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WSTĘP

W 2024 r. periodyk „Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” ukazuje się siódmy rok. Jest kontynuacją tytułu „Prace Naukowe Akademii im. Jana Długosza w Częstochowie Kultura Fizyczna”. W pierwszym numerze zostały zaprezentowane prace Autorów z różnych ośrodków naukowych w Polsce i na świecie.

W części I – *Dzieje kultury fizycznej i turystyki w Polsce i na świecie* – przedstawiono artykuły dotyczące:

- polowania na strusie jako rodzaju sportu łowieckiego na łamach XIX-wiecznej prasy brytyjskiej;
- historii Czechosłowackiego Towarzystwa Turystycznego w latach 1938–1948.

Część II – *Teoria i metodyka wychowania fizycznego i sportu* – prezentuje następującą tematykę:

- wpływ crossfitu na dynamikę, wskaźniki sprawności fizycznej młodzieży;
- pływanie *aiki* i *ido*, związki pływania ze sztukami walki;
- analiza zaangażowania, tożsamości i lojalności fanów piłki nożnej w mediach społecznościowych;
- mierzenie poziomu wiedzy o międzynarodowym prawie tenisa stołowego wśród nauczycieli wychowania fizycznego w Al-Karak.

W części III – *Uwarunkowania zdrowia, postawy prozdrowotne, jakość życia* – zamieszczono artykuł dotyczący zagadnienia: aktywność fizyczna a poziom sprawności funkcjonalnej studentów.

Część IV czasopisma obejmuje problematykę turystyki i rekreacji. W tej części opublikowano artykuł analizujący problematykę podejścia ilościowego opartego na jakości usług gastronomicznych.

W części *Biogramy, dyskusje, polemiki, recenzje, przegląd wydawnictw, sprawozdania* dr Przemysław Pawelec przybliżył monografię autorstwa Wojciecha Cynarskiego pt. *Socjologia sztuk walki*.

Pragnę złożyć serdeczne podziękowania Recenzentom za cenne i życzliwe uwagi, podnoszące wartość niniejszego periodyku. Dziękuję za współpracę Autorom publikacji zamieszczonych w czasopiśmie naukowym. Jednocześnie wyra-

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Eligiusz Małolepszy

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CZĘŚĆ I

DZIEJE KULTURY FIZYCZNEJ I TURYSTYKI W POLSCE I NA ŚWIECIE



Mateusz ROZMIAREK*, Arkadiusz WŁODARCZYK**

OSTRICH HUNTING AS A FORM OF SPORTING PURSUIT IN THE NINETEENTH-CENTURY BRITISH PRESS

How to cite [jak cytować]: Rozmiarek M., Włodarczyk A., *Ostrich Hunting as a Form of Sporting Pursuit in the Nineteenth-Century British Press*, "Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe" 2024, vol. 7, no. 1, pp. 11–26.

Polowanie na strusie jako rodzaj sportu łowieckiego na łamach XIX-wiecznej prasy brytyjskiej

Streszczenie

Już od czasów starożytnych zwierzęta wykorzystywane były przez człowieka do różnorodnych celów. Pośród owych zwierząt znajdowały się ptaki, również nietoty, na czele ze strusiami. Niniejszy artykuł podejmuje próbę ukazania znaczenia polowań na strusie w różnych kulturach świata w XIX wieku na podstawie publikacji zamieszczonych w prasie brytyjskiej. Do napisania artykułu wykorzystano metodę historyczną, a materiał źródłowy do badań stanowiły notatki prasowe wydawane w Wielkiej Brytanii. Analiza źródeł wykazała, iż anglojęzycznemu czytelnikowi znane były zwyczaje polowania na strusie różnych ludów, żyjących na obszarach Ameryki Południowej oraz Afryki. Materiały prasowe pozwalały czytelnikom na szczegółowe zapoznanie się z przebiegiem polowań, czy też stosowanych do ich przeprowadzania technik, co mogło pośrednio przyczynić się także do włączenia strusi jako atrakcji w programach inscenizacji cyrkowych. Z kolei używana przez autorów artykułów prasowych nomenklatura jasno wskazuje, iż polowania na strusie określano mianem sportu, który stanowił zarówno wysokiej klasy rozrywkę, jak i dochodowe przedsięwzięcie.

Słowa kluczowe: Wielka Brytania, prasa, struś, polowanie, sport.

Abstract

Since ancient times, animals have been used by man for a variety of purposes. Among these were birds, including flightless birds, led by the ostriches. This article attempts to show the im-

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portance of ostrich hunting in different cultures of the world in the nineteenth century, based on publications in the British press. The historical method was used to write the article and the source material for the research was press releases published in Britain. The analysis of the sources showed that English-speaking readers were familiar with the ostrich-hunting customs of various peoples living in South American and African areas. The press materials allowed readers to learn in detail about the course of the hunt or the techniques used to carry it out, which could also indirectly contribute to the inclusion of ostriches as attractions in circus staging programmes. On the other hand, the nomenclature used by the authors of the press articles clearly indicates that ostrich hunting was described as a sport that constituted both high-class entertainment and a profitable enterprise.

Keywords: United Kingdom, press, ostrich, hunting, sport.

Introduction

Animals have accompanied humans since time immemorial. They have been utilized as aides to hunters, serving as a means of transportation, while also constituting sources of sustenance and valuable, often highly sought-after resources. It is unsurprising, therefore, that even in ancient times, animals were harnessed for various purposes. One only needs to mention horses as the principal mode of conveyance, forming the military backbone of numerous armies for centuries, until the nineteenth century. For the sake of entertainment, equestrian races and chariot races were organized at the Olympic Games in ancient Greece,¹ as well as at circus games in ancient Rome. Horses were also employed in hunting wild game and in the context of knightly tournaments. They constituted a fundamental component of the repertoire in modern circus performances, commencing from the latter half of the eighteenth century. Other examples encompass dogs and birds of prey, which, akin to horses, were employed in hunting. In the case of the former, racing events were also organized.²

¹ Z. Porada, *Starożytne i nowożytne igrzyska olimpijskie [Ancient and modern Olympic Games]*, Krajowa Agencja Wydawnicza w Krakowie, Kraków 1980.

² More on the Utilization of Animals for Sporting, Recreational, and General Entertainment Purposes, see e.g. A. Jastrzębska, A. Gugolek, J. Strychalski, *Zwierzęta w sporcie, rekreacji i rozrywce. Cz. I [Animals in Sport, Recreation, and Entertainment. Part I]*, "Wiadomości Zootechniczne" 2017, no. 1, pp. 87–93; A. Jastrzębska, A. Gugolek, J. Strychalski, *Zwierzęta w sporcie, rekreacji i rozrywce. Cz. II [Animals in Sport, Recreation, and Entertainment. Part II]*, "Wiadomości Zootechniczne" 2017, no. 2, pp. 173–181; D. Słapek, *Sport i widowiska w świecie antycznym [Sports and Spectacles in the Ancient World]*, Homini, Wydawnictwa Uniwersytetu Warszawskiego, Kraków – Warszawa 2010; W. Lipoński, *Rochwist i palant. Studium etnologiczne dawnych polskich sportów i gier ruchowych na tle tradycji europejskiej [Rochwist and Palant. An Ethnological Study of Historical Polish Sports and Physical Games in the Context of European Tradition]*, Wydawnictwo AWF w Poznaniu, Poznań 2004; M. Rozmiarzek, A. Włodarczyk, *C. Gärtner, the Olympic Circus, and the Origins of Equestrianism in the Grand Duchy of Posen*, "The International Journal of the History of Sport" 2021, vol. 38, no. 16, pp. 1710–1728; A. Włodarczyk, M. Rozmiarzek, *Circus shows in nineteenth-century Poland as pseudo-Olympics*,

It is worth noting that hunting, alongside tournaments, was one of the principal diversions of feudal lords during medieval times. Over time, it increasingly took on the guise of amusement and rivalry, a trend particularly pronounced in England. Two recognized as the oldest hunting treatises depict hunts as a form of sporting amusement.³

The increasing popularity of the so-called field sports in England, commencing from the latter half of the eighteenth century, prompted a growing consideration for the welfare of animals, resulting in the establishment of initially local organizations dedicated to this matter. One of the first was the London Society, founded in 1750, whose primary aim was the curtailment of poaching and the safeguarding of game. Similar societies arose in 1769, in Hampshire and in the 1780s in Norfolk. Several decades later, in 1824, the Society for the Prevention of Cruelty to Animals (SPCA) was founded, under the patronage of Princess Victoria in 1835, and later granted royal status by Queen Victoria in 1840 (Royal Society for the Prevention of Cruelty to Animals – RSPCA). Concurrently, voices highlighting moral issues persisted, particularly questioning whether inflicting suffering upon any creature for the sake of pleasure is justifiable. However, since its inception, RSPCA maintained a stance not to condemn field sports. In the latter half of the 19th century, additional organizations focusing on animal protection emerged, among which The Humanitarian League, likely founded in 1891, held paramount importance. Supporters of field sports, on the other hand, established the National Sports Defence Association in 1884 to safeguard hunting, shooting, coursing, equestrian racing, and angling against political and moral opposition. Ultimately, in 1911, through the collaborative efforts of RSPCA and The Humanitarian League, the Animal Protection Act was enacted.⁴

Similarly to England, in the region of North America, hunting became a facet of American identity and tradition. During the colonial era, the then-untamed and uncharted lands of North America were depicted as a paradise for hunters, with individual colonies guaranteeing hunting rights to incentivize potential settlers to inhabit the region. Initially, however, settlers held a sceptical view, associating hunting on the one hand with the leisure of aristocrats, and on the other hand, with the wildness of the Native Americans. The shift came during the American Revolution (1775–1783), when hunters evolved into cultural heroes,

“Sport in History” 2023, vol. 43, no. 1, pp. 1–27; C.A. Branigan, *Adopting the Racing Greyhounds*, Howell Book House, New York 2003. The aforementioned examples of animal utilization for recreational purposes certainly do not exhaust the topic; however, they do indicate the multifaceted use of various animal species both in sports and recreation over the course of years.

³ W. Lipoński, *Historia sportu [History of Sport]*, Wydawnictwo Naukowe PWN, Warszawa 2012, pp. 237–238.

⁴ C.C. McKenzie, *The origins of the British field sports society*, “The International Journal of the History of Sport” 1996, vol. 13, no. 2, pp. 177–191.

safeguarding natural rights, while in the nineteenth century, the widespread right to hunt became a sort of bastion against aristocracy, perceived by Americans as a source of their greatness.⁵

In complementing the cultural impact of hunting and entertainment involving animals, it is also necessary to reference literature and art, for this subject matter was often explored in works of writers, poets, and painters of bygone eras. An example could be the body of work by Wojciech Kossak and the motifs associated with the utilization of horses in the broad context of leisure activities.⁶

As previously mentioned, birds were also utilized for the purposes of broadly defined entertainment; however, the focus was not solely on flying birds, but also on those lacking the ability to soar through the air. In past years, all flightless birds were erroneously referred to as ostriches. Ostrich, in fact, is the term denoting a genus of birds, encompassing two species from the *Struthio* genus inhabiting Africa: the red-necked ostrich and the grey-necked ostrich.⁷ Presumably, ostriches existed around 40-55 million years ago and evolved into creatures standing up to four meters in height. Over time, however, they gradually diminished in size while concurrently developing an increasing capability for achieving high speeds while running.⁸ Ostriches are also recognized for their valuable feathers and the production of sizable eggs. Despite accompanying humanity from its inception, their role and utilization by humans have evolved through the ages. People were intrigued by ostriches even prior to the advent of agriculture.⁹ Yet, primary sources predominantly indicate hunting – as evidenced by prehistoric rock drawings portraying fleeing ostriches pursued by leopards, cheetahs, and humans. This endeavour was particularly emblematic of Arabian tribes, who sought after their prized meat as well as hides for crafting everyday

⁵ For more on the significance of hunting in American identity, see D.J. Herman, *Hunting and American Identity: The Rise, Fall, Rise and Fall of an American Pastime*, "The International Journal of the History of Sport" 2014, vol. 31, no. 1–2, pp. 55–71.

⁶ M. Mazurkiewicz, 'All the Pretty Horses': *Sports and Leisure in Polish Equine Painting – The Artistic and Literary Legacy of Wojciech Kossak (Artworks, Memoirs, Letters)*, "The International Journal of the History of Sport" 2020, vol. 37, no. 15, pp. 1531–1548. For further exploration of the cultural context of hunting, see M. Mazurkiewicz, *Sport w literaturze i kulturze. Konteksty historyczne i współczesne [Sport in Literature and Culture. Historical and Contemporary Contexts]*, Uniwersytet Jana Kochanowskiego w Kielcach, Kielce 2020; M. Mazurkiewicz, *American Sport. Observations and Essays*, Uniwersytet Jana Kochanowskiego w Kielcach, Kielce 2017; M. Mazurkiewicz, *Sport and Religion. Muscular Christianity and the Young Men's Christian Association. Ideology, Activity and Expansion (Great Britain, the United States and Poland, 1857–1939)*, Uniwersytet Jana Kochanowskiego w Kielcach, Kielce 2018.

⁷ P. Wagner, *The Ostrich Story*, Chameleon Press, Hong Kong 1986.

⁸ A.-M. Moysse-Jaubert, C. Nicolle, M.-A. Reveillon, H. Serres-Cousiné, C. Sourd, *Sawanna afrykańska [African Savannah]*, Wydawnictwo "Delta", Warszawa 1992.

⁹ R.K. Brooke, *Man/Ostrich Interactions: A Cultural History*, "Transactions of the Royal Society of South Africa" 1995, vol. 50, no. 2, pp. 153–163.

items or clothing.¹⁰ Mass hunting of ostriches to acquire coveted resources occurred intermittently throughout history until the latter half of the nineteenth century when the decline in their population led to a shift in human approach towards these birds, with a shift towards capturing them for the purpose of maintaining them in farm conditions.¹¹

State of Research, Source Material, and Methodology

To date, the Polish-language literature lacks a comprehensive study addressing the issue of ostrich hunting in the nineteenth century across various parts of the world, even though research concerning the utilitarian or recreational use of animals has touched upon this context with regard to birds. Among the works that have touched upon this topic to a varying extent, the article published in 2016 by Andrzej Gugolek, Agata Jastrzębska, and Janusz Strychalski titled *Wykorzystanie gołębi i innych gatunków ptaków w rekreacji człowieka* (en. *Utilization of Pigeons and Other Avian Species in Human Recreation*) can be mentioned,¹² as well as Adolf Dygasiński's book *Wielkie łowy* (en. *Great Hunts*) from 1924, in which one chapter is dedicated to ostriches and hunting them.¹³

The aim of this article is to demonstrate the significance of ostrich hunting in various cultures around the world during the nineteenth century, as portrayed in publications featured in the British press. The selection of source material for this historical analysis was not arbitrary, as Great Britain was a colonial powerhouse at the time, exerting control over territories spanning all continents. Moreover, it was a leading nation in numerous aspects of global culture, including physical culture. The policies pursued by this colonial power, such as the introduction and dissemination of British educational principles, facilitated the expansion of various sporting disciplines and the advancement of sports even among colonial societies. Furthermore, sport was utilized as a tool of control and integration, enabling British authorities to shape the identity of colonial communities and influence their allegiance to the empire.¹⁴

¹⁰ J.O. Horbańczuk, *Strusie [Ostriches]*, Zakład Wydawniczo-Reprodukcyjny Auto-Graf, Warszawa 2001, pp. 9–10.

¹¹ J. Hutton, *Introduction to the Ostrich Industry in Zimbabwe*, [in:] *Ostrich Workshop for Veterinarians*, University of Zimbabwe, Harare 1992, pp. 2–11.

¹² A. Gugolek, A. Jastrzębska, J. Strychalski, *Wykorzystanie gołębi i innych gatunków ptaków w rekreacji człowieka [Utilization of Pigeons and Other Avian Species in Human Recreation]*, "Wiadomości Zootechniczne" 2016, no. 2, pp. 90–95.

¹³ A. Dygasiński, *Wielkie łowy [Great Hunts]*, Towarzystwo Wydawnicze "Ignis", Warszawa 1924, pp. 107–116.

¹⁴ M.M. Kobierecki, *Dyplomacja sportowa. Sport w działaniach dyplomatycznych państw i aktorów niepaństwowych [Sports Diplomacy. Sport in the Diplomatic Activities of States and Non-State Actors]*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2018.

The composition of this article employed a historical methodology, involving the retrieval of historical sources addressing the titular subject, followed by their selection and analysis. The source materials encompassed press titles published in nineteenth-century Great Britain, both at local and national scales, where information concerning ostrich hunting was sought.

The Evolution of Ostrich Utilization in Entertainment Over Time

Initially, humans utilized ostriches for their meat, skin, and valuable ostrich feathers, necessitating the domestication of these birds. This led to their incorporation into various cultural practices. In ancient times, this was exemplified by Egypt's ruler, Ptolemy II (285–246 BCE), who employed ostriches in elaborate processions. Riding ostriches was also a practice embraced by his wife, and a similar custom found resonance among ancient Roman women.¹⁵ In turn, Assyrian kings, particularly Ashurnasirpal II (883–859 BCE), captured ostriches for the purpose of housing them in public zoological gardens.¹⁶

In Roman amphitheaters, headless races involving ostriches were arranged. The spectacle entailed ceremonially decapitating the birds, which, before eventually collapsing, ran in circles. This type of entertainment was likely first organized during the reign of Emperor Commodus (180–192 CE). Allegedly, the ruler himself participated in such spectacles, striking the birds with a crescent-shaped blade.¹⁷ Nearly a century later, Emperor Probus (276–282 CE) reportedly ordered the killing of a thousand ostriches to distribute their meat among the audience.¹⁸ It is assumed that ostriches were killed in amphitheaters throughout the third century, and the transportation of these birds from Africa to Rome continued until at least the early fifth century. Apart from their use in spectacles, Romans also harnessed ostriches to chariots.¹⁹

Ostriches also served as an exclusive form of gift exchanged between rulers during diplomatic meetings. They would subsequently find their way to royal or zoological gardens. With time, they became one of many animal species showcased in travelling menageries at the beginning of the nineteenth century, eventually featuring in circus performances – a highly popular form of entertainment during that era that attracted people from all walks of life.²⁰ Ostrich-themed cir-

¹⁵ R.K. Brooke, *Man/Ostrich Interactions: A Cultural History...*, op. cit., pp. 153–163.

¹⁶ J.M. Aynard, *Animals in Mesopotamia*, [in:] A. Houghton Broderick (ed.), *Animals in Archaeology*, Praeger, New York 1972, pp. 42–68.

¹⁷ "Leicester Chronicle" 1833, October 5, p. 1.

¹⁸ J.M.C. Toynbee, *Animals in Roman Life and Art*, Thames and Hudson, London 1973.

¹⁹ J.O. Horbańczuk, *Strusie*, op. cit., p. 10.

²⁰ For more information on the subject of zoos and menageries, see A. Jakóbczyk-Gola, *Ogrody zwierząt. Staropolskie zwierzyńce i menażerie* [*Animal Gardens. Old Polish Zoological Gardens*]

cus shows made their debut in France and soon reached England as well. It is also noteworthy in this context that an episode involving the use of ostriches in circus performances occurred on Polish territories under foreign partitions.²¹ In 1853, the German circus entrepreneur Ernst Renz arrived with his Olympic Circus in the Prussian partition, specifically in Posen (present-day Poznan), the capital of the Grand Duchy of Posen. He presented, among other acts, a demonstration of riding on two black African ostriches. These birds were ridden by small Turks.²²

British Press on Ostrich Hunting

In addition to the utilitarian use of ostriches, hunting them also served as a form of entertainment. Information found in the nineteenth-century British press about ostrich hunting indicates that customs of peoples inhabiting regions such as South America, Africa, and Arab tribes related to ostrich hunting were described. These accounts also depicted the participation of travellers and colonists in these pursuits.

The oldest found mention dates back to 1818 and concerns hunting in South America. It is a brief account of a shipwreck survivor stranded at Bahía de Fodos Sontes Patagonia, published on December 7, 1818, in the *Morning Chronicle*. The survivor shared his story, detailing his five-month endeavour to secure sustenance. Apart from the most common game on that territory such as deer and hares, there was also a remarkable variety of wild birds, including scores of American ostriches.²³ It is worth noting that on the South American continent, there are only two flightless species: the grey rhea and the spotted rhea, commonly referred to as American or Pampas ostriches.

