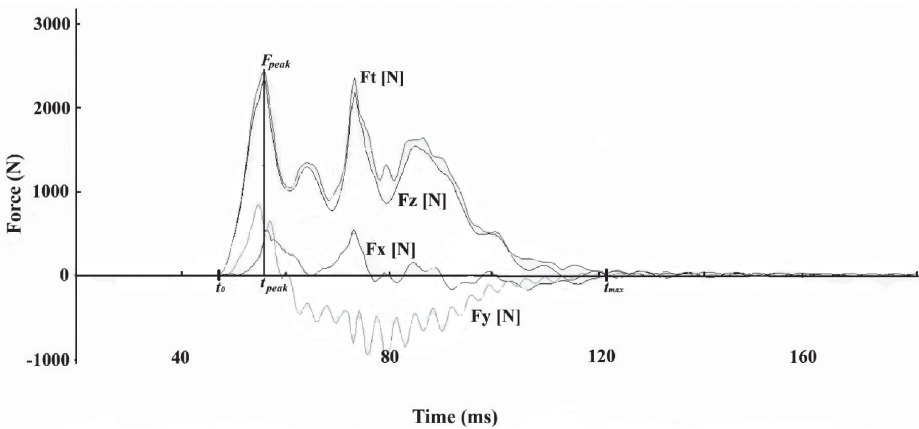


Figure 3 The force-time curve of the impact force for one front kick with MB

Statistical Analysis

The mean and standard deviation of all eight kicks were calculated for each condition (*NB* and *MB*). The Shapiro-Wilk test was used to determine whether the data were normally distributed. The non-parametric Wilcoxon paired test was chosen for data that were not of a normal distribution. In case of a normal distribution, the parametric

paired sample t-test was used. The significance level $\alpha = 0.01$ was chosen for all statistical analyses. Cohen's D was used to determine the effect size.

RESULTS

There was neither a significant difference for peak force ($p = 0.85$; $d = 0.04$) (Figure 4) nor impulse ($p = 0.36$; $d = 0.12$) (Figure 5) between conditions.

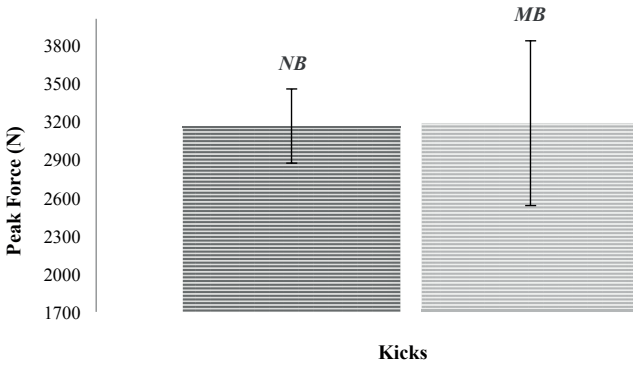


Figure 4 Peak force with military boots (MB), and no boots (NB)

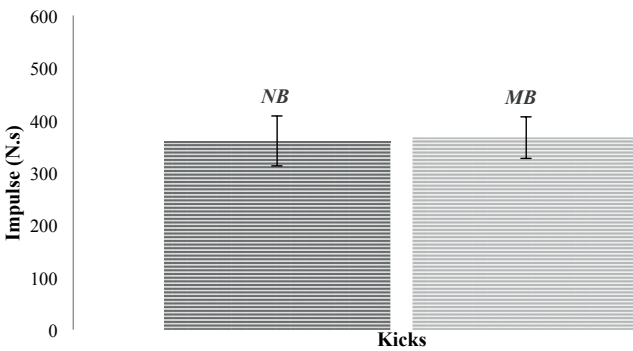


Figure 5 Results of impulse with military boots (MB) and no military boots (NB)

The time to reach peak force was significantly less during MB compared to NB ($d = -0.88$) (Figure 6).

DISCUSSION

The results of this study showed no significant difference for the peak force or the impulse between conditions. However, it was demonstrated that front kicks with military boots significantly reduced the time needed to reach peak force.

The peak force and impulse of front kicks with MB (3180 ± 647 N, respectively 367 ± 40 N.s) was not different than NB (3157 ± 291 N, respectively 360 ± 48 N.s).

