



Position of sport in subjective quality of life of deaf people with different sport participation level

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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ABSTRACT

The objective of the present study was to analyse the position of sport as a quality of the life domain (QOLD) in subjective quality of life (S-QOL) in deaf and hard of hearing (D/HH) people with different sport participation level. Three groups of D/HH people (n=164) were recruited for the study: elite and competitive athletes (ECA; n=30; mean age 22.2±1.8 years), recreational athletes (RA; n=22; mean age 25.2±2.0 years) and non-athletes (NA; n=112; mean age 26.8±1.9 years). D/HH ECA are the most satisfied in their lives equally with their sport participation, social relations, physical health and the level of independence together with general health. D/HH RA reported the highest satisfaction with sport participation, social relations and with physical health and the level of independence. Position of sport is in ECA and RA lives is the priority number one as well as the satisfaction with other QOLDs as social relations, physical health and level of independence. The position of sport participation in D/HH NA among the QOLDs was interestingly in the second place in the order together with physical health and level of independence domain. Inclusive participation in sport from the earliest age of D/HH children together with able-bodied peers should help better understand mutual communication. Than D/HH people would remain in regular sport participation in later life and so S-QOL among D/HH minority population would be significantly increased.

KEYWORDS

Deaf and hard of hearing, athletes, non-athletes, quality of life domains, satisfaction.

Introduction

Members of the deaf community are commonly thought of as a group of people with similar cultural values and attitudes toward deafness, and a common language. This definition points out factors that can contribute directly to a person's over-all well-being. At the most basic level, deaf people come together because, psychologically and linguistically, such communion provides the most comfortable environment in which to gain social gratification (Karademir, 2015). This is the reason there are deaf clubs, deaf associations, deaf religious organizations, and deaf sport activities serving a variety of personal interests and needs of the deaf population (Stewart & Ellis 2005). For many deaf adults, participation in deaf sport events is a major mean of socialization (Kurková, Válková & Scheetz, 2011).

Deaf and hard of hearing people provide a different level of sport participation. Those who compete in elite competition 'Deaflympics' are elite athletes and those who do at least 150 minutes of moderate-intensity physical activity throughout the week or do at least 75 minutes of vigorous-intensity physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity (WHO, 2011) are recreational athletes. Deaf elite and also recreational sport provide a place for the meaningful interactions with others who communicate using sign language, an opportunity that is hard to come by in communities where the vast majority of people are hearing and communicate by means of a spoken language. Another benefit is a psychological one, as deaf people have an opportunity not only to be athletes but to be the sports directors, event staff, and spectators. This type of participation strengthens their self-identity, enhances their self-esteem, and increases the confidence in maintaining a lifestyle that allows them to be contributing members of their community (Stewart & Ellis, 2005, Zajadacz & Śniadek, 2013). Moreover, participation in varieties of sport and competitions offers one of the significant opportunities to deaf people to help them not only to overcome psychological and physical problems, but also to help them increase a subjective quality of life (S-QOL) level.

Sporting activities and exercising are significant factors for a person's development and his/her integration in the society in general. Sport, in this way of meaning, is the phenomenon that influences the society of healthy people as well as people with different kinds of disabilities. The positive effects of sport improve the quality of life (QOL) of healthy individuals and also individuals with different types of disabilities and fulfil all the human needs on the five-stage pyramid of needs (Kamelska & Mazurek, 2015). When the sport behaviour converts into practicing sport activities, then the sport will benefit the physical and psychological health, as it is known (Peráčková & Peráček, 2019). According to Bowling (2005), S-QOL is synonymous with how positive one's life is. Nemček (2016a) found, that D/HH athletes declare significantly higher score of S-QOL level in comparison to athletes with the physical disabilities. She revealed significantly higher satisfaction with all evaluated QOL domains (QOLDs) in D/HH athletes comparing to athletes with the physical disabilities. D/HH athletes in her study reported significantly higher satisfaction with the general health, physical health, mental health and with the environment (Nemček, 2016a).

The objective of the present study was to analyse the position of the sport as a quality of life domain in subjective quality of life in deaf and hard of hearing people with different sport participation level. Furthermore, this study should deepen the knowledge of the position of the sport participation domain among the other quality of life domains within the elite and competitive athletes, recreational athletes and non-athletes who are deaf and hard of hearing.

Methods

Participants and procedure

Three groups of deaf and hard of hearing people (D/HH; n=164) categorised by the level of sport participation were recruited for the study: elite and competitive athletes (ECA; n=30; mean age 22.2±1.8 years), recreational athletes (RA; n=22; mean age 25.2±2.0 years) and non-athletes (NA; n=112; mean age 26.8±1.9 years). Participants were contacted through representatives of national regular/sport organisations/associations all around Slovakia unifying people with special needs. Some questionnaires were sent electronically by representatives of the organisations and some were passed out at the different meetings organised by national organisations. All data were collected for 2019 year's period. All D/HH participants agreed participate in the study and gave their written informed consent. The Ethics Committee of the Faculty of Physical Education and Sports, Comenius University in Bratislava (ref. no. 10/2019) had approved this research.

The Subjective Quality of Life Analysis (S.QUA.L.A) and The World Health Organisation Quality Of Life (WHOQOL)

S.QUA.L.A. is a multidimensional instrument. This multidimensional self-assessment method was created by Mathieu Zannotti in 1992 (Zannotti & Pringuey, 1992). This scale includes 23 indicators of life (QOLIs). It covers traditional areas (food, family relation etc.) and more abstract aspects of life (politic, justice, freedom, truth, beauty and art, love). We used second part of S.QUA.L.A. where for each QOLI, participants were asked to evaluate their degree of satisfaction using the 5-point rating scale. Score 1 (high satisfaction) meant the highest satisfaction and in the same time the highest level and score 5 (total disappointment) expressed the absolute insignificance of the particular indicator in life. The lower mean point score meant higher satisfaction with particular QOLI. For this study we modified the S.QUA.L.A. questionnaire by including one more indicator/domain "sport participation (SP)". We unified all 24 S.QUA.L.A. QOLIs into five quality of life domains (QOLDs) following WHOQOL (WHO User Manual, 1998): (1) General Health (GH); (2) Physical Health and the Level of Independence (PHLI); (3) Psychological Health and Spirituality (PHS); (4) Social Relationships (SR); (5) Environment (E) and additional Sport Participation (SP) domain. Overall QOL (OQOL) was calculated by summarizing scores of all 24 QOLIs. In this study a Slovak version of the S.QUA.L.A. was used (Nemček et al., 2011).

Data analyses

The program IBM SPSS Statistics version 23.0 was used for data processing. Qualitative variables are presented as proportion (n) and percentage (%). Quantitative variables are presented as mean and standard deviation (\pm SD). The Kolmogorov-Smirnov test was used to evaluate data normality and non-parametric Wilcoxon Signed Rank Test was used to assess the differences between QOLDs within three groups of D/HH people (ECA, RA and NA). The rate of effect size between the two related samples (QOLDs) was conveyed by means of the coefficient d ($d > 1.30$ very large effect size, $d = 0.50-0.80$ large effect size, $d = 0.20-0.50$ medium effect size, $d < 0.20$ - small effect size) proposed by Cohen (1988). The significance level was set at $\alpha \leq 0.05$ (*) and $\alpha \leq 0.01$ (**). In the current study, only one measurement has been made and three main groups of D/HH people according to their sport participation level formed the study.

Results

Observed data of the current study showed almost the same QOLDs' order in the groups of D/HH ECA and RA reported by mean point scores. Both evaluated groups of D/HH people were the most satisfied in their lives with the sport participation (1st place in the order), then with the domain social relations (2nd place in the order), physical health and the level of independence (3rd place in the order) and in the 4th place in the order with the general health. The results further revealed the highest dissatisfaction in life of D/HH people who participate in sport at the elite and competitive level with the domain environment and D/HH people who take part at the sport at recreational level are the most dissatisfied in their lives with the psychological health and spirituality (Table 1). Analysing the position of QOLDs' satisfaction in the group of D/HH NA the results of the present study reported by the mean point scores show the highest satisfaction with the domain social relation (1st place in the order) and in the 2nd place in the order they are the most satisfied in their lives with the physical health and level of independence. Interestingly they reported very high satisfaction with the sport participation (3rd place in the order) even they do not participate in any leisure sport activity. Results further revealed the highest dissatisfaction in the group of NA people with the general health (5th place in the order) together with environment (6th place in the order).

Table 1. The QOLD's order in QOL of D/HH people according to sport participation level

QOLD's order	Elite and competitive athletes	Recreational athletes	Non-athletes
(mean ± SD)			
1 st	Sport participation (1.767±0.774)	Sport participation (2.091±0.750)	Social relations (1.978±0.463)
2 nd	Social relations (1.842±0.605)	Social relations (2.174±0.398)	Physical health and LI (2.398±0.438)
3 rd	Physical health and LI (2.000±0.516)	Physical health and LI (2.220±0.369)	Sport participation (2.451±0.748)
4 th	General health (2.067±0.828)	General health (2.500±0.673)	Psychological health and S (2.550±0.470)
5 th	Psychological health and S (2.090±0.645)	Environment (2.553±0.410)	General health (2.633±0.771)
6 th	Environment (2.204±0.535)	Psychological health and S (2.679±0.483)	Environment (2.669±0.486)

Note. Lower mean score indicates higher satisfaction with QOLD.

Source: own study.

Analysing the differences between QOLDS' satisfaction in the group of D/HH ECA were found no significant differences among the first four QOLDS (Table 2). The results of the present study revealed, that D/HH ECA are in their live equally very satisfied with the sport participation, social relations, physical health and the level of independence together with the general health. We found significant differences between the sport participation (QOLD in the 1st place in the order) and the psychological health and spirituality (5th place in the order) at the 5 % of statistical significance ($Z=-2.02$, $p=0.043$, $d=0.453$) and between the sport participation and environment (6th place in the order) at the 1 % of statistical significance ($Z=-2.95$, $p=0.003$, $d=0.657$).

Table 2. Differences between QOLDS in D/HH elite and competitive athletes

QOLDS	GH	PHLI	PHS	SR	E	SP
GH	1	-0.65 0.519	-0.35 0.725	-1.52 0.130	-1.08 0.279	-1.77 0.077
PHLI		1	-1.29 0.196	-1.80 0.071	-2.37* 0.018	-1.55 0.121
PHS			1	-2.09* 0.037	-1.59 0.112	-2.02* 0.043
SR				1	-3.05** 0.002	-0.73 0.464
E					1	-2.95** 0.003

Note. *≤.05, **≤.01 = p-values (statistical significance)

Source: own study.

In comparison of QOLDS' satisfaction in the group of D/HH RA we found no significant differences between the domain sport participation and another two domains in the order (Table 3). The results report the same satisfaction with the sport participation, social relations as well as with the physical health and the level of independence in the group of D/HH RA. Significant differences were found between the domain sport participation (1st domain in the order) and general health domain (4th place in the order) ($Z=-2.32$, $p=0.020$, $d=0.574$) and environment (5th domain in the order) ($Z=-2.16$, $p=0.031$, $d=0.764$) at the 5 % of statistical significance. As the results show, D/HH RA are in their lives the most dissatisfied with the psychological health and spirituality. The satisfaction comparison between the sport participation (1st domain in the order) and the psychological health and spirituality (the last domain in the order) revealed the significant differences at the 1 % of the statistical significance ($Z=-2.54$, $p=0.011$, $d=0.932$).

Table 3. Differences between QOLDs in D/HH recreational athletes

QOLDs	GH	PHLI	PHS	SR	E	SP
GH	1	-2.00*	-1.41	-2.26*	-0.65	-2.32*
		0.046	0.158	0.024	0.518	0.020
PHLI		1	-3.63**	-0.35	-3.38**	-0.75
			0.000	0.727	0.001	0.453
PHS			1	-3.81**	-1.67	-2.54**
				0.000	0.095	0.011
SR				1	-3.48**	-0.43
					0.001	0.669
E					1	-2.16*
						0.031

Note. * ≤ 0.05 , ** ≤ 0.01 = p-values (statistical significance)

Source: own study.

In the group of D/HH NA results revealed the significant differences in satisfaction between the domain social relations (the 1st domain in the order) and the physical health and the level of independence (the 2nd domain in the order) ($Z=-7.32$, $p=0.000$, $d=0.932$). No significant differences were found in satisfaction between the physical health and the level of independence and the sport participation, that means D/HH NA are in their lives equally very satisfied with these two domains even they did not report any participation in the sport leisure activities in the enquiry (Table 4). The results of the present study further revealed the significant differences between satisfaction with the sport participation (the 3rd domain in the order) and the psychological health and spirituality (the 4th domain in the order) ($Z=-1.96$, $p=0.050$, $d=0.158$) as well as between the sport participation and general health domain (5th domain in the order) ($Z=-2.30$, $p=0.021$, $d=0.240$) at the 5 % of statistical significance.

Table 4. Differences between QOLDs' in D/HH non-athletes

QOLDs	GH	PHLI	PHS	SR	E	SP
GH	1	-4.01**	-1.14	-6.94**	-0.42	-2.30*
		0.000	0.255	0.000	0.678	0.021
PHLI		1	-3.82**	-7.32**	-6.90**	-0.54
			0.000	0.000	0.000	0.589
PHS			1	-8.30**	-3.56**	-1.96*
				0.000	0.000	0.050
SR				1	-8.37**	-5.62**
					0.000	0.000
E					1	-4.25**
						0.000

Note. * ≤ 0.05 , ** ≤ 0.01 = p-values (statistical significance)

Source: own study

Discussion

The objective of the present study was to analyse the position of the sport in subjective quality of life in deaf and hard of hearing people with the different sport participation level. Furthermore, this study should deepen the knowledge of the position of sport participation among the other quality of life domains within elite and competitive athletes, recreational athletes and non-athletes who are deaf and hard of hearing. We found that ECA who are D/HH are in their lives equally the most satisfied with sport participation, social relations, physical health and level of independence together with general health. RA who are D/HH reported the highest satisfaction with the sport participation, social relations and with the physical health and the level of independence. As the study's results showed, position of sport is in ECA and RA lives is the priority number one as well as the satisfaction with the other QOLDs like the social relations, physical health and the level of

independence. Athletes in general, experience plenty of emotions in the elite, competitive and recreational sports environment such as winning, losing, struggle, ambition, happiness, unhappiness and competition, that can positively affect the subjective QOL. The study of Proios (2020) argued that sports of people with disabilities are a self-motivation act. Nemček, Kraček & Peráčková (2017) in their study found significantly higher S-QOL in groups of ECA and RA comparing NA without health status differentiation. No significant differences in S-QOL were found between ECA versus RA. Athletes, no matter if they are ECA or RA, are more resistant to stress and have higher levels of active adaptation, social competence, communication and problem solving skills (Özdemir, 2019). At the same time, they are more target-oriented individuals with optimistic future perceptions and positive self-perception. Their sense of humour and empathy skills are extremely improved (Yılmaz & Sipahioğlu, 2012). These factors significantly increase S-QOL level not only in healthy athletes but also in athletes who are D/HH (Nemček, 2017).

Even the results of the present study declare high satisfaction with the sport participation in D/HH people who paradoxically do not participate in any sport leisure activities, there are some investigations that confirm significantly higher level of S-QOL in actively living D/HH people compare inactive D/HH individuals. Nemček (2016b) found significantly higher satisfaction with general health, physical and psychological health as well as with environment in D/HH people who are regularly participating in sport leisure activities comparing sedentary living D/HH people. Therefore, society has to incorporate hearing-impaired individuals in sports and recreation activities because this helps these individuals to develop healthier lifestyles in the course of time (Stewart & Ellis, 2005). Participation in activities and sports helps individuals to understand and establish communication with their environment. Participation in the sports activities has a prominent place in the Deaf community, with participants experiencing benefits not only in the physical sense but in other personal dimensions (Stewart, 1991).

We can further discuss, why NA deaf people expressed high satisfaction in their lives within the domain sport participation even they do not participate in any sport leisure activity. Probably the reason was the lack of sign language usage while completing an enquire. It is well documented in the literature that deaf people who embrace sign language have a different language and a different culture (Ammons 1990; Stewart 1991). Their hearing loss may not be obvious to hearing individuals when they first encounter them, but both the deaf and the hearing person typically experience major difficulties when they attempt to communicate. It is the only “disability” that hearing people can be as disabled as those who are deaf. One can assist a blind person when crossing the street or offer to push a wheelchair uphill. However, if the hearing individual does not know sign language, he or she is as disabled as deaf individual who does not use speech to communicate. The communication breakdown occurs because both individuals lack a specific skill set (Kurková & Scheetz, 2016).

The present study confirms, that position of sport, as the priority number one in the lives of the elite, competitive and recreational D/HH people play a crucial role in S-QOL. Sporting activities provide occasion to meet values and needs of an able-bodied as well as deaf individuals. The thoughts of noted that, if they accept that exercise is a key part of the sport and that mental well-being is a key part of quality of life, then it can be argued that sport has a role to play in the concept of quality of life (Galloway et al, 2006). Inclusive participation in regular sport activity of the deaf people together with able-bodied athletes can help to D/HH better understand the communication of hearing population. Integration of deaf athletes in the system of training and mainstream competition with normal hearing athletes helps them to raise their quality of training and preparation for national and international competitions of deaf, but also allows them to evaluate their current achievements with others throughout the season (Vuljanić, Tišma & Miholić, 2017).

Conclusion

The highest position of the sport participation domain, as the priority number one, showed elite and competitive D/HH athlete as well as recreational D/HH athletes. QOL-D social relations took the highest position in the S-

QOL in the group of D/HH NA. An inclusive participation in sport of children who are D/HH together with able-bodied peers is recommended to not stay inactive for later life even if there is lack of sports clubs for the deaf people in their home surrounding. Parents of deaf children are responsible for the choice of sports leisure activities not only to maintain their children's health to later life or acquire basic motor skills but, first, maintain lifelong physical activities and sport of their children. If there are lack of sport clubs unifying deaf minority population, early integration of deaf children into sports clubs with able-bodied peers can help them to better understand mutual communication. In later life they will not have big problems to participate in regular physical activity or sport together with healthy people. Starting and continuing with the appropriate compulsory and extracurricular physical and sporting activities during the whole childhood should to use physical and sporting activities to become the habits of exercising and should last for the whole life long because of the premise: when you are used to exercise and adapted for doing it as a young person, it is easier to continue with it during adulthood. This phenomenon can significantly increase the subjective quality of life of the deaf and hard of hearing minority population through all QOLDs' satisfaction.

Ethics approval and informed consent

The study was approved by the Ethics Committee of the Faculty of Physical Education and Sports, Comenius University in Bratislava, Slovakia (ref. no. 10/2019). Informed consent to participate was obtained for the study contents, purposes, and protocols, data confidentiality and anonymity procedures, and participants' freedom to discontinue the study had been explained. All subjects signed informed consent before the enrolment.

Competing interests

There are no conflicts of interest associated with this manuscript, financial or otherwise.

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“Our ladies” versus “our dominators”: Gender differences and nationalist discourse in the Polish Olympic coverage

Authors' contribution:

- A) conception and design of the study
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ABSTRACT

The article presents differences in describing sportspeople during the last four Olympic Games in terms of gender and nationality in Polish newspapers. The fundamental goal of the research was to perform the quantitative and qualitative comparison of press materials from four Olympics (Vancouver 2010, London 2012, Sochi 2014, Rio de Janeiro 2016). The content analysis was used for the quantitative part of the study and critical discourse analysis of two newspapers (the broadsheet and tabloid) in Poland for qualitative part. 712 media articles were analyzed. Our analysis has revealed significant underrepresentation of women and also differences in the description of rival competitors as well as overrepresentation of articles about Polish representatives during the Olympics. Those articles dwelt on the issue of nationality much more often and were more emotionally charged. Also, to a great extent, the performance of non-Polish women athletes was left unconsidered. The authors therefore indicate the validity of combining gender analysis and nationality in the context of the Olympic Games.