Mentions also appeared in the British press regarding the indigenous inhabitants of the South American Patagonian regions, including representatives of Eastern nations with unique cultural traditions. These groups constituted a nomadic population distinguished by their exceptional hunting skills and subsistence primarily on guanacos, hares, and pampas ostriches.²⁴ These societies

and Menageries], Wydawnictwa Uniwersytetu Warszawskiego, Muzeum Historii Polski, Warszawa 2021.

²¹ M. Rozmiarek, A. Włodarczyk, *From British Menageries and Hippodromes to the Olympic Circus in the Grand Duchy of Posen: The Origins of the Use of Ostriches in European Sport and Entertainment*, "European Review" 2023, vol. 31, no. 3, pp. 291–307.

²² "Gazeta W. Xięstwa Poznańskiego" [Gazette of the Grand Duchy of Posen] 1853, June 19, p. 3. The source does not specify whether these were children, dwarves, or short-statured adults, although it is likely they were underage individuals of Turkish origin.

²³ "Morning Chronicle" 1818, December 7, p. 2.

²⁴ "Sussex Advertiser" 1831, March 14, p. 4.

shared a belief that the Milky Way represented a sort of hunting forest, wherein the souls of the deceased indulged in ostrich hunting.²⁵ This belief was intertwined with funeral rites and their notions of afterlife pleasures, wherein ostrich hunting occurred during the day, while revelries took place at night.²⁶ Ostrich hunting, highly popular among these tribes during their earthly existence, necessitated the use of specialized projectile weapons that, when striking the legs of a running bird, immobilized its movement.²⁷ Such projectile weapons, known as *bolas* or *boleadoras*, were also employed by *gauchos* – South American horsemen and hunters inhabiting these territories. *Gauchos* primarily hunted ostriches to acquire their valuable feathers, which were sought-after export commodities. In the mid-19th century, William MacCann, an English entrepreneur who traversed Argentina to expand trade relations while familiarizing himself with local customs, journeyed through that region.²⁸ MacCann witnessed such hunting, which he labelled as a sport, likely due to his English background and association with English hunting traditions – part of the previously described field sports. He described the ostrich hunting as follows: ‘Ostrich hunting is a favourite sport. The participants formed a circle and closed in on the birds gradually, until they became alarmed and fled. The hunters pursued and from a suitable distance threw bolas at the ostrich’s legs, bringing it down to the ground.’²⁹ Some *gauchos* in Buenos Aires also tested their lassos during ostrich hunts.³⁰

Ostrich racing was not solely an activity undertaken by the indigenous population; due to the ample availability of game, such as on the pampas, travellers also enthusiastically engaged in this entertainment.³¹ During such occasions, often with the support of *gauchos*, hunts and chases were conducted. These were preceded by a symbolic war cry shouted by the leader of the group.³²

²⁵ “Cumberland Pacquet, and Ware’s Whitehaven Advertiser” 1851, April 29, p. 4.

²⁶ “Dublin Evening Packet and Correspondent” 1834, September 6, p. 4.

²⁷ “Birmingham Chronicle” 1824, January 1, p. 3.

²⁸ W. MacCann, *Two Thousand Miles’ Ride through the Argentine Provinces*, vol. 1, Smith, Elder & Co., London 1853, p. VI.

²⁹ *Ibidem*, p. 164. In the original, this passage read as follows: “Hunting ostriches is a favourite sport. When a hunting-party is formed, it is customary to move in a circular form, gradually closing in upon the birds until they become alarmed, and seek for safety in flight; the hunters then give chase, and when within proper distance throw the bolas at their legs, and so bring them to the ground”. For more on the culture of the *gauchos* in Argentina, see A. Włodarczyk, *Upadek kultury Gauchos i rozwój sportu w Argentynie na przełomie XIX i XX wieku [The Decline of Gaucho Culture and the Development of Sports in Argentina at the Turn of the Nineteenth and Twentieth Centuries]*, [in:] Z. Dziubiński, M. Lenartowicz (eds.), *Kultura fizyczna a struktura społeczna [Physical Culture and Social Structure]*, Akademia Wychowania Fizycznego Józefa Piłsudskiego w Warszawie, Salezjańska Organizacja Sportowa Rzeczypospolitej Polskiej, Warszawa 2016, pp. 187–194.

³⁰ “Tipperary Free Press” 1849, January 6, p. 3.

³¹ “Globe” 1828, June 30, p. 3.

³² “Kendal Mercury” 1841, February 20, p. 1.

In order to provide a more comprehensive view of the information on ostriches in South America as presented in the British press, the *Armagh Guardian* featured a detailed description of the ostrich, characterizing it as a gigantic bird originating from Africa and most commonly found in the hotter regions of the world. It was noted to reach a height of seven to nine feet. The author of the article emphasized that ostriches are often gentle and harmless, feeding on vegetables. They were frequently compared to cassowaries or camels (hence the term *camel bird* is used to refer to ostriches).³³

In 1844, the British press likely featured the first mention of ostrich hunting in Africa. This coincided with the general fascination with African game hunting, which is dated around 1848 and is attributed to the Scottish traveller Roualeyn Gordon-Cumming. He had engaged in intensive hunting activities across southern Africa in the preceding five years.³⁴ According to the press, in the southern part of the continent, it was often observed that ostrich flocks were found foraging alongside quaggas, an extinct subspecies of steppe zebra from the nineteenth century. When the ostrich was driven to extreme conditions, it frequently entered into a state of fury and inflicted serious wounds with its claws. The relatively unknown Dr. Shaw, likely the author of the mention, described a person who was torn apart by the enraged ostrich's claws. This particular ostrich was domesticated and gentle toward those it was familiar with, yet it was aggressive and violent towards strangers. In Arabia and North Africa, the pursuit of ostriches was considered 'one of the most demanding exercises for both the Arab rider and his mount'. This pursuit depended not only on speed but also on agility, including skills such as firing a pistol or throwing a djerid – a five-foot-long, sharp-tipped stick made from wild olive or tamarind wood.³⁵ This suggests that ostrich hunting was also a form of comprehensive physical training.

Five years later, a narrative account provided further information about an expedition by the Boers, which described the entire hunting process in great detail, including the behaviour of the ostrich. The hunters set out on horseback in groups of three or four. Their main destinations were vast, open plains. The technique for capturing the birds involved chasing them at a short distance, with each member of the group taking turns, as a solitary straight-line sprint would easily allow the ostrich to outpace even the swiftest horse. Consequently, the ostrich fled from successive pursuers, and when it began to tire, it would eventually abandon the race and hide its head in the bushes, relying solely on the possibility of kicking its opponent for defence. This situation, on the one hand,

³³ "Armagh Guardian" 1845, October 14, p. 4.

³⁴ For more on Roualeyn Gordon-Cumming's hunting, see A. Thompsell, *Hunting Africa. British Sport, African Knowledge and the Nature of Empire*, Palgrave Macmillan, London 2015, pp. 12–13.

³⁵ "Lancaster Gazette" 1844, February 10, p. 4.

facilitated capturing the bird, but on the other, it demanded a degree of caution. According to the correspondent, a single kick from an ostrich was sufficient to even break a person's thigh.³⁶ In another account, a five-person relay of ostrich hunters was described. They were positioned one mile apart from each other. The danger for the rider stemmed from the ostrich's hazardous wing movements, which could even lead to death. Additionally, attention was drawn to the necessity of minimizing the burden on the horses. This often involved using the lightest possible saddle, reins, and gentle bits, as well as carrying a water skin to periodically cool and moisten the horse's bit.³⁷

Different ostrich-catching techniques were employed by the Bushmen, who traversed the plains dressed in the skin of the specific bird. They imitated its gait and movements, and when the ostrich came within their field of vision, they shot a poisoned arrow to seal its fate. Conversely, upon discovering an abandoned ostrich nest, the Bushmen would conceal themselves nearby, waiting for the return of the birds. Once the individuals returned, they would launch an attack.³⁸

In another press note, focusing exclusively on ostrich hunting within Arab culture, it was deemed the most rigorous test to which a horse was usually subjected. Ordinary training was inadequate to qualify a horse for this sport. Notably, the author of the mention directly refers to ostrich hunting as a sport, likely drawing a parallel with hunts involving horses and other animals. Only a specific preparatory course, called *lechaha*, guaranteed proper readiness for participation. This training involved not only appropriate exercises but also a special diet. Eight or seven days prior to the chase, horses were fed solely barley and provided with water once a day at sunset, coinciding with the time they were washed. Furthermore, their equipment was meticulously examined and reduced to the essential minimum – headgear was removed, Moroccan rugs were taken off, and the saddle and stirrups were replaced with the lightest options availa-

³⁶ "Liverpool Albion" 1849, December 17, p. 9. In this case, it is worth quoting this passage in its entirety in English, as it includes the term *sportsmen*, which was used to refer to hunters: "Capturing An Ostrich. – The Boers, when in quest of the ostrich, go out well mounted, in parties of three and four. The birds are generally found grazing on the wide, open plains, and when first started, instead of going straight a-head, by which means the ostrich could easily distance the fleetest horse, like a bunted hare, he circles round in his course, steadily pursued, at a distance, by one of the sportsmen. The others meanwhile, gathering towards the centre of the wide area, around which the bird, with outstretched neck and open wings, keeps on his circling flight, are at hand, to relieve each other in the chase; till at last the poor ostrich, overmatched by a constant succession of fresh pursuers, when completely exhausted, gives up the race in despair, throws himself headlong into a bush, and is then easily captured by the hunter; who, however, requires some precaution to effect this finale to the chase, as a single kick from the ostrich has often been known to break a man's thigh."

³⁷ "Reading Mercury" 1853, June 11, p. 4.

³⁸ "Newcastle Courant" 1850, August 9, p. 6.

ble. According to Arab tradition, after such preparation, ‘the horse’s belly diminished while its chest, back, and shoulders remained in good condition, capable of enduring significant fatigue.’³⁹ According to the author, the most favourable time for engaging in this sport was mid-summer, as higher temperatures resulted in the ostriches having less energy for self-defence. Ten desert riders, referred to as djerid warriors by the author, embarked on the expedition accompanied by servants and camels, suggesting they hailed from higher social strata. Their equipment included water-filled water skins, barley for the horse, flour, a type of roasted flour known as *rouina*, dates, a cooking pot, leather thongs, horseshoes, nails, and arrowheads. During the hunting trip, Arabs exclusively wore linen or cotton shirts, lightweight woollen trousers or leggings, breathable scarves wrapped around their necks and ears known as *haouli*, as well as sandals tied with strings.⁴⁰

The entire course of the hunting expedition... was detailed in the subsequent part of the article. The author used genuinely sporting terminology, describing the hunt as a sporting competition and referring to those participating in it as sportsmen. This usage was influenced, much like in MacCann’s case, by the author’s English origin and the tradition that labelled hunting as a sport. Prior to the commencement of the hunt, a thorough analysis of the terrain was conducted to ascertain the areas with the highest ostrich population – typically grassy landscapes, especially shortly after the rainy season. Then, the sportsmen would set out early in the morning after a long journey to the designated location, often lasting a whole day or two. Upon arrival, they would pause and dispatch two scouts to identify the largest possible number of ostriches. When spotting such a group of flightless birds, the scouts would lie down and conceal themselves. One of them would remain on watch, while the other would sneak closer to inform the group of the opportunity for a sporting encounter. The sportsmen approached the competition with great caution. The closer they got to the birds, the more they aimed to remain unnoticed. On flat terrain, they utilized the nearest hillock as cover, behind which they would lie down. Upon confirmation by the scouts that the ostriches were still in the same area, each participant would prepare themselves by depositing their baggage and mounting their horses. The servants and camels followed closely behind, carrying food and drinks for the participants. The hunters formed a perimeter around the game, sharing the space among themselves and maintaining a significant distance (owing to the exceptional vision of the ostriches). Fully prepared for action, they signalled their servants to rush ahead and scare the ostriches. The frightened birds would scatter chaotically, encountering the sportsmen, who initially refrained from engaging with them, except for repelling their advances and main-

³⁹ “General Advertiser for Dublin, and all Ireland” 1854, February 11, p. 3.

⁴⁰ *Ibidem*.

taining them within the encirclement. This already required a suitable level of speed, agility, and endurance. The birds, however, attempted to flee in any direction, until eventually, due to exhaustion and breathlessness, they started flapping their wings – a clear signal for the sportsmen to proceed to the second stage of the competition. This phase involved each participant individually pursuing a previously identified ostrich. Outpacing the bird during the chase enabled a skilful strike with a club to the particularly vulnerable head of the ostrich. This action caused the fleeing bird to collapse, and the sportsman would then proceed to bleed it out and end its life, taking care to keep the neck separated from the rest of the body to protect the feathers. Depending on the approach of the individual sportsman, there was also the option of trailing the progressively slower, stunned, and bleeding bird until it succumbed to exhaustion. Subsequently, the skin and feathers were carefully removed. After the conclusion of the competitions and the arrival of the camels along with the servants, the interior of the ostrich carcasses was liberally salted. A fire was then kindled, and the ostrich fat was rendered down. Once fully melted, it was poured into a bag made from the skin, thighs, and legs of the ostrich, securely tied at the bottom. The sportsmen would consume the seasoned and peppered remaining meat while the horses were watered and fed barley. Regardless of their exhaustion from the pursuit, this marked the initial phase of recuperation, further extended at the site where they left their baggage. Here, the sportsmen would spend at least two days to calm and restore their horses after this unusual form of entertainment. After this period, they would make their way back to their homes, sometimes only sending the spoils ahead through their servants to ensure the acquired goods reached their destination in the freshest state possible.⁴¹

Finally, it is worth mentioning that as part of utilizing ostriches in circus enterprises, shows featuring hunts involving these animals were presented. An example of this can be found in the circus program of Batty's Hippodrome, where such displays took place in 1851.⁴² Circus races featuring trained ostriches indeed provided audiences with a form of entertainment that was often unprecedented before, adding a unique and captivating element to the circus performances.⁴³

Conclusion

Humans have utilized ostriches for various purposes, both utilitarian and recreational, since ancient times. Commodities acquired from hunting, such as skins, meat, feathers, and fat, were subsequently sold or utilized for daily suste-

⁴¹ Ibidem.

⁴² "Morning Advertiser" 1851, July 10, p. 6.

⁴³ "Era" 1852, January 4, p. 12.

nance. The fat, for instance, was used for consumption alongside bread, in preparing couscous or other food items, and occasionally employed as a remedy for various ailments in exceptional circumstances.⁴⁴

An analysis of the British press revealed that hunting customs of various indigenous peoples, living in the regions such as South America or Africa, were known to European and English-speaking readers. Thanks to articles, reports, and accounts from travellers, readers could mentally journey to distant continents, deepen their knowledge about the hunting traditions of indigenous people, and learn about the diverse hunting techniques employed by communities in those described areas. The impact of these narratives and descriptions on their recipients could have been significant, as the fascination with unfamiliar lands and their inhabitants fostered an interest in geography, ethnography, and anthropology. This might have indirectly influenced the inclusion of ostriches as attractions in circus performances. As finding a live ostrich in Great Britain was rare and journeys to distant countries were neither easy nor cheap, circuses began incorporating exotic animals, including ostriches, into their programmes to arouse the curiosity and wonder of the audience.

A significant aspect is also the nomenclature used by the authors of the newspaper articles, where they clearly labelled ostrich hunting as a sport. This likely allowed the English-speaking readers to associate this phenomenon with the deeply rooted tradition of English pastimes known as *field sports*, which also included hunting. From the content of the uncovered reports, an image emerges of hunting the world's largest birds as an exciting and thrilling form of entertainment, highly valued by equestrians. Simultaneously, it appeared to be a profitable venture.

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⁴⁴ "General Advertiser for Dublin, and all Ireland" 1854, February 11, p. 3.

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HISTORY OF THE CZECHOSLOVAK TOURIST SOCIETY BETWEEN 1938–1948

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Historia Czechosłowackiego Towarzystwa Turystycznego w latach 1938–1948

Streszczenie

Artykuł dotyczy jednej z mniej znanych czechosłowackich organizacji turystycznych. W porównaniu do innych organizacji turystycznych działających w Czechosłowacji, Czechosłowackie Towarzystwo Turystyczne powstało stosunkowo późno, bo w 1925 r. Jego członkami byli głównie przedstawiciele klasy średniej i niższych warstw społecznych. W związku z tym jego głównym celem było zaoferowanie mniej zamożnym klasom taniego udziału w wycieczkach grupowych, w podziwianiu pięknej przyrody Czechosłowacji lub w pobytach rekreacyjnych w uzdrowiskach, przy minimalnych składkach członkowskich. Baza członkowska Czechosłowackiego Towarzystwa Turystycznego stopniowo rosła, osiągając w analizowanym okresie aż 30 tys. członków. W czasie okupacji hitlerowskiej jego członkowie zaangażowali się w działalność konspiracyjną. Swoją postawę wobec okupantów chcieli następnie wykorzystać po zakończeniu wojny, próbując zdobyć wiodącą rolę wśród czechosłowackich stowarzyszeń turystycznych, które coraz częściej rozważały utworzenie zjednoczonej czechosłowackiej organizacji turystycznej. Czechosłowackie Towarzystwo Turystyczne utraciło niezależność w 1948 roku, kiedy to, podobnie jak inne czechosłowackie organizacje wychowania fizycznego, sportu i turystyki, zostało włączone przez komunistów do Sokola.

Słowa kluczowe: Czechosłowackie Towarzystwo Turystyczne, Czechosłowacja w czasie wojny i powojenna, turystyka, oznakowanie szlaków turystycznych, rekreacja, urzędniczy.

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Abstract

The present paper focuses on one of the less known Czechoslovak tourist organisations. The Czechoslovak Tourist Society was formed relatively late in comparison with the other tourist organisations active in Czechoslovakia, namely in the year 1925. Its membership consisted mainly of members of the middle and lower walks of life of the nation. Accordingly, its primary objective was to offer the less well-off classes cheap participation in group tours, visits to natural beauties of Czechoslovakia or recreational stays in spas, all at minimal membership fees. The membership base of the Czechoslovak Tourist Society had gradually grown, reaching as many as 30 thousand members in the period under review. Its members were involved in resistance activities during the Nazi occupation. The Society intended to follow up on its approach to occupiers after the end of the war, when they attempted to gain the leading role among Czechoslovak tourist associations, which increasingly discussed the creation of a unified Czechoslovak tourist organisation. The Czechoslovak Tourist Society lost its independence in 1948, when it was – like other Czechoslovak physical education, sports and tourist organisations – incorporated into Sokol by communists.

Key words: Czechoslovak Tourist Society, wartime and post-war Czechoslovakia, tourism, trail marking, officials

Introduction

Several tourist organisations operated in the interwar Czechoslovakia. However, they differed in many ways, pursuing different goals. The largest and most important of them was the Club of Czechoslovak Tourists [Klub československých turistů] (KČsT), which tried to extend its activities over the whole of Czechoslovakia. Its programme as well as its membership base were very broad. The second most important organisation was the Czechoslovak Tourist Society [Československá obecturistická] (ČsOT), which was founded as late as the mid-1920s as a spin-off from the Tourist Union of Workers [Svazdělnických turistů], making it the youngest Czechoslovak tourist organisation. Its membership (see Figure 1) generally did not belong to the wealthy strata of the nation. Needless to say, the Czechoslovak Tourist Society still managed to develop the organisation into a distinctive and respected association in the environment of Czechoslovak tourism during the interwar period. Radhošť Mountainous Association [Pohorská jednota Radhošť]¹ was another tourist organisation active in Czechoslovakia, the oldest tourist association in the Czech lands. Another organisation worth mentioning is the Čerřínek Tourist Club [Turistický klub Čerřínek] or the Tourist Association of Moravian Karst [Turistická jednota Moravský Kras], founded in Jedovnice. However, in both cases, the importance of these organisations was of a predominantly local character.

¹ Radhošť Mountainous Association was founded in 1884. The Club of Czechoslovak Tourists (the Club of Czech Tourists before WWI) was founded four years later.