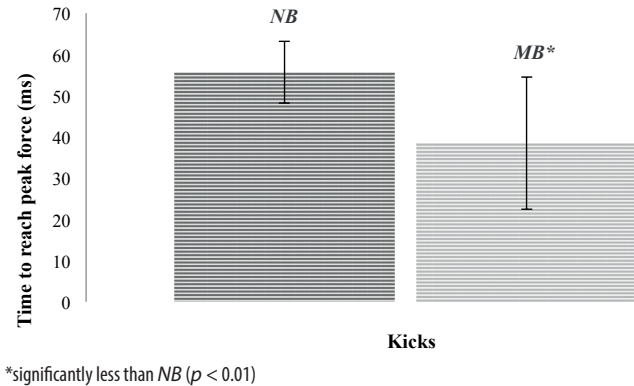


Figure 6 Time to reach peak force with military boots (MB), and no boots (NB)

However, we found something interesting, as peak force was achieved quicker in *MB* (39 ± 16 ms) compared to *NB* (56 ± 8 ms). In another study, Vágner et al. (in press) found peak force with *MB* was 5201 N, impact force 3405 N and time to reach peak force 14.02 ± 6.71 ms. In this study participants kicked into the tatami (8 cm), which it was fixed on the force plate. In our study, a kick pad was fixed on the force plate. The kick pad was wider and softer. This also causes that the time to reach peak force is longer than the study of Vágner et al. (in press). The results of our study are hard to compare to other studies that focused mainly on barefoot front kicks. Nevertheless, Kurgano & Yokokura (2012) found that the peak force of front kicks performed by Japanese martial art Nishon-Kempo was 4500 N. Dworak et al. (2005) found that the impact force was 2900 N.

Interesting findings have also occurred when viewing the kick progress with *MB* (Figure 3). During the kick, we measured two peak forces that were almost the same. Probably, this is caused by the interaction of the military boots with contact of the kick pad on the force plate, where the military boots hit and pressed the kick pad. There was no such thing as a kick with *NB* (Figure 2).

The intrapersonal comparison of the peak force showed no significant differences for four participants between using military boots or not during front kicks. More-detailed analysis of the results for other two participants came to contradictory conclusions. The peak force was higher when using no boots compared to using military boots for one participants and in case of the other one, the results were opposite.

Small sample size and the analysis of only dynamics of front kicks without any kinematical analysis are the limitations of the study. Future research should focus on the analysis of both, dynamics and kinematics of front kicks. However, this is the first study analyzing the effect of military boots on the dynamics of front kicks in trained soldiers.

CONCLUSIONS

Wearing military boots decreased the time to reach peak force during the front kick. There was a different shape of the force-time curve between both conditions during

front kicks into the kick pad fixed on the surface of the force plate. Using military boots resulted in two peaks in the force-time curve, of which the second one reached a lower maximum. Military boots changed the course of impact force a front kick.

ACKNOWLEDGEMENTS

Close combat – physical confrontation between two or more opponents at short range involving weapons (knife, stick, firearms and other distance weapons).

Personal protective equipment – protective clothing, helmets, thorax-protection system or other equipment designed to reduce the likelihood of serious injury from the impact of small arms fire and fragments.

Front kick – is a kick executed by lifting the knee straight forward, while pulling the foot to the hamstring, and then straightening the leg in front of the target area.

Impact force – the force generated at the start of contact or collision. In close combat, this is the impact of a kick or punch as they hit the body or solid pad.

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Service quality in sport: A case study of golf resorts in the Liberec region

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ABSTRACT

In the sport service environment, the level of customer satisfaction is monitored more and more thoroughly. The assumption is that a satisfied customer remains loyal for a longer period of time, buys more new products, talks favourably about the service provided, pays less attention to competing services, is less sensitive to price, and provides the company with new ideas for service improvement.

Aim. The aim of this paper is to assess the level of customer satisfaction with golf resorts in the Liberec region. The survey evaluates the satisfaction of 78 customers at four golf courses in the Liberec region.