KEYWORDS

gender, nationality, sport, Olympic Games, Polish daily newspapers

Introduction

The Olympic Games is an economic, cultural and political phenomenon which attracts the interest of a notable part of the world. It is the world's most important sporting event that reaches the majority of the global population through the media (Billings, 2008, pp. 5-6). Due to the number of following fans, it can be stated that the Games have a substantial impact on shaping opinions about sportspeople. The Olympic Games are also an opportunity for female competitors to present their skills since during the Olympics interest in women's sports is greater than usual (Billings, 2008, pp. 107). Sport continues to be an essential part of culture and a carrier of numerous cultural meanings, such as those related to femininity and masculinity. The growing role of sport and saturation of culture with the information about female and male athletes makes the way of presenting female competitors crucial for perceiving and appreciating femininity in given societies.

The fundamental goal of the research was to examine the Olympic press coverage of some of the largest Polish daily newspapers: *Gazeta Wyborcza* and *Fakt* (tabloid) (Związek Kontroli i Dystrybucji Prasy, 2020). The achievements of Polish female contestants, with a smaller representation, are comparable to those of men,

so the manner and frequency of describing their sporting results appear to be interesting. Attitudes to the portrayed sportspeople's nationality will also be examined.

Women and the Olympic Games

More and more females enter every Olympic Games. The 2012 Summer London Olympics were the first time every country was represented by both women and men. Also, women took part in all competitions. It is estimated that in the 2016 Summer Olympics in Rio de Janeiro, female contestants accounted for 45% of all contestants during the Olympics (International Olympic Committee 2016). The Polish numbers in this respect are also noteworthy. Although the representation of Polish female participants during the last four Olympics was always smaller compared to men, it is women who won more medals. The 2016 Rio de Janeiro Olympics were exceptional, because women got 8 out of 11 medals for Poland (Table 1).

Table 1 Participation of Polish athletes and medals won at the Olympic Games examined in the study

	Vancouver 2010		London 2012		Sochi 2014		Rio de Janeiro 2016	
	Women	Men	Women	Men	Women	Men	Women	Men
The number of athletes (%)	21 (45)	26 (55)	90 (43)	118 (57)	24 (41)	35 (59)	101 (42)	139 (58)
The number of medals	4	2	5	5	2	4	8	3

Source: own study.

Theoretical framework

The study employs a critical feminist approach. This assumes that gender as a social construct is relationally linked with other identities and categories. It questions the position of women and their gender status in society as well as the criteria and methods normalizing specific understandings of gender. In this work we draw attention to sports media as one of the significant sites of gender construction and reinforcement of specific gender assumptions. It was assumed that the media play a significant role in the construction of social reality (Hall, 1997). The media reinforce and spread social meanings related to women's sports. Content analysis-based studies show that women's sports are underrepresented and that the image of female athletes in media coverage is gender-dependent. As Fink (2015) claims, the negation of women's participation in sports coupled with the failure to feature their performances in the press, is not a reflection of the actual state of affairs but rather an active effort to exclude female athletes from social reality. From a feminist perspective, one can see that sports deliver many patriarchal norms and values. Sport remains a social institution contributing to the reinforcement of gender hierarchy and is considered one of the most 'masculine' social institutions with team sports as the 'core' of masculinity (Messner, 2007). R. Connell (2011, pp. 52-53) emphasizes that the reproduction of hegemonic masculinity and the marginalization of other types of masculinity and emphasized femininity take place through sports. Hegemonic masculinity refers to the practices reinforcing women's subordination. In this way, sports contribute to maintaining the hierarchy between the sexes. A critical approach to sports institutions, employed in global North societies in last decades, allows insight into how these institutions reinforce the traditional understanding of femininity and masculinity.

Gendered sports media coverage

Social researchers have devoted plenty of space to examining gender inequalities in sports media coverage. In particular, the Olympic Games and related television coverage have been thoroughly analyzed (Angelini & Billings, 2010; Angelini, MacArthur & Billings, 2012; Billings, 2008; Billings et al. 2008). In the last decades, plenty of research was conducted on gender-oriented media sport coverage. Most studies, however, concerned English-speaking countries. These revealed that women's sport is underrepresented and sport coverage about women is encumbered with gender-based prejudices (Cooky, Messner & Musto, 2015; Cooky, Messner & Hextrum, 2013).

Given the different socio-political and historical background, it is important to study media coverage outside the English-speaking countries or those with long-term political stability. Poland, as a post-communist country with a short democratic tradition, remains a place where patriarchal values and norms still play an important role and the feminist paradigm is marginalized (Graff, 2014; Grabowska, 2012). Hence, the media coverage of women's sports in Poland may display different characteristics than those described by the US research.

The few studies on sports press content in Eastern and Central Europe indicate women's sport is underrepresented. The *International Sports Press Survey*, in which press releases from 22 countries were studied, including from Poland, Slovakia, Slovenia and Romania, showed that 85% of articles dealt with male athletes (Horky & Nieland, 2013). Jakubowska (2015) pointed out that only 9% of the articles were devoted to female athletes. Germany and Denmark achieved the best results (18-19%), whereas Greece and Portugal ranked lowest (with 4% and 2% respectively).

Hungarian research by Gál, Velencei and Kovács (2010) focused on the 2004 Athens Olympics and showed that fewer articles were written about women's sports even if it was the Hungarian sportswomen that had won more gold medals. It was also confirmed that coverage of women's sport events unrelated to the Games was even more scarce (Gál et al., 2010). However, qualitative research on press articles published during the 2016 Rio Olympics did not support earlier research findings that women in sports are depicted as inferior to men and described primarily for their physical attractiveness. Slepčková (2010), while researching the 2004 Athens Olympics coverage, pointed to the 'small underrepresentation' of female athletes, both in terms of the number of articles and photos and the number of Czech female athletes competing in the Games. A study of Slovenian television broadcasts during the 2008 Games showed sports commentaries were much more often devoted to male athletes. And the commentaries confirmed the stereotypical convictions that men were 'strong' and women 'attractive'. However, positive and negative comments were equally applied to both groups (Ličen & Billings, 2013). Research also shows that Olympic female athletes can count on much more interest than during the remainder of the sports season (Markula, Bruce & Hoven, 2010, pp. 5-8).

The presented analysis of media sport coverage in the countries of Central and Eastern Europe without doubt indicated the need for further systematic studies. The analysis indicates the under-representation of women's sport though it ought to be noted that with the exception of Gál (2016), these concern Olympic Games from previous decades.

Qualitative analysis of media content on women's sport

Many feminist theory-based studies analyzing the sports press have drawn attention to the re-creation of traditional views on masculinity and femininity also through the manner of sporting relations. Therefore A. Bernstein certainly is right when stating not only the amount of media content on women's sport is significant but the means of constructing femininity and masculinity in sports media is also key (Bernstein 2002). Qualitative studies have shown that women's sport is portrayed differently than men's sport. Information on women's sport focuses on their physical appearance and accentuate their roles outside sport (Bishop, 2003; Cooky, Messner & Musto, 2015; Daddario, 1994; Fink & Kensicki, 2002). Attention was also drawn to the

lackadaisical language (Wachs, 2006, pp. 43) used with respect to women's sport and the variance in the description of sporting ability in terms of gender (Vincent, 2004). Information concerning mainly disciplines appropriate for women is presented, and team disciplines drawing fans' greatest attention are still considered typically masculine (Cooky, Messner & Hextrum, 2013; Fink, 2015). How press news is generated has not changed either, which may induce thinking that women's sport is less attractive and less important than men's (Green, Hardin & Homan 2009). Also, the manner in which information about women's sport is generated and journalists' commentaries present women's sport in a boring light (Cooky et al. 2015). In comparison to the portrayals of men's sport made by energetic and engaged journalists, women's sport seems inferior and less important. Sportsmen are perfect candidates for heroes and nowadays also celebrities. Hegemonic masculinity is reinforced with reports of male athletes' unusual physical abilities (prowess, fitness, strength) as well as bravery and mental resilience (Berg, 2002, pp. 152-153). Frequently, information about women's sport is only about the results, while in the case of men's sport extensive narratives are created. Apart from higher interests of men's sport scholars have highlighted that the sports media have perpetuated the narrative of the inferiority of women's sport and have refused to present the proper coverage of it for years. They argued that gender inequitable coverage does not reflect reality and instead creates a false picture of women's sport as irrelevant (Cooky, Messner, Musto 2015, Kane 2013).

Nationality

The Olympic Games brings nationality issues to the fore. As Bairner claims, 'sport is frequently a vehicle for the expression of national sentiment' (Bairner, 2001, pp. xi)—and the sports media plays a crucial role in maintaining 'imagined communities' (Anderson, 1991). Billig saw the sports press as an important element in sustaining banal nationalism¹. Sport nationalism is not a one-dimensional phenomenon (Bairner, 2001, pp. 17-20). It is associated with the reaffirmation of differences between "our" community and "theirs". It may therefore arouse antagonisms between countries or refer to patriotic emotions, increase prestige or at least compensate for problems (for example social divisions) within the community. As sports columns deliver daily stories of athletes' success, it becomes possible for the readers to celebrate nationality (Billig, 2008, pp. 219-232). Media coverage contributes to the continuous renewal of members' attachment to a given national community. Sport offers an opportunity for hegemonic representations, where everyone shares the same goal and obviously differs from other nationalities (Brookes, 2002, pp. 86-89). Thus, the successes and failures of the national team of athletes may be perceived as a national condition. As Billings indicates, all sport coverage from large sports events features some forms of national prejudice. The studies of Billings and colleagues show that in the NBC coverage, Americans were not only portrayed differently than non-Americans, but also they were mentioned much more often (Billings 2008, pp. 99-105; Billings et al. 2008). Billings' study showed that during the 2012 London summer Olympics, the NBC showed footage of American sports persons more often (55.8%) than any other, and they also made up 75% of most frequently mentioned sports persons (Billings et al. 2014). Ličen and Billings' and Ličen and Topič's studies have indicated that sports journalists describe sporting events around the 'us vs. them' narrative, and tend to mention fellow competitors more often and render their exploits as more meaningful (Ličen & Billings, 2012; Ličen & Topič, 2008).

As in the case of gender analysis, the issue of nationality and sport in regards to sports media coverage has also been rarely explored outside English-speaking countries². An attempt to join the categories of nationality

¹ It ought to be born in mind that the notions of nation and nationalism are the topic of much discussion in social sciences. The problem of a correct definition of these terms, various paradigms and methodological approaches is presented by A. Smith (1998, pp. 221-228). Similarly, a distinction between ethnic and civil nationalism also defies simple treatment (Bairner, 2001, pp. 1-6, 164-166).

² Besides the perspective of sports media about the relation of sports and nationality in Polish context there are important studies worth mentioning (Kossakowski, Woźniak, Nosal 2019; Lipoński 1996).

and gender in the analysis of large sporting event reporting is significant because as Wensing and Bruce (2003) pointed out, during the Olympic Games, “national identity overrides all other identity markers such as gender”. Therefore, not only the amount of space dedicated to women’s sport may be greater than usual, but it is also likely that national discourse may be more frequently applied in describing female athletes than them being considered in terms of gender. Similar to their male counterparts female athletes are the personification of a country’s opportunity for a positive image during the Olympic Games, and their performances are a factor cementing the community. Markula, Bruce and Hovden (2010) noted that because during the Games there is more reporting of women in sport events in terms of their nationality, foreign sportswomen are not equally often presented in sports articles. No such relationship has been observed when it comes to male athletes. Slepíčková’s studies of the Athens Olympics corroborate this thesis. First, these proved that in the Czech press, 70% of texts and 80% of photos were devoted to Czech male contestants. In addition, if there were any articles covering events outside the Olympic Games, almost none dealt with sportswomen (Slepíčková, 2010). The greater attention paid to female athletes during the Games may also be due to their chances of winning a medal for their nation rather than the appreciation of their sporting skills (Markula et al. 2010, pp. 12).

Methods

The fundamental goal of the research was to perform the quantitative and qualitative comparison of press materials from four Olympics (Vancouver 2010, London 2012, Sochi 2014, Rio de Janeiro 2016). The study sets out to answer the following research questions (RQ):

RQ1: Is the same amount of space dedicated to women’s sport as men’s in the analyzed material?

RQ2: Did the content of media reporting differ according to the gender of the sportspersons?

RQ3: Did the content of media reporting differ owing to the sportsperson’s nationality?

The content analysis was used for the quantitative part of the study (Krippendorff, 2004, pp. 17). *Gazeta Wyborcza* (GW) was chosen for the analysis as the country’s most authoritative newspaper (two other newspapers which achieve higher daily sales are newspapers: *Fakt Gazeta Codzienna* and *Super Express*). Bearing in mind that the media shape opinions and create norms and values, it seems crucial to select the most influential newspapers. The daily sale of *Gazeta Wyborcza* (GW) is 89,766 copies, which made it third in terms of sale of newspapers in Poland in January 2020 according to the data of the Association of Press Distribution Control (Związek Kontroli Dystrybucji Prasy, 2020). *Gazeta Wyborcza* is considered a liberal paper that promotes social equality and justice (Filas & Paneta, 2009, pp. 142-143). The other paper selected for analysis is *Fakt Gazeta Codzienna*. It is a tabloid with the highest daily newspaper circulation in the country (217,946 copies).

In the study, all sports articles published from the opening day to the day following the closing of the Olympics were analyzed. The column ‘w skrócie’ (in a nutshell) was not analyzed because it presented only results. Also, the analysis did not cover the articles that were not directly related to competing in sports, like the construction of sports stadiums, economic potential of sport, etc. These articles are described as neutral and broadly related to the Olympic Games.

The quantitative part of the study relied on statistical analysis, namely the chi square test of independence. This test measures whether there is a statistically significant difference between the two qualitative groups. Moreover, a z-test for proportions was carried out to check whether the proportion in the population differs significantly from the standard, and a student’s t-test to compare the two averages. Calculations were performed with the SPSS software (ver. 17.0). For all tests carried out, the significance threshold was set at $p \leq .05$.

The method used for qualitative analysis was the Critical Discourse Analysis (CDA). CDA is a standard method employed to examine media texts. The method analyses how, with the aid of a variety of cultural

texts, the social reality in which individuals operate, is produced (Fairclough, 1992, pp. 64-65; Wodak, 2011, pp. 24). It considers how power discourses: empowerment or de-favourisation of specific social groups are reproduced. The aims of CDA and the critical feminist approach are therefore convergent (Lazar, 2007). The critical feminist approach indeed accepts the assumption of the construction of specific representations of femininity and masculinity in a given culture and also analyses the practices and patterns of unequal, hierarchical power relations (Lazar, 2007). Applying the interdiscursive approach characteristic of CDA, we may study overlapping discourses, and in this case, nationality and gender in sport with the aim of gaining a better understanding of the analyzed material (Fairclough, 2003, pp. 32-37; Lazar, 2007).

A code sheet, structured around the athletes' gender was developed to code the results of the quantitative analysis. The articles were coded according to their length (number of words was decisive), author's gender and sport discipline. We identified four coding categories relevant to the most frequently described differences in the literature on the reporting of women and men's sport. The first category concerned descriptions of physical appearance and sportspersons sexuality in accordance with the analysis of the tendency presented during previous studies for focusing attention on the female athletes' appearance (Daddario, 1994; Fink & Kensicki, 2002). The next category concerned descriptions of the private life and roles of the athletes outside sport (Bishop, 2003; Cooky at al., 2015). The third category of coding referred to the language of sports reporting. We checked whether sarcastic, infantilizing language was used and whether language prejudices or martial metaphors strengthening a certain narrative occurred in the text (Wachs, 2006). The fourth coding category concerned ways of commentating on athletes' abilities and performance (successes and failures) at the Olympic Games.

Two further categories concerned any content differences related to the sportsperson's nationality. Indeed, as shown by Brooks (2002) and Bairner (2001), sport is one of the institutions where national ties are reinforced and the process of separation from other nations takes place. We paid attention to whether there is an emotional approach to fellow countrymen's performances or whether the language of content on athletes of the same nation differs from the tone used for those of different nations.

Results of quantitative analysis

370 articles in *Gazeta Wyborcza* and 342 in *Fakt* were analyzed (Table 2). 126 and 127 articles respectively were written about women's sport, which accounts for 34.05% and 37.13% of all articles. More articles about women's sport were written during the Winter Olympics in 2010 and 2014. This may be the result of the enormous interest in Justyna Kowalczyk's cross-country skiing performances. Table also shows the fraction significance test results. From the series of four tests carried out for *Gazeta Wyborcza* and four for *Fakt*, it appears that in *Gazeta Wyborcza*, for all the Games subject to the study, the percentage of articles about women's sport in the context of all articles about an individual event is significantly lower than 50% in 2010 ($z=-2.33$, $p<0.01$), 2012 ($z=-6.11$, $p<0.01$), 2014 ($z=-4.2$, $p<0.01$) and in 2016 ($z=-4.66$, $p<0.02$). From the series of tests carried out for *Fakt*, it appears that in the context of the London 2012, Sochi 2014 and Rio 2016 Games, the percentage of articles about women compared to all articles devoted to an individual event is significantly lower than 50% (London ($z=-4.56$, $p<0.01$), Sochi ($z=-3.62$, $p<0.01$), Rio de Janeiro ($z=-4.30$, $p<0.01$)). Only during the 2010 Vancouver Olympics, did the percentage of articles on sportswomen fluctuate around 50% of the total.

A student's t-test was also carried out for independent samples to check for statistically significant differences between the average number of articles about women's sports and men's sports respectively. The result of *Gazeta Wyborcza* in Table 3 show that some statistically significant differences exist between the average number of articles about women and that about men ($t(6)=-4.277$, $p<0.05$), with the number about women significantly lower across the population. The student's t-test result for *Fakt* showed that there were no

statistically significant differences between the average number of articles about women and that about men ($t(3.549)=-1.881, p>0.05$).

Table 2. Distribution of articles according to athletes' gender in Gazeta Wyborcza and Fakt

Olympic games	Gender	Gazeta Wyborcza (n=370)			Fakt (n=342)		
		Number of articles (%)	z	p	Number of articles (%)	z	p
Vancouver 2010	Women	49 (40)	-2.33	0.009	27 (40)	-1.58	0.0561
	Men	60 (48)			29 (43)		
	Neutral	15 (12)			11 (7)		
London 2012	Women	24 (21)	-6.11	0.000	39 (30)	-4.56	0.000
	Men	70 (62)			69 (53)		
	Neutral	19 (17)			22 (17)		
Sochi 2014	Women	29 (29)	-4.2	0.000	25 (30)	-3.62	0.000
	Men	53 (53)			41 (49)		
	Neutral	18 (18)			17 (21)		
Rio de Janeiro 2016	Women	24 (26)	-4.66	0.000	36 (30)	-4.30	0.000
	Men	61 (65)			76 (64)		
	Neutral	8 (9)			7 (6)		

Note: z = number of standard deviations from the mean

Source: own study.

Table 3. The average difference between number of articles on women's and men's sports in Gazeta Wyborcza and Fakt

Daily newspaper	Gender	N	Mean	Standard deviation	Standard error of the mean
Gazeta Wyborcza	Women	4	31.5	11.902	5.951
	Men	4	61.0	6.976	3.488
Fakt	Women	4	31.75	6.800	3.400
	Men	4	53.75	22.381	11.190

Source: own study.

As Table 4 shows, sports articles unrelated to the Games during each Olympics significantly outnumbered the articles about women's sports, and also the articles about men's sports during the Vancouver 2010, Sochi 2014 and Rio 2016 Games. Mostly, these were articles concerning the top Polish football league – Ekstraklasa (340 articles). Given that the Polish league is not among the best in Europe, such coverage in press may be surprising during mega sports events. Still, without doubt football is the Polish national discipline and interests in it is significant regardless of the results and level of performance. Further, we should notice that articles about individual Olympics to a large extent described only participation of compatriots. In the case of Gazeta Wyborcza, more articles were written about non-Olympic events than articles about women's sport only during the Vancouver Olympics.

The events described confirm Fakt journalists' strong nationalistic attitudes. During the Olympics in Vancouver, as many as 22 articles (out of the total of 27) were devoted to Kowalczyk, a cross-country skier who won 3 medals, and 18 (out of 29 written) of those about men were devoted to a ski jumper, Małysz. Only 29 out of the 342 articles analyzed did not concern Polish competitors. What draws attention is that only one article about sportswomen concerning events not related to Poles' performance was written during the Olympics in 2010, 2012 and 2014. Also in Gazeta Wyborcza, mainly Poles were described, however articles about the greatest sport stars worldwide also appeared more frequently (99 out of 370 analyzed articles).