Figure 1. Membership card of Bohumil Říha (Source: National archives in Prague, Fund Československá obceturistická, Box 1, II/4 – Osobní korespondence s jednotlivci, Členský průkaz Bohumila Říhy.)

The objective set by the ČsOT was to preserve health of working people, whose physical and mental fitness constituted, as the ČsOT believed, a necessary prerequisite for the economic prosperity of the country and the nation's ability to defend itself. The ČsOT sought to distinguish between tourism as a physical education discipline and tourism as an economic factor. The ČsOT was mainly engaged in the practical cultivation of all types of tourism, supporting the facilities that served tourism, and also emphasizing the importance of tourism in terms of national history and education. The ČsOT chose to achieve its aims by organising walks, tours, recreational and educational tours, establishing recreational centres and practising various types of sports.

Its practical programme further included various games, physical exercise activities and sports (track and field athletics, rowing, ball games, etc.). As an additional activity, its members took up trail marking in 1929, or trail constructing. In remote places (e.g. in the mountains), tourist shelters or huts were built. However, unlike the KČsT and the Radhošť Mountainous Association, the ČsOT did not try too hard to build facilities that would promote tourism, its aim rather being to enable the less well-off strata of the nation to participate, at low prices, in group tours, visits to the natural beauties of Czechoslovakia, or recreational stays in spas at minimal contributions. The ČsOT therefore mainly promoted hiking.

Activities of the ČsOT earned much success in the interwar period. It managed to perform its objectives, a fact that contributed to the gradual expansion of its membership base. Nonetheless, its activities were significantly disrupted for the first time by the events of the late 1930s.²

² T. Tlustý, *History of the Czechoslovak Tourist Society until 1938*, "Sport i Turystyka. Środkowo-europejskie Czasopismo Naukowe" 2023, vol. 6, no. 2, pp. 29–43; <http://dx.doi.org/10.16926/sit.2023.02.02>.

Activities of the ČsOT during the Second Republic and the Protectorate of Bohemia and Moravia

In the “Munich period”, representatives of the KČsT, ČsOT³ and other smaller tourist organisations discussed the unification of their associations into one organisational unit. The agreements concluded resulted in the formation of the Central Board of Czechoslovak Tourism, which was supposed to be an initial step for further merger of these associations. However, the organisational and ideological disagreements emerging in November 1938 and the favouritism towards the KČsT led to a halt in the above merging efforts. Those efforts were renewed only after the division of Czechoslovakia and the formation of the Protectorate of Bohemia and Moravia, in the premises of the fascist National Partnership [Národní souručenství].⁴

The initiator was its component “Joy of Life”, which, with the help of the Protectorate government and several members of the newly named Club of Czech Tourists (KČT), took matters into its their hands. At the instigation of the National Partnership, the newly named Czech Tourist Society (ČOT)⁵ first carried out a certain reorganisation in its branches. All events of the branches began to be held within the framework of the National Partnership – in the context of

³ The ČsOT was also active in Slovakia during the period of the First Republic. Nonetheless, with the break-up of Czechoslovakia, its local branches were dissolved in Slovakia and were not renewed until February 1948. National archives in Prague, Fund Československá obecturistická, Box 1, I/44 – Korespondence s poverenictvom vnitra, Obnovenie činnosti Čs. Obceturistickej na Slovensku, dne 10. června 1947.

⁴ The National Partnership was formed on 21 March 1939 as the only permitted political movement in the protectorate of Bohemia and Moravia. Before that, however, the ČsOT participated in the cooperation in National Unions (National Unions were national defence associations. The Unions were involved in the support of economic and cultural life of Czech minorities in ethnically mixed areas and in German border areas), where it remained until their dissolution in April 1939. National archives in Prague, Fund Československá obecturistická, Box 9, XX/16 – Spolupráce ČOT veslučování s jinýmiturist. organizacemi, Bratrskému Výboru Národních osouručenství v Praze, dne 15. listopadu 1939.

⁵ The organisation’s magazines were also renamed. In March 1939, *Czechoslovak Tourist* was renamed *Czech Tourist*, and *Tourist in the Czech West* was added to the title as its heading. A year later, the ČOT entrusted the publication of the magazine to a private person in order to ensure that “*the basic line of the ČOT’s standpoint is not affected even outwardly during the occupation period.*” Nevertheless, its publication was discontinued in 1943. National archives in Prague, Fund Československá obecturistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotliv. c. o vlastním tisku ČOT, Policejní ředitelství Praha I, dne 15. března 1939. National archives in Prague, Fund Československá obecturistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotliv. c. o vlastním tisku ČOT, Časopis „Československý turista“ – doporučení žádosti o povolení k obnovení, dne 22. února 1946. National archives in Prague, Fund Československá obecturistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotliv. c. o vlastním tisku ČOT, Česká obecturistická, dne 29. března 1943.

“Joy of Life”.⁶ Subsequently, thanks to considerable manoeuvring as well as pressure, discussions on the merger of the KČT, ČOT and Tourist Union of Workers into a single organisation – the Club of Czech Tourists⁷ – were successful. A new department for the ČOT was formed within the KČT.⁸ However, the merger did not go smoothly at all. It was expected to take place in January 1940, but as late as September 1940, the KČT complained that the ČOT had failed to meet all the conditions agreed upon and that in fact it still carried out independent activities.⁹

After the National Partnership as well as the “Joy of Life” were sidelined, the Pilsen and České Budějovice groups decided to try to revive the ČOT and to make it independent. In fact, on the part of the KČT (according to members of the ČOT), there existed a risk of compromising with occupants and Czech traitors, and as a result, it was resolved at the General Assembly of the ČOT¹⁰ on 07 September 1940 so that the cooperation with the KČT would be discontinued and the activities of the ČOT would be renewed. Despite all obstacles imposed on the Society (e.g. withdrawal of the youth, dissolution of branches or seizure or confiscation of property), the ČOT had reached almost its pre-war state (see Table 1) by 1945.

Table 1. Development of the membership of the ČsOT

Year	Members
1936	6,500
1942	1,200
1945	5,000
1946	28,900

Source: National archives in Prague, Fund Československá obecturistická, Box 9, XXI/30, – Zprávy o činnosti ČOT.

⁶ National archives in Prague, Fund Československá obecturistická, Box 9, XX/16 – Spolupráce ČOT veslučování s jinými turist. organizacemi, Bratrskému Výborukomise RADOSTI ZE ŽIVOTA v Praze, dne 17. listopadu 1939.

⁷ The Tourist Union of Workers and KČsT agreed to the merger of both organisations at their joint meeting on 29 November 1938. National archives in Prague, Fund Československá obecturistická, Box 9, XX/16 – Spolupráce ČOT veslučování s jinými turist. organizacemi, Zápis porady zástupců předsednictva Klubu čs. turistů a Svazu čs. dělnických turistů, konané dne 29. listopadu 1938 za účelem dojednání měřnic pro sloučení obou korporací. V. Bárta, L. Khandl, *História turistiky na území Slovenska: od štúrovcov po dnešok*, Klub fotopublicistov SSN, Slovenská Ľupča 2015, pp. 61–62.

⁸ National archives in Prague, Fund Československá obecturistická, Box 9, XX/16 – Spolupráce ČOT veslučování s jinými turist. organizacemi, Radostze života Klubu českých turistů, dne 21. prosince 1939.

⁹ National archives in Prague, Fund Československá obecturistická, Box 9, XX/16 – Spolupráce ČOT veslučování s jinými turist. organizacemi, Provedení jednání o sloučení ČOT s KČT, dne 18. září 1940.

¹⁰ National archives in Prague, Fund Československá obecturistická, Archival tool.

The membership base of the ČOT thus grew even though its members, during the occupation period, refused to join Moravec's Curatorium,¹¹ preferring to put the entire organisation in danger of dissolution. Indeed, a considerable part of the central committee was arrested, also on account of their attitudes to the occupants.¹² At that time, Ludvík Chlupatý served as the organisation's mayor, having been elected to the post as early as 1936. However, he worked with the ČOT only illegally throughout the period of occupation. The organisation was formally headed by Otta Bureš.¹³

The period of occupation also ignited changes in the arrangements of the ČOT. In 1942, the head office decided that no general assemblies would be held during the war, unless based on official orders. The powers of general assemblies were delegated to the central committee of the ČOT, elected on 06 December 1942. The powers of the central committee were passed to the mayor (Otta Bureš), provided that the individual officers were to put forward respective proposals to him. The mayor then either made decisions on such proposals or put them to vote in a form of a circular, addressed to members of the central committee (or members of the board whenever necessary). A similar procedure applied to the individual branches. The powers of the hitherto branch committees as auxiliary bodies were transferred to the chairman of the branch, who would decide on his/her own responsibility on ordinary matters, whereas decisions on important matters were made upon consultation with the organisation's mayor. Given that no general congresses were held, the term of office of members of the central committee was extended indefinitely.¹⁴

¹¹ The Curatorium for the Education of Youth in Bohemia and Moravia was a mass extracurricular organisation active in the territory of the Protectorate of Bohemia and Moravia. The focus of this organisation was on the education of Czech youth between the ages of 10 and 18. The Curatorium was formed on 28 May 1948 and operated until May 1945. Emanuel Moravec was its chairman.

¹² One of the vice-mayors – Jaroslav Pužman – was executed in June 1942, during the Heydrichiad. His successor Václav Ulman worked as the regional commander of the underground organisation "White Rose," cooperating side by side with members of the Prague branch of the ČOT. Another vice-mayor, J. Štádlík from Pilsen, was the leader of an underground movement in the area of Plzeň, probably the resistance group "Black Lion". In addition, members of the ČOT were involved in activities of the resistance groups "Iron" or "Black Dog".

¹³ National archives in Prague, Fund Československá obecturistická, Box 1, I/10 – Korespondence s ministerstvem sociální péče, the ČSOT Ministerstvu sociální péče a ochrany, dne 17. 4. 1947. National archives in Prague, Fund Československá obecturistická, Box 5, XVI/2 – Korespondence s redakce mĳaj. o tiskových zprávách ČOT, O jednotutaké v turisticke.

¹⁴ Until 1944, the members paid membership fees in the following amounts: active members – K 12.50 per year, junior members K 3 per year. Nonetheless, it was newly proposed and approved that founding members should pay a lump-sum membership fee of K 500 only (in a single payment or in instalments), active members K 12.50 per year, contributing members K 25 per year and junior members K 6 per year. National archives in Prague, Fund Československá obecturistická, Box 1, III/3 – Zápisy ze schůzíústředního výboru ČOT, Zápis o schůzíústřed-

Activities of the ČsOT from the liberation of the Republic until 1948

After Czechoslovakia was liberated, the ČsOT (renamed again) tried to take advantage of its wartime attitudes to the occupiers, and from outward appearance, began to make positive comments on all events organised by the Communist Party of Czechoslovakia (KSČ). The reason was that the ČsOT hoped that such conduct might ensure its leading position among the other Czechoslovak tourist organisations. However, the restoration of independent Czechoslovakia brought with it the previously raised issue of the organic merger of all physical education, sports and tourist organisations into a single organisation. The ČsOT, which was then under direct influence of the Czechoslovak National Socialistic Party (ČSNS), entirely opposed such an idea and enforced a federative union.¹⁵

The issue of unification also concerned tourism as such. As early as on 14 May 1945, representatives of the KČT, Radhošť Mountainous Association and ČsOT founded the Central Council of Czech Tourism,¹⁶ composed of two representatives of each tourist organisation. The role of the Council was to unify the standpoints held by the individual organisations of tourism, their content and mission and to develop a unified tourist movement.¹⁷ From the onset, the KČT again insisted on the organic merger of all tourist organisations into the KČT, but other organisations were more in favour of a federal union.¹⁸

ního výboru České Obce Turistické, konané dne 25. III. 1944 v sekretariátu ČOT. National archives in Prague, Fund Československá obecturistická, Box 10, XXII/2 – Činovníci ČOT, Přechodná úprava ČOT.

¹⁵ Until then, the Czechoslovak National Socialistic Party was only slightly interested in the ČsOT, which was shown through minor disputes. However, to prevent such disputes, a broader central committee was installed, in which representatives of the Party as well as the ČsOT oversaw the close cooperation between the two entities. The Chairman of the Czechoslovak National Socialistic Party, Petr Zenkl, was appointed honorary mayor of the ČsOT. In 1947, the Party provided the ČsOT with a hefty subsidy as a contribution to the construction of shelters, hostels, etc. The newly formed building department was also composed of the Party officials, who advised and helped during the construction. The close cooperation was probably demonstrated in the attitude as such to the various issues of unification of the Czechoslovak physical education, sports and tourism organisations. National archives in Prague, Fund Československá obecturistická, Archival tool.

¹⁶ The agreement on the formation of the Council was concluded by the ČsOT and KČST in 1938. Regrettably, post-Munich events prevented the development of the idea of cooperation between Czechoslovak tourist associations.

¹⁷ For instance, a joint marking committee was established and assigned a task to harmonise marking and tourist orientation and to prepare a unified marking plan. The individual tourist organisations in Czechoslovakia were rather inconsistent in marking individual tourist trails, which often resulted in chaos in tourist trails.

¹⁸ On the other hand, the Čeřínek Tourist Club saw no reason in continuing its independent existence after the Germans were expelled, and therefore, it also unanimously supported an or-

The first meeting of the Central Council of Czech Tourism was held at the beginning of the summer 1945, the second meeting took place about three months later. Representatives of the above-mentioned touristic organisations gathered at the two meetings. The KČT promised to try to ensure good mutual relations and to eliminate any previous disagreements. During the second meeting, the ČsOT, however, pointed out that the KČT had failed to meet the agreements reached at the first meeting (e.g. efforts to create joint committees, to prepare a unified plan for trail marking, reciprocal provision of benefits in the buildings of the individual organisations). Accordingly, the ČsOT was of the opinion that the obstacles to the merger consisted in two issues mainly, i.e. in the lack of mutual trust and the demand of the KČT that the new organisation should bear its name. Upon the proposal of the ČsOT, it was nevertheless agreed that a joint weekly *Tourist Newspaper* [*Turistické noviny*] would be published.¹⁹

In July 1945 the ČsOT issued its new organisational guidelines, which its branches (or groups) were supposed to follow. According to the guidelines, the organisation's activities were to focus mainly on the following:

1. To organise regular walks and trips for adults, to which tourists not yet organised will be invited;
2. To offer trade union organisations or company sports organisations their assistance in organising trips, tours and recreational events;
3. In agreement and with active participation of members (teachers' union boards), national history walks in a given locality and its vicinity will be organised, and school youth will be acquainted with their native region not only in terms of natural beauties, history and various monuments, but also in terms of the population's occupations or employment (excursions in factories, mines, trades etc.) to teach them the love of work;
3. To contact the National Physical Education Committee in the locality and offer assistance in organising trips and tours;
4. In agreement with the Local National Councils, to create tourist advisory centres, which will provide interested persons with information on tourism in the region where the organisations operate, information on accommodation, catering, etc., wherever there are favourable conditions, a tourist advisory centre will be created as a permanent establishment and part of the Municipal Authority;
5. To place maps of their regions at railways stations, public areas, etc., with an indication of tourist trails, information on highlighted locations of the region with photographs of remarkable places as well as images depicting interesting regional production;
6. To place signposts in front of railway stations or in the square, indicating directions of tourist trails, information on the locality, thermometer, barometer, information

ganic merger of the Czech tourist organisations. National archives in Prague, Fund Československá obecturistická, Box 1, III/1 – Pamětní spisy a návrhy ČOT, the ČsOT Předsednictvuv lady Republiky československé, dne 23. prosince 1945.

¹⁹ National archives in Prague, Fund Československá obecturistická, Box 1, I/15 – Korespondence s ministerstvem vnitřního obchodu, Starostathe ČsOT přednostovi presidia ministerstva vnitřního obchodu, dne 20. září 1945.

- about the ČOT, addresses of accommodation establishments, restaurants, physicians, pharmacies, etc.;
7. To draw up a proposal for the marking and development of tourist trails; in localities where an “embellishment” association was active, this is to be done in cooperation with such association;
 8. In agreement with the Local National Council, to create seasonal or permanent tourist hostels in their locality and the vicinity, for which effort will be made to obtain premises from closed infirmaries and similar establishments;
 9. Where there are favourable conditions, to endeavour, in agreement with the Local National Council, to obtain from seized properties a building which might be turned into a recreational centre for the locals as well as members from afar;
 10. To endeavour to ensure that a representative of the branch (group) is engaged as an expert in the physical education committee attached to the Local and District National Councils;
 11. To encourage the Local National Council to establish facilities for recreation of working classes, with special focus on needs of the youths (e.g. swimming pools, parks for recreation and entertainment, with restaurants, entertainment establishments, concerts, etc.).²⁰

Importantly, the ČsOT needed money for its activities in the first place. Money was obtained (apart from the above-mentioned subsidies) primarily from membership fees, the amount of which had returned *de facto* (according to the organisation’s statement) to the pre-war level (see Table 2). Moreover, the ČsOT began to apply for confiscated property, with the view of using the same for its needs. Such property mainly included hotels in the border area, tourist shelters or spa locations.²¹The ČsOT was undoubtedly motivated by the fact that it was the only Czechoslovak tourist organisation to lack own facilities to perform tourist and recreation activities.²²

Moreover, the organisation’s leadership noticed at that time that the interest in various types of sports was on the increase. The leadership however agreed to concentrate the individual sports disciplines in state associations. For this reason, its efforts were directed at concluding an agreement on the collective membership of the ČsOT in some of those associations (e.g. in the Czech Amateur Athletic Union, Czech Handball Association, Czech Central Union of Velocipedists, Association of Skiers, etc.). The associations were asked whether they would be willing to accept the ČsOT, and if so, under what conditions (financial in particular).²³

²⁰ National archives in Prague, Fund Československá obceturistická, Box 3, XI/21 – Oběžníkyústředí ČOT, Organizační pokyn č.2/45 – Pokyny k činnostimí stníchodborů /skupin/ České obceturistické, červenec 1945.

²¹ National archives in Prague, Fund Československá obceturistická, Box 3, XII/5 – Korespondence a ucházení o konfiskáty pro potřeby ČOT, ČOT Národnímu pozemkovému fondu, dne 14. června 1946.

²² National archives in Prague, Fund Československá obceturistická, Box 3, XII/5 – Korespondence a ucházení o konfiskáty pro potřeby ČOT, ČOT Ministerstvu školství a osvěty, dne 13. května 1946.

²³ National archives in Prague, Fund Československá obceturistická, Box 3, X/7 – Korespondence a zprávy s Českou atletickou amatérskou unií, ČOT České aletické amatérské unii, dne 8. července 1946.

Table 2. Amounts of membership fees of the ČsOT in the period of the First Republic*

	Youth up to 18 years of age	Adults over 18 years of age
Membership fee	CSK 4	CSK 12
Mandatory accident insurance	CSK 4	CSK 4
Membership card	CSK 1	CSK 1
Badge	CSK 15	CSK 15

* Regrettably, it was impossible to trace a table showing accurate amounts of post-war membership fees

Source: National archives in Prague, Fund Československá obecturistická, Box 1, III/3 – Zápisy ze schůzí středního výboru ČOT, Zápis o schůzi středního výboru České Obce Turistické, konané dne 25. III. 1944 v sekretariátu ČOT.

At its extraordinary general congress on 13 October 1945, the KČT proposed the formation of the Association of Czechoslovak Tourism, which was to be founded on a federative principle and subordinated to the Ministry of Education and Enlightenment. The ČsOT agreed to the proposal to a larger extent, but it suggested that other associations be created or reorganised which the tourist organisations would join or form a close cooperation with. The suggestion relied on the efforts of the ČsOT to ensure that the economic importance of tourism or its significance for military training would be applied as well.²⁴

The extraordinary general congress of the ČsOT was held on 13 October 1945 and, *inter alia*, elected Otto Bureš as chairman of the organisation and resolved to establish the closest possible cooperation with the Central Council of Trade Unions (ÚRO).²⁵ It was eventually agreed with ÚRO that tourist unions would be formed in individual companies as either independent branches of the ČsOT or autonomous company groups attached to the ČsOT branches (the branches paid only a symbolic “recognition” fee to the ČsOT). The role of the ČsOT was then to

²⁴ National archives in Prague, Fund Československá obecturistická, Box 1, III/1 – Pamětní spisy a návrhy ČOT, the ČsOT Předsednictvu vlády Republiky československé, dne 23. prosince 1945.