Methods. Customer satisfaction was surveyed using a standardized questionnaire adjusted to Czech conditions and based on the SERVQUAL model. This method identifies gaps between customer expectations and perceived quality of golf courses. It seeks to assess customer satisfaction with the golf course, the golf course amenities, the services offered, the golf course staff, the club staff, and the golf resort management.

Results. Overall results showed that the customers were most satisfied with the services at Grabštejn Golf Course (total gap 0.02), while Malevil Golf Course and Ypsilon Golf Course had the same negative result (total gap -0.22) and the worst negative gap was at the Ještěd Golf Course (-1.24). The results show that there is room for managers to improve their services. In all cases the biggest gap appeared in the "Satisfaction with the course" dimension (except at Ypsilon GC), Ypsilon GC had the biggest problem in the "Satisfaction with staff" dimension (-0.72). Also the customers at the Malevil GC claim that they are dissatisfied with the golf resort management (-0.74).

Conclusion. There is room for improvement at all golf courses that took part in this research. Customers are mostly dissatisfied and they evaluated the service provided as low quality in most of the dimensions. Generally the worst area is the golf course and staff. At the Ještěd GC, the results show that the management of the golf course is at a low level.

KEYWORDS

customer expectations; customer satisfaction; golf, service marketing; SERVQUAL

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INTRODUCTION

In the sports environment, golf – now an Olympic sport – has grown both in popularity and importance. Various companies do business in the golf environment now. In their endeavour to succeed and to reach and attract customers, companies seek ways to differentiate themselves and their offerings from their competitors. Their goal is to retain customers on a long-term basis. To attain an advantageous position in the market it is essential to be able to respond quickly to customers' requirements and to adjust the company's offering appropriately.

Organizations should offer services that are able to meet their customers' expectations. They should develop a service proposition based on a survey of customer needs in all relevant market segments together with monitoring competitors' performance (Payne, 1996). The process of investigating customer needs is an interactive process called Customer Relationship Management that aims at achieving the proper balance between the company's investments and meeting the customer's needs. The ideal balance is determined by maximum benefit and profit enjoyed by both parties (Chlebovský, 2005). A long-term loyal relationship with customers is essential for achieving the best possible results, and this is especially true in the golf environment as golf clubs depend entirely on their members. Often, proceeds from the membership fees are the main source of revenues, without which many golf centres could not manage. Managers try hard to create a perfect atmosphere and pleasant ambience for their customers so that they feel comfortable there, remain loyal to their golf course, and keep coming back. It is generally acknowledged in the service sector that to find a new customer is far more challenging (financially, organizationally, and otherwise) than to retain a current one. The main goal is to create a situation where the customer is proud to represent the club.

Satisfaction is a state in which the customer's needs have been met in full and the expectations of all service quality attributes have been matched or exceeded (Kotler & Armstrong, 2004; Cronina, Brady, & Hult, 2000; Schneider & White, 2004). Customer satisfaction is defined as a judgement or an opinion that a product or service feature, or product or service itself, is providing (or has provided) a pleasurable level of consumption-related fulfilment (Oliver, 2010).

Determining whether or not there is a relationship between the service quality and customer satisfaction is an issue that has been discussed in literature for several years. Based on expectations from both quality and customer satisfaction, a close link exists between these concepts (Zeithaml & Bitner, 1996; Berry & Parasuraman, 1991; Zamazalová, 2009). A customer has many expectations in relation to service provision. He or she expects certain functions, speed of service provision, certain conduct and behaviour of the staff, etc. It is assumed that the customer expects a specific level of satisfaction for each service attribute.

Numerous studies indicate that people tend to share their positive experience with four to five other people, but that they will complain about their negative experience to as many as nine to ten people. Negative feedback spreads much faster and has an adverse impact on the company's performance. The quality of service provided is very important although it is not easy to determine what quality means. After searching through definitions by many authors (Spencer, 1994; Vodáček & Vodáčková, 2009;

Fisk, Grove, & John, 2000), “requirement compliance” seems to be a fitting expression to characterize quality. A deeper meaning of the term can be found in the definition by Svozilová (2006) who defines quality as a set of product features able to meet explicit or assumed needs.