Table 4 Articles about non-Poles and sports events not related to the Olympics

Olympic games	Gazeta Wyborcza			Fakt		
	Number of articles about non-Poles (% of all articles)		Number of articles about sports events not related to the Olympics (% of all articles*)	Number of articles about non-Poles (% of all articles)		Number of articles about sports events not related to the Olympics (% of all articles*)
	Women	Men		Women	Men	
Vancouver (2010)	10 (20)	21 (35)	51 (29)	1 (3)	1 (3)	98 (59)
London (2012)	5 (21)	24 (34)	14 (11)	1 (3)	6 (9)	53 (29)
Sochi (2014)	2 (7)	19 (36)	12 (11)	1 (4)	2 (5)	65 (44)
Rio de Janeiro (2016)	5 (21)	13 (21)	15 (14)	5 (14)	12 (16)	88 (32)

Note: *Articles about women, men, neutral and non-Olympic

Source: own study

Results of qualitative analysis

The discourse analysis revealed that athletes' appearance and physique was an essential part of the articles. Athletes were perceived through this perspective in both newspapers in the study. If there is a description of female athletes' physical appearance in the newspapers, it refers to their clothes, smile or make-up. Several articles place emphasis on female athletes', blond hair or slim figure.

"This beautiful Polish foilist is not interested in any other color of medal" (Fakt, 28.07.2012, Przyjechałam po złoto).

At the same time, when physical appearance is described, in several cases female athletes' skills are neutralized. A GW journalist was wondering how a petite and slim female athlete is able to do well in biathlon, and the Olympic female runner-up in sprint canoeing, a competition that requires strength and swiftness, was described as 'strong-delicate'.

"She does not part with her old pink canoe, does not quit her neon nails, she loves the stars tattooed on her neck and back – a strong-delicate woman, Marta Walczykiewicz, Olympic runner-up" (GW, 17.08.2016, Medalowa mieszanka wybuchowa).

Descriptions of male physicality much more often refer to translating their physical conditions into their capabilities in a given discipline. Their athleticism and muscle mass are emphasized.

"The USA team have it all to challenge everyone. Tall, aggressively attacking forwards led by Matthew Anderson, well-known from the Master League, who likes to torture Polish teams. (...) Versatile and athletically-perfect players play a very well-organized volleyball" (GW 17.08. Gazeta Wyborcza 17.08. 2016, Polacy na podbój Ameryki).

There were also descriptions of the physical appearance which had nothing to do with sports. Usually, however, these were long articles that provided complete presentations of a given player, where one could hardly gain the impression that the portrayed person is reduced only to their physicality. A counterexample

may be the portrayal of Vonn, whose beauty, blond hair and a photo session for SI were mentioned in one article.

In the analyzed material, sportspeople were characterized by their parental roles and private life. Norwegian cross-country skier Bjørgen's relationship, with her husband was described, as was swimmer Hosszú's, whose husband was also her coach, just like the parenthood of Miller or Phelps or Polish representatives Bonk or Majewski. It was emphasized that contestants were supported by their families. In the case of sportswomen, it was stressed several times that they would be able to take care of their private lives after the contests.

“Bronze-medal winners in rowing will take care of their family life” (Fakt, Czas na ślub i dziecko, 6.08.2012).

Female contestants' wedding ceremonies after the last Games were described and as was their life as mothers. Such a summary of their participation in the Olympic Games gives the impression that sport was less important for them. These descriptions may also be perceived as the media narrative is "craming" female contestants into conventional femininity. The articles would also notice their relationship with the parents. Especially during the 2012 Summer Olympics, Radwańska's relationship with her father, ex-coach, was emphasized. In this context, also Woźniacka's relationship of with her dad was described. Such portrayals make the contestants seem not completely independent adults.

In the case of male contestants, their partners were frequently mentioned and their appearance described (Miller's wife, was a "long-legged blonde"), or the story of their meeting presented (in the case of Stoch, Polish ski jumper). The status of a "lady-killer", "skirt-chaser" and partygoer was also stressed (in the case of Innerhofer, Lochte, Phelps). Undoubtedly, this is the way to sustain the conviction of heterosexuality of male contestants and their attractiveness to the opposite sex.

The language used to portray female and male contestants was generally different. A common practice, especially in Fakt, was calling contestants by their first names, which does not add either authority or recognition. Sentences such as: "Maja knows where she's going to attack", "Marysia, does it once again" create the impression that the articles do not portray grown-ups, but juniors. It is also difficult to find dignity and respect for their efforts in such words. What is important, this tactic was used mainly with reference to Polish female contestants. The articles about foreign contestants used their last names. No doubt that such a description is connected with a more-distanced attitude. Poles, on the other hand, were treated as 'closer' or more 'ours', which could result in more intimacy and familiarity. In the articles, female contestants were also referred to as "girls". In contrast, male contestants were described with the word symbolizing strength and unusual skills. Both, in GW and in Fakt they were portrayed as "gods", "geniuses", "strongmen" or even "dragons". In GW, on rare occasions they also wrote about great female champions with recognition, e.g. calling Kowalczyk a "tsaritsa", and Williams a "strongwoman". Martial metaphors would occur much more often in texts describing men's sports. Considering that martial metaphors refer to the conceptions connected with power, strength and aggression, their use also reveals gender divisions in sport. We should remember, however, that Poland was represented in team sports only in men's volleyball at the 2012 and 2016 Olympics and in handball in 2016, and it is team sports where martial metaphors are used most often. Nevertheless, when describing the struggle on the field, mostly in GW we could find the information about "bombarding", "preparations for the war", "musketeers" or "commando platoons".

Both, in the material analyzed in GW and in Fakt, no differences have been observed in highlighting the strength, resilience and determination in male and female contestants. Important is that women's sports were described mainly when the contestants won medals or broke records (Kowalczyk, Włodarczyk, Williams, Bailes). Therefore, the articles were about great female champions, unquestionable leaders in their own

disciplines. Presenting them as "indestructible", "determined" or "resistant to pain and fatigue" is hardly surprising. Their power and strength were emphasized. Notably, however, these descriptions were neutralized with stressing the coaches roles in preparing contestants for competitions. Plenty of space in GW was devoted to J. Kowalczyk's coach and his methods of working with the skier which resulted in 5 Olympic medals. A similar situation was with female canoers, who won two medals at the Rio Olympics, and with Nadia Bilova, biathletes' coach, who the media called a "miracle-worker". The articles stressed the role of the coach who can "lead" the contestants to the competition. Insofar as the role of the coach in their athletes' achievements is undeniable, it is noticeable that their contribution to successes in men's sports is not highlighted in this way. This gives the message that male contestants are more self-reliant and independent compared to females, who achieved success mainly thanks to their coaches. Although numerous articles put emphasis on the "power" of female contestants, at the same time on several occasions they were compared to male contestants. In GW, Neuner was called „female Bjørndalen”, Kowalczyk was compared to the Polish boxer Marian Kasprzyk, and Biles to Phelps. Such comparisons make women's sports seem a worse version of the male original.

The gender of Polish athletes' was also reflected in the justification of their' failures. In the case of women, their emotionality was stressed in the first place. On frequent occasions, mental weakness was claimed to be the reason for Polish biathletes' poorer than expected results. Both at the Vancouver and Sochi games, expectations were high of the Polish female biathletes winning medals for Poland. The unsatisfactory results were justified with inability to tame emotions and stay calm.

“Weronika missed once and dropped to the 18th place. Then, she missed once again. She lacked cold blood, just like Hojnusz. She also missed the target twice” (Fakt. Biatlonistkom zabrakło zimnej krwi, 12.02.2014).

Before the start of the Polish female speed skaters, journalists also expressed their concern if they would manage the pressure and keep calm. The issue of handling emotionality was the basic factor when presenting the chances and performances of Polish athletes. If failures occurred, men were not spared either. They were treated harshly, but their failures were considered due to a lack of talent or willingness to work.

The excerpts of the media report quoted here indicate it is Fakt which specializes in overtly nationalistic discourse. Especially in Fakt, an extremely emotional attitude to the Polish performances could be observed. The authors identified with the Polish contestants, and failures as well as successes were taken personally. After the Winter Olympics, rankings of contestants who "brought us shame" were created. The contestants were treated as if they represented the condition of the whole country. That is why they were sharply criticized for unsuccessful performances and called "losers", "scatterbrains", "amateurs" or „butterfingers".

"This is the first day of this event and instead of celebrating medals we are ashamed of the attitude of the Polish team” (Fakt, Chcemy wreszcie medali, 3.08.2016).

"PLN 10 million were spent on three associations whose sportsmen embarrassed us at the Vancouver Olympics” (Fakt, Miliony wyrzucone w błoto 26.02.2010).

The differences between Polish and foreign representatives were also stressed. Conflicts and vague situations during the performances were described in black and white. Norwegian cross-country skiers, who used drugs for asthma (and were permitted to do so), were unequivocally accused of doping, and Polish J. Kowalczyk was praised for fair play and having a more difficult job (which is reflected in the title: „She loses because she plays fair”, Fakt, 23.02.2010). Also in the cycling race, the judges were accused of bias against the Polish

representative, suggesting that they were targeted directly against our country ("The judges deprived us of a medal"). Kowalczyk's efforts to beat her Norwegian opponents were described as a "Polish-Norwegian war". A similar expression was used with reference to the battle between the Polish and Russian volleyball players. In GW, these events were reported with a balanced tone. An interview with a sports medicine physician was released about asthma among sportspeople and the decision of a track cycling judge was reported. Fakt coverage often implied it was not only about sportsmen's performance but Poland's world image. Contestants' nationality was also frequently emphasized: "our champion", "our skiing queen", "our ladies", "our players were beaten by the goalkeeper". The results of Polish contestants were also reported with reference to the status and mood of the whole Polish nation: "we had an excellent start at these Olympics", "we have gold", "we need to get on our feet". The contestants were addressed directly: "Beat the Yankees". This was the only article that used stereotypical and negatively-characterized vocabulary describing a different nation. Despite the fact that it was the only article, the words used in the heading express a lack of respect for the American volleyball players and enormous emotional importance of this event for the Polish nation. The results of non-Poles did not arouse emotions, being reported in a balanced and distanced manner. Also, the achievements in individual sports were more often presented as personal achievements of specific contestants rather than as a national issue. An example can be the achievements of ski jumpers which were not presented as the success of the whole country. The exception was descriptions of Kowalczyk's efforts in cross-country skiing. Her triumph was perceived as a nation victory over Norwegian skiers.

Discussion

The results of media coverage content analysis are to a significant extent consistent with previous studies from Central Europe (Horky & Nieland, 2013; Gál et al., 2010). Significant underrepresentation of news concerning women's sports is noticeable in the quantitative part. Although some studies demonstrated a proportional number of articles about women's sport, in the case of Poland, statistical analyses showed that apart from the Vancouver Olympics, there was a statistically significant underrepresentation of articles devoted to women's sports (King, 2007; Capranica et al., 2005). Only the student's t-test for Fakt did not show any statistical differences between the average number of articles about women's and men's sports. However, as far as Jakubowska's (2015) text was concerned, it ought to be noted that though the amount of reporting was greater than when no great sports events were taking place, significant statistical differences were still noted. Therefore, sport is still perceived as a masculine undertaking and the Olympic Games do not change the situation very much, as perhaps proven by the large number of sport articles not connected with the Olympic Games, especially in Fakt. The fact that the number of articles about league football during the Olympics examined exceeded the number of articles about Poles' performance during the Olympics may be the indicator that the content is profiled for male readers since in Poland football is still considered as a male past time. Also the study of the Hungarian tabloid during the Games showed that more articles had been written about football than about the events at the Games (Gál, 2016). Therefore, women' sport can be visible in the examined Polish press only when female athletes are pretty likely to win medals. If female athletes find it difficult to make themselves visible in the media during the Olympic Games, their situation throughout the whole year may be even more dramatic. The reporting in Fakt is thought-provoking, where even during the Rio Games at which the Polish female athletes gained eight medals and the men only three, information on women's sport was exceeded by articles on men's sport and sports events unconnected to the Olympic Games. Some further research would be needed to find out if this is also the case in other countries. Contrary to the research mentioned (Billings, 2008, pp. 112-118), more articles were written in the Polish press about women's sport during the winter than summer games. These results can be justified with the interest raised by Kowalczyk and lack of any comparable interest among the contestants competing at the Summer Olympics.

The gained results indicate that analysis of sports content genderization during the Games ought to be combined with matters concerning the athletes' nationality. The nationality of athletes made up the decisive factor on what is reported in the Polish press and which disciplines were the most popular. Therefore, the study confirms previous analysis of the link between nationalism and sport in media content (Billings et al., 2014; Billings, 2008, pp. 99-105; Billings et al., 2008). A substantial majority of the articles were about Poles' performance. This is not justified by the successes achieved by sportsmen because they won fewer medals. Undoubtedly in the case of Fakt one of the crucial criteria for coverage is the nationality of contestants, and the Olympic Games were worth attention only in the case of Poles' outstanding results or scandals involved them (e.g. Polish weightlifters disqualified for doping in Rio de Janeiro). The disciplines described were to a significant extent the result of participation of Polish contestants. The study findings as to the number of articles on non-Polish female athletes confirmed the previous research (Markula et al., 2010, pp. 9-10). The competition of female athletes from outside of Poland hardly reached the pages of the studied newspapers. This is particularly evident in the tabloid daily Fakt, where only one article was devoted to non-Polish female athletes during the Games in 2010, 2012 and 2014. That also leads to the conclusion that there is no reason to report on women's sports, apart from the coverage on competing compatriots. Taking account of the percentage of medals won during the Olympics by the Polish athletes, describing mainly compatriots is puzzling (respectively 2010: 4%, 2012: 9%, 2014: 5%, 2016: 8%). It should be stressed, however, that in the case of GW more articles were about stars of the world sports and the most important Olympic events were reported more often, irrespective of Poles' participation.

The results of the discourse analysis also confirm that the media coverage during the Olympics is nationalistic rather than internationalist. The reports about Poles were much more emotional, there was a high level of identification with the athletes and their results were referred to the country's situation and image. The representation of Polish sports persons and their achievements in the studied newspapers therefore contributed to the reinforcement of nationalistic attitudes in the manner previously described at least by Bairner (2001).

The employment of the critical feminist approach allowed attention to be drawn to the differing descriptions of sporting achievements and sportspersons. The texts in both newspapers contained some stereotypical beliefs about femininity and masculinity. A particularly important discourse seems to be the one that neutralizes women's accomplishments by emphasizing their physical appearance, some more important life goals other than practicing sport or reliance on loved ones and coaches. Given that the articles on women's sports are less published, it can be stated that the newspapers contribute to the maintenance of the stereotyped and androcentric discourse on athletes during the Games included in the study.

Men's portrayals also followed the existing trend. Plenty of space was devoted to the presentation of their excellence in sport and athleticism. Their heterosexuality and sexual activity were emphasized (Berg, 2002, pp. 140-141). Also, in terms of vocabulary, the martial metaphors used carried the message that men's sport is a serious issue. The studied Polish media presented male and female athletes in a traditional manner and reinforced stereotypical images of femininity and masculinity among readers.

Conclusions

The research results indicate the validity of combining analysis of gender and nationality in the context of the Olympic Games. Indeed, not only have the two largest Polish newspapers not presented a comparable coverage of women's and men's sports during the Olympic Games in 2010, 2012, 2014 and 2016 but they also mainly wrote about Polish female athletes while ignoring their non-Polish counterparts. Despite the fact that female athletes are paid more attention during the Olympics than in the remaining parts of the season, still the press interest is not adequate compared to the number of female representatives at the Olympics. The presented results suggest that the two most widely read dailies in Poland included in the study still follow the practice of excluding women, especially if we compare the number of articles about women's sports with that

about men's sports also regarding non-Olympic sports events. The more frequent reporting of national events rather than Polish female athletes gaining medals or the successes of the most world-famous sportswomen indicates that women's sport in general still goes unnoticed or is considered unworthy of attention (Cooky et al. 2015; Kinnick, 1998). The situation is particularly negative if we look at the Rio Olympics, when women did not receive equal coverage despite winning more medals than men. Even significant successes did not lead to changing the decisions concerning the release of articles. The study confirmed the normative practices of perceiving femininity and accenting gender differences in women and men's sports reporting. These practices reinforce the perception of women in sport as different and unequal to the world of men. Women's sport in the Polish press during the Olympic Games refers to both gender categories (treated as less significant than men's sport) and also to the category of the nation (content describing only Polish female athletes). Therefore, the results indicate the need to study not only the amount of space devoted to women and men's sport but also the amount of content on the reporter's nation and foreign sportspersons. Comparison of content from the Olympic Games and information of sports events beyond the Games is also important as this allows for a wider perspective on women's sports and facilitates the drawing of conclusions on the eventual progress towards a more egalitarian approach to sports in the media.

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Effects of knowledge of results feedback on more accurate versus less accurate trials on intrinsic motivation, self-confidence and anxiety in volleyball serve

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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ABSTRACT

Feedback has been shown to influence the extent and rate of learning. The purpose of this research was to investigate the effects of Knowledge of Results (KR) on more accurate trials versus KR on less accurate trials on intrinsic motivation, self-confidence and anxiety changes. Participants were 60 female students with a mean age of 16 years (SD = 0.4). Participants practiced volleyball serve task in 4 session (each session included 6 blocks and each block included 6 trials) that subjects received feedback on 3 trials out of 6 trials at the completion of each 6-trial block. While one group was provided KR about the accuracy of the 3 best serves in each block, another group was given KR about the 3 poorest serves. Participants completed the intrinsic motivation inventory and the Competitive State Anxiety Inventory-2 (CSAI-2) twice as pre-test and post-test. Both groups increased their service scores across practice blocks. On the retention test without KR, which was performed seven day after the practice phase, the more accurate trials group had higher accuracy scores than the less accurate trials group. The present findings demonstrated that feedback after relatively accurate as opposed to inaccurate trials enhanced learner's perceived competence whereas KR on less accurate trials decreased. In addition, results demonstrated that feedback after relatively accurate as opposed to inaccurate trials enhanced learner's perceived competence whereas KR on less accurate trials decreased.

KEYWORDS

Knowledge of results (KR), more accurate and less accurate trials, intrinsic motivation, self-confidence, anxiety

Introduction

Among the variables influencing learning in physical exercises, augmented feedback (knowledge of result, knowledge of performance) plays a key role (Schmidt & Wrisberg, 2008). Feedback has been shown to influence the extent and rate of learning (Lewthwaite & Wulf, 2010). In order to determine the content of feedback, a coach must pay attention to the aim of presenting information; if the aim is providing feedback for facilitating skill acquisition, the information related to the error must be presented; and if the aim is to confirm the encouragement to practice, she/he must underscore the characteristics of correct movement pattern

(Coker, 2017). Most of the experimental studies focused on the informational function of feedback which provides information about each person's performance in relation to the aim of the task. According to the guidance hypothesis, the low frequency of the feedback and feedback after poor trials with large errors when the learner is directed towards the correct movement pattern is considered to be more effective than feedback after good trials and small errors (Salmoni, Schmidt, & Walter, 1984). Some studies in the past few years have compared the effectiveness of knowledge of results feedback (KR) after relatively more accurate versus less accurate trials on motor learning (Abbas & North, 2018; Badami, Vaez Mousavi, Wulf, & Namazizadeh, 2012; Chiviawosky & Wulf, 2007; Chiviawosky, Wulf, Wally, & Borges, 2009; Goudini, Saemi, Ashrafpoornavaee, & Abdoli, 2018; Januário, Figueiredo, Portes, & Benda, 2019; Saemi, Porter, Ghotbi-Varzaneh, Zarghami, & Maleki, 2012; Saemi, Wulf, Varzaneh, & Zarghami, 2011). In these studies, KR feedback was provided after each block of practice trials. Specifically, for one group of participants, the feedback referred to the most accurate trials, whereas, for another group, feedback referred to the least trials. Vision was prevented during practice and participants did not receive any feedback on remnant trials. In addition, participants were novice and acquisition phase was short to consist one session of 60 trials. The findings have demonstrated feedback that emphasizes more accurate performance and ignores less accurate performance benefits learning. At this point, an interesting question was about whether previous findings with the short periods of practice showing more effective learning with feedback on more accurate trials versus feedback on less accurate trials would generalize to learning in the longer periods of practice. Volume of practice has been shown to interact with context of augmented feedback. So the most helpful type of augmented feedback is likely to vary as skill is acquired (Magill & Anderson, 2012). Moreover, there was a relationship between teaching cues and feedback. During practice students compare the image of correctness to their real performance and students cannot see themselves during practice. Therefore, teachers must give them information about their performance as augmented (external feedback) such as teachers, peers, video tapes. Thus, students can see whether they have accomplished this skill by relating the feedback to the critical elements of the movement (Konukman & Petrakis 2001). According to the mentioned, one of the purposes of the present study was to examine whether feedback on more accurate performance would benefit motor learning in the longer periods of practice, relative to feedback on less accurate performance.