²⁵ ÚRO was a unified trade organisation in Czechoslovakia active after 1945. The organisation later worked as a government body of the trade union movement between the congresses of the Revolutionary Trade Union Movement (ROH), which was a monopoly trade union organisation as well as the biggest mass social organisation in the socialist Czechoslovakia. In many places, membership of employees in ROH was in fact obligatory and automatic. The ČsOT suggested that ROH, within the framework of company physical education, create tourist groups, which would later be incorporated in the ČsOT. The ČsOT would then offer its membership benefits to their members, who would be organised by the newly formed committee, and would, for instance, organise for them courses with a focus on tourist practices and other events. National archives in Prague, Fund Československá obecturistická, Box 9, XX/I – Revoluční odborové hnutí, Ústřední rada odborů, komise závodní turistiky, Praha II, dne 6. prosince 1945. National archives in Prague, Fund Československá obecturistická, Box 9, XX/I – Revoluční odborové hnutí, ČOT Antonínu Vandrovci, poslanci ÚNS a tajemníku ROH, dne 27. června 1946.

assist in company physical education and organise tourist events, to provide professional courses for the leaders of tourism in companies, or to prepare a plan of hostels in cooperation with ÚRO. Nevertheless, most of the membership benefits of the ČsOT were linked to the individual membership in the ČsOT itself.²⁶

In March 1946, the ČsOT applied for membership in the ČSTS, which was in the formation process, and in which the ČsOT was represented by its mayor Otta Bureš, who also served as a member of the preparatory committee,²⁷ and where it was also the only tourist organisation for an extended period of time.²⁸

The organisation intended to inform of its activities again through its (republished in the future) central newspaper. Its suspended publication was initially (in 1945) at least partially followed by the *Circular of the Czech Tourist Board* [*Oběžník české obceturistické*], which the organisation planned to publish six times a year. Importantly, the organisation had not abandoned hopes of reviving its original magazine.²⁹ For example, its expectations were that the above step would contribute to the integration of tourism into the new development of the Republic, breaking away from the old methods and creating a truly popular tourist movement on a broader scale.³⁰ The organisation obtained the permission to restart the publication of the monthly *Czechoslovak Tourist* [*Československý turista*] (see Image 2) from the Ministry of Information on 02 April 1946.³¹

²⁶ National archives in Prague, Fund Československá obceturistická, Box 9, XX/1 – Revoluční odborové hnutí, Záznam z jednání delegace ČOT s předsedou kult. odboru ÚRO posl. J. Jungmannem. dne 15. července 1947.

²⁷ In addition to Otta Bureš, two other members of the ČsOT signed the Articles of Incorporation, namely Václav Lebl and Jiří Vacek. National archives in Prague, Fund ČSTS, Box 1, Sign. 4, Valná hromada 1946, Čsl. Obceturistická – Ustavující sjezd ČsTS – delegace ČOT, dne 29. října 1946.

²⁸ National archives in Prague, Fund Československá obceturistická, Box 1, III/4 – Zápisy ze schůzí předsednictva ČOT, Zápis o 3. schůzi předsednictva Čs. obceturistické, konané dne 13. VI. 1946 v místnostech ústředí ČOT. National archives in Prague, Fund Československá obceturistická, Box 1, II/2 – Osobní korespondence: Projevy soustrasti, Projev soustrasti k úmrtí šéfa redaktora O. Wünsche, dne 8. října 1947.

²⁹ Probably the first application for the renewal of the magazine *Czechoslovak Tourist* was declined by the press department of the Ministry of Information on 11 December 1945, on the grounds that it was necessary to reorganise periodical press with the view of economic management of paper. However, the ČsOT did not want to put up with the refusal since the publication of the magazine of the Club of Czechoslovak Tourists and Skiers was permitted at that time. National archives in Prague, Fund, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotlivci, o vlastním tisku ČOT, Ministerstvo informací, tiskový odbor, v Praze dne 14. března 1947. National archives in Prague, Fund, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotlivci, o vlastním tisku ČOT, Ministerstvo informací, tiskový odbor, v Praze dne 29. března 1946.

³⁰ National archives in Prague, Fund Československá obceturistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotlivci, o vlastním tisku ČOT, Časopis Český turista.

³¹ National archives in Prague, Fund Československá obceturistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotlivci, o vlastním tisku ČOT, Vydavatelstvo „Práce“ v Praze 11, dne 12. dubna 1946.



Figure 2. Header of the magazine *Czechoslovak Tourist*

In August 1946, the ČsOT sent an application to the Central National Council of the Capital City of Prague for permission to establish a publishing house, printing house and bookstore. In effect, one of the objectives of the ČsOT was to publish specialised literature, magazines, postcards, maps, information and promotional tourist leaflets and own literature focused on natural history. The ČsOT intended to use the profits for broadening of knowledge of the Czechoslovak Republic and specialised study, exactly as was prescribed by the Statutes of the organisation.³² Nonetheless, on 30 May 1947, the Board of the Central National Council of the Capital City of Prague decided to reject the application at its meeting, stating that

[...] the planned economy may only allow the establishment of such enterprises that are economically justified. In the given case, the establishment of a new enterprise is not justified.³³

However, the organisation of courses and races was also getting into swing in the ČsOT. Between 09 and 16 June 1946, for instance, the Ministry of Education and Enlightenment held the First State Course for Tourist Leaders. It was planned to take place in Hejnice in the Jizera Mountains and its technical management was entrusted to the ČsOT, a gesture that was much appreciated by the organisation. A similar course was organised a year later, from 01 to 10 June in Karlova Studánka.³⁴

³² National archives in Prague, Fund Československá obecturistická, Box 11, XXV/2 – Kniha kupectví a nakladatelství ČOT, Žádost o udělení živnostenského oprávnění kuzřížení nakladatelství, vydavatelství a knihkupectví, dne 28. srpna 1946.

³³ National archives in Prague, Fund Československá obecturistická, Box 11, XXV/2 – Kniha kupectví a nakladatelství ČOT, Živnostenský úřad hlavního města Prahy, dne 30. května 1947. In 1946, the ČsOT also applied for a trade licence to form and operate a travel agency. Its intentions were to ensure more favourable tourist conditions for its members. Unfortunately, the information whether the application was granted could not be traced. National archives in Prague, Fund Československá obecturistická, Box 4, XIV/19 – Korespondence s úřady o hostinských koncesích, Žádost o udělení živnostenského oprávnění kuzřížení cestovní kanceláře, dne 28. 8. 1946.

³⁴ National archives in Prague, Fund Československá obecturistická, Box 4, XV/1 – Kurzystátní pořádané ČOT, Rozvrh přednášek a cvičení vestátním kurzu pro vedoucí turistiky v Karlově Studánce 1.-10.VI.1947.

Probably the largest sports event organised by the ČsOT after the Second World War was the “Karel Fojtík Memorial”.³⁵ The Memorial consisted in a walking race, the first year of which was held by the Brno Regional Organisation of the ČsOT on behalf of the Board of the ČsOT on 21 September 1947. The length of the main race, which took place on the route Obřany – Bílovice nad Svitavou, was 10 km, while women and youth competed on half the distance.³⁶

The ČsOT also planned to organise several of its own races for the year 1948. Specifically, the races included the ČsOT skiing championships (see Figure 3),³⁷ the second year of the Karel Fojtík Walking Memorial³⁸ and the first year of the Tourist Fitness Race.³⁹ The other plans consisted in the organisation of the “Days of Friendship between Czechoslovak and Polish Tourists”. The idea was to hold a joint meeting on Sněžka Mountain, where, among other things, cooperation and tourist exchange options were to be agreed between the two states.⁴⁰

From 17 to 25 February 1948, a communist coup d'état took place in Czechoslovakia. The subsequent events in the Czechoslovak physical culture gained momentum. In fact, communists were suddenly able to make substantial changes and interventions in the organisation of the Czechoslovak physical education without any resistance. On 27 February 1948, the Board of the Central Action Council of the National Front (ÚAV NF) resolved that the only physical education organisation would be Sokol, to which other physical education, sports and tourist organisations, associations, societies and clubs would transfer their property and membership.⁴¹

³⁵ Karel Fojtík was the chairman of the physical education department of the ČOT during the occupation, and the chief of the youth of the ČAAU. He fell in the battle for Prague on 07 May 1945.

³⁶ National archives in Prague, Fund Československá obecturistická, Box 9, XXI/13 – Chodecké závody, Proposice chodeckého závodu – Memoriálu K. Fojtíka, dne 25. července 1947.

³⁷ These races, which were ten years apart from the ČsOT last skiing championship, took place in Špindlerův Mlýn on 21 and 22 February 1948.

³⁸ The ČsOT branch in Vokovice-Veleslavin was at that time asked to organise the race. Actually, the intention of the ČsOT was to organise this race every year in a different place. The plan was to ask the selected branches to propose dates and specific locations for the race. Nevertheless, it was announced later that the race would be held in the same place as the first year.

³⁹ This was supposed to be a combined race, as a part which the contestants were to overcome terrain obstacles (climbing down slopes, jumps over ravines, wading through water), running with shooting and orientation in maps (plus terrain sketching in the race of level II). National archives in Prague, Fund Československá obecturistická, Box 1, III/3 – Zápisy ze schůzí středního výboru ČOT, Předlohy pro schůzí středního výboru Čs. Obecturistické dne 7. října 1947.

⁴⁰ National archives in Prague, Fund Československá obecturistická, Box 9, XXI/14 – Lyžařské závody, Československá obecturistická – návrhadny přátelstvíčs. a polských turistů, dne 17. ledna 1948.

⁴¹ J. Kössl, J. Štumbauer, M. Waic, *Vybrané kapitoly z dějtinělesné kultury*, Karolinum, Prague 2006, p. 142. In March 1948, the Ministry of Internal Trade acknowledged the resolution of the KČT action committee and its essential requirement that – as in Slovakia – tourist organisations

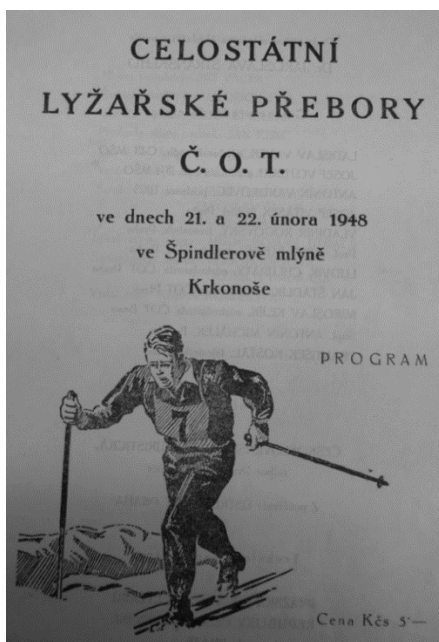


Figure 3. Programme of the ČsOT skiing championships in 1948

The central action board of the ČsOT welcomed the open declaration by the ÚAV NF regarding the unification of physical education into the Sokol organisation. The board pointed out that its standpoint was fully compliant with its position expressed in May 1945, when the ČsOT, as the only tourist organisation, submitted its application to the Central National Physical Education Board, which was being formed at that time (ÚNTV).⁴² Moreover, the ČsOT asked the ÚAV NF to have its representatives included in the emerging ÚAV of the unified Czechoslovak physical education so that they could fully participate in its reorganisation.⁴³

should be unified in the Czech Lands. The above Ministry hence authorised the KČT action board to discuss the conditions of unification with individual corporations and to this end, to take all necessary steps. The Czechoslovak Tourist Society was among the organisations to be united. National archives in Prague, Fund Československá obecturistická, Box 1, I/15 – Korespondence s ministerstvem vnitřního obchodu, Ministerstvo vnitřního obchodu Akčnímu výboru Klubu československých turistů, dne 4. března 1948.

⁴² However, the ČsOT was not admitted to the ÚNTV. At the end of May 1945, the KČT and ÚNTV concluded an agreement, according to which the ÚNTV renounced the tourist organisations with which it was to establish close cooperation. The ÚNTV nevertheless ceased to exist the following year. National archives in Prague, Fund Československá obecturistická, Box 2, VI/10 – Korespondence Ústředním národním tělovýchovným výborem, the ČsOTÚ střednímu národnímu tělovýchovnému výboru, dne 30. srpna 1945.

⁴³ National archives in Prague, Fund Československá obecturistická, Box 1, I/12 – Korespondence s ministerstvem školství a osvěty, Československá obecturistická Akčnímu výboru Československé obcesokolské, dne 12. března 1948.

The individual branches of the ČsOT were invited by the organisation's leadership to form action boards of three to five members, choosing from reliable persons who were unwavering supporters of the then government. The lists of those persons were to be forwarded to the central action board of the ČsOT. The central action boards of the ČsOT branches were then tasked to screen its members according to the regulations of the ÚAV NF.⁴⁴ Needless to say, powers of the action boards of the ČsOT were rather limited. Their powers mainly resided in the screening of members and the ordinary tourist activities (organisation of meetings, walks and trips, organisation of races, attending to correspondence or collection of membership fees). The boards had to ask the ČsOT for approval when it came to conducting any other steps.⁴⁵

The unification of the Czechoslovak physical education also led to the discontinuation of the publication of the magazine *Czechoslovak Tourist* [Československý turista]. It was last published as a double issue 1/2 on 15 February 1948. According to the plan, after the merger with Sokol, the organisations were to publish two tourist magazines, namely *Central Authority of Sokol Tourism* [Ústřední organ sokolské turistiky] and *Tourist Journal and Technical Magazine of Prague Sokol Regional Organisations* [Turistický věstník a technický časopis pražských sokolských žup].⁴⁶

The unification of all physical education, sports and tourism organisations into the Sokol organisation was declared ceremoniously on 31 March 1948.⁴⁷ Within the Sokol organisation, a tourist department for Czechoslovak tourism began to be prepared. The plan was that the above department would be divided into two highest bodies – economic and administration and the other was to be technical. Prof. Otto Bureš was nominated as chairman of the technical board after the agreement of all tourist organizations.⁴⁸ However, the incorporation of tourism into Sokol did not go entirely smoothly since as late as August 1948, no authority was installed in Sokol to assume the care of all tourist matters, and therefore the incorporation of all Czechoslovak tourism into Sokol

⁴⁴ National archives in Prague, Fund Československá obecturistická, Box 2, VI/3 – Oběžníky Čs. Tělovýchovného svazu, Ústředniáckní výbor ČOT všemodborům a důvěrnickým místům ČOT.

⁴⁵ National archives in Prague, Fund Československá obecturistická, Box 3, XI/22 – Oběžníky ústředí ČOT, Činnostakčnických výborů ČOT, duben 1948.

⁴⁶ National archives in Prague, Fund Československá obecturistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotlivci. o vlastním tisku ČOT, Ministerstvo informací, tiskový odbor, dne 16. června 1948.

⁴⁷ J. Grexa, M. Strachová, *Dějiny sportu: Přehled světových a českých dějintělesné výchovy a sportu*, Masaryk University, Brno 2011, p. 183.

⁴⁸ National archives in Prague, Fund Československá obecturistická, Box 2, IX/2 – Korespondence o turistice v Polsku, Otto Bureš a Josef Voršilka Bratrskému Polskiemu Towarzystwu Krajowczemu, dne 29. června 1948.

could not be effectuated by that time.⁴⁹ In the following years, during which, *inter alia*, the democratic traditions of Sokol were quashed, communists made a striking number of organisational changes in Czechoslovak physical education and sports.

Conclusion

Before the Second World War, several tourist organisations were active in Czechoslovakia, with the ČsOT being the second largest in terms of membership. However, not all of them survived the subsequent harsh period, when, among other endeavours, efforts emerged to unify Czechoslovak tourism.⁵⁰ During the Nazi occupation, the Czech Tourist Society was unified with the Club of Czech Tourists. Needless to say, the unification was rather formal since the ČOT essentially continued to carry out its activities independently. In fact, there were many contradictions between the ČOT and KČT, also from the ideological perspective. The ČOT did not wish to participate too much in joint activities and began to make effort to become formally independent. Its members later refused to join the Curatorium for the Education of Youth in Bohemia and Moravia, becoming involved in resistance activities instead.

Only four tourist organisations were active in Czechoslovakia after the Second World War.⁵¹ Those organisations were the “Radhošť Mountainous Association”, which had about 6,000 members, the Club of Czech Tourists with 50,000 members, about 200 tourist shelters and several castle ruins, the Club of Slovak Tourists and Skiers [Klub slovenských turistov a lyžiarov] with 20,000 members. The last of them was the ČsOT, which comprised 30,000 members.⁵² There were many disagreements between these organisations, including issues regarding the organisation of tourism *per se*.⁵³ For instance, the ČsOT did not believe that

⁴⁹ National archives in Prague, Fund Československá obceturistická, Box 1, I/12 – Korespondence s ministerstvem školství a osvěty, Ministerstvo školství a osvěty, sector tělovýchovný ÚAV. Čs. obceturistické v likvidaci, dne 6. srpna 1948.

⁵⁰ After the establishment of the Slovak State in 1939, the KČT clubs in Slovakia formed together with skiers the Club of Slovak Tourists and Skiers, seated at Liptovský Svätý Mikuláš. The “Tourist Union” in Prague became part of the Federation of Proletarian Physical Education (FPT) and was dissolved, along with the above organisation, in 1938.

⁵¹ The Club of Czech Tourists was also joined by the Čeřínek Tourist Club, specifically in 1945. In the same year, the Tourist Union of Moravian Karst ceased to be a tourist organisation with extensive activities, limiting its activities to the organisation of tourism in the Moravian Karst.

⁵² National archives in Prague, Fund Československá obceturistická, Box 9, XXI/29 – Informační služba ČOT, TURISTIKA V ČESKOSLOVENSKU: Vývoj turistiky v ČSR.

⁵³ The Club of Czechoslovak Tourists and Skiers (formerly the KČST) emphasised the economic value of tourism and its importance for the state. From this standpoint, the Club was of the opinion that tourism should fall within the sphere of interest of the Ministry of Internal Trade.

it was appropriate in the 1940s to participate, to a considerable extent, in the preservation of monuments and their maintenance (activities previously undertaken e.g. by the Club of Czech Tourists), maintaining that it would be more suitable to be only of assistance to the government in this respect. Similarly, the ČsOT failed to comprehend the initiative of constructing lookout towers, attempted by the Club of Czech Tourists, even though the ČsOT officers admitted that lookout towers represented a means of making tourism more attractive. In spite of this, the above organisations agreed to form the Central Board of the Czechoslovak (or later Czech) Tourism.

After the end of the Second World War, the ČsOT endeavoured to make use of its opportunities and influence (for instance, the ČsOT tried to highlight its negative attitudes towards the occupiers) and to gain a leading role among Czechoslovak Tourist Organisations. Those efforts probably affected the direction of the entire organisation, which pretended to express favourable opinions of actions carried out by the Communist Party of Czechoslovakia. What is more, the ČsOT was the only Czechoslovak tourist organisation to send an application to the ÚNTV, whose efforts were aimed at the organic unification of Czechoslovak physical education. Soon, nevertheless, the ČsOT began to oppose those efforts and prefer its federative union. This was probably related to its increasingly close partnership with the Czechoslovak National Socialist Party, which began to provide the ČsOT with financial support. At that time, the organisation also started to present itself in the public by organising its own sports events. After communists seized power in February 1948, the ČsOT, however, began to highlight its application to the ÚNTV, sent previously, and to welcome the forced unification of all Czechoslovak physical education into the Sokol organisation, with which the ČsOT subsequently merged.