According to Šíma (2014) various methods are used in the research of service quality in sport, e.g. mystery shopping, audit quality, SERVQUAL, SERVPERF (Cronin & Taylor, 1994; Rai, 2013), SERVIMPERF (Haller, 1998), TQM (Nenadál, 2004), SQAS (Lam, Zhang, & Jensen, 2005), QUESC (Kim & Kim, 1995) or Penalty Method (Brandt, 1987), ECSI (Kristensen, Martensen, & Gronholdt, 2000), and Brady’s model (Brady, Cronin, 2001). When applied to a specific sport, the methods listed above are properly adjusted and transformed. As a widely recognized and well-proven approach valued by many authors, the SERVQUAL method (Zeithaml, Parasuraman, & Berry, 1990; Šíma & Ruda, 2011; Foberová, 2010, Siami & Gorji, 2012; Lukášová, 2009) based on the GAP model was applied as the main tool to investigate customer satisfaction with selected golf resorts. In total, five gaps were identified based on qualitative research. This paper deals with Gap 5 that results from the previous gaps 1 to 4 and determines the difference between what customers expect and what is actually offered by the providing company.

AIM

The aim of this paper is to evaluate the service quality and customer satisfaction among the golf resorts in the Liberec region. Making use of the results achieved, provisions for better performance will be suggested to those organizations that received the lowest scores from their customers on the quality of service provided. Moreover, this paper provides specific details of the analysis of results by means of the SERVQUAL method.

METHODS

To research golf players’ satisfaction with the service offered by golf resorts, two primary data collection techniques were employed: written survey, electronic survey. Players on the golf courses were asked to fill in a written questionnaire. Other visitors of golf resorts who could not be reached at the golf course were surveyed electronically.

The written questionnaire consists of three main parts, includes 63 questions, and is based on the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1985). This research uses the same principals, and the indicators were modified for the area of golf. There are several critics of SERVQUAL (Cronin, Brady, & Hult, 2000). They point out that the expectation is dependent on the life experience and therefore SERVQUAL cannot measure the real quality of service rather than satisfaction. Others claim (Šíma & Ruda, 2011; Haller, 1998) that this is not relevant in all areas and that sport is one of them. The same authors explain that only frequent visitors, who are aware of high quality services, evaluate sport services.

The first part of the questionnaire included nine questions focused on demographic and psychographic data and, at the same time, it investigates regular attendance at

each particular golf course. Respondents were asked to indicate the option that they agree with most.

The second part consisted of 52 questions divided into six sub-groups (see Figure 1).



Figure 1 Conceptualisation of the SERVQUAL questionnaire modified for the area of golf

Respondents were asked to score each statement on a scale from 1 to 7, where 1 signifies “totally disagree” and 7 signifies “totally agree.” The arithmetic mean is calculated from the sum of all scores to set the averages of both the expected service quality and the service quality delivered. The difference between them determines the gap value. A positive value indicates that the surveyed customer is happy about the service since the service quality delivered is perceived as higher than the service quality generally expected. Any negative value means dissatisfaction. To determine unambiguously which type of service is perceived by customers as having poor quality, it is necessary to focus on the negative values of the gap. The established results are displayed in radial figure (see Figure 1). Figure 1 displays the satisfaction ratio of each sub-group.

The resulting evaluation is performed as the sum of all responses with help of the arithmetic mean, averaging the expected quality of services and actually provided, and the difference between them is the value of the gap. It is important to focus on the highest negative and positive gaps in order to find out which type of service the golf resort customers are most satisfied with or dissatisfied with (Table 2–6).

The questionnaire ends with two open-ended questions. Here, customers were asked to name the biggest weakness and strength of the given golf resort.

The survey was performed from August 2014 through to the end of February 2015 and it involved both men and women of various age groups, jobs, monthly incomes, and golf handicaps. With 700 questionnaires handed out, 295 correctly filled questionnaires were returned. The questionnaire return rate was 42%. The original intent to reach approximately the same sample of respondents of each age group given in

the questionnaire, however, has not been met. The main reason for this was that not all golf players approached were willing to participate in the survey and that made fulfilling the sample difficult.

The basic characteristics of the respondents are shown in Table 1.