Chiviawosky and Wulf (2007) speculated that the learning difference was as a result of motivational factors. However, changes in participants' motivation were not assessed in their study. Badami, Vaez Mousavi, Wulf, & Namazizadeh (2011) directly examined the effects of KR on more accurate trials versus KR on less accurate trials on intrinsic motivation which refers to performing an activity for itself, in order to experience pleasure and satisfaction. Participants in this study practiced a golf-putting task, and different groups received feedback after the three best or three poorest trials in each block of six trials respectively. The acquisition phase consisted of 60 trials, divided into 10 blocks of 6 trials (similar to Chiviawosky & Wulf, 2007; Chiviawosky et al., 2009). At the end of practice, participants filled out intrinsic motivation inventory (McAuley, Duncan, & Tammen, 1989) which was used to assess participants' interest, perceived competence, and effort as well as intrinsic motivation. One day after practice they performed a retention test that consisted of one set of 10 trials without feedback. Results showed that KR on more accurate trials versus KR on less accurate trials enhanced learners' intrinsic motivation in general, and perceived competence in particular. In other study, Badami et al., (2012) examined the effects of KR on more accurate trials versus KR on less accurate trials on self-confidence, anxiety and arousal changes. In acquisition phase, participants performed 60 trials on a golf putting task under one of two conditions: After each block of six trials, one group received feedback on the three most accurate trials, whereas another group received feedback on the three least accurate trials. Before retention test, participants completed the Competitive State Anxiety Inventory-2 (CSAI-2). The CSAI2 (Martens, Burton, Vealey, Bump, & Smith, 1990) was used to assess participants' cognitive (the mental component of anxiety typified by negative expectations of performing a task) and somatic anxiety (the physical component of anxiety typified by rapid heart rate, shortness of breath, clammy hands, butterflies in the stomach and tense muscles) as

well as self-confidence (one's belief of being able to successfully perform a specific activity). Arousal was measured during retention test. Their results showed that KR on more accurate trials versus KR on less accurate trials enhanced learners' self-confidence. In addition, learners who received KR on more accurate trials demonstrated more effective arousal management. In Badami's studies (2011; 2012), primary intrinsic motivation (i.e., interest / enjoyment, perceived competence, and effort / importance), self-confidence and anxiety were not assessed. Therefore, it is not known whether KR on more accurate trials enhances primary motivation and self-confidence or whether KR on less accurate trials reduces them. Thus, a second purpose of the present study was to address this issue. In the present study, participants practiced volleyball serves task and received feedback on 3 trials out of 6 trials at the completion of each 6-trial block. While one group was provided KR about the accuracy of the 3 best serves in each block, another group was given KR about the 3 poorest serves. Participants completed the intrinsic motivation inventory and the Competitive State Anxiety Inventory-2 (CSAI-2) twice as pre-test and post-test. Thus, we could assess the effect KR on more accurate trials versus KR on less accurate trials on intrinsic motivation, self-confidence and anxiety changes.

Method

Participants

Participants were 60 female students with a mean age of 16 years ($SD = 0.4$). All participants provided informed consent. They had no prior experience with the experimental task and were not aware of our specific study purpose. The experimental protocol was reviewed and approved by the university's Advising Committee of Science and Research.

Apparatus, task, and procedure

The task required participants to service ball on regular indoor-volleyball court. A standard height (2.33 m) was used for all participants. The score zones were adapted from the AAHPERD volleyball serve accuracy test according to Figure 1 (Shay, 1969).

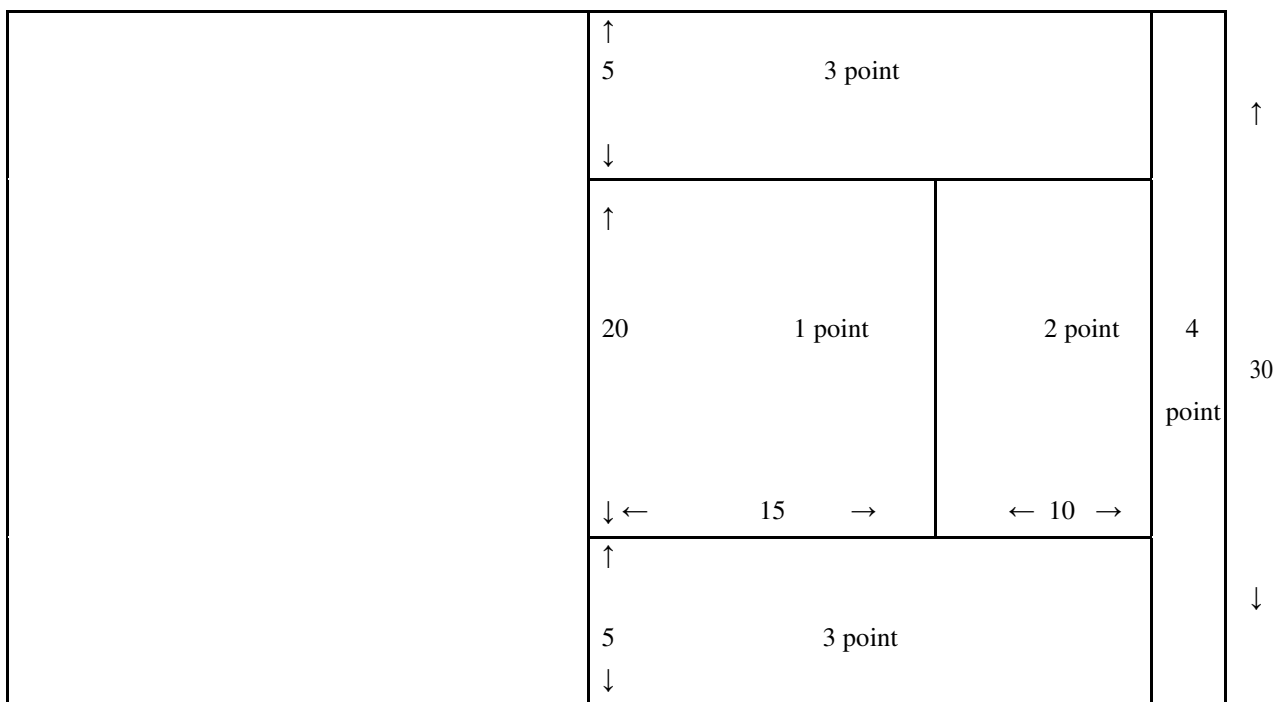
The Competitive State Anxiety Inventory-2 (CSAI-2) (Martens et al., 1990) was used to assess participants' cognitive and somatic anxiety as well as self-confidence. The CSAI-2 consists of 27 items on 4-point Likert scale ranging from 1 (not at all) to 4 (very much so), with scores ranging from 9–36 for each subscale. This instrument is a sport-specific, self-report inventory shown to be a reliable and valid measure of cognitive and somatic anxiety and self-confidence, with Cronbach's alpha coefficients ranging from 0.70 to 0.90 (Martens et al., 1990).

A short 9-item version of Intrinsic motivation inventory (McAuley et al., 1989) which was been used by Badami et al., (2011) was used to assess participants' interest, perceived competence, and effort. The three subscales were summed to yield a composite measure of intrinsic motivation. Responses on 7-point Likert scale ranged from 1 (strongly disagree) to 7 (strongly agree). Negatively worded items were rescaled before analysis. This inventory is shown to be a reliable and valid measure of interest, perceived competence and effort, with Cronbach's alpha coefficients ranging from 0.80 to 0.90.

Participants were randomly assigned to groups receiving KR either on more accurate trials (group MA) or less accurate trials (group LA). After each block of six trials, participants in the MA group received KR on their three most accurate (i.e., best) services in that block, whereas those in the LA group received KR on their three least accurate services (similar to Badami et al., 2009; 2011; Chiviacowsky & Wulf, 2007; Chiviacowsky et al., 2009). However, they were not informed for which trials they would be given KR. Participants were allowed to look at the target before each set of 6 trials. Yet, during those 6 trials, participants were prevented from viewing the results by wearing opaque swimming goggles. All participants performed 144 trials during the practice phase, including four sessions of 36 trials (Each session included six blocks and each block included six trials).

Before the beginning of the first session, the experimenter spent a few minutes with each participant to describe the basic technique of the serve and all participants performed 10 trials. Before the beginning of each experimental session, participants were asked to warm up sufficiently. Each participant was tested individually. One week after post-test they performed a retention test consisting of 10 trials without KR. Participants completed the IMI twice- after the initial and final block. Also, they completed the CSAI-2 twice- before the initial block and retention test.

Figure 1. Point zones for the AAHPERD volleyball serving test



Data analysis

Service accuracy scores were analyzed in a 2 (groups: MA, LA) × 24 (blocks of 6 trials) analysis of variance (ANOVA) with repeated measures on the last factor for the practice phase. Independent t-tests were conducted to see the difference between experiment groups on the retention test as well as the three subscales of the CSAI2 and the IMI questionnaires. Paired t-tests on the three subscales of CSAI2 and IMI questionnaires were conducted to see the difference between pre- and post-tests.

Results

Practice

Accuracy scores

Both groups increased their service scores across practice blocks (see Figure 2). The MA group tended to have higher scores than the LA group. The main effect of group with $F(1, 58) = 4.30, p = .04$, the effect of block with $F(23, 1334) = 6.10, p < .001$, and the Group × Block interaction, $F(23, 1334) = 2.32, p < .001$ were significant.

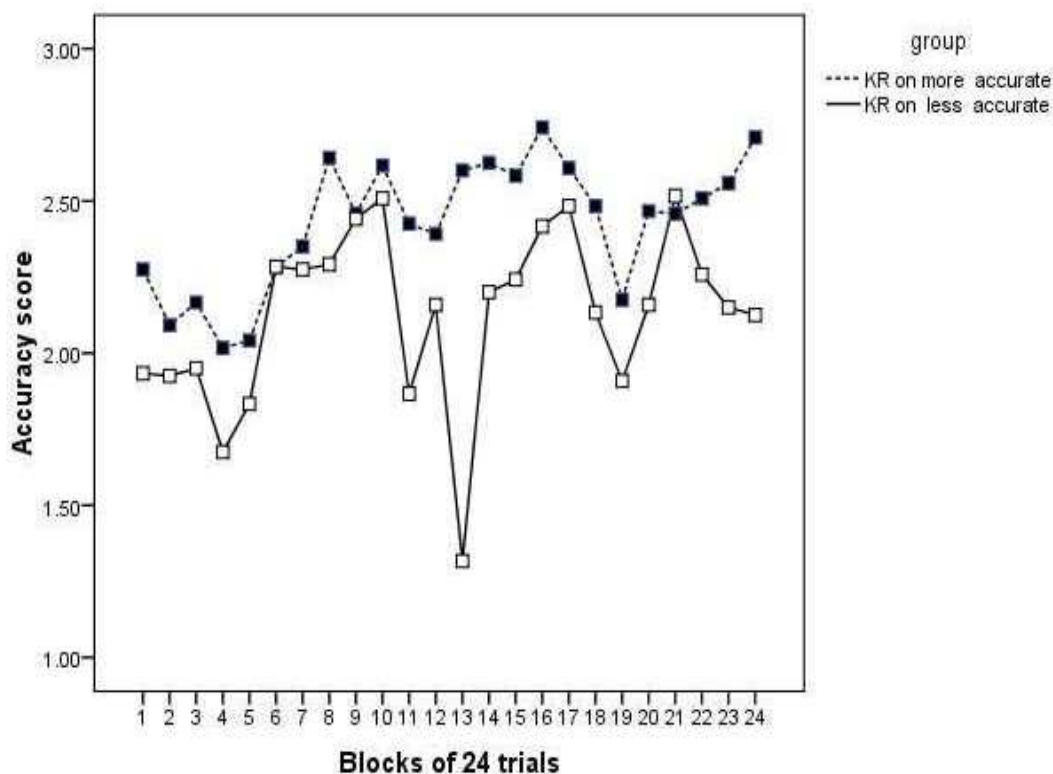


Figure 2. Accuracy scores for the KR on more accurate trials and KR on less accurate trials groups during practice

Retention

On the retention test without KR, which was performed seven day after the practice phase, the MA group had higher accuracy scores than the LA group (2.75 ± 0.7 vs 1.63 ± 1). This group difference was significant, $t_{(58)} = 4.63, p < .0001$.

CSAI-2 and IMI inventory

The means and standard deviations for the three subscales of the CSAI-2, overall motivation and the three subscales of IMI are shown in Table 1. There were significant differences between pre- and post-tests in both groups in all variables (see Table 1). The MA group had higher interest, perceived competence, effort, motivation and self-confidence scores than the pre-test and tended to have lower scores on cognitive and somatic anxiety. Conversely, The LA group had lower interest, perceived competence, effort, motivation and self-confidence scores than the pre-test and tended to have higher scores on cognitive and somatic anxiety. There were no significant differences between groups in pre-test in all variables ($t < 1$). However, there were significant differences between groups in post-test in all variables. The MA group had higher interest ($t_{(58)} = 8.90, P < 0.001$), perceived competence ($t_{(58)} = 5.88, P < 0.001$), effort ($t_{(58)} = 9.93, P < 0.001$), motivation ($t_{(58)} = 10.55, P < 0.001$) and self-confidence ($t_{(58)} = 7.23, P < 0.001$) scores than the LA group and tended to have lower scores on cognitive ($t_{(58)} = 6.03, P < 0.001$) and somatic anxiety ($t_{(58)} = 7.23, P < 0.001$).

Table1. Means and standard deviations (\pm) for Pretest-posttest data in two groups

Groups/Variables	MA group			LA group		
	Pre-test	Posttest	Paired t-tests <i>t</i> (29)	Pre-test	Posttest	Paired t-tests <i>t</i> (29)
Interest	15.33 \pm 3.1	18.23 \pm 2.8	7.32*	14.83 \pm 3.8	10.86 \pm 3.5	9.52*
Perceived competence	15.03 \pm 4.2	17.30 \pm 3.8	8.94*	15.90 \pm 3.7	11.31 \pm 4	12.64*
Effort	16.13 \pm 3.4	19.06 \pm 2.3	10.20*	15.36 \pm 3.2	11.36 \pm 3.5	8.74*
Motivation	46.90 \pm 8.1	54.60 \pm 6.6	11.35*	45.93 \pm 8.6	33.26 \pm 8.8	12.36*
Cognitive anxiety	24.73 \pm 6.6	17.56 \pm 5.4	12.45*	22.46 \pm 8.2	27.33 \pm 6.9	10.59*
Somatic anxiety	22.13 \pm 5.8	16.76 \pm 4.2	6.25*	20.37 \pm 6.6	24.26 \pm 6.4	7.49*
Self-confidence	22.80 \pm 5.6	28.66 \pm 5.7	11.18*	23.30 \pm 6.8	17.83 \pm 5.8	12.24*

Note: * - statistically significant $p < 0.001$

Discussion

The acquisition of motor skills are fundamental to human life (Sharma, Chevidikunnan, Khan, & Gaowgzeh, 2016). In the motor learning domain, recent studies with young or older adults as well as children have demonstrated more effective learning under feedback on more accurate trials conditions relative to feedback on less accurate trials conditions (Badami et al., 2011, 2012; Chiviawsky & Wulf, 2007; Chiviawsky et al., 2009). In these studies, acquisition phase was short to consist one session of 60 trials. The purpose of the present study was to examine whether previously found benefits of feedback on more accurate trials would generalize to motor learning in the longer acquisition phase to consist four sessions of 144 trials. Volume of practice has been shown to interact with context of augmented feedback (Magill & Anderson, 2012). Therefore, it was unclear whether previously found benefits of feedback on more accurate trials would generalize to motor learning in the longer acquisition phase.

The results of the present study demonstrated that learning is indeed facilitated if feedback is provided on more accurate trials, rather than less accurate trials. Thus, the present results are in line with those of previous feedback studies with the shorter acquisition phase. Interestingly, previous studies (Badami et al., 2012; Chiviawsky & Wulf, 2007; Chiviawsky et al., 2009), no group differences were found during practice (i.e., when feedback was provided). Rather, group differences were only found on retention tests without KR. But, even group differences were found during practice as well as retention test in the present study. The difference may be related to longer period of practice to cause greater difference between groups. Possible psychological reasons have been suggested for the learning benefits of feedback on more accurate trials. Chiviawsky and Wulf, (2002) suggested that learners often have a relatively good feel for how they perform. So, instructor feedback indicating errors not only may be surplus, but can also irritate some people that may hamper learning (Lewthwaite & Wulf, 2012). Badami et al., (2011) linked this effect to participants' enhanced intrinsic motivation in general and perceived competence in particular. The present study also demonstrated that individual's intrinsic motivation and perceived competence were higher when feedback was provided on more accurate trials. Several studies have also confirmed that the positive feedback satisfied people's need for competence and thus enhanced their intrinsic motivation. Conversely, negative feedback was found to decrease intrinsic motivation by thwarting people's need for competence (Vallerand & Reid, 1984; Vansteenkiste & Deci, 2003). The need for competence concerns people's inherent desire to be effective in dealing with the environment (White, 1959). Many researchers argued that positive information-based feedback given in response to students' performance resulted in increased perceived of competence which in turn increases individuals' levels of intrinsic motivation (Allen & Howe, 1998; Hollebeak & Amorose, 2005; Ryan & Deci, 2002). According to the cognitive evaluation theory which focuses specifically on social factors affecting intrinsic motivation, perceived competence mediates the relationship between feedback and intrinsic motivation (Ryan & Deci, 2002). Whitehead and Corbin's study (1991) as well as cognitive evaluation theory, support the idea that perceived competence mediates changes in the other IMI subscales. A number of studies also have

shown that perceived competence is positively associated with intrinsic motivation, if students feel that they are competent and enjoy their participation (Goudas, Biddle, & Fox, 1994; Goudas, Dermitzaki, & Bagiatis, 2000; Whitehead & Corbin, 1991).

A recent study investigated how elementary physical education teachers used auditory modalities in their teaching (Severy, 2016). Subjects were 21 elementary physical education teachers and 6 physical education majors. Data were collected via focus group interviews, classroom observations, and a 10-item Likert style survey to determine the usage of auditory modalities for rhythmic skills. The results showed best practices of auditory modalities such as verbal and sound cues by physical education teachers and physical education majors for children's fundamental movement skills. Moreover, Petranek, Bolter & Bell (2018) examined the type and frequency of instructions and feedback among younger children performing an overhead throw. 65 first grade students were participants in four experimental groups (external-high, external-low, internal-high, internal-low feedback). This study found that internal focused groups performed significantly better than external focused groups during retention-transfer. However, children who received feedback more frequent performed better. On the other hand, external-low performed better than external-high at the end of acquisition and retention-transfer, whereas internal-high performed better than internal-low throughout acquisition. The present results indicate that individuals' enjoyment was indeed higher when feedback was provided on accurate trials. This result is in line with findings of Black and Weiss (1992) who found positive relationship between positive feedback and enjoyment. More analysis our data also demonstrated that there is a positive significant relationship between enjoyment and perceived competence. But, this result is not in line with findings of Badami et al., (2011) who did not find significant differences between groups in enjoyment, despite the perceived competence difference between groups was significant.