Contrariwise, the Radhošť Mountainous Association viewed tourism as a sports and recreational movement, and one with considerable ethnographic importance. The Tourist Union of Moravian Karst emphasized an economic significance of tourism, a standpoint logical from its perspective since the impetus for its formation was the promotion of the Moravian Karst and the prosperity of its immediate vicinity. The Čeřínek Tourist Club was established in Jihlava, at the time when the town was heavily Germanised. The Club had a national character and was concerned with national history. After the Germans were expelled, the Club, finding no reason for its continued independent existence, unanimously advocated the organic merger of Czech tourist organisations. Beginning from its formation, the ČsOT perceived tourism as a sports movement, serving the purpose of physical and mental recreation of the working people, and deepening their interest in exploring their homeland. The ČsOT was in favour of cooperation with physical education organisations and of including tourism as a basic and general physical education discipline into the sphere of interest of the Ministry of Education and Enlightenment. National archives in Prague, Fund Československá obceturistická, Box 1, III/1 – Pamětní spisy a návrhy ČOT, the ČsOT Předsednictvuv lady Republiky Československé, dne 23. prosince 1945.

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CZĘŚĆ II

TEORIA I METODYKA WYCHOWANIA FIZYCZNEGO I SPORTU



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THE INFLUENCE OF CROSSFIT ON THE DYNAMICS OF PHYSICAL FITNESS INDICATORS OF YOUTH

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Wpływ crossfitu na dynamikę wskaźników sprawności fizycznej młodzieży

Streszczenie

Strategia nowoczesnego szkolnictwa wyższego powinna kształtować specjalistę, który potrafi nie tylko zrealizować skumulowany potencjał wiedzy, zdolności i umiejętności, ale także wyjść poza standardowe działania, co charakteryzuje tendencję do zwiększania roli „czynnika ludzkiego” we wszystkich sferach pracy, w tym także w sferze militarnej. Dlatego celem pracy było zbadanie i określenie skuteczności wpływu crossfitu na dynamikę wskaźników sprawności fizycznej młodzieży. W celu określenia wpływu crossfitu na rozwój podstawowych cech fizycznych przeprowadziliśmy analizę porównawczą poziomu i dynamiki sprawności fizycznej młodzieży (17,6 ± 0,2 lat; przedział wiekowy: 17–21 lat), która w procesie uczenia się (semestry I–IV) regularnie angażowała się w sekcję crossfitu (grupa ta była oznaczona nr 1 (n = 24)), i studentów, którzy korzystali z ist-

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niejącego programu wychowania fizycznego w instytucjach szkolnictwa wyższego (nr 2 (n = 23)). Poziom sprawności fizycznej określono na podstawie wyników egzaminów i sprawdzianów z wychowania fizycznego. Nie stwierdzono istotnej różnicy w pierwszych trzech semestrach ($p > 0,05$). W czwartym semestrze stwierdzono istotną różnicę ($t = 4,44$; $p < 0,001$), pokazującą, że stosowanie crossfitu prowadzi do poprawy podstawowych cech fizycznych.

Słowa kluczowe: crossfit, student, sprawność fizyczna, sport, cechy fizyczne.

Abstract

The strategy of modern higher education should form a specialist who is able not only to realize the accumulated potential of knowledge, abilities and skills, but also to go beyond the limits of regulated activities, which characterizes the tendency to increase the role of the "human factor" in all spheres of work, including in the military sphere. Therefore, the purpose of the research was to study and determine the effectiveness of the influence of CrossFit on the dynamics of indicators of physical fitness of young people. We conducted a comparative analysis of the level and dynamics of physical fitness of young people (17.6 \pm 0.2 years old; range: 17–21 years old), who during their studies, were systematically engaged in CrossFit activities (n = 24), and students who had PE classes run according to the existing program of physical education in higher education institutions (n = 23). The level of physical fitness was determined according to the results of exams and credits in physical education. The study of the level of physical fitness of young people showed that the use of CrossFit leads to better results of basic physical qualities and positive changes in the human body ($t = 4.44$; $p < 0.001$).

Keywords: CrossFit, student, youth, physical fitness, sport.

Introduction

Ensuring a high level of professional training has always been the concern of many professionals in the field (Bazilevich & Tonkonog, 2016). However, recently a critical situation concerning the physical training of students (cadets) has developed. There is a contradiction between the level of social demands for the psychophysiological state of future specialists and the effectiveness of students' physical training, which should ensure that graduates are able to solve effectively the tasks of professional training of students (Kostiv et al., 2021).

A number of studies by native scientists indicate that current scientific research on ensuring an effective training in a higher educational institution is continuing, aimed at finding ways to improve the physical training of students. In particular, they focus on methods and forms issues of training by using various sports (Gaponenko et al., 2018), software and regulatory support for training, training technologies, control, methodological and data support, research on their effectiveness. They also discuss scientific and theoretical bases, and have developed profile schemes of individual specialties. An important feature of the research of some authors is their attempt to closely link the process of physical training and mental capacities (Oderov et al., 2020; Romanchuk et al., 2017).

Taking into account the conditions of an insufficient level of physical qualities development, improving the physical fitness of the youth who enter educational institutions requires the search for new technologies in the organization of physical training. Sports, including CrossFit, which are rapidly developing, are effective in terms of urgent improvement of general physical qualities and are popular among various segments of the population in the world (Klymovych et.al., 2017; Oderov et.al., 2019; Romanchuk et.al., 2017). The main methodological principles of CrossFit were borrowed from one of the common areas of fitness which was founded in 2000, in the US Armed Forces. In CrossFit, multi-joint, energy-intensive movements are used, which are combined into a continuous set of exercises involving one's own weight, special equipment, gear and cyclical exercises (Klymovych et. al ., 2017; Oderov et. al ., 2020).

As noted by scientists (Poston et.al., 2017), high-interval training prevails over traditional programs of physical training of military personnel. In turn, they emphasize that rather than focusing on maximal fitness, these workouts are designed to increase overall fitness. Thus, combat training should require not only aerobic endurance from a warrior. All this determines the perspective of using training with CrossFit elements.

The same opinion is shared by the researchers (Bazilevich & Tonkonog, (2016), who claim that CrossFit makes it possible to do sports for a long time, to strengthen and improve the general physical endurance of the body, the work of the cardiovascular and respiratory systems, and to increase muscle strength.

Materials and Methods

In order to determine the impact of CrossFit on the development of basic physical qualities, we conducted a comparative analysis of the level and dynamics of physical fitness of students (17.6 ± 0.2 years old; range: 17–21 years old), who were in the process of their initial education (semesters I–IV) and systematically practised in the CrossFit section (group № 1 ($n = 24$)), and students who had classes according to the existing program of physical education in higher educational institutions (group № 2 ($n = 23$)).

The level of physical fitness was determined according to the results of physical fitness exams and credits in 2021–2022. The indicators of the development of the main physical qualities in semesters I–IV ($n = 47$) were analysed based on the exercises: 100-meter run, pulling ups on a crossbar, and 3000-meter run.

The test on the level of physical fitness was carried out at the Hetman Petro Sahaidachnyi National Ground Forces Academy and aimed to determine the indicators of the general physical fitness level.

The test on the level of physical fitness was carried out according to the Instruction of Physical Training in the System of Department of Defence of Ukraine-2021 exercises, which correspond to the program for physical training of cadets at higher military educational institutions in the form of semester exams and competitions during the hours of sports and mass work during the first half of the day. They must wear a military uniform.

Speed qualities were checked the following way: the 100-meter run was performed on a flat asphalt ground; one attempt (INFP-2021 reference standard). The run starts with a standing position, the result was recorded with a manual stopwatch "RUCANOR" with an accuracy of 0.1 sec.

Strength qualities were checked the following way: pull-ups on a crossbar were performed with straight arms and overhand grip; one attempt (the Instruction of Physical Training in the System of Department of Defence of Ukraine-2021 reference standard). The exercise was considered completed if the chin crossed the level of the bar. It was not allowed to bend the legs, to start pull-ups with swing and leap of legs. The result of pull-ups on the bar was the number of successfully performed times.

Endurance was checked the following way: a 3,000-meter run was on a flat asphalt ground in accordance with the rules of military athletics competitions. The results were recorded with a manual stopwatch "KENKO, KK-2808" with an accuracy of 1 sec.

The methods of mathematical statistics which were used contributed to solving the tasks of our research. The methods of mathematical statistics were used in order to prove the regularities discovered in the research. One-dimensional and two-dimensional statistical analysis was used. Mathematical and statistical calculations were carried out using computer programs "Excel", "SPSS", "STATISTICA 7," in the operating system "Windows Vista" in particular.

The results of the study were evaluated by methods of mathematical statistics using the package of applied computer programs "Statistica 5.5", license number AX908A290603AL. After the pedagogical experiments, we carried out calculations of the main univariate statistics:

- arithmetic mean – \bar{x} , standard deviation of the mean – m , dispersion – σ ;
- student t-test – to establish differences between two samples for the average results, on the assumption of normal distribution of individual values in each sample. At the same time, a 5-integer correlation level – p (correlation not less than 0.95) was taken as a base; during the analysis of the results in the middle of each sample, the t value was used to compare the results of different samples – for non-compatible samples;
- to calculate the empirical two-vibre value of the t -criterion for the dependent samples in the situation of testing the hypothesis of the difference between two dependent samples, we used the formula:

$$t = \frac{|M_d|}{\sigma_d / \sqrt{N}}$$

$t = M_d$ – is the average difference in values, σ_d – standard deviation of differences. The number of degrees of freedom was calculated as $df = N - 1$.

One-dimensional statistical analysis included the calculation of the following characteristics: the arithmetic mean – \bar{X} ; the standard deviation – σ ; standard error of the average value – m ; the probability of differences of one-dimensional averages and average square means according to the Student's criterion – t .

The application of the above-mentioned methods made it possible to organize a research and check the indicators of the formed groups, to prove the effectiveness of the program of physical training of students at higher educational institutions at the initial education stage using CrossFit.

Results

The development of speed qualities of the respondent group № 1 took place during all four semesters. No significant difference was found in semesters II and III, i.e. $t = 0.38$, $p > 0.05$, and $t = 1.91$; $p > 0.05$, and in semester IV a significant difference was noticed, i.e. $t = 3.55$, $p < 0.001$. In group № 2 during the initial training, positive changes occurred only in semester II, and in the remaining semesters the result did not improve but were at the same level, no significant difference was found, i.e. $t = 0.18$, $p > 0.05$.

During the first three semesters of the study, no significant difference was found between groups № 1 and № 2, i.e. $p > 0.05$. In the fourth semester, a significant difference between groups № 1 and № 2 occurred, i.e. $t = 3.34$, $p < 0.01$, which indicates the influence of CrossFit classes on the development of students' speed qualities.

A comparative analysis of the results of pull-ups on the crossbar in group № 1 shows that the results improved throughout all the semesters of the study. In the period from semesters I to III, the results improved, but no significant difference was noticed ($p > 0.05$), only in semester IV a significant difference occurred ($t = 6.74$, $p < 0.001$) (Table 1). Analysing the results for group № 2, we can say that they improved during three semesters, and in the fourth semester, they decreased compared to the third semester, which indicates that an ineffective training method was used in the current training program.

Comparing the results of groups № 1 and № 2, we can say that during the first three semesters, no significant difference was detected ($p > 0.05$). In the fourth semester, a significant difference was noticed ($t = 4.44$, $p < 0.001$) and it

was proved that the influence of CrossFit classes is the most noticeable in the fourth semester (Table 1).

Table 1

Physical Fitness Indicators of young people engaged in CrossFit and Other Sports

Semesters	Group № 1 (n = 24)			Group № 2 (n = 23)			The difference validity	
	\bar{x}_1	σ_1	$\pm m_1$	\bar{x}_2	σ_2	$\pm m_2$	T	P
Speed qualities (100-meter run, in sec)								
I	14.62	0.55	0.11	14.71	0.66	0.14	0.55	p>0.05
II	14.55	0.58	0.12	14.68	0.70	0.15	0.66	p>0.05
III	14.30	0.58	0.12	14.68	0.70	0.15	1.98	p>0.05
IV	14.10	0.46	0.09	14.68	0.70	0.15	3.34	p<0.01
I-II	t = 0.38; p > 0.05						t = 0.18; p > 0.05	
I-III	t = 1.91; p > 0.05						t = 0.18; p > 0.05	
I-IV	t = 3.55; p < 0.001						t = 0.18; p > 0.05	
Strength qualities (pull-ups on a crossbar, times)								
I	12.08	1.53	0.31	11.91	1.38	0.29	0.40	p > 0.05
II	12.88	1.65	0.34	12.17	1.67	0.35	1.45	p > 0.05
III	12.58	1.86	0.38	13.09	1.35	0.28	1.07	p > 0.05
IV	14.92	1.38	0.28	13.00	1.57	0.33	4.44	p < 0.001
I-II	t = 1.72; p > 0.05						t = 0.58; p > 0.05	
I-III	t = 1.02; p > 0.05						t = 2.98; p < 0.01	
I-IV	t = 6.74; p < 0.001						t = 2.50; p < 0.01	
Endurance (3-km run, in sec)								
I	778.00	16.66	3.40	792.48	46.97	9.79	1.40	p > 0.05
II	762.17	19.68	4.02	754.74	6.80	1.42	1.74	p > 0,05
III	745.50	25.94	5.29	742.87	64.04	13.35	0.18	p > 0.05
IV	734.75	28.41	5.80	748.57	11.70	2.44	2.20	p < 0.05
I-II	t = 3.01; p < 0.01						t = 3.81; p < 0.001	
I-III	t = 5.16; p < 0.001						t = 2.99; p < 0.01	
I-IV	t = 6.43; p < 0.001						t = 4.35; p < 0.001	

\bar{x} – arithmetic mean, σ – dispersion, m – standard deviation of the mean

Source: own research.

Thus, the use of CrossFit training led to the development of cadets' strength qualities in group № 1 throughout the entire period of initial training at the educational institution.

The study of the results of the 3000-meter run of the respondents from group № 1 showed a continuous and stable increase in the results of the exercise for the development of endurance during all four semesters according to arithmetic average indicators ($p < 0.001$). Analysing the results of group № 2, we can say that the results improved over four semesters. In the period from semester I to semester II, the result improved and a significant difference was established ($t = 3.81$, $p < 0.001$). Similarly, in semester III, a significant difference was established $t = 2.99$, $p < 0.01$, and in the fourth semester a significant difference equalled $t = 4.35$, $p < 0.001$, which indicates fluctuating results.

In the semester I-III period, the 3 km run of students from groups № 1 and № 2 is reliably the same ($p > 0.05$). In semester IV semester of the study, the results of group № 1 are significantly better than those of the respondents from group № 2. The difference between the results of the groups in semester IV is 13.82 s, where $t = 2.20$ and $p < 0.01$. The established result indicates a more effective method of training by using CrossFit than the methods used in the current training program.

Discussion

Research by scientists Bazilevich N.O., et al., conducted in 2016 (Bazilevich et.al., 2016; Oderov et. al., 2019, 2020), proved that the modern conditions of conducting military operations require a high level of development of general physical qualities and applied physical skills from young people. Special attention is paid to the formation of general and special endurance (Romanchuk et. al., 2022).

The scientific works of Klymovych V., Oderov A., Korchagin M., Olkhovy O. and Romanchuk S. (Klymovych et. al., 2016, 2019) prove that military servicemen perform their military duty fully equipped and under certain climatic conditions, as well as in urban areas. All these require systematic training with weights, exercises with oxygen starvation, the use of equipment in training sessions and exercises similar in structure to the conditions of military service.

The conducted analysis of resources allows us to state that in the leading NATO countries, great attention is paid to the development and implementation of various methods and programs of physical training. One of the leading places among them is taken by programs that include elements of CrossFit (Grier et. al., 2013; Poston et. al., 2016, 2017).

In scientific papers of Grier, T., Canham-Chervak, M., McNulty, V., Jones, B.H., O'Connor, F.G., Deuster, P.A., Barrett, J., Kane, S.F., the impact of such programs on the injury rate of US Army servicemen and their physical fitness were studied. The occurrence of the risk of injury actually does not differ between those who practised according to a special program and those who did not use

elements of CrossFit in their training. At the same time, the risk of injury was significantly lower among those who trained with weights (Grier et. al., 2013).

Scientists N. Bazilevich, O. Tonkonog, O. Romanyuk claim that CrossFit makes it possible to continue exercising for a long period of time, strengthen and improve the overall physical endurance of the body, improve the work of the cardiovascular and respiratory systems, increase the level of muscle strength, strengthen one's joints, optimize one's weight, improve one's flexibility and acquire an athletic figure (Bazilevich & Tonkonog, 2016). CrossFit includes training in various formats, functional gymnastics, balance training, and various cyclical exercises. It is a functional multisport (CrossFit) that involves such methods of sports training as continuous, interval and competitive (Stepanova, Dutko, et al., 2018; Pylypchak, 2017) (Stepanova et. al., 2018).

Poston, W.S.C., Haddock, C.K., Heinrich, K.M., Jahnke, S.A., Jitnarin, N. (Haddock et. al., 2013) prove that high-interval training has several advantages over traditional military fitness programs. Instead of changing the training to maximal fitness preparations, such as aerobic endurance, these workouts are designed to increase overall fitness. Other challenges associated with traditional approaches include the relevance of fitness tests to current combat requirements, the perception that military physical education is aimed at passing tests for service suitability, the fact that combat training requires more than just aerobic endurance. All this justifies the perspective of using training with CrossFit elements.

Scientists O'Hara R. B., Serres J., Traver K.L., (...), Vojta C., Eveland E. conducted a comparative analysis of unconventional training programs for Air Force personnel. Data from the professional literature confirm the effectiveness of strength training with weights on feet, CrossFit training, dumbbell training, and agility training. It was concluded that further study of these types of training is necessary (O'Hara et. al., 2012).

Our comparative analysis of the dynamics of cadets' physical development confirmed the research of scientists Gaponenko H., Romaniuk O., Kovalchuk O. et al. (Gaponenko et. al., 2018) that CrossFit is a training system that includes elements of weightlifting and athletics, bodybuilding, fitness, classical gymnastics, dumbbells and other types of sports. This intense, diverse, interesting, useful training has a positive effect on the performance of cadets, improves their physical health, well-being and increases their work efficiency.

The available works of A. Petrova, T. Bala, et. al., 2022 (Petrova et. al., 2022) prove the effectiveness of the use of CrossFit and testify to an increase in the physical fitness of schoolchildren and the level of physical health of high school students as "below average". In terms of age, there is mainly an improvement in the boys' results in both the main and control groups. It was established that after the introduction of the CrossFit variable module, the level of the boys' physical health from the main group increased by 1 point and equalized 3 points,

which corresponds to the “average” level. The exception is 17-year-old boys who did not show any improvement in the indicators on the rating scale, equaling 3 points before the experiment, which corresponds to the “average” level of physical health. The results of the young men from the control group, reflecting their level of physical health, remained unchanged compared to the initial data. Thus, the conducted studies testify to the positive impact of CrossFit exercises on the level of physical health of 16–17-year-old students, which makes it possible to recommend that teachers include the developed version of the CrossFit module in the educational process of physical training of high school students.

Researches of Okhrimenko I.M., Hrebeniuk M.O., Borovyk M.O., (...), Kuzenko Y.I., Korak Y.O. (Okhrimenko et. al., 2021) were devoted to the assessment of the impact of CrossFit classes on cadets’ health. At the end of the experiment, it was established that the level of physical health of cadets who attended CrossFit classes was significantly higher than that of cadets who were engaged in a standard physical training program. The most pronounced effect was found on the functional capabilities of the cardiovascular, respiratory and muscular systems, and stabilization of the body weight of the cadets from the experimental groups.

The results of the scientific works of Stepanova I., Dutko T., Zhorova O. (2018) and Yagodzinsky V.P., Geiko O.A., Zarichanskyi O.A. (2019) were confirmed regarding the possibility of increasing the efficiency of the training process by using a system of non-specialized high-intensity training, namely CrossFit. It has been established that this system has a positive effect on the level of physical fitness of servicemen, strengthens their motivation for physical culture and sports activities, promotes the mastery of certain knowledge of modern approaches to the organization of physical training, skills and abilities of independent training, and leading a healthy lifestyle (Hamzaoui Hakim et. al. 2021; Yagodzinsky et. al., 2019).

In our opinion, the use of CrossFit exercises while organizing and implementing physical training will ensure high-quality, professional training of young people, especially during preparation for participation in hostilities, and while conducting combat exercises in accordance with the appointment and position held in future military life.

Conclusion

Comparing the results of indicators of the main physical qualities of young people, who in the process of initial education were systematically engaged in CrossFit and those who were engaged in the existing program of physical edu-

cation in higher educational institutions, it can be concluded that the use of CrossFit leads to better results concerning the main physical qualities ($t = 4.44$, $p < 0.001$).

STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. According to protocol of the sitting of Department of Physical Education, Special Physical Training and Sports No. 7 dated 6.03.2023 of Hetman Petro Sahaidachnyi National Army Academy as part of the Head of committee: PhD in Physical Education and Sports, Associate Professor, M. Kuznetsov; Members of committee: PhD in Physical Education and Sports, Associate Professor, O. Nebozhuk; PhD in Physical Education and Sports, Associate Professor, V. Klymovych (Lviv, Ukraine) the conclusion as for release of the article *The Influence of CrossFit on the Dynamics of Physical Fitness Indicators of Youth* was formed: to recommend suggested investigation to the printing in Journal "Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe".

DECLARATION OF CONFLICTING INTERESTS

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Wojciech J. CYNARSKI*

AIKI AND IDO SWIMMING. CONNECTIONS BETWEEN SWIMMING AND MARTIAL ARTS

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Pływanie *aiki* i *ido*. Związki pływania ze sztukami walki

Streszczenie

Historyczne związki pływania ze sztuką wojenną są niewątpliwe. Umiejętność pływania jest wciąż cenna nie tylko w marynarce wojennej (co jest dość oczywiste), pokonywanie przeszkód wodnych wymaga się od żołnierza wojsk lądowych, a siły specjalne uczą dodatkowo sprawnego nurkowania. W okresie japońskiego średniowiecza samuraj powinien być, dla pełnego wykształcenia w umiejętnościach wojennych (jap. *bugei*), poznać zasady pływania w zbroi i z bronią (jap. *suei-jutsu*) i zdobyć odpowiednie umiejętności praktyczne. Współcześnie zaś, w praktyce sztuk walki i sportów walki, pływanie zalecane jest jako znakomity sport uzupełniający.

Czy zachodzą inne jeszcze związki pomiędzy historią, filozofią i kulturowym dziedzictwem sztuk walki a pływaniem? W analizach wykorzystane zostaną pojęcia z tradycji japońskich sztuk walki oraz odniesienia do kilku odmian sztuk walki o japońskiej proweniencji. Autor przedstawia tu swe autorskie koncepcje wynikające z doświadczenia własnego, obserwacji i przeprowadzonych analiz.

Słowa kluczowe: sport, sztuki walki, rekreacja ruchowa, rehabilitacja, pływanie.

Abstract

The historical connections between swimming and the art of war are unquestionable. The ability to swim is still valuable not only in the navy, which is quite obvious. Overcoming water obstacles requires the same from a soldier of the land forces, and special forces additionally teach efficient diving. During the Japanese Middle Ages, a samurai should, for a full education in martial skills (in Japanese: *bugei*), learn the rules of swimming in armour and with weapons (in Japanese:

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suei-jutsu) and acquire appropriate practical skills. Nowadays, in the practice of martial arts and combat sports, swimming is recommended as an excellent complementary sport.

Are there other connections between the history, philosophy and cultural heritage of martial arts and swimming? In further analyses, concepts from the tradition of Japanese martial arts and references to several varieties of martial arts of Japanese origin will be used. The author presents here his own concepts resulting from his own experience, observations and conducted analyses.

Keywords: sport, martial arts, physical recreation, rehabilitation, swimming.

Introduction

Swimming is a form of physical culture. It is practised for various purposes. It is an Olympic **sports discipline** (since 1896), but also a valuable form of physical education and a preferred recreational sport (Jankowski & Krawczyk, 1997; Cynarski, 2017: 151–156). In the last hundred years there have been changes in the technique of swimming. It wasn't until 1935 that Volney Wilson invented the butterfly style, also known as the dolphin. Here, the footwork was changed later. To this day, there are 4 main styles in sport – crawl, breaststroke (classical), dolphin (butterfly), backstroke, and medley (combined applications of the four styles in competition) (more: Mauss, 1973; Colwin, 2002; Escalante & Saavedra, 2012). It is also indicated as a valuable **complementary sport** for people following the path of martial arts. It provides the improvement of such abilities as “coordination and fluidity of movement, endurance and efficiency of the body; relief of the spine and joints, and relaxation” (Cynarski, 2009: 98; more: Cynarski, 2019: 223–236).

For elderly population, people who are seriously ill or need rehabilitation, swimming is recommended. Here, the effort according to its volume (time) and intensity (speed of movement in water) can be properly dosed. The author tested it on himself in just such an application, i.e. that it is an excellent **physical recreation** or also **physical rehabilitation**. It can also be a competitive training on one's own measure, i.e. according to one's own current capabilities. And in this sense, swimming is part of the educational systems of martial arts according to their general theory (the General Theory of Fighting Arts) and their meaning for the area of physical culture (*cf.* Cynarski *et al.*, 2014; Cynarski, 2019).

Let us explain the meaning of two important concepts from the world of martial arts. The Japanese concept of **aiki** is translated as “harmonizing / balancing opposing energies”. *Ai* means “in accord” and *ki* means “breath” or “energy”. *Ki* (*qi* / *chi*) manifests itself in coordinated movement or as the circulation of “internal energy” in the body – blood and lymph, but also nerve impulses and “air” / oxygen. On the other hand, **ido** (Jap. *idō*) is an ambiguous concept. Here we will use this term in the literal sense of a smooth, continuous, “perpetual motion” (Cynarski, 2022: 142–158). This translates into the practice of traditionally practised martial arts. But how does this translate to the way you swim?

Method

The first question was: What is the relationship between swimming and martial arts? In further analyses, concepts from the tradition of Japanese martial arts and references to several varieties of martial arts of Japanese origin were used. The author presents here his own concepts resulting from his own experience, observed and conducted analyses. It is the experience of over 40 years practising martial arts (*aikijutsu / aikidō, idō, judo, jūjutsu* and others) and swimming. It is, in particular, participatory observation / observant participation (Green *et al.*, 2019) and analysis of a broad discourse in the undertaken thematic area (Krippendorff, 2004).

Aiki swimming

Good coordination of movement with breath makes it possible to call a given activity *aiki* activity – an activity that implements the principle of harmonizing energy. That is, similar to *aikido (aikidō)*. These are – as in the Taoist opposition *Yin-Yang* (Japanese *in-yō*) – inhalation and exhalation, rising and falling, pulling and pushing, hardness and softness, masculine and feminine elements, etc. As *aiki* stems from the concept of philosophical Taoism, **strenuous effort should also be avoided** when running or swimming. So it should be a moderate pace that is good for recreation and physical rehabilitation. Depending on how you feel, you can even change the butterfly / dolphin style (requiring more effort / energy) to breaststroke or backstroke and continue swimming at a leisurely pace, as if walking.

In *aiki* swimming, the term “*ki*” means both “coordinated movement” and the circulation of oxygen through the breath, and specifically the coordination of movement with breath. Then, the kinetic action and physiological functions of the body render an optimal effect. Concentrating on the smoothness of movement in coordination with one’s breath is more important than focusing on the strength or speed of action. Breathing is particularly important here, which is analogous to the issues of relaxation in yoga and controlled breathing in traditional martial arts (*cf.* Krenc, 2001).

Taoism recommends avoiding extremes and operating in accordance with the laws of nature; therefore, it is in contradiction with sporting achievement. By the way, the exercises of the systems stemming from this philosophy are effectively used in rehabilitation and even in therapy (in particular *Yang taijiquan* and various types of *qigong* breathing exercises) (Włodyka & Cynarski, 2000; Maciaszek, 2009; Cynarski & Sieber, 2015; Cynarski, 2018; Skrzeta *et al.*, 2021). Terry Laughlin (2011) also points to the opposition of scientific knowledge and

intuition, as well as the ease and burden of practical experience, resulting from Taoism. All this finds a state of harmony in the *Tao* and an application in the act of swimming.

What is, sometimes demonized, *ki* (Chinese *chi*, *qi*)? It is like additional strength resulting either from good psychophysical coordination of the body and mind (mental attitude and eye-hand coordination, as in *aikibudo*, *aikido*, *ai-kijutsu*, but also in *karate* and other martial arts), or the circulation of energy in the body (nerve impulses, blood and lymph). In acupuncture and acupressure, it is especially about correcting disorders in this area. Good health is when breath (oxygen) and this internal energy (circulation of impulses and body fluids) function efficiently / remain in a state of homeostasis. On the other hand, activities performed by humans in the external environment should be harmonized with this natural environment. But this does not mean that man should remain passive towards the elements of nature. However, he shouldn't fight them when he doesn't have to.

***Ido* swimming**

How to achieve the *ido* swimming skill? Try to make your swimming movements so as not to dissipate energy and splash water. It is supposed to be smooth movement in the water – quietly (without splashing) and without haste. This idea of economy of movement, without unnecessary dissipation of energy, is close to the principle of *seiryokuzen'yo* (obtaining maximum effect with minimum effort, i.e. economy of movement) and the principles of *jū-no ri* (flexibility) and *wa-no ri* (harmony in the interaction of body and mind). And these are the principles of *jūjutsu* – the old Japanese “art of flexibility”.

In the case of the breaststroke (classic style) and the open frog (we breathe above the water), it is relatively easy; all limbs move under the surface of the water. It is more difficult to swim with other strokes. In front crawl and open front crawl we try to put our hands into the water without hitting the water with them. Both in front crawl and backstroke we do not hit the surface of the water with our legs. Slight bending of the knees makes us swim noiselessly. In the case of working the hands in the backstroke, their alternate pulling out of water must inevitably cause slight splashing / splashing, but also here we do not hit the water surface with our arms.

Butterfly/dolphin is a relatively difficult style on its own. All the more so it is not easy to achieve fluidity and the ability to enter the water with your hands without splashing. On the other hand, the movement of the legs, modelled on the movement of the dolphin's tail, also causes waves and splashes. However, the guiding, general rule here is **moderation, fluidity, harmony**. So the opposite

of the slogan present in competitive sport and the Olympic motto “Citius, Altius, Fortius” (“**Faster, Higher, Stronger**”). In *ido* swimming, you should strive for a kind of calm walk on the surface of the water. It is supposed to be a **state of harmonization** with water, which is not a natural element of man, although all biological life on Earth came out of water. This can be regarded as a kind of atavistic activity.

How to exercise? The author prefers swimming in a “variable style,” i.e. alternating crawl, dolphin, breaststroke and backstroke. Overcoming the length of the pool with successively mentioned basic styles allows the effort (load) to be distributed successively to different parts of the body. In addition, it is possible to swim sideways (crawl on the side), open breaststroke (breathing above the water), open front crawl, doggie, backstroke with only legs, diver (underwater), various ways of practising swimming with a board, which causes yet another work of muscles and other muscles’ parts.

How much should it be – what amount of training / rehabilitation load? The author prefers about 35 minutes of relatively continuous swimming once or twice a week. This is, for example, a total of 20-24 standard pool lengths (25 m) with rest breaks. If we add a shower, Scottish whips and a Jacuzzi, we get, in addition to recreational exercise, also hygienic and physiotherapeutic values (water massage), a **hardening and wellness treatment**. In addition, wiping with a towel from the lower limbs towards the lymph nodes is an additional self-massage.

Discussion

From the perspective of sports training theory/sports science, both talent (psychophysical predispositions), teaching and training are taken into account; a number of success factors lead to the best results in sports competition (*cf.* Born *et al.*, 2020; Layne *et al.*, 2020). What is important here is the level of motor skills, personality traits, the influence of training methods, fatigue, stress, etc. For example, in their work, Fernandes *et al.* (2023) point to such factors as: coordination, energy cost, fatigue, technical proficiency, velocity, swimming technique, and force.

On the other hand, it is difficult to overestimate swimming as a multistimulating and multifaceted exercise in the field of physical culture. This applies to a wide area: from physical education, through physical recreation to physical rehabilitation (*cf.* Becker, 2009; Escalante & Saavedra, 2012; Lee & Oh, 2015). This is generally consistent with the observations and conclusions of the author of this study.

Even for physically weak people and chronically ill patients, regular exercise 2–3 times a week at a rather moderate intensity is recommended (*cf.* Woźniew-

ski, 2017; Junger *et al.*, 2019; Junger *et al.*, 2020). Swimming in a calm, smooth way, without forcing the body, fits well with this type of recommendation.

The novelty of this work is the original idea of applying the philosophical and tactical concepts of martial arts (*aikijutsu*, *jujutsu*, *judo-do / ido* (*Vide*: Cynarski, 2022)) to swimming, especially recreational and rehabilitation. This does not exclude other possible uses of this form of physical culture.

The limitation for inference is the lack of support for the theses presented here with quantitative empirical research. So we are at the stage of hypotheses.

What would be possible directions for further research? *Aiki* and *ido* swimming can be assessed by observation (assessment by an external observer), and also in a fully objective way by measuring the noise (water splashing). The ideal is complete silence, noiseless movement in the water. This kind of objectification would be a possible direction for further research on this issue. Logical deduction indicates that this more economical move should translate into better swimming performance (a competitive sport application). But that too would require further research.

Summary and Conclusions

Swimming according to the principles of *aiki* and *ido* improves the overall fitness and efficiency of the body, similarly to other methods of swimming. However, in this case, it is a valuable recreational or rehabilitation exercise, which also brings hygienic and physiotherapeutic values (water massage), as well as a hardening and wellness treatment. The Taoist principle of not pushing the body is implemented here, as it is recommended to patients with oncological diseases, cardiovascular diseases and, in many cases, physical rehabilitation (Woźniewski, 2017). This principle is manifested in the execution of movements in a smooth and harmonious way. This is how swimming (*aiki* or *ido*) can be successfully used by the elderly, chronically ill and convalescents.

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LIKE, SHARE OR COMMENT 'TILL WE DIE: ANALYZING FOOTBALL FANS' ENGAGEMENTS, IDENTITY AND LOYALTY ON SOCIAL MEDIA

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Polub, udostępnij lub skomentuj. Do ostatniego tchu: Analiza zaangażowania, tożsamości i lojalności fanów piłki nożnej w mediach społecznościowych

Streszczenie

Kluby piłkarskie coraz częściej dostrzegają znaczenie sieci społecznościowych jako kluczowych narzędzi komunikacji i interakcji z fanami, zarówno online, jak i offline. Celem niniejszego badania było opracowanie wszechstronnego modelu koncepcyjnego, który analizuje złożone wzajemne powiązania między zaangażowaniem fanów, tożsamością zespołu i lojalnością w kanałach mediów społecznościowych, ze szczególnym uwzględnieniem piłki nożnej. Dane zostały zebrane za pomocą ankiety internetowej, w której wzięło udział 264 zapalonych fanów piłki nożnej związanych z trzema czołowymi klubami tureckiej Superligi piłkarskiej. Pomiar zaangażowania w media społecznościowe obejmował trzy podwymiarzy: konsumpcję, wkład i tworzenie. Hipotezy przetestowano za pomocą eksploracyjnej analizy czynnikowej, potwierdzającej analizy czynnikowej i modelowania równań strukturalnych. Wyniki potwierdziły cztery z siedmiu hipotez, dostarczając dowodów na znaczące powiązania między badanymi konstruktami. Odkrycia ujawniły znaczące powiązania między zaangażowaniem fanów, identyfikacją i zachowaniami lojalnościowymi, takimi jak polubienie, udostępnianie i komentowanie na platformach społecznościowych. Wyniki tych badań

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niosą ze sobą wiele implikacji, oferujących istotne spostrzeżenia dla menedżerów piłkarskich i marketerów sportowych, którzy chcą zwiększyć zaangażowanie fanów poprzez wdrożenie zaawansowanych strategii w mediach społecznościowych. Co więcej, badanie to pogłębia naszą wiedzę na temat nawyków fanów w mediach społecznościowych, dostarczając cennego zasobu specjalistom ds. marketingu, którzy wykorzystują sieci społecznościowe w swoich strategiach marketingowych.

Słowa kluczowe: marketing sportowy; media społecznościowe; identyfikacja z zespołem; zaangażowanie fanów; lojalność fanów.

Abstract

Football clubs have increasingly recognized the importance of social media networks as crucial tools for communication and interaction with their fans, both online and offline. The purpose of this study was to develop an all-encompassing conceptual model that scrutinizes the complex interconnection among fan engagement, team identity, and loyalty on social media channels, with a particular focus on football. Data were collected via an online survey involving 264 avid football fans associated with three prominent clubs in the Turkish Football Super League. The measurement of social media engagement encompassed three sub-dimensions: consumption, contribution, and creation. Hypotheses were tested using exploratory factor analysis, confirmatory factor analysis, and structural equation modeling. The results confirmed four out of seven hypotheses, providing evidence of significant associations between the constructs under investigation. The findings revealed meaningful connections between fan engagement, identification, and loyalty behaviors, such as liking, sharing, and commenting on social media platforms. The findings of this research bear multiple implications that offer significant insights for football managers and sports marketers seeking to enhance fan involvement through the implementation of advanced social media strategies. Furthermore, this study enhances our understanding of social media habits among fans, providing a precious asset for marketing professionals who utilize social media networks in their marketing strategies.

Keywords: sports marketing; social media; team identification; fan engagement; fan loyalty.

Introduction

Football has emerged as a significantly consequential constituent of our society, engrossing an expansive proportion of the global populace, equating to 40%, thereby solidifying its stature as the preeminent sport worldwide (Nielsen Company, 2022). Over the past two decades, various changes within the realm of football have influenced the dynamics between clubs and their fans. In today's digital landscape, the internet and social media platforms have become indispensable tools for information retrieval, communication, and the exchange of opinions. Sports enthusiasts' daily experiences are significantly impacted by the prominent role social media plays, including widely used platforms such as Facebook, Instagram, YouTube, and Twitter. Among these social media platforms, Facebook emerges as a prominent locus for football-oriented interaction. It has attained paramount status as a preferred platform for global football afi-

cionados, attracting millions of users who actively participate in monthly discourse, disseminating their perspectives, images, and videos pertaining to teams, matches, and clubs (Statista, 2018). Football clubs can leverage social media to connect with their fans in more ways than one. Additionally, it also gives club management an opportunity to understand the motivations, loyalty, and relationships of their fan base through insights gained from social media. Effective media relations and personalized connections are essential for football club managers who seek to communicate effectively with their fans or consumers. Fans establish engaging relationships with their preferred teams or clubs through social media, both online and offline. Research on football enthusiasts, who are people that show an interest in and follow a specific team or players, accentuates the communal sentiments such as compassion, backing, affiliation, and companionship that exist among the fans and the team they endorse (Depken, 2001; Giulianotti, 2002; Tapp & Clowes, 2002).

Crucially, sports fans often share these experiences within tightly knit social groups connected through various social networks (Benigni et al., 2009). Although sports communication, team identification, and football fan loyalty have been widely researched, there has been a lack of academic focus on comprehending the social media content that is linked to football fan endorsement. Social media platforms offer diverse communication features, providing an extensive array of media options encompassing textual exchanges, messaging, and content streaming. Given the competitive nature of social media, the potential to cultivate fan engagement through these platforms is highly promising for sports executives (Stavros et al., 2013).

Football clubs have taken on the responsibility of being content creators, foregoing conventional media channels and mastering the art of connecting with their diverse international fan base or supporter network through social media. The evolution of social media has presented football clubs with significant opportunities to connect with fans. This study seeks to explore the typology of relationships between football clubs and their supporters within the context of social media platforms. The objective is to evaluate how social media can provide an advantageous space for conducting marketing strategies that create lasting value for sports clubs/companies as well as for sports fans/customers. Conceptualizing and measuring social media engagement, team identification, and fan loyalty within the sports management literature has garnered limited attention so far.

This study aims to investigate the significant impact of social media on sports clubs' marketing strategies, with a focus on its effects on brand image and fan engagement. The study aims to analyze the consequences of the broad acceptance of social media, particularly in devising plans that seek to promote deeper fan involvement and foster stronger relationships between football supporters and clubs.

Theoretical Framework and Hypotheses

Social Media Engagement

The term “social media engagement” has recently gained substantial attention. Consumer-generated media is a collective term for various online sources of information that consumers create and share any subject of interest with others. Social media platforms have emerged as potent tools for augmenting public communication and participation. Moreover, they have become an indispensable resource for consumer decision-making and crucial for establishing and nurturing brand-customer relationships (Pentina et al., 2018). Athletes, sports clubs, and sports fans actively use social media platforms to exchange information about ongoing sporting events. Players and clubs, in particular, maintain direct contact with their fans and supporters through such channels. Social media platforms facilitate user networking, relationship building, communication, and information exchange within networks of users or fans.