Table 1 Characteristic of the respondents

Gender	Number of respondents	Percentage
Male	189	64%
Female	106	36%
Total	295	
Age group	Number of respondents	Percentage
Below 20 years	24	8%
21–30 years	70	24%
31–40 years	54	18%
41–50 years	59	20%
51–60 years	46	16%
Above 60 years	42	14%
Total	295	

RESULTS

Total research carried out on all the courses. 295 respondents from Prague and the Liberec region participated in the survey. Table 1 show the exact distribution to the individual groups surveyed. Distribution of age groups is approximately the same representation, with the exception of the age group under 20 years of research, which involved only 8% of respondents.

Four golf courses (with 78 participants) are selected for this paper, because their results are significantly different from others and seem interesting. The following is the list of golf courses representing the Liberec region: Ypsilon Golf Resort Liberec, Královský Golf Club Malevil, Ještěd Golf Club, Grabštejn Golf Club.

Ještěd Golf Club

Unfortunately, in this club, employees were reluctant to participate in this research. This reluctance of the club's staff was confirmed in the evaluation of the questionnaire, when it was often stated that the club should be more interested in the needs of its members and better communicate with them.

Ještěd Golf Club was ranked as the worst club among all venues, as was the case in the Liberec region. Table 2 shows the greatest dissatisfaction with the golf course, with staff in the club and with the golf resort management. On the contrary, most players were satisfied with golf course amenities and with staff on the golf course.

Table 2 Extent of gaps identified for the main customer satisfaction factors at Ještěd GC – the biggest gap

Satisfaction	With golf course	With golf course amenities	With services offered	With staff on the golf course	With staff in the club	With the golf resort management
Gap	-1.74	-0.56	-1.51	-0.62	-1.64	-1.5
Total gap	-1.24					

Table 2 shows the overall gap, as well as the gaps in each satisfaction factor. In the case of Ještěd GC, the total gap size was -1.24 , indicating high dissatisfaction with the services provided.

Other questions find satisfaction or dissatisfaction with individual factors of golf resorts. Customers were only satisfied with a large enough parking space and never had parking problems here. On the contrary, the players were most dissatisfied with the management's lack of interest in their needs. Then, they were dissatisfied with the quality of greens, maintenance of lawns throughout the golf season, lack of motivation for continuous membership in the club and the impossibility of relying on all customer service. Generally, players are most dissatisfied with the golf course and staff in the club.

Grabštejn Golf Club

Grabštejn Golf Club is located about 20 km from Liberec and has nine holes. The satisfaction with Grabštejn GC is shown in Table 3.

Table 3 Extent of gaps identified for the main customer satisfaction factors at Grabštejn GC – the smallest gap

Satisfaction	With golf course	With golf course amenities	With services offered	With staff on the golf course	With staff in the club	With the golf resort management
Gap	-0.29	-0.02	0.38	-0.27	0.15	0.15
Total gap	0.02					

Players at the Grabštejn GC are more satisfied than dissatisfied. Table 4 shows that the first dimension (satisfaction with golf course) and fourth dimension (satisfaction with staff on the golf course) are the places where the management should focus and improve their service.

Table 3 also shows the total value of the gaps, which is 0.02 , which is a positive number and it means that players were satisfied with the services offered. However, it still shows that players feel very happy here.

The results showed that players are most dissatisfied with the capacity of the parking, as mentioned in the chapter on the services provided on the individual courses. There are very few places in the car park, and for larger events it is necessary to use the grassy area about 200 m from the clubhouse. Other factors that customers were not very satisfied with include poor understanding of trainers' interpretation of training lessons. On the contrary, the greatest satisfaction prevails with the distribution of all the important points of the course, such as the first and tenth hole, the training area, etc. As this is a smaller nine-hole course, this result is not a surprise. Furthermore, the

players were happy with the number of tournaments that Grabštejn GC had prepared during the season.

Královský Golf Club Malevil

Communication and cooperation with this club was very positive. Interest of management and reception in the satisfaction of their players was noticeable. KGC Malevil ranked fourth in the Liberec county. Table 4 shows the greatest dissatisfaction with the golf resort management while, on the contrary, most players were satisfied with golf course amenities.