Probable reason of the discrepancy can be related to longer period of practice. In this study, perceived competence difference between groups was more. Perhaps, this larger difference in perceived competence leads to more difference in enjoyment. The findings of present study also indicate that individual's effort was higher when feedback was provided on accurate trials. This result is in line with previous studies (Lee, Carter, & Xiang, 1995; Veal & Compagnone, 1995) that have demonstrated perceived competence determines of students' effort in physical education classes. Besides, our data also demonstrated that there is a positive significant relationship between effort and perceived competence.

Moreover, the findings of present study also demonstrated that KR on more accurate trials enhanced all aspects of intrinsic motivation (primary interest, perceived competence, effort), whereas KR on less accurate trials decreased them. These findings are in line with findings of Whitehead and Corbin's study (1991) that study, participants were given bogus positive or negative feedback for their run task by telling them that they had either exceeded the 80th percentile, or they had fallen below the 20th percentile. Respectively, positive feedback enhanced all aspects of intrinsic motivation, whereas negative feedback decreased them. Several studies also have demonstrated that motor learning can be enhanced by bogus positive normative feedback (Lewthwaite & Wulf, 2010; Wulf, Chiviawowsky, & Lewthwaite, 2010). The present findings indicated that individual's self-confidence was indeed higher when feedback was provided on accurate trials and KR on more accurate trials enhanced Self- confidence, whereas KR on less accurate trials decreased. Therefore, feedback on accurate trials is a strong source of confidence when it is provided after performance success.

How does feedback on accurate trials affect the learner's self-confidence and, as a consequence, learning? Self-confidence has been shown to have a positive relationship with performance. Relationship between self-confidence and performance has been shown to be strong when self-confidence assesses after performance versus prior performance. This idea suggests that prior performance influences confidence more strongly than confidence influences performance (Vealey, 2009). One study has been shown that feedback from a coach to influence individual's beliefs of performance capability (Escarti & Guzman, 1999) presumably increases the learner's self-confidence.

The present findings indicated that individual's cognitive and somatic anxiety was lower when feedback was provided on accurate trials. Also, KR on more accurate trials decreased somatic and cognitive anxiety whereas KR on less accurate trials enhanced them. Our findings also demonstrated that there is a negative significant relationship between cognitive and somatic anxiety and perceived competence. This result is in line with findings of one of the studies that revealed a negative correlation between perceived competence and anxiety (Lucangeli & Scruggs, 2003).

In conclusion, the results of this study demonstrated that feedback after relatively accurate as opposed to inaccurate trials enhanced learner's perceived competence whereas KR on less accurate trials decreased it. According to White (1959), individuals have an innate desire to feel competent. This feeling serves to maintain or increase a person's intrinsic motivation for the particular behavior (e.g. learning). The perception of competence presumably increases the learner's self-confidence as demonstrated by the current findings. Self-confidence has been shown to positively predict athletes' effort and persistence in sport. It also affects the choices that athletes make about continuing participation in sport and difficult task. Confident athletes have been shown to think, cope, concentrate better, set more challenging goals and tolerate level of anxiety before experiencing decrements in performance than less-confident athletes (Vealey, 2009). Furthermore, the lower anxiety that was experienced by feedback on more accurate may have led to thought or negative affect suppression reduce the need for the allocation of attentional resources to activities. In the final analysis, the present findings evidence that feedback has a psychological role in the learning process. Also, results demonstrated that feedback after relatively accurate as opposed to inaccurate trials enhanced learner's perceived competence whereas KR on less accurate trials decreased.

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Participation in outdoor recreational activities and cultural identity in Australia: An exploratory qualitative study

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
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ABSTRACT

This paper focuses on personal statements written by 23 Year 11 students about what outdoor recreational activities they participated in and their sense of cultural identity in the culturally plural context of Australia.. A sociological approach of inductive analysis of their comments was employed to investigate the extent to which those of culturally diverse identities were actually participating in outdoor recreational activities. The respondents came from six Adelaide co-educational secondary schools which agreed to participate in the study. The responses given to the guideline questions provided evidence of participation in twelve different outdoor recreational activities, some involving individual pursuits and others group activities. Twelve students identified themselves as 'mainstream Australian', while eight claimed identities linked to other European and Asian cultural groups and three reported no sense of cultural identification. The evidence from this exploratory study was that those of culturally diverse identities were actually participating in outdoor recreational activities. However, they were more likely to be involved in individual rather than group activities. Furthermore they preferred land-based activities to those requiring water skills. The paper discusses the significance of the findings, implications for making future initiatives and policies in outdoor recreational activities more inclusive, as well as directions for further research.

KEYWORDS

Outdoor education, cultural diversity, qualitative study, humanistic sociology

Introduction

The aim of this study was to investigate through qualitative research methods whether students with culturally diverse identities were actually participating in, being excluded from, or choosing to avoid outdoor recreation activities. No previous Australian study which systematically examined the cultural identity of young people as a factor related to their participation in outdoor recreation activities could be located. No previous study had asked young people to write about their experience of participating in outdoor activities and analysed the factors which promoted or discouraged their participation in these activities, This investigation was important in the context of exploring whether young people with diverse cultural identities were actually participating in outdoor recreation activities in Australia.

Cultural diversity and participation in outdoor recreation activities are both recognised as important features of Australian society. Reports on organisations like Scouts (Tyas, 2012) and the Surf Life Saving Association

(2015) have pinpointed the lack of participation of those culturally diverse backgrounds in their activities. Policy makers, teachers, instructors and researchers involved in outdoor recreation activities have become increasingly concerned that young people from culturally different backgrounds were not participating in the activities they organized.

Outdoor Recreation, along with sport, enjoys prominence in the Australian psyche (Crawford, 2009), with the Australian Bureau of Statistic ABS suggesting: ‘in many ways sport and outdoor activities unites and personifies the nation’, and much is made of the nation’s high level of physical activity (Currie, 2009, p. 14). A recent analysis of data available on participation in sport and physical activities indicated that 61-80% of children and young people were involved in organised sport and physical activities, but less than 21-40% participated in physical activity at their own initiative, outside an organisational framework such as the school or sporting club (Active Healthy Kids Australia, 2016). This suggests that other forms of physical activity such as active transport, outdoor play and outdoor recreation are important in promoting a healthy, active Australia (Schranz et al., 2014; Vella et al, 2014). The view that increasing outdoor play, risky outdoor play and outdoor recreation would improve physical and mental health has been supported by recent systematic reviews by a group of health researchers led by Mark Tremblay Brussoni et al., 2015; Gray et al., 2015; Tremblay et al., 2015). Beyond health benefits, it is suggested by Dickson, Gray and Mann (2008) that participation in outdoor recreation has potential positive social and economic impacts.

Outdoor Education, as a school subject or program, has diverse aims and goals (Pickett & Polley, 2003), one of which is to promote participation in outdoor recreation beyond schooling (Bunting, 1989). Outdoor Education is not a compulsory component of South Australian schooling, but has been recognised as a study area in South Australia since the 1960’s and available as a senior school subject since 1984. Many schools in South Australia teach outdoor recreation as part of their Health and Physical Education program (Polley & Pickett, 2003). A positive relationship between the provision of outdoor education in schools and participation by children in outdoor recreation activities has been suggested (e.g. Bunting, 1989), but there is a paucity of studies to directly support the idea. There is some discussion in the literature about the impact of outdoor education on personal development and general physical activity levels (Rickinson et al., 2004). However, Sallis et al. (1999) investigated a range of correlates of physical activity of children and adolescents and reported ‘no association with teacher support or modelling’ (p. 967).

Although the exact relationship between outdoor education in schools and participation in outdoor recreation outside school hours is not clear, the possibility of a relationship remains. In the USA, Sallis et al. (1999) conducted an extensive review of literature on the correlates of physical activity for children and adolescents. They discussed the US 1996 Surgeon General’s report and their review supported nine of the 12 variables recommended by the report to support physical activity. Five of these variables have a strong relationship to school physical and/or outdoor education – ‘perceived physical competence’, ‘support from significant others’, ‘program/facility access’, ‘opportunities to be active’ and ‘time outdoors’. Pennington and Krouscas (1999), in a case study in the USA, identified a relationship between structured youth activities and participation in outdoor education. One Australian study exploring the outcomes of an extended stay program found, among a range of findings, an improvement in physical activity levels (Gray, 1997).

According to Polley and Pickett (2003) the majority of South Australian schools surveyed in 1999 were offering outdoor recreation activities as part of schooling. However, many South Australian institutions, colleges and schools have experienced difficulties with implementation of outdoor education related to economic, staffing and logistic factors, which were found to be more pronounced in state schools (Pickett & Polley, 2003, Polley & Pickett, 2003). No recent studies have investigated whether this situation has changed. Reduced outdoor education offerings in schools that have a more culturally diverse population may well impact on students’ participation in outdoor recreation activities. Sex differences may well compound this impact, with Humberstone (2000) in a UK study finding females experiencing additional issues, because

organisers in schools were not necessarily taking gender issues into account when planning outdoor recreation activities.

Australia is also known for its cultural diversity. The extent and nature of cultural diversity in a society can be demonstrated in official Census Statistics for birthplace, ancestry and language use. Of those born overseas, 20.8 per cent were born in the United Kingdom; 9.1 per cent in New Zealand; 6.0 per cent in the People's Republic of China; 5.6 per cent in India; 3.5 per cent in both Vietnam and Italy and 2 per cent in Germany (Australian Bureau of Statistics, 2014).

Birthplace figures, however, take no account of the children born to immigrant parents in Australia. Ancestry and language are better indicators of the extent of cultural diversity being maintained in Australia. The 2011 Census reported the 36.0 per cent of the Australian population claimed an English heritage; 35 per cent Australian; 10.4 per cent Irish; 8.9 per cent Scottish; 4.6 per cent Italian; 4.5 per cent German and 4.3 per cent Chinese (Australian Bureau of Statistics, 2012). In relation to language, the 2011 Census showed that 81 per cent of the Australian population aged above five spoke only English at home, while in contrast, there were two percent who spoke no English at all. Among the 19 per cent who spoke a language other than English at home, Mandarin speakers represented 1.7 per cent of the population; Italian 1.5; Arabic 1.4; Cantonese and Greek both 1.3; Vietnamese 1; with Spanish, Hindi and Tagalog speakers each under 1 per cent (Australian Bureau of Statistics, 2014).

However, such figures do not necessarily reflect the range of languages and cultures actually being maintained in the everyday life of families and communities. Another way of looking at cultural diversity in society, through the eyes of individuals, is to focus on their sense of cultural identity, as a reflection of their personal experiences of cultural diversity. It is this personal, individual reflection of diversity that is the focus in this study.

Only a small number of studies have investigated participation in outdoor recreation activities in relation to culturally diverse participants. A case study by Davidson (2001) from a Catholic secondary school in New Zealand investigated outdoor education as an adventure experience for fifth year secondary students who had selected outdoor education as a part of their studies. Among the ten students who participated in the research were two immigrants, one respondent being a Malaysian of Punjabi background, and another Samoan born. In both cases, their personal cultural background and the physical environment in which they grew up had a great influence on their enthusiasm for outdoor recreation activities (Davidson, 2001).

By contrast, patterns of cultural restriction emerged from an investigation by Purdie and Neill (1999) of an Australian outdoor activity program in which a number of visiting Japanese students participated. In the course of the program the Japanese students encountered a number of activities which they found culturally distressing and embarrassing. For example, 'swimming in a river, and dressing and undressing near fellow students in a coeducational setting', were issues for these students because their cultural background took for granted a far greater level of personal privacy. This factor has also been found to be a barrier to the participation of girls of Muslim background in outdoor recreation activities like snorkelling and kayaking (Benn, 1996).

Surf lifesaving, although an emergency service and sport, has a component of organised active outdoor recreation. In an historical study of Surf Lifesaving in Australia in relation to the cultural background of immigrants, Brawley (1997) claimed that even at the time of the establishment of the first surf lifesaving club in 1907, a large proportion of the members were Australians of British-Irish descent (Brawley, 1997). However, there is also evidence of other minority cultural participation. In the interwar period, a significant number of Croatians became members of two different surf lifesaving clubs in Sydney. Subsequently after the Second World War, many Dutch community members actively participated in surf lifesaving. Greek and Italian immigrants became involved around Adelaide's northern suburbs during the 1950's and 1960's. At the elite level of surf lifesaving competitions, there were champions like Nick Yakich, whose parents were of

Croatian background and another champion by the name of David Dworjanyn, of Lithuanian parentage (Brawley, 1997).

Generally, however, the proportion of participants from culturally diverse backgrounds in surf lifesaving has remained low. In a country where 24 per cent of the population was born overseas (Australian Bureau of Statistics, 2006) and 26 per cent of people born in Australia had at least one overseas-born parent (Australian et al., 2006) Surf Life Saving Australia (SLSA) membership has yet to be representative of this demographic profile (Fitzgerald & Giles, 2007). A recent review suggests that this may not be a high priority, in that it omitted to discuss strategies to address this issue (Surf Life Saving Australia, 2015). Historically, some efforts have been made by State clubs, such as the New South Wales State Centre, who tried to introduce surf lifesaving to Sydney's Vietnamese community in the Cabramatta area (Brawley, 1997). Brawley suggests the attempt failed because of lack of financial support, travelling issues and religious and cultural beliefs which prevented engagement for the local Vietnamese community and concluded far greater effort was required from both the mainstream surf lifesaving community and the minority communities themselves (Brawley, 1997).

Scouting has been another organization associated with group outdoor recreation activities where cultural diversity has been identified as an issue. For example, the 2012 final recommendation report to Scouts Australia on the National Venture Scout Youth Forum (Tyas, 2012) discussed engaging and recruiting culturally diverse minorities into Scouts programs. Tyas (2012) identified Australian Scouts as an organisation which originated in British cultural traditions dominated by 'white, Caucasian, middle-class members' (p. 8) who do not reflect the reality of Australia's current multicultural society. In response, the report recommended several recruitment measures and recognised the importance of eradicating racial bias in the current Scouts units and groups. It recommended Scouts organisers engage with local ethnic minority communities to investigate particular issues that prevented cultural or ethnic minorities from joining Scouts (Tyas, 2012).

Similar recommendations emerged from the investigation of Blanchet - Cohen and Reilly (2013) into teachers' perceptions of culturally sensitive approaches to environmental education in Canada. Their findings pointed to the advantage in multicultural contexts of connecting with parents and communities and encouraging them to help in designing appropriate outdoor activities.

A qualitative study among young people of both migrant and non-migrant backgrounds in the Netherlands (Kloek, Buijs, Boersema & Schouten, 2017), showed that ethnicity was one of the key factors shaping the young peoples' attitudes to outdoor recreational activities, regardless of their background. The other two key factors identified were personal identities and age. The study also found that for some female respondents, their gender identity became an issue in participating in outdoor activities, seen particularly in their concern with safety.

At a deeper level, Taylor (2018) explored the underlying attitudinal issue of variations in the sense of connection to nature expressed by 157 college students of different racial and ethnic backgrounds in the United States. The results showed that most students of minority background had similar aspirations and desires in relation to nature as those from the majority Anglo-American background. There was no evidence that those of minority background had any fear of nature. Participation in outdoor recreational activities was at a similar level for all students, regardless of their background, despite the fact that all expressed some concern for safety in these activities.

Based on the issues raised in the literature discussed above, this paper investigates the relationship between participation in outdoor recreation activities and cultural identity in the personal experience of the students who participated in this study.

Method

The research reported in this paper, investigated the sense of cultural identity of year 11 students and their engagement in outdoor activities as part of a larger study on participation in sport and physical activity (Maniam, 2014). In the larger study, all of the respondents, who had agreed to participate, with parental consent, were in year 11 classes in six Adelaide secondary schools where principals had given permission for the study to take place. The guideline questions that the students were asked to answer in writing contained a question about each student's voluntary participation in outdoor recreational activities outside the school. The 22 students (13 M, 9F) who answered this question constituted the set of respondents for the investigation reported in this paper. In the strictest sense, they represent not the sample of a wider population, but a very small self-selected population, Ethics approval for this research study was obtained from the University of Adelaide and the South Australian Department of Educational and Children's Services, as well as the relevant authorities for independent schools.

Procedures

The data for this paper took the form of written responses to open-ended researcher designed questions that asked students to write a personal statement about their ethnicity, their sense of cultural identity, and their engagement in outdoor recreation activities. The collection of data took place in a classroom designated by each particular school.

Data analysis

An inductive approach was adopted for the analysis of the students' statements following the humanistic sociological approach of interpreting the data from the perspective of the participants as social and cultural beings (Smolicz, 1999; Znaniecki, 1968). NVIVO software was employed to assist with identification and categorization of themes supplemented by close reading of the students' statements. Student responses on their sense of cultural identity could be categorized as Mainstream Australian or Culturally Diverse grouping, with the latter including those with Aboriginal and a range of European and Asian identities. Student comments on their participation in outdoor recreation activities enabled the activities to be categorized, on one dimension, as being either individual or centred on group involvement. A second dimension also emerged as significant; some activities were essentially land based, while others involved water-based participation and skills. In the discussion that follows, the comments of the participating students are quoted verbatim to ensure that their experiences, thoughts and feelings about their identity and their participation in outdoor recreational activity were represented on their terms rather than through the researcher's interpretation.

Results and Discussion

Table 1 shows the 12 different outdoor recreation activities mentioned by the 22 students that participated in this study. Each student is indicated individually on the table by the identification number given in the research analysis. Among these respondents five, including one female, were members of Scouts. Four female students participated in surf lifesaving. The outdoor recreation activities of bushwalking, fishing and hiking, each recorded three participants respectively. For bushwalking there were two female respondents. In the case of fishing as an outdoor activity, the three participants were male, all of whom indicated that they were also involved in hiking.

Camping, scuba diving and snorkelling each had two participants, while the remaining three outdoor recreation activities, the Duke of Edinburgh award, downhill mountain biking, and hunting each had only one. One respondent (P03) included scuba diving and shell collecting, as well as fishing and hiking, among his

outdoor recreation activities. Another (S03) mentioned three outdoor recreation activities bushwalking, fishing and hiking.

Table 2 shows that all 22 of the respondents answered the question in relation to their cultural identity. The issue of how young people describe their personal sense of cultural identity has rarely been considered in relation to participation in sport and particularly outdoor recreation activities. For this reason, the comments given in this study are presented in detail in the discussion below, using the actual words written. The intention is to enable readers to understand the range and diversity of the students' reflections on their cultural identity and to demonstrate the depth of some of their thinking on this issue.

Table 1. Respondents' Participation in Outdoor Recreation Activities

Outdoor Recreation Activities	Respondents	N = 22 (13M,9F)
Bushwalking	B14*, P10*, S03	3
Camping	B02, Z04	2
Duke of Edinburgh Award	H23*	1
Downhill Mountain Biking	B03	1
Fishing	P03, P06, S03	3
Hunting	C10	1
Hiking	P03, P06, S03	3
Scuba Diving	P03, Z13*	2
Shell Collecting	P03, H15, H04, H05	4
Scouts	P09, P11*, H11, H24*, P14	5
Snorkelling	B03, H24*	2
Surf Lifesaving	C01*, H23*, S12*, Z07*	4
Total of Activities		31

Notes: 1. An asterisk following the number indicates a female respondent.

2. Individual Respondents are identified by a letter and two-digit numbers.

Source: Own study.

Half of the participants (12) identified themselves as Monocultural Australian. According to Smolicz (1994), this single mainstream Australian identity, is linked to the ancestral, cultural and historical Anglo-Celtic roots of those Australians who, over generations, have arrived from Great Britain and Ireland. The comments of students, who felt this kind of Australian identity and related it specifically to birthplace and residence, are given below.

B02: I think of myself as Australian because I was born here, my parents were born here, my grandparents were born here my great grandparents were born here.

B03: I think of myself as Australian because I was born in Australia.

P11: I am a pure Aussie*

Another two students claimed a different Monocultural identity. As the statements below clearly show, each of the two respondents identified with a specific cultural group, one British and the other Filipino. In the Australian context, this linked them to a minority ethnic group, or what Clyne (2005) called an Australian community.

Although the British group has many cultural overlaps with mainstream Australia, the student concerned identified only as British. It is worth noting that both these respondents were recent immigrants to Australia.