In recent years, social media has become a regular component of direct marketing strategies employed by sports teams and football clubs. In 2018, Facebook had a massive user base of 2.3 billion globally, making it a highly favored new media platform and a powerful tool for brand advertising (Statista, 2018). Sports clubs swiftly adopted Facebook as a communication channel with their fans, benefiting from the ease of generating new content during the season. Consequently, Facebook has proven to be an efficient and effective means, personally engaging fans and reinforcing their connection with the team. Consequently, establishing a connection with a team on Facebook is likely to be strongly associated with team identification. Brands have primarily focused on Facebook as a vital marketing channel to enhance consumer engagement and brand awareness (Malhotra, 2013; Rohm et al., 2013). According to Muntinga et al. (2011), entertainment has a significant role in stimulating consumption, contribution, and creation as dimensions of participation. Thus, this study investigates behaviors related to consumption, contribution, and creation, which commonly represent the phenomenon of engagement. It is anticipated that a relationship exists between social media engagement and its sub-dimensions of consumption, contribution, creation, and team identification.

Building upon the literature background and in pursuit of addressing the research questions, specific hypotheses are proposed:

H1a. The consumption sub-dimension of social media engagement is positively related to team identification.

H1b. The contributing sub-dimension of social media engagement is positively related to team identification.

H1c. The creation of a sub-dimension of social media engagement is positively related to team identification.

Consumption, Contribution and Creation

Social media platforms encompass interactive and digital technologies that facilitate the exchange of ideas, content creation, and individual or group interactions among users. Interaction on social media involves mutual sharing of experiences, ideas, information and impressions. Users actively engage with content through comments, likes and ratings, establishing social connections with one another. Serving as a communication and interaction medium, social media accommodates various forms of media, including images, audio, text, and/or video, regardless of the platform used.

Consumer online brand-related activities (COBRAs) is a theoretical framework that elucidates consumer behavioral engagement with brands on social media. Consumers engage in a variety of COBRAs related to brands, which range in terms of the level of consumer engagement with social media and involve the consumption, contribution, and generation of media content. Consumer COBRAs denote the minimum brand-related online activity, involving engagement with content without actively contributing or creating it. It is engaging in various activities such as viewing branded videos created by customers, companies or clubs, browsing through product or service evaluations and scores submitted by others, and taking part in discussions or feedback on online forums that are related to clubs. It also entails downloading and sharing pictures, text or videos (Muntinga et al., 2011).

Consumption represents the starting point of social media hierarchy and offers an opportunity for football fans and consumers to express their behavior on social media. It is the most prevalent engagement among fans and requires relatively less active involvement as individuals passively consume content. Therefore, fans can consume diverse content that aligns with their interests and provides entertainment. Consumption behavior on social media involves reading, watching, listening, or downloading digital content. Consumers' behavior can be less active or receptive when they only passively observe or use content. This is known as a lower level of interaction according to studies (Evans, 2010; Li & Bernoff, 2011; Muntinga et al., 2011).

Engaging in discussions related to the brand on social media platforms, leaving comments on brand-related content such as images, text, or videos, and providing ratings for products or brands on social media are all examples of contributing to a brand's online presence. Contribution involves active creation of content and represents the highest brand-related social media activity. Users actively generate and disseminate brand-centric content, which is subsequently consumed and contributed to by others (Muntinga et al., 2011).

Creation refers to the production of brand-related content by consumers themselves. This can take the form of creating online brand communities, blogs,

written texts, generated videos, and/or music (Evans, 2010; Muntinga et al., 2011). As this activity entails a significantly higher barrier and requires substantial consumer effort, it necessitates a greater level of consumer involvement (Evans, 2010). The motivation underlying this deep engagement is often a means for consumers to relax and escape from reality (Courtois et al., 2009). Content creation within social networks, such as videos (Li & Bernoff, 2011), can be a powerful tool for self-expression, ultimately leading to recognition by other users (Evans, 2010). Consumers who participate in the creation phase are known for being extremely active on social media and often take charge of their personal blogs (Li & Bernoff, 2011). As previously mentioned, contribution enables social interaction among consumers, whereas creation facilitates social participation (Evans, 2010).

Therefore, we present the following hypotheses based on the reasoning and justifications, which suggest that social media engagement has the potential to influence fan loyalty in terms of consumption, contribution, and creation.

H2a. The consumption sub-dimension of social media engagement is positively related to loyalty.

H2b. The contribution sub-dimension of social media engagement is positively related to loyalty.

H2c. The creation sub-dimension of social media engagement is positively related to loyalty.

Team Identification

Team identification refers to the extent of psychological attachment experienced by sports fans toward their preferred team (Kim & Kim, 2009; Wann & Dolan, 1994). It represents a collective construct of social success, reflecting the sense of belonging and emotional connection individuals have with their team. Fans with a powerful sense of team identity offer several benefits to sports organizations, including diminished price sensitivity and an inclination to participate in game attendance and team-related acquisitions (Wakefield & Wann, 2006). Notably, team identification possesses the ability to elicit emotional responses due to the heightened personal commitment it entails (Sutton et al., 1997). Relationships, commitment, and emotional involvement are commonly associated with the concept of identification in the sports domain (Ashforth & Mael, 1989).

People's loyalty towards sports team usually arises from attributing functional, emotional, and symbolic importance to the team. The inclination to support a team is shaped by numerous aspects, including the team offering an outlet for escapism, their track record of triumphs, approval from peers, experiencing the success of others, reliving past glories, and shared affinity with the

team's key players (Funk & James, 2006). To create a strong bond with fans, sports managers must recognize and understand different factors that influence fans' identification with a team. When these factors are considered collectively, they shape fans' emotional connection and overall perception towards various aspects and events related to the team. Manageable aspects, such as personnel decisions and the quality of peripheral game experiences, can be leveraged to enhance team identification. The hypothesis suggesting that team identification can impact fan loyalty is expressed as follows:

H3. Team identification is positively related to fan loyalty.

Fan Loyalty

Football fans, also known as supporters, exhibit a distinct characteristic of being highly passionate about their respective clubs (Roose et al., 2010). According to the study by Norris et al. (2014), "a true football fan is someone who constantly thinks and talks about sports, even when they are not actively watching, reading, or listening to a sporting event. These fans demonstrate consistency, dedication, and loyalty through three primary forms of devotion." Fans show their passion for the sport and their beloved team by actively pursuing their loyalty through different activities such as buying tickets or team merchandise (Stewart et al., 2003; Johnston, 2004).

The fervor and strong allegiance demonstrated by sports fans have fostered the conventional belief that they exhibit unwavering loyalty to their chosen sports clubs (Johnston, 2004). Fan engagement plays a crucial role in providing sports clubs with strategic advantage. It encompasses the interaction with the brand's personality, which drives individuals to actively consume club merchandise and avail themselves of the offered services (Capella, 2002). Regarding sports supporters or fans, their level of behavioral commitment can be evaluated by their attendance or viewership frequency throughout a season, participation in home or away games, possession of season tickets, or financial contribution towards following a particular team or sport (Matsuoka et al., 2003).

According to Kozinets (2002; 2012), online communities can socially reinforce consumption, leading to increased brand loyalty and usage. In the context of sports consumers, the behavioral component of loyalty encompasses factors such as the number of tickets purchased, product acquisitions, and television viewership. The attitudinal component examines consumer opinions and sentiments toward a team (Dietz-Uhler et al., 2000; Wann & Dolan, 1994; Johnston, 2004). The conceptual model developed on the basis of the aforementioned hypotheses will be empirically tested using the proposed framework.

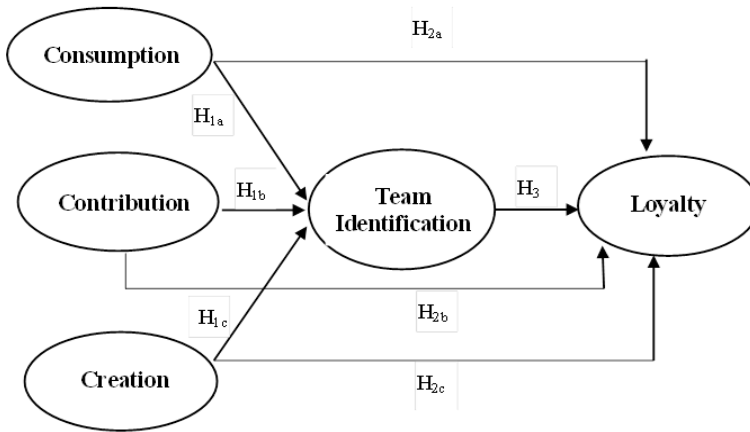


Figure 1
Conceptual Model

Methods

Participants

The study sample comprised individuals identified as football enthusiasts residing in Eskişehir, situated within the Central Anatolia region of Turkey. Employing a convenience sampling method, the investigation specifically targeted fans of the foremost professional football clubs in the country, namely Galatasaray, Beşiktaş, and Fenerbahçe. The selection of Eskişehir as the research site was predicated on its substantial repository of fans associated with major football teams across Turkey. All participants voluntarily participated in the study, and the final dataset encompassed 264 individuals who diligently completed the survey. Data collection occurred between October 2018 and January 2019. Most participants were drawn from the fervent followers of one of the three preeminent clubs competing in the Turkish Football Super League. The mean age of the sample was 24.97 years, wherein males accounted for 75.8% of the participants, the majority of whom were unmarried (83.8%). The results showed that a vast majority of the respondents, about 71%, were enrolled in universities. Around 13% were working as civil servants, and approximately 6% were employed in either public or private sectors. The mean age of the participants was 24.97 years ($SD = 9.12$), and the age range is from 16 to 67 years old. An impressive 84.5% of the participants were pursuing or had achieved a university-level education, while 8.3% had already obtained a master's or doctoral degree. Only a small percentage of 5.7% had limited their education to high school, while a mere 1.5% had attained qualifications below secondary school level. In rela-

tion to the mean monthly earnings, 41.7% of participants disclosed a monthly household income below \$350, while 33.3% delineated a monthly household income ranging from \$351 to \$700, and 25% reported incomes surpassing \$701 per month. In this study, participants were requested to identify their preferred sports team and assess the team based on fan identification inquiries. Ultimately, the distribution of fan loyalty among the contenders was as follows: the fanbase distribution among team participants is lead by Galatasaray (42%), followed by Fenerbahçe (34.8%) and Beşiktaş (23.2%) at the team level. It is important to mention that utilizing the above-mentioned football clubs as examples may come with certain limitations. These constraints will be further discussed in the following section that delves into the study's limitations.

Measures

Social media engagement was assessed using a 7-point Likert scale comprising 12 items that encompassed three sub-dimensions: consumption, contribution, and creation. The measurement items for social media fan engagement were adapted from established sources; specifically previous research studies (Muntinga et al., 2011; Schivinski et al., 2016; Vale & Fernandes, 2018). Similarly, the items gauging team identification were derived from measures employed in prior scholarly investigations (Dalakas & Melancon, 2012; Gwinner & Swanson, 2003). According to these studies, fan or team loyalty is characterized by the strong inclination of supporters to display unwavering devotion and commitment towards their favored football club. To measure this concept, we utilized a loyalty scale composed of five items, similarly to previous studies (Tsiotsou, 2013; Yoshida et al., 2013; Zeithaml et al., 1996). Our objective was to assess the probability of supporters continuing to show loyalty towards their team.

Results

Measurement Model and Structural Model

In the initial stage, a confirmatory factor analysis (CFA) was conducted to establish the validity and reliability of the scale items based on their respective structures within the scope of this research. Subsequently, structural equation modeling (SEM) was employed to analyze the collected data (Anderson & Gerbing, 1988; Tsiotsou, 2013; Yoshida et al., 2013). Furthermore, the data underwent a test to ensure that it met the essential assumptions required for exploratory factor analysis (EFA) using SPSS software to identify the factors associated with social media engagement, fan identification, and loyalty. The univariate normality of the observed variables was assessed using Skewness and Kurtosis, both of which fell within the acceptable range (< 2).

In addition, the three scales were separately analyzed using the maximum likelihood method of estimation and the varimax rotation. Kaiser-Meyer-Olkin (KMO) test values were determined as 0.904 for social media engagement, 0.870 for team identification and 0.642 for loyalty. All Bartlett's Tests of Sphericity were statistically significant ($\chi^2 = 1961.476$, $df = 28$; $\chi^2 = 1839.628$, $df = 10$; $\chi^2 = 198.502$, $df = 3$, respectively) at a significance level of $p < .01$. The three factors identified for social media engagement (consumption, contribution, and creation) explained 84.2 percent of the total variance, while team identification and loyalty were represented as unidimensional constructs, explaining 71.2 percent and 66.4 percent of the variance, respectively.

After conducting the EFAs, the measurement validity of each structure in the structural model was evaluated using confirmatory factor analysis (CFA). Hypothesis testing was performed using a structural equation model with LISREL 8.80 (Tsotsou, 2013; Joreskog & Sorbom, 2006). CFAs were conducted for three scales: social media engagement, team identification, and loyalty. In evaluating the model fit, apart from chi-square value, six different goodness-of-fit indices were employed. Table 1 provides detailed information about these indices. Initially, CFA was applied to the three-dimensional social media engagement scale employed in this study. The overall model fit indices ($\chi^2 = 52.11$, $df = 17$, $p < 0.01$, $\chi^2/df = 3.06$, CFI = 0.99, GFI = 0.95, AGFI = 0.90, NFI = 0.99, IFI = 0.99, RMSEA = 0.08, SRMR = 0.02) indicated that the proposed model exhibited an excellent fit.

Table 1
Model fit index values of confirmatory factor analysis

Index	Good fit	Rationale
χ^2/df	$0 \leq \chi^2/df \leq 5$	Wheaton et al. (1977)
RMSEA	$0 \leq RMSEA \leq 0.08$	Steiger (2007)
SRMR	$0 \leq SRMR \leq 0.08$	Hu and Bentler (1999)
CFI	$0.90 \leq CFI \leq 1.00$	Steiger (2007)
GFI	$0.90 \leq GFI \leq 1.00$	Hooper et al. (2008)
AGFI	$0.90 \leq AGFI \leq 1.00$	Hooper et al. (2008)
IFI	$0.90 \leq IFI \leq 1.00$	Steiger (2007)
NFI	$0.90 \leq NFI \leq 1.00$	Hu and Bentler (1999)

With respect to the team identification scale, the fit statistics demonstrated that the measurement model exhibited a favorable fit to the data. The ratio of the chi-square (χ^2) value to the degrees of freedom (df) ($\chi^2 = 12.84$, $df = 5$, $p < 0.05$, $\chi^2/d = 2.57$) and the goodness-of-fit indices (CFI = 0.99, GFI = 0.98, AGFI = 0.94, NFI = 0.99, IFI = 0.99, RMSEA = 0.07, SRMR = 0.02) fell within the

recommended cutoff ranges established by Steiger (2007). Regarding the CFA analysis conducted on loyalty, the overall fit of the structural model to the data was deemed excellent ($\chi^2 = 0.00$, $df = 0$, $p < 1.00$, $CFI = 1.00$, $GFI = 1.00$, $AGFI = 1.00$, $NFI = 1.00$, $IFI = 1.00$, $RMSEA = 0.00$, $SRMR = 0.00$). The factor loading of the dimensions of social media engagement, team identification, and loyalty can be found in Table 2.

Table 2
Factor loading of items and sub dimensions and items

	Std. Loads	t
Consumption		
CONS1	.96	20.94
CONS2	.94	20.30
CONS3	.95	20.50
Contribution		
CONT1	.90	18.84
CONT2	.94	20.41
CONT3	.92	19.52
Creation		
CREA1	.94	20.21
CREA2	.92	19.49
Team Identification		
TEID1	.66	11.89
TEID2	.82	15.97
TEID3	.88	18.02
TEID4	.95	20.61
TEID5	.90	18.61
Loyalty		
LOYA1	.93	16.07
LOYA2	.75	12.71
LOYA3	.64	10.71

The present study included an analysis of correlations, internal consistency (Cronbach's alpha), composite reliability (CR), convergent validity, construct validity, and discriminant validity for the measurement model. The outcomes of these analyses are presented in Table 2. The composite reliability (CR) scores and Cronbach's alpha values demonstrated excellent consistency, surpassing the recommended threshold (Bagozzi & Yi, 1988; Nunnally & Bernstein, 1994; Peterson & Kim, 2013). Furthermore, the factor loading within the scales exceeded the recommended 0.5.

Convergent validity of the scales was assessed using the criteria proposed by Fornell and Larcker (1981). First, the related items should load significantly on the underlying construct. In this regard, the items within each scale exhibited high loading (t-values ranging from 10.71 to 20.94), providing robust evidence of convergent validity (Anderson & Gerbing, 1988). As displayed in Table 3, the whole loading on the hypothesized constructs was statistically significant and surpassed the threshold of .64. Second, the average variance extracted (AVE) values exceeded .61 ($\geq .50$) for all constructs, further supporting the convergent validity of our survey instruments (Fornell & Larcker, 1981). Additionally, the AVEs, the square root of AVEs, and the correlation coefficients were all statistically significant, signifying the presence of discriminant validity.

To evaluate construct validity, Pearson's correlation coefficients were calculated among constructs (ranging from 0.58 to .86, $p < .01$) and with other questionnaires measuring related constructs. Moreover, all dimensions within the scales exhibited favorable internal consistency, with Cronbach's alpha values exceeding 0.75 and composite reliability (CR) surpassing .70 (Hair et al., 2006). Overall, the results of confirmatory factor analysis (CFA) indicate satisfactory validity and reliability for all constructs (refer to Table 3).

Table 3
Reliability and validity of the measurement model

Construct	Alpha	AVE	CR	Correlations of constructs				
				(a)	(b)	(c)	(d)	(e)
CONSU (a)	.94	.90	.97	(.95)				
CONTR (b)	.91	.85	.94	.58**	(.92)			
CREAT (c)	.90	.87	.93	.56**	.86**	(.93)		
TEAMI (d)	.75	.72	.93	.72**	.61**	.61**	(.84)	
LOYAL (e)	.90	.61	.82	.70**	.59**	.58**	.70**	(.78)

* < 0.05; ** < 0.01

Note: "CONSU: Consumption.", "CONTR: Contribution.", "CREAT: Creation.", "TEAMI: Team Identification.", "LOYAL: Loyalty.", "AVE: Average Variance Extracted.", "CR: Composite Reliability.", "Alpha: Cronbach's Alpha.", Diagonal elements in the "correlation of constructs" matrix are the square root of AVE.

After validating the measurements, a structural equation model was employed to test the research hypotheses, as depicted in Figure 1. Data analyses revealed that several values in the model exhibited acceptable goodness-of-fit indicators. The overall fit of the structural model to the data was deemed satisfactory ($\chi^2 = 348.25$, $df = 94$, $p < 0.01$, $\chi^2/df = 3.70$, CFI = 0.98, GFI = 0.86, AGFI = 0.79, NFI = 0.97, IFI = 0.98, RMSEA = 0.09, SRMR = 0.04).

As evident from Table 4, the results provided support many hypothesized relationships except for H1b, H2b, and H2c. Concerning the relationship between social media engagement and team identification, except the association between contribution and team identification ($\beta = -.25$, $p > .05$), the remaining two relationships were found to be statistically significant. Regarding the association between social media engagement and loyalty, the consumption sub-dimension displayed a positive correlation with loyalty ($\beta = .40$, $p < .5$), thus supporting H2a. As anticipated, the findings of this study indicated that team identification is significantly linked to fan loyalty ($\beta = .37$, $p < .05$), thereby supporting H3. Overall, hypotheses H1a, H1c, H2a, and H3 as stated in the conclusion of the analysis were accepted, while H1b, H2b, and H2c were rejected.