Table 4 Extent of gaps identified for the main customer satisfaction factors at Královský Golf Club Malevil – the same gap as Ypsilon Golf Liberec

Satisfaction	With golf course	With golf course amenities	With services offered	With staff on the golf course	With staff in the club	With the golf resort management
Gap	-0.33	0.13	-0.35	-0.03	0.04	-0.74
Total gap				-0.22		

Table 4 shows the satisfaction rate of each factor and the total value of -0.22 . This value indicates relative satisfaction with KGC Malevil services.

Focusing on individual questions, customers are most dissatisfied with not being invited by management representatives to club tournaments and lack of awareness of upcoming events. In addition, there are insufficiently prepared greens with the correct cutting height, grass quality for the entire season, and disruption of the game by the greenskeeper in area maintenance. On the other hand, players were satisfied with the location of all the important points of the course, the professional and elegant appearance of staff in the club, and with the professional approach of the coaches.

Ypsilon Golf Liberec

Most of the players were happy with the golf course and with the golf course amenities that are definitely the best in the region, with the highest budget. Players were satisfied with staff on the golf course. Respondents complained about the reluctance of some employees and their behaviour in some situations on the golf course. One of the reasons for dissatisfaction may be the situation with club coaches.

At present only one professional coach operates in the club, which is insufficient and so players prefer clubs with more choices. The players were also dissatisfied with the fact that management was not interested in their needs. The most dissatisfaction was with the inadequate motivation of players to continue membership. This is one thing the managers should focus on and they focused on it in the 2015 season. Too high entry fees caused this problem, however, since the 2015 season, the fee has fallen to one fifth and the club's situation is getting better. The greatest satisfaction was with the number of tournaments that players can take part in, in total there were 99 tournaments.

Table 5 Extent of gaps identified for the main customer satisfaction factors at Ypsilon Golf Resort Liberec – the same gap as Královský Golf Club Malevil

Satisfaction	With golf course	With golf course amenities	With services offered	With staff on the golf course	With staff in the club	With the golf resort management
Gap	-0.09	-0.05	-0.24	-0.72	-0.19	-0.34
Total gap				-0.22		

Table 5 indicates that the players at Ypsilon GC were relatively satisfied. The greatest satisfaction was with golf course amenities; the lowest satisfaction was with staff on the golf course.

Table 6 shows final satisfaction with golf clubs in the region under study. In the Liberec region the players are most satisfied with the services at Grabštejn GC and at least in Ještěd GC.

Table 6 Satisfaction in the Liberec region

Course	Total Gap
Grabštejn	0.02
Malevil	-0.22
Ypsilon	-0.22
Ještěd	-1.24

DISCUSSION

In the course of contacting the selected resorts with the purpose of carrying out the survey, certain signs of annoyance were expressed by the owners of the golf clubs. Some of them refused to take part in the survey and were, therefore, replaced by other clubs. The fact that the resort management is unwilling to cooperate in a customer satisfaction survey was later confirmed by the analysis of questionnaires. Ještěd Golf Club showed the strongest unwillingness. While distributing the questionnaires, it became apparent that this unwillingness is not confined only to the surveyor, but was also directed at customers. It was observed at the golf courses that the customers' requirements are not in the forefront of the management's interest; the customers often feel ignored and neglected. In this case, it would help if there a further qualitative survey among the customers to find out the exact experience was done. The negative attitude is more than obvious in the analysed results of Ještěd GC.

This research is a unique source of information about customer satisfaction with services in mentioned golf clubs. The practical contribution of this research can be considered, in particular, as a proposal for a methodical procedure for assessing the quality of services in the golf resorts. The SERVQUAL method respects the aspect of comprehensiveness involved in the defined constructs and is applicable to various sport establishments – both for-profit and not-for-profit organizations. Its frequent application to assess the quality of service is a proof of this (Murray & Howat, 2002;

Saleh & Ryan, 2006; Kouthouris & Alexandris, 2007). The use of this method provides the management of golf establishments with an opportunity to enhance customer satisfaction, strengthen their loyalty and, in the form of recommendation, attract new customers to golf services. To achieve a more comprehensive picture, it can be combined with other methods. In this case, the method could be combined with interviews with golf players and the golf resort management.