C10: *I am British.*

Table 2. Participants and their Sense of Cultural Identity

Sense of Ethnic Cultural Identity	Respondents	N = 22 (13M,9F)
Monocultural Mainstream Australian	B02, P10*, H24*, B03, Z13*, P03*, H15, P11*, P09, S12*, Z07	11
Monocultural Minority European Asian	C10 Z04	2
Bicultural/Polycultural European + Australian Australian + European Asian + Australian Australian + Asian	H11, B14*, S03 H23* P14 P06	6
No Sense of Cultural Identification	H04, H05, C01*	3

Notes: An asterisk following the number indicates a female respondent. Individual respondents are identified by a letter and two-digit number. Source: own study.

Z04: I identify myself as a Filipino who still loves his home country and of course his new home, Adelaide. I realise that my lifestyle and personality are a bit different to the majority especially in a public school. First of all, I'm religious unlike a number of people who are secular or atheist. In comparison to my peers' lifestyle, I'm somewhat conservative who seldom drinks. In Australia I start to get more independent and liberated. Also, I feel different in terms of stand toward education. Being that [my school] is a sports school, some of them do not even give a damn towards academics which I am currently fortunately taking advantage of.

The Table 2 also shows that six students expressed a bicultural identity, which Smolicz (1994), described as the hyphenated dual identity. In these cases, a particular European or Asian identity was used to describe what sort of Australian they considered themselves to be. Examples of this are given in the quotations below.

H11: Australian Polish. I see myself as an Australian with Polish roots therefore I call myself Aussie but respect my heritage.

B14: I think of myself as half German half Australian so German Australian. This makes me slightly different I think due to my German background but I like it.*

S03: Greek Australian, my heritage is Greek and I was brought up with a rich cultural heritage of what it is like being Greek. Attended Greek school from year 1-6, went to church regularly Greek culture and functions as a youth and had many friends who was of Greek or European background. Australian also; proud to be an Aussie as I was also brought up and went through the education system in Australia. I enjoy the culture and follow AFL football. So, I am a proud Greek-Australian.

H23: I think of myself as an Australian who has an Italian background but not a strong Italian culture in the way I live.*

P14: I am Chinese Australian because I was born here but I can speak full Cantonese, a dialect of Chinese.

P06: Australian / Chinese / Vietnamese [because of] parents [and] country born in.

P06's identification was closely linked with the concrete reality of his life. He was born in Australia to Chinese-Vietnamese parents and spoke both these languages at home.

As the extracts cited in the sections above demonstrate, a good many of the students responded to the guideline question on personal sense of identity in some detail. They were often quite explicit about who they felt themselves to be and could explain the factors which led them to this identification. In contrast, three students involved in outdoor recreation activities explained that they had no sense of being culturally different.

Perhaps the most surprising finding was a general one, not directly related to the original aim of the study. Only 22 of the 111 students in the larger study investigating student engagement in physical activity reported participating in extra-curricular outdoor recreation. Furthermore, only nine of the 23 were females, an even lower proportion than in the larger study of 111. The low participation rate for this group may well reflect the settings, with reduced offerings of outdoor education in city-based state schools in South Australia that might not promote such extra-curricular participation (Pickett & Polley, 2003; Polley & Pickett, 2003).

Table 3. Outdoor Recreation Activities by Participants' Sense of Identity

Outdoor Activity	Mainstream Australian N = 11	Culturally Diverse N = 8	No Cultural Identification N = 3	n
Bushwalking	P10*	B14*, S03		3
Camping	B02	Z04		2
Duke of Edinburgh	H23*			1
Down Hill Mountain Bike	B03			1
Fishing	P03	P06, S03		3
Hunting		C10		1
Hiking	P03	P06, S03		3
Scuba Diving	P03, Z13*			2
Shell Collecting	P03, H15		H04, H05	4
Scouts	H24*, P11*, P09	H11, P14		5
Snorkelling	B03, H24*			2
Surf Life Saving	S12*, Z07*	H23*	C01*	4

Notes: 1. An asterisk following the number indicates a female respondent in the study.

2. The number of activities is greater than the 22 participants, because several respondents mentioned more than one activity.

As stated, this investigation focused on the relationship between sense of cultural identity and participation in outdoor recreation activities among this group of respondents. Table 3 provides the full breakdown of the cultural identities claimed by the respondents, summarized under the headings of Mainstream Australian, Culturally Diverse Identities and No Cultural Identification. These have been plotted against the 12 outdoor recreational activities that the students responded participating in. However, when participation in the various activities were analysed along the two dimensions of group as against individual and land-based as against water-based, the patterns of participation by cultural identity and gender were found to vary, even though the total number of students in each type of activity was the same.

It is worth looking at the three main group organizations in more detail. The Duke of Edinburgh Award which requires successful participation in physical and outdoor activities (Duke of Edinburgh Award, 2019) had only

one participant (H23*), a girl who identified as a Bicultural. Scouts which is mainly linked to land-based activities, had more participants among the students taking part in this study than any other outdoor activity with five students, three males and two females involved. Among these five participants, three were Mainstream Australian, while respondent H11 identified as Australian-Polish and P14 as Chinese-Australian. The Scouting Movement is a well-established and popular activity for young people in Poland and in the Polish-Australian community (Smolicz & Secombe, 1981), but the participation of a Chinese-Australian who spoke Cantonese at home and for whom English was a second language is evidence of some culturally diverse participation in Scouts. The participation of only two young people of culturally diverse identity reflects the earlier view expressed by Tyas (2012) that more might be done by the Scouting movement to encourage culturally diverse participation.

The other group activity, Surf Life Saving, which involved mainly water-based skills through participation in a voluntary lifeguard service and various surf sports (Surf Life Saving, 2019), attracted four participants, all of whom were females. This suggested that the strategies adopted by the Surf Life Saving leaders to change the earlier image of Surf Life Saving as a male dominated activity, and make it more gender inclusive, has had some success. Two of the four were Mainstream Australian in identity; one claimed to have no sense of cultural identification, while the fourth (H23*) considered herself to be Australian of Italian background. Based on this group of respondents, cultural inclusivity in Surf Life Saving cannot be said to have yet become a distinguishing feature of its outdoor activities.

In summary, out of the nine students participating in group outdoor activities, only three were identified as Culturally Diverse - H23*, who was involved both in the Duke of Edinburgh Award and in Surf Life Saving; H11 and P14 who were involved in Scouts. The other three males involved in Scouts and the three females in Surf Life Saving were of Mainstream Australian identity. It is also worth noting that out of the nine females participating in this study, six were involved in group outdoor activities.

The individual land-based activities of bushwalking, camping, and downhill mountain biking, hunting and hiking had a total of nine participants, with S03 involved in both bushwalking and hiking. Only two of these were females. Four of the nine were of Mainstream Australian identity. Two claimed a Minority cultural identity, one linked to a European group, the other to an Asian group. Three identified as Bicultural, two with links to Europe and one to Asia. Overall, five of the nine students participating in land-based individual activities were of Culturally Diverse identities.

The individual water-linked activities of fishing, scuba diving, shell collecting and snorkelling had nine participants in all, with PO3 involved in the first three of these activities. Only two were female (Z13*, H24*). Five were of Mainstream Australian identity but two were of Bicultural identity, one with a European component and one with an Asian, while two claimed no cultural identification. In summary, only two (PO6, SO3) of the nine students involved in individual water-based activities were of Culturally Diverse identities.

Although the numbers overall were very small, the above analysis appears to highlight a number of gender and cultural identity preferences which would be worthy of further investigation. Mainstream Australian respondents, particularly girls, seemed to prefer organized group activities. In the case of individual land-based outdoor recreation activities, more of the students involved identified themselves as Culturally Diverse than Mainstream Australian, with a predominance of males. Males from both Mainstream Australian and Culturally Diverse Identities were the main ones involved in the individual water-based activities.

Conclusion

There is a paucity of literature investigating the relationship between culturally diverse backgrounds and participation in outdoor recreation. Although not generalizable to the broader population, the results from this small-scale study suggest that the level of participation in outdoor recreation activities for senior secondary

state school students from culturally diverse backgrounds may well be lower than for students of mainstream Australian background. The more recent Netherlands study (Kloek, Buijs, Boersema & Schouten, 2017) identified ethnicity as a factor in participation in outdoor activities. Another surprising finding of this study was a general one, not directly related to its original aim. Only 22 of the 111 students in the larger study investigating student engagement in sport and physical activity reported participating in extra-curricular outdoor recreation. Furthermore, only nine of the 22 were females, an even lower proportion than that found in the larger study of 111 (Maniam, 2014). These findings may well reflect reduced offerings of outdoor education in city-based schools as suggested by Polley and Pickett (2003).

The study has demonstrated that those of Diverse Cultural identities are participating in outdoor recreational activities, as represented in this study by eight out of the 22 participants, approximately a third. Moreover, their responses have provided very useful pointers to the sorts of activities they preferred and those they tended to avoid. Among the participants in this study, those of Culturally Diverse identities were found most often in individual land-based outdoor recreation activities. They were less frequently involved in group outdoor recreation activities. This could suggest that those from culturally diverse backgrounds felt less comfortable in the culture of outdoor recreation organisations such as Scouts and Surf Lifesaving. It is also important to note the higher levels of participation in land-based than water-based outdoor recreation for this group, possibly suggesting more could be done to promote water confidence and safety for students of culturally diverse backgrounds.

Implications

Recently, the Australian Health and Physical Education Curriculum (ACARA, 2016) included challenge and adventure activities, aquatics and navigation as part of the curriculum and acknowledged the role and place of outdoor education ('outdoor learning') (ACARA, 2017) to teach across a range of curriculum areas. The identification of issues for Culturally Diverse Identities has implications for teachers of physical and outdoor education who seek to promote participation in outdoor recreation, as well as organisers who wish to encourage greater inclusion of students from both genders and all cultural identities in outdoor recreation activities. The results of this small-scale study suggest greater attention could be given to encouraging the participation of those of Culturally Diverse Identities through being more aware of taken for granted Mainstream Australian cultural patterns which those of other cultural identities may find unfamiliar, and even alienating. It would also be useful to follow up Taylor's 2018 study and explore in more detail the attitudes to nature revealed by young people of different backgrounds, comparing in particular the attitudes of those who participate in outdoor activities against those who do not.

Ethics approval and informed consent

Ethics approval for the study was granted by The University of Adelaide Research Ethics Committee.

Competing interests

No potential conflict of interest was reported by the authors.

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The impact of social media on managing the image of the Polish national football team

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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ABSTRACT

Presented paper contains looks which mainly attempt to analyse the promotion in sport by social media and brand image management on the example of „Connected by football” channel.

Research process required usage of diagnostic survey method. Exploration shows that social media has contributed to popularisation and improved the image of the Polish National Football Team. Respondents' opinions about the formula of the „Connected by football” channel. The reasons and motives for the interest of the „Connected by football” channel are mainly involved with sports activities and the team's life outside of trainings and matches. Survey shows that half of the respondents changed their mind about the players after watching the video materials and due to this fact the emotional bond between players and supporters increase. The research presents that „Connected by football” channel played a significant role in Polish National Football Team image's building.

KEYWORDS

social media, sports marketing, image, sports brand, public relations, football

Introduction

Professionalization, commercialization and globalization of sport disciplines led to the creation of a sports market. Progressive development has created a strong competition therefore building strong sports brand has become a tool of the fight against competition on the market. Nowadays, in the aspect of management the sports market takes an example from enterprises to effectively operate in the environment. This process includes also communication with clients. Social media, which have evolved into huge information bases and a place for discussion, has become communication channel between organizations and fans (Hudson et al., 2016).

The aim of this paper is finding the answer if the use of social media as a tool for promoting the Polish National Football Team improved the team's image? Did the activities related to the use of social media as a tool for promoting the Polish National Football Team increased the fans' sympathy for athletes? And finally does the popularity of the „Connected by football” channel depend on the successes of the Polish National Football Team? Why did PZPN decide to use social media in image management?

Based on research questions following research hypotheses have been formulated:

1. The use of social media to promote the Polish National Football Team has helped fans get to know the players better.
2. PZPN uses social media to manage its image in order to attract young people to support Polish National Football Team.
3. The use of social media has significantly improved the image of the brand - Polish National Football Team.
4. The sports successes of the Polish National Football Team helped to popularize the channel „Connects us football”

A sports brand can be built by many entities: sports organization, sporting event, sports equipment manufacturer or sportsmen themselves. Currently, a particularly strong cult of sports personalities contributes to the tremendous strength of competitors' brands in the business market (Ratten, 2010). Companies willingly use them for marketing activities through sport. Sporting successes evoke strong emotions among consumers, the feeling of pride and joy of winning can be transferred to a product or service whose ambassador is a given sports personality or a team (Ratten & Ratten, 2011). According to the definition of the American Marketing Association, the brand is defined as a „name, design, symbol or any other feature that identifies a product or service of a given seller in contrast to other products and services of other sellers” (Stern, 2006). Shaun Smith and Joe Wheeler (2002) understand a brand as a trademark that distinguishes products from one supplier from another. Allen P. Adamson (2006) emphasizes that the brand is a promise that reaches the consumer's mind. It has an amazing strength binding it with a specific product or service, causing an emotional reaction - negative or positive. Keller (2008, p. 2) submits that „a brand is something that has actually created a certain amount of awareness, reputation, prominence, and so on in the market place”. Zawartka (2013) claims that a sports brand should correspond to the emotions experienced by the consumer in contact with sport and the values that the sports spectacle brings with it. The emotional potential of can be flexibly extended to other brands and even industries.

Bykowski (2007) emphasizes that the Polish National Football Team sport brand is created by consequent entities:

- National team coach.
- Players, some of them became stars of the team often attracting fans with their personality or sports skills. The image of the team is influenced not only by their attitude during the match and the quality of the game, but also by their private attitude and statements in the media.
- Supporters whose behavior during meetings at the national level may build the image of a country.
- Polish Football Association (*PZPN*).
- A league system in which games are organized.
- Sponsors.
- Historical experience related to referring to previous successes or failures.

Kropielnicki (2008) notes that the status of a sports brand wants to have not only unions and sports clubs, but also leagues, events, objects or producers. Shaping the brand image is a strategic process. Due to the fact that all circumstances may affect the perception of sports brand consumers'. Shank (2004) emphasizes that a strong sports brand is closely identified with the sports environment in which it operates. However, before it exists, it will consolidate its position on the sports market and attach to itself the consumer, it must be created. The process of creating takes place in the following stages: brand awareness, the image of the brand, brand value and loyalty to the brand. Brand awareness is connected with its recognition and remembrance by the consumers. Developing a high level of brand awareness is the basis for building its image in the environment in which it operates. The image of the brand is a group of beliefs, ideas and opinions about it. This is

evidenced by features such as: name, price, promotion, distribution method, quality, packaging, service package and benefits provided to the recipients in terms of satisfying individually specified need.

Commercialization of sport has made the concept of a sports brand more and more present in the literature. Subsequent authors began to notice and identify brands operating only or also in the field of sport. Kotler (2016) claims that the aforementioned features constitute the brand's identity, understanding it as a compilation of information and images that make up a sports product. Current trend of extending or modifying the meanings of business concepts also refers to the definition of the concept of sports brand. Arai et al. (2014) emphasize the importance of using the model of athlete brand image (MABI) which identified the critical brand associations for athlete brand in developing brand equity among consumers. MABI consists three dimensions: athletic expertise, attractive appearance, and marketable lifestyle.

Shaping the brand image is a long and strategic process, requires a broad knowledge of the image, tools and sense in social relations. It should be remembered that the „brand” itself is only a showcase of products and services, which should be disseminated through the promotion in the media.

Public Relations as a tool to build a sports brand

Public relations shapes various forms of relations between enterprises and the environment and tries to maintain these relationships. Kotler and Keller (2016) emphasize that public relations includes various programs that aim to promote or protect the company's image and its individual products. Public relations are mainly defined as a management function that enables enterprises to acquire positive relations with consumers. Public relations is understood as multilateral contacts and relations of the organization with the external and internal environment as well as all activities aimed at evoking or maintaining interest in its work, and - creating a positive attitude and public trust in the association (L'Etang, 2006). Public relations activities are directly related to creating a positive image of the organization, creating good relations between the organization and the environment, and seeking favorable opinions of the media, which do not spread any harmful messages about the organization (Sznajder, 2015).

The main components of PR in sport are: media relations (MR) and community relations. The first is a strategy of cooperation with the media, and the other is the activity of the company directed to the environment (L'Etang, 2008). These activities build a community of sympathizers and supporters referred to as a fan base building. Qualman (2013) emphasizes that more and more of these activities are being transferred to the Internet. The main advantage of the Network is an easier access to published content, both for consumers and journalists. The cost-effective distribution is also a convincing aspect. In the literature on the subject, the concept of „online public relations” began to appear, which can be understood as activities activating recipients (Woźniakowski, 2016). Internet public relations is a function of management, through the Internet network tools, of a continuous and planned nature, enabling communication between the organization and its external and internal environment. The activities include: social networks, websites, newsletters, video conferences, chats, internet forums, online stores, blogs, microblogs, mobile services and instant messengers. The implementation of these activities should be based on a coherent PR strategy so that everything is planned, continuous and conscious (Popp & Woratschek, 2015).

Social media in marketing communication

Communication in virtual space is an extremely important area in conducting marketing communication. These days, we are dealing with so-called network communications, which is based on the exchange of data and information via a computer network (Filo et al., 2015). The factor generating the emergence of marketing innovations is primarily the development of information technology and the skillful identification of consumer needs. Both elements influence the implementation of new methods in the field of services and changes in the marketing communication process (Katz & Heere, 2015). Nowadays social media takes a dominant place in social network communication (Jahn & Kunz, 2012).

Despite the growing popularity of social media, in the literature of the subject, it is not easy to find their non-superficial definition. Social media has been defined by Andras Kaplan and Michael Haenlein (2010, p. 61) as „a group of Internet-based applications that build the ideological and technological foundations of Web 2.0, which allows users to create and exchange content created by users”. All technological solutions that lead to interaction between their users are defined as Web 2.0. The foundation of social media and Web 2.0 are Internet communities made up of users who „produce” content. Social media platforms have occurred as a dominant digital communication channel via which consumers learn about, share information on, and have a possibility to interact with brands (Laroche, 2013). All „the tools, platforms, and applications that enable consumers to connect, communicate, and collaborate with others” are understood as social media (Williams & Chinn, 2010, p. 422).

The main differences between social media and their traditional counterparts. The user of traditional media only served as the recipient, in case of social media he directly participates in creating their content. The dissimilarity of social media is based on consumer’s experience realized through conversations. The essence of communication was a conversation and discussion, and not as in traditional media – information. This shows how important it is for marketers to identify the needs and behavior of consumers. The use of social media by sports enterprises can build a tripartite relationship involving business partners, consumers and non-governmental organizations. Social media can fulfill a number of functions as: co-participation, co-creation, building and maintaining relationships, communication, current information and publication (Kaznowski, 2013). Nowadays brands use social media strategically to establish relationships with environment and facilitate outcomes (Filo et al., 2015).

Methods

The aim of this work is to characterize the promotion in sport through social media and brand image management on the example of the „Connected by football” channel on YouTube. The study analyzed the use of social media, as a tool for managing the brand image of the Polish National Football Team, and assessed the activities of the „Connected by football” channel.

The research process requires use of following methods: diagnostic survey and interview text analysis. The first method involves questionnaire survey. Respondents had the opportunity to fill them through the Internet. Survey created for the purposes of obtaining answers to the research questions and contained 25 questions. 17 were directly related to the research problem and 8 described socio-demographic profile of respondents. The questionnaire contains detailed questions regarding the motives of watching, evaluation and popularity „Connected by football” channel among Polish National Football fans. Participation in the research was voluntary and anonymous. The research was carried out on a group of 100 people, in 2018. Survey was created on a special portal where respondents had the opportunity to fill them through the Internet. From the group of 100 people, 78 knew „Connected by football” channel.