Cronin, Brady, & Hult (2000) claim in their study that SERVQUAL cannot evaluate more than the satisfaction of the customers and that this method cannot evaluate the quality of service. This claim can be disputed because on one hand the data shows the connection between the size of the gap and the evaluation of the service on the scale, and on the other hand the researcher could see that if there are visible problems with the service, people evaluated the problem in the questionnaire.

Looking at the SERVQUAL method and its application in the sport sector, it should be noted that it only measures functional quality (how services are delivered to a customer), but not technical quality (what is delivered to a customer) (Šíma, 2014). It is, however, questionable to assume how high the expectations are as this is the basis on which the customer determines the real perception of service quality. Expectations may be quite high, and although the perception of what is delivered does not match them, the customer may still be satisfied. In such a case, the resulting negative values indicate an exaggerated level of expectations rather than dissatisfaction.

When surveyed using the SERVQUAL method, respondents are asked to express which rating on a Likert scale best represents their expectations and actual perception of service. A seven-point scale was used for this survey where the surveyor primarily sought the gap between the selected responses. A positive value of the gap indicates satisfaction with service provided by the golf resort, while a negative value indicates that the surveyed customer experiences dissatisfaction. The surveyor works with the difference of values without further investigating whether the resulting gap (-1) is the difference between values 7 and 6, or values 3 and 2, which may significantly affect the opinion.

The theoretical benefits of this paper may be considered theoretical procedure, which with exceptions, have not yet been made available in the domestic literature. Theoretical approaches to the measurement of quality of services have been defined on the basis of a search of foreign professional literature. To understand the complexity of the solved field were studied various methods for evaluation of service quality in sport. For this paper was chosen SERVQUAL method, which seemed adequate to achieve the aim of this paper. This paper provides specific details of the analysis of results by means of the SERVQUAL method.

Ruda, Augustova, & Šíma (2012) claim that even though SERVQUAL has many limitations, this method is good for evaluation of service quality in sport. This study can be confirmed because the collected data gave reasonable and quick feedback from the customers and highlights the areas where the service provided should be improved.

CONCLUSION

The survey provided interesting information that is useful mainly for golf resort staff. The available data make it possible to see which attributes of service quality are essential for the perception of a golf course and which are of minor importance for customers.

Ještěd GC received the biggest negative rating from the players (customers). Unsatisfactory customer care provided by the staff and poor tee quality are considered to be the most serious drawbacks. Customers complain about muddy tees, which can be caused by too much felt lining under the surface. Should this be the case, it is recommended to increase the intensity of turf punching for better core aeration and to re-seed the tees. The location of the golf course and the profile of certain holes, on the other hand, were perceived as positive features. As regards the unsatisfactory customer care on the part of the staff, it is recommended to organize more golf tournaments and other social events focused on the members. Such events would give the members opportunities to meet not only other members, but also staff members, and share their impressions and previous experience with the resort. It is informal meetings that often give rise to interesting insights and ideas for improving the existing offer. In the best case, the bonds between the members and staff members can strengthen and relations improved on a longer-term basis.

The results showed that the customers are most satisfied with the services at Grabštejn Golf Course (total gap 0.02) Malevil Golf Course and Ypsilon Golf Course had the same negative total gap -0.22 . The worst negative total gap (-1.24) was at the Ještěd Golf Course. The results also show that there is a place for managers to improve their services. In all cases the biggest gap appeared in the “Satisfaction with the course” dimension. This was different at Ypsilon GC; Ypsilon GC had the biggest problem with the “Satisfaction with staff” dimension (-0.72). Also the customers at the Malevil GC claim that they are dissatisfied with the golf resort management. This is represented by the negative gap -0.74 .

The previous findings were used to suggest improvements not only for Ještěd GC, but also for the remaining 3 golf resorts (see Šíma, 2015). Based on the data collected, these resorts do not face serious problems and their main challenge for the future is to maintain at least the same, or even higher, quality of service than they presently provide.

This survey showed that the Liberec region is a specific area with a nice view, mountains, forests, and all together beautiful nature. Considering that Liberec is really close to Germany, it can be assumed that players here have experience with golf courses in Germany and therefore they have higher expectations of the service quality. The pitted terrain also makes it difficult for the developers to make 18-hole golf courses because of the needed space. On the other hand customers are generally satisfied with the familiar atmosphere because of the limited size and number of people visiting such golf courses.

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