Research material

The selection of the team was directly related to its promotional activities in the social media. The Polish National Football Team is a football team that represents the Republic of Poland in international matches and tournaments. National Team is appointed by the manager, and can only be determined by players with Polish citizenship. The Polish Football Association (Polski Związek Piłki Nożnej PZPN) is responsible for its functioning (Gowarzewski, 2017). Funding of the National Team is handled by PZPN, which receives a significant amount of money from sponsors, sales of marketing rights and ministerial sources. National Team also earns through sports broadcasts, sale of copyright, tickets, merchandising etc. As noted by Gowarzewski (2017) efficient management of the team of Poland rests on the shoulders of the president of PZPN. Since 2012, the position has been held by Zbigniew Boniek, a former outstanding football player of Polish National Football Team, later a coach, sports activist and a businessman. The image of the association improved after taking over the office of the President by Zbigniew Boniek. PZPN also regained its transparency and fans' confidence. The team began to achieve satisfactory results; qualified for the Euro 2016 and reached the quarterfinals of this tournament. Thus achieving the best result at the European Championships in history.

The strategy of comprehensive reconstruction of the image of the National Team also assumed the use of social media. The process of rebuilding the media image of football in Poland began in December 2012, when Janusz Basałaj became the communication director of PZPN. President Zbigniew Boniek came up with the idea of creating the substitute of federal television. The aim of the project was to create a YouTube channel showing behind the scenes of Polish football. Project also contain content related to other representations: youth, women, beach soccer, futsal and so on. Initially, reportage style films were made. In order to change the format of the shots, technological changes were made involving the use of GoPro cameras, which did not restrict the players and allowed them to enter a free and natural reaction with the camera at any time.

The PZPN run the Internet website named „Connected by football”. One of its tool was YouTube channel. The main concept was showing the fans the backstage of National Team which presents football to fans in an interesting and innovative way. „Connected by football” channel presents reports, match abbreviations, trainings, interviews, press conferences and a series of materials titled „Expert Studio”. The media face of the YouTube channel is Łukasz Wiśniowski, a journalist who accompanies the first National Team during sparring matches, tournaments and games. Channel journalists began working during the elimination to the European Championships. The relations between journalists and footballers became more intimate, and thanks to that the materials recorded on the channel gained credibility. The first success of „Connected by football” was noticed during the Euro 2016 Championships, when there were as many as 2 million unique users. Currently, the YouTube channel has over 400,000 subscribers.

Characteristics of respondents

The survey questionnaire was sent via Internet to 100 people, 78 of whom knew “Connected by football” channel, and 22 did not. In the study, a group of 78 subjects was taken into account, assuming as 100%. The data shows men were the more numerous 71% (55 people) and women constitute 29% (23 people). The stereotype confirms that men are still more interested in football and players' lives. Analyzing the structure of the respondents in terms of age, it turns out that 76% (59 people) of the examined persons are in the 19-26 age range. The second group (19%, 1 person) consist of respondents aged 27-36, then 3% (2 people) group of respondents aged 37-54. The lowest number of respondents is between 0-18 and 2% (2 people). The study do not involve people over 55 years. The study shows that young people represents the group which is easiest to attract through social media.

Most of the respondents (53%, 41 people) are living in cities over 500,000. residents. In cities with 100-500 inhabitants live 15% (12) of respondents and city residents up to 100,000, there are 19% of them (15 people). 13% (10 people) live in the countryside. The largest group 35% (27 people) are people earning PLN 1,500 a month. The respondents earning income between PLN 1501-2500 per month is 23% (18 people). The study also included people earning 2501-3500 zlotys per month - 20% (16 people). The lowest number of respondents indicate their income in the ranges of 3501-4500 PLN and 4500 PLN which in turn were 12% (9 people) and 10% (8 people).

„Connected by football” is observed mainly by young men. The study group comes mainly in large cities, which may be associated with a greater possibility of access to the Internet. The degree of earnings in most respondents does not exceed PLN 2,500, which may indicate that they are in the early stages of entering the labor market or are students.

Findings

Reasons and motives for interest in „Connected by football” channel

The main reason for starting following materials on the channel is the opportunity to see backstage of Polish National Football Team. This response is obtained by as much as 85% (66 people). Equally highly evaluate reasons are presenting the life of Polish National Football Team apart from trainings and matches (83%, 64 people), interest in football by the respondents (79%, 61 people), and presenting curiosities about Polish National Football Team (70%, 55 people). Another reason is satisfaction with the style of recording materials, which receive 68% (53 people) of positive ratings. Viewers admit that sports results achieved by Polish National Football Team contribute to watching the channel „Connected by football” (56%, 44 people). Comparable are the results of showing youth teams (32%, 25 people) and the popularity of the channel among family and friends (29%, 22 people). The least inviting aspect to watch channel is a shortcut magazine for 2 leagues (18%, 14 people). These results seem to translate into the goals set by *PZPN* activists and the creators of the channel. Łukasz Wiśniewski explained that the main goal for his work in „Connected by football” is to promote football. That is why they aimed to show backstage of National Team.

Respondents evaluate the channel on scale from 5 to 1, where 5 is the highest grade and 1 the lowest. 51% (40 people) of the respondents review the channel for a highest grade. The good rating (4) choose of 41% (32 people). The current formula of the channel has been rated very well, it may be related to the inability to compare the channel „Connected by football” with a similar format.

Moment of increase popularity of „Connected by football” channel

UEFA Euro 2016 Qualifying were decisive development moment for „Connected by football” channel. Examination shows that 53% start following the channel during qualifying tournament. The next most frequently chosen moments were UEFA Euro 2016 (15%), in which the Polish National Team reached the quarter-finals. 14% (11) of the respondents declared to start watching the channel since UEFA Euro 2012 held in Poland and Ukraine. Only 12% follow channel since the beginning. Popularity of the channel is related to the sporting successes achieved by the national team¹.

¹ Before UEFA EURO 2008 Polish National Football Team did not qualify to UEFA EURO tournament. In 2012 were co-hosted this event with Ukraine.

The influence of the “Connected by football” channel on the athletes-supporters relationship

Respondents were asked whether the channel “Connected by football” influenced the promotion of Polish National Football Team, 82% (64) of people respond positively, and only 8% (6 people) claim that the channel do not affect the promotion of the team. The collected data shows that „Connected by football” channel undoubtedly helped in the promotion of the National Team, this assessment is certainly related to the direct feelings of the respondents. They experience in their environment and the media more publicity about Polish Football Association and Polish National Football Team. One of the aims of this research was to examine the opinions if “Connected by football” influences the strengthening of the emotional bond between the fans and Polish National Football Team. After watching this channel 58% (45 persons) of people declare an increase in intimacy with the team, and just under 18% (14 persons) are against it.

The 82% of respondents (64 people) claim that the „Connected by football” run by the Polish Football Association on YouTube influenced the improvement of the image of Polish National Football Team. Only 7% (5 people) of people participating in the study present a different opinion. The results show how much the channel helped to improve the image of the Polish National Football Team. Study shows that half of the respondents (50%, 39 people) after watching the materials published on the channel „Connected by football” changed their minds about the players. Less than 21% (16 people) do not. On the other hand, 29% (23 people) from the studied group are unable to determine whether something has changed after reading the content presented on the channel. Łukasz Wiśniowski accompanies the players for most of the time on sports meetings. Due to this fact fans can watch players in different situations. Materials presented on the channel helped fans to learn about the characters of individual players, which leads to a change of opinion on them. Examination shows that using social media for the promotion of Polish National Football Team has an impact on the better recognition of the players by the fans.

Conducted research has shown that the viewers of the channel „Connected by football” have strongly strengthened the ties with National Team. Data shows their positive impact in building image and promotion of football in Poland. According to the research group, the use of social media to improve the image of the brand of the team was a very good move. The rapid implementation of consumer needs makes the channel the best way to promote and create National Team brand.

Conclusion

Social media plays an important role in managing the image of a sports brand. Consequently, fans have the opportunity to get to know the competitors better, which increases their attachment to the team. This helps to improve the brand image. Commercialization of sport has caused Polish National Football Team to become a brand that triggers many positive emotions, so it is necessary to constantly take care of its reputation and image. The real change in quality in managing the image of a sports brand is the activity of Polish Football Association on YouTube. By creating “Connected by football” channel, they created a possibility of constant interaction with the fans. Subscription of the channel helps fans to receive information about new materials, which affects their attachment to the national team and sports products that it offers.

Most of the respondents declared an increased emotional connection with Polish National Football Team after watching the materials on the channel. The majority of supporters confirmed the significant impact of the materials on the „Connected by football” channel on the Polish football promotion. Hypothesis that the use of social media has significantly improved the image of the brand Polish National Football Team can be confirmed.

Respondents indicated that backstage from Polish National Football Team sparings and interviews with players are most wanted to watch film materials on „Connected by football” channel. Half of the surveyed

fans changed their minds about the players after watching materials. This facts confirm the hypothesis the use of social media to promote the Polish National Football Team has helped fans get to know the players better.

UEFA Euro 2016 Qualifying and UEFA Euro 2016 where Polish National Team reached the quarter-finals, were a developing moment for „Connected by football” channel. Hypothesis that the successes of the Polish National Football Team helped to popularize „Connected by football” channel is confirmed. Sports success turned out to be a stimulus for further work on changing the current perception of the National Team by fans.

Research shows that „Connected by football” is observed mainly by young men. Hypothesis about used social media to manage its image in order to attract young people to support Polish National Football Team is confirmed.

The authors of the work managed to achieve the goal set at the beginning and confirmed the working hypothesis. The results of the research showed that supporters are showing interest in the life of the National Team, not only during matches, but also outside of them. „Connected by football” channel fulfilled its basic assumptions, which were bringing players closer to the fans and popularizing football. The authors learned the viewers' motives to watch the materials presented by the channel, knows what they like the most and what is most important to them as supporters. Creation of the „Connected by football” channel by Polish Football Association has built up a positive relationship between supporters and players. Social media are a tool of learning the needs and expectations of fans, this helps to prepare a personalized offer for them.

Positive image attracts fans and it might be translate to future financial revenues. Consumers who are satisfied with the brand on social media are definitely more likely to buy products related to this team. Polish National Football Team is a brand whose image depends on the players and people directly cooperating with it. The dedication to brand management to specialists who decided to use social media turned out to be a good move, and the Polish Football Association became a pioneer among global football associations and is a role model by UEFA. It is worth following the further actions of the Polish Football Association in the social media.

Using social media in building a sports brand is a very interesting topic to explore, still fresh and not fully discovered by marketing departments in sports organizations. Similar research carried out in other sports would help the sports organization to build appropriate marketing strategies. Competition on the sports market requires the intensification of marketing activities and the usage of new tools to strengthen ties on the line of a sports organization - a fan who is a consumer of a sports product. Therefore, sports organizations should constantly improve their activities and base them on the latest trends in the field of marketing. Currently, we are entering the era of Marketing 4.0, which combines online and offline interaction between the organization and its recipients (Kotler et al. 2017). Its aim is to stimulate consumer brand advocacy.

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Can sport for development programs improve educational outcomes? A rapid evidence assessment

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
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ABSTRACT

Over the last 20 years, sport for development (SFD) has become an increasingly used tool to tackle education-related challenges around the world and has even become recognized by major international institutions such as the United Nations and the Commonwealth. In spite of this, evidence on the effectiveness of SFD programs on educational outcomes is limited. Through a Rapid Evidence Assessment (REA), this paper seeks to begin addressing this gap. Literature is included if it quantitatively examines the relationship between participation in a SFD program and educational outcomes, namely academic performance, school attendance, or attitudes and behaviors related to school. Results are then organized and presented according to these aforementioned areas. The identified literature paints a mixed picture of SFD's impact on educational outcomes related to academic performance and school attendance, though the data related to improved attitude and behavior is more positive. Overall, the lack of research on this topic and the deficiencies in some of the identified studies do not allow for the conclusion that SFD generates positive education-related outcomes. This paper concludes by proposing potential solutions to address this gap in research.

KEYWORDS

sport for development, education, grades, rapid evidence assessment

In many countries, the retention, attendance, and performance of youth in school poses serious challenges. The World Bank notes that nearly half of all youth in Sub-Saharan Africa are out of school (K. Inoue et al., 2015) while, in Latin America, only between 50 and 70% of youth graduate from high school (Sanchez, 2013). There are numerous factors that lead to youth leaving or not finishing school, including early marriage, lack of educational offers, low educational quality, and levels of parental education, while other individual factors such as lack of motivation, lack of information and risk-taking behavior can be contributing factors (K. Inoue et al., 2015).

Over the last 20 years, there have been efforts to use sport as a means to foster social development and help tackle these education-related challenges (Coalter, 2010b; Kidd, 2008). Known as sport for development (SFD), this approach can be broadly defined as the intentional use of sport, physical activity and play to achieve specific development objectives. Education has been a particular focus of these programs, and data suggest that a plurality (36.7%, n=347) of SFD organizations specifically targets education and education-related objectives

(Svensson & Woods, 2017). These individual SFD programs are not likely to be able to tackle deep-rooted social issues, though they can operate at the individual (Coalter, 2010a) or community levels. These programs can use their platforms to address some of the misinformation or misperceptions that exist about education in certain communities and use sport as a hook to lead youth towards programs or structures that support their educational development (Coalter, 2010a; UNICEF, 2016). They can also provide safe spaces for youth, helping shield them from many of the risk-taking behavior associated with negative educational outcomes (Burnett, 2014; UNICEF, 2016).

The potential of sport to contribute to positive educational outcomes has become recognized by international institutions, including the United Nations, the Commonwealth, and the International Olympic Committee (Beutler, 2008; Colucci & McCracken, 2014; Diop; International Olympic Committee., 2018; Kidd, 2008; UNICEF, 2016). Various literature also supports the claim that physical education and school sport can lead to improved cognitive ability, improved attitudes towards school and even improved academic performance (Bailey, 2006; Fredricks & Eccles, 2006; Singh, Uijtdewilligen, Twisk, van Mechelen, & Chinapaw, 2012; Trudeau & Shephard, 2008). However, these benefits are not automatic and largely depend on the interactions of coaches and teachers (Bailey, 2006). For instance, settings that actively include parents, children, and educators while emphasizing enjoyment, inclusiveness, and diversity are more likely to generate positive educational outcomes through sport (Bailey, 2006).

Despite this encouraging data and claims made by international actors, it is misguided to conflate physical education, school sport, or school-supported extracurricular activities with sport for development. While most of the studies on the benefits of school sport and physical education are centered around schools in the Global North (Singh et al., 2012), those do not reflect the realities of many SFD programs. Similarly, the vast majority of researchers and research locations in SFD are found in the Global North (Schulenkorf, Sherry, & Rowe, 2016). Yet most SFD activities are located in the Global South (Svensson & Woods, 2017) and, globally, these programs often operate outside of formal school structures, and do not necessarily benefit from access to trained physical educators, access to school facilities, or relationships with educators. Numerous prominent programs such as Amandla EduFootball, Fútbol Net, Deportes para la Paz, BoxGirls, and WomenWin operate outside of formal educational settings (Jaitman & Scartascini, 2017; Whitley et al., 2019). Furthermore, as many of these programs operate outside of these school structures, they do not generate the additional benefit of making school more attractive in the way typical in-school physical activity programs might (Bailey, 2006). Thus, the claims made about physical education, school sport, or school-based extracurricular activities are not immediately transferable to the different structural, social, economic, cultural and geographic contexts that define many SFD programs. Indeed, in a systematic review looking more generally at the connection between physical activity and performance at school, Singh et al. (2012) found that most studies focused on participation in school sports or physical education, but that these did not reflect “the complete range of physical activities in which children can participate” (p. 54).

The purpose of the following is, by means of a Rapid Evidence Assessment (REA), to begin addressing this gap. Specifically, this REA will provide an initial summary of the evidence surrounding the impact of SFD programs on educational outcomes, especially in terms of academic performance, school attendance, as well as behavior and attitudes in relation to school.

Methodology

A Rapid Evidence Assessment (REA) was conducted by a single reviewer between June 26th and July 22nd, 2019. A REA, which is appropriate for investigating new or emerging topics, aims to be systematic yet makes concessions concerning the breadth, depth, and complexity of the process by limiting certain aspects typically associated with traditional systematic literature reviews (Grant & Booth, 2009). In this particular instance, the type of literature included, quality appraisal, the number of sources consulted, as well as the number of titles

and descriptions screened per source, were chosen based on predefined inclusion criteria to match the study purpose.

Pre-defined Boolean search strings were used to search for English language literature from a variety of online sources. These sources included the Ebsco Discovery Service, Google Scholar, the Journal of Sport for Development and Sportanddev.org, as well as a general Google search. The pre-defined search strings, outlined in Table 1 along with the overall search and inclusion criteria, were designed to focus on the connection between SFD and various education-related outcomes, as well as to capture more general studies or evaluations that could include education-related measures. To limit the time and breadth of the review, only the first 200 titles and descriptions for each search combination were screened on Google Scholar, Ebsco Discovery Service, and Google. Additionally, as the goal of the Google search was to find program evaluations as opposed to specific literature, only the terms related to impact, evaluation, or monitoring were used there. Given their importance to the field, all search results from SportandDev.org were screened, while all currently available titles and descriptions in the Journal of Sport for Development were similarly screened.

Table 1. Overview of search process and inclusion criteria

Property	Description
Boolean Search Terms	('Sport' AND 'Development') AND ('education' OR 'school' OR 'school retention' OR 'school dropout' OR 'school attendance' OR 'school performance' OR 'grades' OR 'evaluation' OR 'monitoring' OR 'impact')
Search Parameters	Search of titles and descriptions/abstracts, sorted by relevance
Format	Academic articles, theses, dissertations, grey literature, or evaluation reports
Language	English
Geographic Scope	Worldwide
Sources	<p>Google Scholar</p> <p>Ebsco Discovery Service (including Complementary Index; Academic Search Ultimate; ScienceDirect; Science Citation Index; MEDLINE; Academic Search Index; Business Source Complete; Environment Complete; Regional Business News; CINAHL; PsycINFO; Supplemental Index; Knovel; Scopus; Psychology and Behavioral Sciences Collection; Directory of Open Access Journals; Social Sciences Citation Index; IEEE Xplore Digital Library; SPORTDiscus; SocINDEX; J-STAGE; British Library Document Supply Centre Inside Serials & Conference Proceedings; PsycARTICLES; JSTOR Journals; Emerald Insight)</p> <p>Google</p> <p>Journal of Sport for Development (All titles/descriptions)</p> <p>SportandDev.org</p>
Program Criteria	Sport-for-development program (i.e. intentionally using sport for development goals) aiming to promote the educational attainment of its participants, taking place outside of formal school setting
Method Criteria	Quantitative research (including randomized control trials, non-randomized control trials, and longitudinal studies) focusing on a single program and its impact on education outcomes.
Outcome Variable Criteria	Outcome variables related to academic performance (e.g. grades, pass rates, standardized tests, reports of student achievement), school attendance (e.g. attendance sheets, reports of student attendance), school behavior (e.g. reports of student behavior, stays in detention, referrals to counselling)

Source: own study.

During the initial web search, titles and descriptions or abstracts were screened for their relevance to the subject of SFD and education. Results were included for a full-text screening if the title or description included

references to a sport program and any of the abovementioned educational outcomes, or if it included more general references to the evaluation of a sport program.

Based on these criteria, documents were selected for full-text screening. Documents were included in the final analysis if they quantitatively examined the relationship between participation in a SFD program and educational outcomes, namely in relation to variables of academic performance, school attendance, or attitudes and behaviors in relation to school. Only explicit SFD programs were included (i.e. programs that intentionally use sport as a tool for development) and all selected studies reflect programs that take place outside of a formal school setting. The choice to exclude school-based programs was made in line with the points made in the introduction, as well as to avoid conflating SFD “with school-based interventions” (Whitley et al., 2019). Academic articles, grey literature, evaluation reports, dissertations or theses were included, whereas as other materials such as conference papers, presentations, annual reports were not. In order to include as much literature as possible, no quality threshold is imposed on the reviewed literature. Nonetheless, the quality of each included study is evaluated using the checklist for assessing the quality of quantitative studies put forth by Kmet, Lee and Cook (2004). This checklist provides a basis for evaluating the design, sampling, data collection, analysis, and reporting of a given study. Results from this quality evaluation are included in the results section and later serve to complement this paper’s discussion.

Ultimately, documents that met the criteria above were selected for full-text analysis. Once selected, the relevant information from the documents was extracted, including the research methodology, the sample characteristics (e.g. gender, age, role), the program details, the location, and the results. Results were further organized according to the aforementioned categories of academic performance, school attendance, and attitudes and behaviors in relation to school. Results related to academic performance included grades, pass rates, test scores, performance reports, or other aptitude assessments. Results related to school attendance included official attendance sheets, teacher reports of attendance or student reports of attendance. Finally, results related to attitude and behavior included measurements of perceptions about school, measurements of prosocial values or behaviors, teacher reports of student behavior, or data related to disciplinary actions. The extracted results are then briefly presented and summarized.

Results

Search Results

Based on the search criteria outlined in the methodology, 5123 potentially relevant titles and descriptions were identified and screened. Based on the title and descriptions in these results, 93 articles or evaluations were then selected for full-text screening. Articles were selected for full-text screening if the title or description included references to a sport program and any of the abovementioned educational outcomes, or if it included more general references to the evaluation of a sport program. Thus, articles excluded at this stage were mostly discarded due to their lack of adherence to these criteria.

Following full-text screening, a total of 9 documents were included in the review, forming the basis of this paper. Documents were included in the final review if they quantitatively examined the relationship between participation in a SFD program and educational outcomes. Only explicit SFD programs were included and all selected studies reflect programs that take place outside of a formal school setting. Figure 1 depicts the overall process and results associated with this REA.

The excluded studies are discussed in more detail below, followed by a presentation of the results extracted from the selected documents, which is divided according to academic performance, school attendance as well as attitudes and behaviors in relation to school. Finally, the results of the quality assessment of the selected papers will be presented. A summary of the programs described in the included studies can be found below in

Table 2, while a summary of the studies, including their methodologies, results, and quality scores, can be found in Table 4.

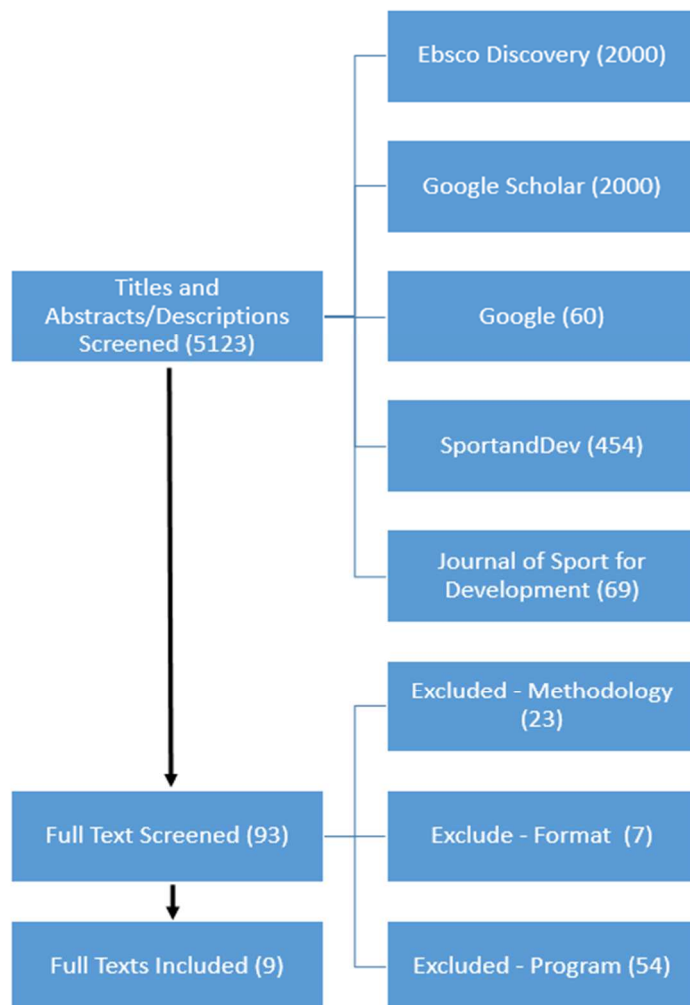


Figure 1. Rapid Evidence Analysis Process Flow
Source: own study.

Excluded Studies

A total of 84 full-text documents were screened and ultimately excluded from the results of this assessment. Nearly 65% of the exclusions were because the documents did not refer to any of the aforementioned education-related variables or did not deal with a sport for development program as defined for the purposes of this study. Over a quarter of the excluded documents were because their methodologies were primarily qualitative. The rest of the exclusions were due to the document being in an excluded format, such as an annual report or conference presentation.

Table2. Summary of programs in selected studies

Program	Location	Country Classification	Program	Target
Amandla EduFootball	Khayelitsha, South Africa	Upper middle income	Football is used as a “hook” to draw in participants. A fair play points system rewards teams for regular attendance and for good conduct on the field during matches. A leadership development program provides an additional framework for highly motivated participants to serve as coaches / life skills facilitators and to complete an accredited 2-year learnership.	At-risk youth from Cape Town townships
Capoeira4Refugees	Palestinian Territories	Lower middle income	Capoeira4Refugees uses Capoeira as a psychosocial tool to promote well-being among youth affected by conflict. Capoeira is an Afro-Brazilian craft that combines live music, sport, dance, play, culture, and history.	Palestinian (and refugee) youth affected by conflict
Football United	Western Sydney, Australia	High income	Football United is a football intervention targeted at young people in culturally diverse areas such as the western Sydney region with high levels of refugee settlement. The program offers after school football, as well as access to additional program components including training as football coaches, life skills, and leadership development workshops.	Young people from the Western Sydney region
Sporting Chance Programme	Various Locations, Australia	High income	Academies use sport and recreational activities as a vehicle to engage Aboriginal and Torres Strait Islander secondary students in school. The exact nature of the program varies according to location.	Aboriginals and Torres Strait Islanders
HSBC Outward Bound / Sky Living for Sport	United Kingdom	High income	The HSBC/OB project is a five-year program that HSBC funds residential outdoor/ adventurous activity experiences for pupils from five schools in the Docklands area of London.	Disaffected pupils
YWCA Girls on the Run	Tampa, United States	High income	The program uses running as a vehicle to deliver a curriculum that provides opportunities for addressing many aspects of girl-specific determinants via skill-building activities delivered in a supportive, empowering context that emphasizes fun and making friends.	3rd to 5th grade girls
Doc Wayne Athletic League	Boston, United States	High income	To provide children in residential school settings with an opportunity to play sports.	Residential school children
Students Run Philly Style (SRPS)	Philadelphia, United States	High income	Students Run Philly Style was founded in 2004 to combat youth violence by using distance running as the key program activity. Serving urban youth ages 12 to 18 who are mainly from low socioeconomic families, the program culminates each year in participation in the Philadelphia Marathon and Half Marathon.	12 to 18-year-olds from low socio-economic backgrounds
Ishraq	Egypt	Lower middle income	A program for out-of-school 13–15-year-old girls in rural Upper Egypt that offered them a comprehensive package of learning, skills development, and sports while providing safe spaces to do so.	Out-of-school 13 to 15-year-old girls in rural Upper Egypt

Source: Selected studies.

Academic Performance

Results related to academic performance included grades, pass rates, test scores, performance reports, or other aptitude assessments. Here, some results are promising, but on the whole inconclusive. The Ishraq program in Upper Egypt, which aims to offer a comprehensive package of learning, skills development, and sports to young girls from socially conservative areas, was able to determine that there was a statistically significant relationship between increased time spent in the program and overall reading and writing ability (Brady, 2007). Furthermore, 92% of program participants who chose to take a standardized national literacy test managed to pass (Brady, 2007). Elsewhere, a study of the Girls on the Run program in the United States demonstrated, via the administration of pre-post questionnaires, an increase in cognitive competence, though this change was not statistically significant (DeBate & Bleck, 2016).

Most other studies, however, were not able to provide conclusive evidence of impact on academic performance. Students Run Philly Style, a positive youth development program using distance running to engage youth from low socioeconomic backgrounds, found no meaningful impact between program participation and self-reported academic performance (Y. Inoue, Wegner, Jordan, & Funk, 2015). The evaluation of another US-based program, the Doc Wayne Athletic League, concluded that there were no changes in grades for any of the study subjects regardless of their participation status in the league (D'Andrea & Spinazzola, 2009). Similarly, research on the Sporting Chance program in Australia determined that there was insufficient evidence to show “a clear link between (...) participation and improved academic outcomes” (Australian Council for Educational Research, 2011, p. 4).

School Attendance

Results related to school attendance included official attendance sheets, teacher reports of attendance or student reports of attendance. Of the three studies addressing this topic, all of them demonstrated improvements in student attendance.

The Ishraq program again showed promising results, and found that participants had a higher school enrolment than the comparison or non-participant groups, and that the enrolment level increased with longer participation in the program, culminating in a 68% school enrolment rate for participants who completed the full program (Brady, 2007).

The evaluation of Capoeira4Refugees programming in the Palestinian Territories found a decrease in self-reported school absences compared to the initial baseline, going from 2 to 1.33 absences per month for boys, and from 1.29 to 0.71 for girls (Prytherch & Kraft, 2015). Finally, research on the Sporting Chance program in Australia demonstrated an increase in school attendance, with between 11 and 15% of the 1092 students reporting increased attendance since joining the program (Australian Council for Educational Research, 2011).

Attitudes and Behaviors

Results related to attitude and behavior included measures of perceptions about school, measures of prosocial values or behaviors, teacher reports of student behavior, or data related to disciplinary actions. This topic is the most widely explored in the literature, with five of the included studies addressing the subject. Overall, four studies identified positive changes, while one found an increase in negative attitudes towards school.

Data on the HSBC Outward Bound program show that “project group pupils also appear to outperform a comparison group of pupils who did not participate in project activities” (Sandford, Duncombe, & Armour, 2008, p. 426). In fact, 58% of project students in Year 2 and 49.8% of project students in Year 3 are perceived by their teachers as having shown positive improvements in behavior, compared to 37.6% and 32.3% on non-

project students, respectively (Sandford et al., 2008). Nonetheless, these results were not uniform, as between 8 and 17% of project students were perceived as having negatively developed (Sandford et al., 2008).

Looking at Football United's programs in Australia in a study using treatment portioning, researchers found a lower score on peer problems, a lower score on hyperactivity and higher scores on prosocial behavior when comparing participants against non-participants. Of these, only the difference on pro-social behavior was suggestively significant¹ (Nathan et al., 2013). However, when isolating only the male participants, both the differences on peer problems and prosocial behavior became statistically significant (Nathan et al., 2013).

The two American-based programs included echo the above findings. The Girls on the Run program in Tampa was found to generate a small, statistically insignificant increase in pro-social behavior (DeBate & Bleck, 2016), while the Doc Wayne Athletic League participants demonstrated a suggestively significant reduction in behavioral incidents at their respective schools (D'Andrea & Spinazzola, 2009).

Conversely, in a study measuring the impact of Amandla EduFootball's impact on violence reduction, data on attitudes related to school were collected and a "comparison [showed] a significant increase in Negative School Attitudes" (Edelstein, 2016, p. 127). In regards to this change, the researcher speculated that this might be an indicator of increased disclosure from the respondents (Edelstein, 2016).

Quality of Results

Six of the selected studies received a score of 65% or higher when applying the checklist developed by Kmet et al. (2004). Although the average quality of the selected studies was 75.3%, certain issues concerning sample description or data reporting were present. Three studies failed to adequately describe the demographic background of their subjects, sometimes omitting to mention basic information such as age or gender. A further five studies omitted reporting any data related to variance, while all of the studies either only partially discussed the issue of confounding or omitted it completely. The quality scores for each study can be found in Table 3.

Limitations

A REA can help identify knowledge and gaps, but this is, by design, not a comprehensive methodology and there is always a risk that relevant results have been excluded. Limiting the time and resources associated with the review may lead to biases whereas "limiting appraisal or quality assessment may place a disproportionate emphasis on poorer quality research" (Grant & Booth, 2009, p. 101). A review methodology such as this can be especially challenging when applied to development, as studies and evaluation reports are not written in a uniform fashion, making direct comparisons difficult (Mallett, Hagen-Zanker, Slater, & Duvendack, 2012). Furthermore, this paper excludes qualitative research. This is not meant as an indictment of qualitative methods, but rather done to facilitate ease of analysis, as quantitative results are generally less ambiguous than qualitative ones. Nonetheless, given the importance of social, cultural, and environmental contexts in development, it is important to continue using qualitative methods to explore these unique features (Mallett et al., 2012). However, in light of these different contexts and the difficulty of comparing studies, this paper cannot make generalizations about the specific sports, games, methodologies, or programs that are effective or not.

¹ Results are suggestively statistically significant at $p \leq .10$

Table 3. Summary of selected studies and findings

Authors	Year	Program	Methods	Type	Quality (%)	Sample	Academic Performance	Attendance	Attitudes and Behaviour
Edelstein, I.	2016	Amandla EduFootball	Longitudinal quasi-experimental panel study	Dissertation/Thesis	95.83	318	Not measured	Not measured	Increased Negative School Attitude
Prytherch, H.; Kraft, K.	2015	Capoeira4Refugees	Longitudinal analysis of questionnaires, supported by interviews and focus groups	Evaluation Report	36.36	Unknown	Not measured	Decrease in self-reported school absence	Not measured
Nathan, S. et al.	2013	Football United	Mixed methods design was employed using treatment partitioning, including surveys and interviews	Academic Article	90.91	142 survey respondents	Not measured	Not measured	Participants reported higher pro-social behavior and less hyperactivity than comparison group, but the difference was not statistically significant
Australian Council for Educational Research	2011	Sporting Chance Programme	Analysis of longitudinal academic data as well as both longitudinal and cross-sectional questionnaires	Evaluation Report	59.09	1012 program participants, 78 principals, and 194 school staff	No significant effect on grades	Increase in self-reported attendance	Increase in reported engagement by school staff
Sandford, R.A., Duncombe, R.; Armour, K. A.	2008	HSBC Outward Bound	Longitudinal analysis of attendance data and pre-post questionnaires	Academic Article	59.09	142	Not measured	Not measured	Higher perceived behavioral improvements from teachers
DeBate, R.; Bleck, J.;	2016	YWCA Girls on the Run	Pre-post intervention data collected via a 64 item questionnaire	Academic Article	95.45	384 girls in the 3rd, 4th and 5th grades	Small, statistically significant improvement in cognitive competence	Not measured	Small, statistically insignificant increase in pro-social behavior

D'Andrea, W.; Spinazolla, J.	2009	Doc Wayne Athletic League	Pre-during-post intervention data collected via academic records, questionnaires and observations for both participants and non-participants	Evaluation Report	68.18	33 participants, 26 non-participants between the ages of 12 and 21 years old	No change in grades	Not measured	Suggestively significant reduction in behavioral incidents
Inoue, Y.; Wegner, C.E.; Jordan, J.S.; Funk, D.C.	2015	Students Run Philly Style	Cross-Sectional data collected via questionnaires analyzed via Multiple Linear Regressions	Academic Article	95.45	330 participants, 120 of which provided usable data	No measured influence in self-reported academic performance	Not measured	Not measured
Brady, M. et al	2007	Ishraq	Pre-post test with data collected via surveys and interviewed, measured against a comparison group of non-participating girls from both program and non-program locations	Evaluation Report	77.27	277 participants, 176 non-participants, 134 non-program location girls	Statistically significant relation between program participation length and reading/writing ability; 92 of program participants who took literacy test passed	Higher school enrolment than comparison group; 68 school enrolment rate for participants who completed the full program	Not measured

Note: Grey – not measured, very light blue – no change, light blue – negative change, dark blue – positive change
Source: Selected studies.

Discussion and Conclusion

The studies above demonstrate encouraging but limited signs with respect to the link between SFD programs and educational outcomes. We can be optimistic about the results for attitudes and behaviors in relation to school. Four of the selected studies demonstrated improved outcomes relating to perceived or reported attitudes and behaviors, and all of these studies were evaluated to be of good quality as they included sufficient sample sizes, comparison groups, and clear analytical procedures. These results are also in-line with research in the field that shows that SFD programs can have positive impacts on a variety of life skills (Hermens, Super, Verkooijen, & Koelen, 2017). In contrast, the areas related to academic performance and attendance must be treated with more caution. In terms of academic performance, some studies show promising results, but they are generally upfront about their limitations or inability to clearly connect their respective programs to changes in academic performance. It is reasonable to conclude that sport programs on their own are not sufficient to foster improved academic performance and that a supportive structure, including offers such as counseling services, tutoring, or learning resources, must be in place to do so. Inoue et al. (2015) point out that the potential for improved academic performance “would likely be leveraged when the programs clearly incorporate academic-related activities into their program design rather than solely relying on the development of self-determined motivation toward sport activities” (p. 380). Similarly, three studies measure school attendance, two of which do so via self-reports. Self-reports can provide valuable insights, but they are vulnerable to social desirability bias. Therefore, without supplementary data from other sources, such as teacher reports or attendance sheets, those results must be taken with a grain of salt.

In addition, the quality issues present in some of the studies demonstrating positive outcomes prevent making more definite conclusions. Though the overall quality of the included studies is good, some studies are undermined by potential biases and other flaws. One source of potential bias takes the form of reporting bias, whereby many positive results are described without a full presentation of the statistics. This is especially true in the evaluation reports from the Doc Wayne Athletic League, Capoeira4Refugees, and the Sporting Chance program. In all three of these documents, there are issues related to the clarity of the selection process for subjects, the description of those subjects, the presentation of the analytical methods used, and the overall presentation of results. Without a proper understanding of the overall research and analytical procedure, it is difficult to gain a full picture of the strengths, flaws or potential biases associated with any one study. Given that only certain, selected results are presented in these studies, it is possible that other mitigating or negative results are excluded. It is interesting to note that three of the four lowest quality studies were in fact evaluation reports, as such reports are often produced using less rigorous methodologies, and tend to face various time, financial, and political pressures (Bamberger, 2009).

Taken as a whole, this study points to a key issue: there is limited research to support the espoused claims about the benefits of SFD on educational outcomes, especially in the Global South. It is likely that many have relied on data from physical education and school sport to underpin their programs and the credibility of such programs has been bolstered by the perceived endorsements of major international institutions such as the IOC or the Commonwealth. As is made clear here, the results from the physical education and school sport contexts are not immediately applicable to the different realities of SFD programs. A new, robust, diverse body of literature must be built in order to investigate what kind of impact SFD programs can have on the educational outcomes of its beneficiaries, as well as to generate a better understanding of the opportunities, challenges, and good practices in the field.

The recent report from UNICEF on child-focused sport for development is a welcome step and presents many of the opportunities and challenges faced by education-focused SFD programs (UNICEF Office of Research – Innocenti, 2019). Though this report similarly underlines the need for more evidence, of the 33 items referenced in the bibliography of the its chapter on education, three authors are present in nearly 40% of the references (UNICEF Office of Research – Innocenti, 2019). An increased diversity of voices and perspectives is clearly

needed to better understand the connection between SFD and educational outcomes. As Schulenkorf et al. argue (2016), this would allow for new debates and contributions “in the areas of methodology and theory building” (p. 36)

Moving forward, it is imperative for funders, practitioners, and researchers to use more rigorous methodologies that allow for the measurement of educational outcomes, as well as to continue developing knowledge about good practices and challenges in the field. Namely, this can mean implementing studies that allow for a proper comparison between participants and non-participants or supplementing the results of either qualitative or quantitative studies with official school data such as grades, attendance sheets, referrals to counseling or stays in detention. Longer-term studies are also needed, as results can be “individualized, context specific and (...) short-lived” (Sandford et al., 2008, p. 427). Methods, sources, and perspectives from the program communities should be included, especially since these may not be known to external researchers and funders (Nicholls, Giles, & Sethna, 2011), and there are certainly other rigorous, locally-relevant tools or sources that can help measure the effectiveness of SFD programs on educational outcomes. And, when conducting evaluations, programs and funders should seek out expertise from various fields and locations so as to ensure greater diversity in the people and perspectives used in SFD research.

In the meantime, as these important steps are being taken, we must continue exercising caution in espousing claims or setting objectives that are too ambitious. As this paper demonstrates, there is simply not enough evidence to either support or refute the notion that, as a whole, SFD has a positive impact on educational outcomes.

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