Table 4
Results of relationship analysis

	Std Beta	t	Hypothesis Results
Consumption → Team identification (H _{1a})	.66	8.50*	Accepted
Contribution → Team identification (H _{1b})	-.25	-1.29	Rejected
Creation → Team identification (H _{1c})	.49	2.53*	Accepted
Consumption → Loyalty (H _{2a})	.40	4.69*	Accepted
Contribution → Loyalty (H _{2b})	.08	.39	Rejected
Creation → Loyalty (H _{2c})	.12	.60	Rejected
Team identification → Loyalty (H ₃)	.37	4.08*	Accepted

* $p < 0.05$

Discussion

In the contemporary era, the widespread use of the internet and social media has resulted in a profound transformation of individuals' information-seeking behaviors, communication patterns, and review-related activities. Users have transitioned from passive consumers to active "prosumers," who fulfill both producer and consumer roles. This shift in user behavior carries significant implications not only for individuals but also for companies and sports clubs who aim to engage with their target audience or fans. Social media platforms have emerged as crucial channels for interaction, as users actively exchange topics of interest within online communities and place greater trust in recommendations from friends and unknown third parties on these platforms compared to company-generated content (Li et al., 2023).

Historically, television and print advertising played a central role in sports clubs' marketing strategies, enabling them to reach a wide audience. However,

these traditional channels now play a minor role, while social media has taken center stage in modern advertising, fundamentally altering how sports clubs connect with their fans. Effectively harnessing social media has become imperative for clubs to gain and maintain a competitive advantage (Chung & Gibler, 2019). The capacity of social media to shape brand perception among fans and exert influence on their level of commitment holds significant prominence. Clubs that strategically prioritize social media in their marketing approaches gain an edge over their competitors (Niu & Zhang, 2021). A comprehensive review of existing literature on social media usage and its impact on brand perception can contribute to the development of successful strategies for enhancing fan engagement (Divargedal, 2021). To cultivate enduring associations with fans, sports organizations must prioritize proficient communication and interaction. Social media platforms have become ideal tools for facilitating ongoing two-way dialogues, allowing clubs to engage in meaningful conversations with their fans (Dimitrovski et al., 2019). Prominent social networks such as Facebook, Instagram, Twitter, and YouTube have seamlessly integrated into the daily lives of millions of people, revolutionizing communication patterns and interpersonal connections (Niu & Zhang, 2021). As a result, football clubs have adapted their management approaches by actively participating in conversations with fans on club-owned social media platforms while disseminating information (Filo et al., 2015). The continually increasing number of monthly active users on Facebook serves as evidence of the growing prominence of social media (Statista, 2018). This trend underscores the immense potential of social media platforms as communication channels for sports clubs to effectively engage with their target audience, offering personalized and interactive experiences that foster fan loyalty (Thackeray et al., 2013).

Our research findings align with several previous studies. First, the dimensions of fan engagement we presented in this study – consumption, contribution, and creation – are consistent with those obtained in the literature. We confirmed the validity and reliability of these dimensions which were previously identified by Vale and Fernandes (2018). Similarly, in the research conducted by Annamalai et al. (2021), these three dimensions, namely “like”, “comment” and “share” were key elements of interest. When these dimensions are examined from a functional point of view, their similarities with the dimensions related to fan participation become clear. Second, there are several studies in the literature supporting relationships in our conceptual model. According to the study of Yoshida et al. (2014), a positive and significant relationship was found between fan loyalty and intention as fan behavior. This confirms the effect of fan loyalty on brand purchase intention, which is closely related to loyalty in the sports marketing literature (Pradhan et al., 2019). Moreover, team identification, as an antecedent, has an indirect effect on intention (Yoshida et al., 2014).

Previous studies (Yun et al., 2021; Prentice et al., 2018) have also revealed direct or indirect relationships between consumer/fan engagement and loyalty. Therefore, our study supports existing literature and shares similarities with the results of these studies.

In conclusion, the contemporary digital landscape, characterized by the widespread use of the internet and social media, has led to fundamental changes in the ways individuals seek information, communicate, and engage with content. For sports clubs, the effective utilization of social media platforms is pivotal to their marketing strategies, enabling them to shape brand perception, influence fan commitment, and enhance fan engagement. By conducting a thorough review of existing research on social media usage and brand perception, sports clubs can develop novel and successful strategies to cultivate long-term value for their customers or fans (Niu & Zhang, 2021). Consequently, understanding the potential of social media engagement as a marketing field of action is crucial for companies, sports clubs, and their fans.

Conclusion

Social networks have been increasingly used by sports clubs and sports organizations to establish relationships with the public. Social media has been increasingly used by sports organizations to communicate with consumers (Pedersen & Thibault, 2014). Social media are contributing to the digitization of fans and connection to their clubs. Social media benefit clubs, fans, and players by allowing them to reinforce their message, discuss, interact with fans, and continually listen to what they have to say. It also allows them to reach a wider audience, which can be national or international. Social media serves as a conduit for facilitating the dynamic interaction between football clubs and their fan base, functioning as a pivotal media platform for gauging and influencing the extent of audience engagement. Social media also has given clubs the tools to fiercely compete with traditional media and have their own channels to reach their fans and supporters: fast, direct, without different versions or comments, anytime and anywhere. Facebook, Twitter, Instagram, and YouTube, to name the most common, are the voices of the new generation who use the internet as a source of information.

In the last decades, changes in the consumption habits of fans have also directly affected football clubs. This study is concerned with the question of how clubs can use social media as a tool for fan relations management and what rules should be followed in such an engagement. In the sports marketing field, social media and fan engagement has long been one of the most intensely discussed topics. The reason for this lies in the fact that compared to material goods, ser-

vices are primarily characterized by the constitutive characteristic of fan involvement, which is why the creation of most services is inevitably associated with a certain form of fan engagement.

In this respect, it is also one of the central strategic and operational tasks of club management to determine the type and extent of fan involvement. This form of social media and fan engagement also results in specific challenges for many different club management tasks such as incomes or fan retention. When the sports management literature is examined, limited attention has been devoted to social media engagement, fan identification and fan loyalty, particularly in the context of social media. In this respect, our study provided significant contributions, both methodological and practical, to the fields of football, social media engagement, fan identification and loyalty. In this study, we try to identify the drivers of engagement and loyalty with football clubs on Facebook from a football fan perspective. The fact is that the dimensions titled as “consumption” and “creation” of the social media engagement scale demonstrate a significant effect on team identification. Considering the predictors of fan loyalty, findings of this study indicate that football team managers should invest and prioritize several factors including engagement in social media and team identification. We found the consuming factor of social media engagement to be the only influential antecedent among the three antecedents of loyalty. In other words, contributing and creating had no significant effect on loyalty.

The dynamic landscape of the internet and social media has revolutionized the way information is disseminated, communication occurs, and consumer behavior unfolds. For sports clubs, effectively using social media platforms as integral components of their marketing strategies is vital for remaining competitive in an increasingly digital world. By harnessing the power of social media, clubs can shape brand perceptions, influence fan commitment, and foster long-term fan engagement (Vale & Fernandes, 2018). Future research should continue to explore the diverse ways in which social media engagement can generate value for sports clubs and their fans, ultimately contributing to the development of innovative marketing strategies in the sports industry.

The findings of this study yield substantial theoretical and managerial contributions, offering an enhanced perspective to comprehensively understand the intricate associations between fan engagement in social media, team identification, and loyalty. Consistent with prior research, the study further substantiates the vital role of engagement and team identification in fostering fan loyalty. Notably, the results strongly imply that individuals exhibiting heightened team identification are significantly more inclined to demonstrate unwavering loyalty toward their respective teams (Bagozzi & Yi, 1988; Benigni et al., 2009; Depken, 2001; Giulianotti, 2002; Nicholson et al., 2015; Norris et al., 2014; Pentina et al., 2018).

In conclusion, the internet and social media have profoundly reshaped information dissemination, communication patterns, and consumer behavior. For sports clubs, integrating social media into their marketing strategies is vital for staying competitive in the digital age. Leveraging these platforms empowers clubs to shape brand perceptions, influence fan commitment, and ultimately enhance fan engagement. Therefore, an in-depth analysis of social media engagement as a marketing tool is necessary to create long-term value for companies, sports clubs, and their customers or fans, as evidenced by previous research (Divargedal, 2021; Niu & Zhang, 2021). This study finding was very interesting and confirms that football fans, one of the biggest consumer masses in Turkey, can be unique in certain respects when compared to other service industries or consumption contexts.

Theoretical and Practical Implications

The results of this study bear significant theoretical and practical implications, making notable contributions to the domains of sports marketing, fan behavior, and identification literature. Primarily, this study enriches the existing literature by validating and establishing the reliability of fan engagement dimensions. Furthermore, it contributes by elucidating the intricate relationship between the engagement phenomenon and team identification, while examining their combined influence on fan loyalty. In doing so, this study enhances the depth of knowledge in the field by unveiling the effects and interrelationships among these dimensions, aligning with existing literature on customer or fan engagement (Yun et al., 2021; Prentice et al., 2018). Notably, this research highlights the positive impact of fan engagement on loyalty, as evidenced by consumer behavior, thereby empirically supporting the use of team identification to bolster fan loyalty within the context of engagement.

The advent of social networks and the digital environment has provided a platform for fans to challenge traditional norms and break down barriers associated with fandom. It is important to acknowledge that social media plays a pivotal role in shaping individuals' associations and perceptions (Chadwick et al., 2021). The practical implications of this study are of particular relevance to sports marketers and football club managers. Moreover, the findings hold paramount significance for sports marketers and promotional managers as they can utilize this knowledge to devise novel marketing strategies and bolster loyalty campaigns. From a football club management perspective, the presence of engaged fans enhances loyalty to various products, such as licensed merchandise and home and away games, by fostering an emotional bond between the football team and its fans as well as among the fans themselves. These social inter-

actions among fans and their alignment with the football team as a brand serve as crucial indicators of team loyalty.

Limitations and Future Research

This study has contributed valuable theoretical and methodological insights, offering intriguing knowledge to the field. However, it is crucial to acknowledge the exploratory nature of the study in examining the relationship between social media engagement, fan identification, and loyalty, as well as its inherent limitations. First, this study employed a small sample size comprising solely fans from three major football teams within a single mid-sized city in Turkey. Consequently, employing a larger and more diverse sample encompassing fans from various countries would facilitate a more generalized statistical analysis. Thus, further research using representative samples from the general population is warranted.

Secondly, it is essential to recognize that the findings and implications (both theoretical and practical) of this study pertain specifically to the context of football. Therefore, caution must be exercised when attempting to generalize these results to other sports contexts such as basketball and volleyball. Third, a limitation exists about the focus on team sports fans in this study. Future research should endeavor to investigate the role of fan engagement behavior in individual sports such as tennis, athletics, and gymnastics. Exploring these domains would enrich our understanding of the phenomenon.

Lastly, additional limitation pertains to the construct framework employed in this study. To bridge this research gap, future investigations and model development should incorporate factors such as team involvement, fan satisfaction, and word-of-mouth communication. The integration of these constructs would provide a more comprehensive understanding of the research domain. Therefore, we strongly encourage further research on social media engagement, team identification, and loyalty not only within the context of football but also across various other sports, aiming to enhance our knowledge in this area.

STATEMENT OF ETHICS

This study protocol has not undergone a review and approval process by the ethics committee and board of affiliation. Because, ethical board approval was not required in the data collection and evaluation process of this study in Turkey. All participants provided written informed consent to participate in this study.

DECLARATION OF CONFLICTING INTERESTS

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Omar Jamil ALJAAFREH*

MEASURING THE LEVEL OF KNOWLEDGE OF THE INTERNATIONAL LAW OF TABLE TENNIS AMONG PHYSICAL EDUCATION TEACHERS IN AL-KARAK

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Mierzenie poziomu wiedzy o międzynarodowych zasadach tenisa stołowego wśród nauczycieli wychowania fizycznego w Al-Karaku

Streszczenie

Celem pracy jest pomiar poziomu znajomości międzynarodowych zasad tenisa stołowego wśród nauczycieli wychowania fizycznego w Al-Karaku. Badacz zastosował podejście opisowe, a próba badawcza składała się ze 110 nauczycieli wychowania fizycznego w Al-Karaku, którzy są zarejestrowani w ramach oficjalnych ograniczeń w wydziale edukacji Al-Karaku na rok akademicki 2021/2022. Badacz wykorzystał samodzielnie skonstruowane narzędzie badawcze, oparte na międzynarodowych zasadach tenisa stołowego, składające się z trzydziestu pytań podzielonych na trzy zagadnienia. Wyniki pokazały, że średnie arytmetyczne poziomu znajomości międzynarodowych zasad tenisa stołowego wśród nauczycieli wychowania fizycznego w Al-Karaku wypadły na bardzo słabym poziomie ogólnym. Rezultaty wskazują na istnienie istotnych statystycznie różnic w ocenach badanych osób w zakresie znajomości międzynarodowych zasad tenisa stołowego wśród nauczycieli wychowania fizycznego w Al-Karaku, w zależności od zmiennej *płeć* i wypadając na korzyść mężczyzn. Wyniki wykazały również różnice w ocenie członków próby badawczej w poziomie wiedzy według zmiennej *doświadczenie* i wypadając na korzyść grupy poniżej pięciu lat doświadczenia. Badacze zarekomendowali konieczność prowadzenia szkoleń mających na celu podniesienie świadomości nauczycieli wychowania fizycznego na temat międzynarodowych zasad tenisa stołowego dla obu płci oraz dla osób z dużym doświadczeniem.

Słowa kluczowe: wiedza, zasady tenisa stołowego, nauczyciele wychowania fizycznego.

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Abstract

The study aims to measure the level of knowledge of the international law of table tennis among physical education teachers in Al-Karak. The researcher used the descriptive approach, and the study sample consisted of 110 Physical Education teachers in Al-Karak, who are registered within the official restrictions in the directorates of education in Al-Karak for the academic year 2021/2022. The researcher used the self-developed study tool, based on the international law of table tennis, consisting of thirty questions distributed over three topics. The results showed that the arithmetic averages of the level of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak overall reached a very low level. The results showed that there were statistically significant differences in the estimations of the study sample members in the level of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak, according to the gender variable and in favor of males. The results showed that there were differences in the estimates of the study sample members in the level of knowledge according to the variable of experience and in favor of a group of less than five. The researcher recommended the necessity of holding training courses to raise the awareness of Physical Education teachers of the international law of table tennis for both genders and for those with longer experience.

Keywords: knowledge, laws of table tennis, Physical Education teachers.

Introduction

Physical Education teachers are able to develop their skills in the domains of physical education and its sciences, develop modern methods and keep pace with them, and this depends on the process of organizing and managing educational experiences and on their cognitive competence in teaching.

Knowledge is no longer a theoretical aspect based on attracting information and data and presenting it abstract and uncodified, but rather on providing an appropriate and safe environment to facilitate the process of attracting knowledge, transferring and sharing it with others, on rehabilitating individuals based on knowledge acquisition and developing their abilities to transfer, distribute and share that knowledge with others (Khalidi & Alawamleh, 2013).

Knowledge is the sum of various experiences that an individual possesses, which they have gained through academic education, courses or experiences, and which are manifested clearly in the person who possesses it through the percentage of the person's cognitive achievement and the level of the group they lead as coaches and teachers at the athletic level (Hourii, 2003).

Knowledge is a collection of various information that an individual gathers during their academic learning process and through various courses or professional experiences they have lived through, which can be estimated by calculating the percentage of their knowledge attainment (Roman & Kozulin, 2005).

The development of knowledge of Physical Education teachers through their roles and responsibilities tends to assume responsibility in this domain. It must be viewed in the light of the changes that society is witnessing, which explains

the trends that are adopted and challenges and responsibilities faced. Accordingly, their mathematical cognitive competence must be linked to modernity and contemporariness, as sports modernity implicates developments taking place in the domain of teaching and teaching physical education (Rich, 2012).

The teacher is also considered the head of the educational process, its foundation and its solid pillar, and that a good curriculum, an appropriate textbook, an exemplary building, and advanced aids all diminish and will not be effective if the teacher is not a capable role model in their work and their knowledge is not broad in their field, they are not skilled enough in their subject, perfect at their teaching, exciting and influential for their students (Mufleh, 2012).

The physical education teacher is one of the main pillars of the educational process, and lack of knowledge or information related to the cognitive aspects of physical education represents a gap in the educational process that cannot be compensated for even by attending the course in the Ministry of Education (Zayed, 2011).

The physical education teacher is considered one of the pillars of the educational process in school, as they often have many educational opportunities that are not offered to their colleagues in other subjects. Therefore, it is necessary to take proper care of preparing and qualifying them for the teaching profession in a manner that would enable them to adopt a proper approach that would help them assume heavy responsibilities entrusted to them regarding the upbringing of generations, as they are the nation's treasure and its promise for the future (Alsayeh, 2004).

The researcher believes that it is useful and necessary for physical education teachers to be acquainted with the legal issues of the game of table tennis that is being taught, because knowledge facilitates awareness of information or its direct discovery, rediscovery or recognition. Also, physical education teachers are the ones who combine aptitude, physical ability, sports skills and theoretical knowledge. Acquisition of a given sports skill without any knowledge associated with it makes the process limited and needs to be modified and developed in line with the mathematical skills for effectiveness.

As for the research problem, the researcher sees, through his scientific and practical experience, that there is a deficiency in the extent of legal knowledge of table tennis among Physical Education teachers in Al-Karak. Also, most Physical Education teachers are not interested in developing their cognitive abilities in the law of the game in question. The vast majority do not follow the amendments to the articles of the law of the game. The vast majority of Physical Education teachers are not interested in following up on the articles of the law of the game on the one hand, and getting acquainted with the recent amendments in the law of the game of table tennis on the other hand, which leads to confusion and sometimes causes chaos and indifference due to their weak interest in the theoretical side.

This is what prompted the researcher to do this study with the aim of identifying the measurement of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak.

Therefore, this study comes to determine the level of teachers' knowledge of the international law of table tennis, and it was applied to male and female Physical Education teachers in the Directorate of Al-Karak Education, which is one of the directorates of education in the Hashemite Kingdom of Jordan and has 118 schools affiliated with it.

Study Questions

1. What is the level of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak?
2. Are there differences in the knowledge of the international law of table tennis among Physical Education teachers in Al-Karak according to the variables of gender and experience?

Statistical tools

The researcher used the following statistical tools to achieve the objectives of the study:

Arithmetic means and standard deviation

Measures of central tendency and measures of dispersion were used to determine the level of knowledge of the international law of table tennis among the study sample.

Pearson correlation coefficient

It was used to verify the degree of correlation between the scale items and all of the scale's domains and the correlation between each domain and the scale's total score to ensure the validity of the study tool.

Tow Way-NOVA

It was used to statistically verify the significance of the differences in the level of cognitive outcome according to the variables of gender and experience.

Study Procedures

The study sample consists of teachers of Physical Education in Al-Karak, who numbered (110) male and female teachers registered within the official restrictions in the directorates of education in Al-Karak for the academic year 2021/2022. Table 1 shows the distribution of the sample members.

Table 1
Distribution of the study sample (110)

Variable	Variable Categories	No.	Percentage
Gender	Male	45	40.9
	Female	65	59.1
	Total	110	100.0
Experience	Less than five	24	21.8
	From five to less than ten	48	43.6
	Ten and above	38	34.5
	Total	110	100.0

Study Tool

The researcher reviews the educational literature through scientific references and previous studies that were concerned with building measures of knowledge. Among these studies are the study of (Al-hasawneh & Zoubi, 2007), (Almuzaini & Ankari, 2003), (Alkurdi, 2006), (Hatamleh, 2002) and (Alkhawaldeh & ALzughialat, 2023). Then, they built a tool to measure the knowledge of the international law of the game of table tennis based on the first level according to Bloom's Taxonomy, i.e. the level of knowledge, which consists of 30 multiple-choice questions covering three topics. Table 2 shows the topics of the study tool presented in Appendix.

Table 2
Measuring Tool Topics

Topic No.	Topic Name	Paragraph No.
First	Playing Conditions	1, 4, 6, 9, 12, 16, 19, 21, 22, 27
Second	Players	2, 7, 11, 13, 14, 18, 23, 26, 28, 29
Third	Playing System	3, 5, 8, 10, 15, 17, 20, 22, 25, 30

Measuring Correction Method

One score was given for the correct answer, and zero for the wrong answer. Table 3 shows the correction key for the test items.

Table 3
Debug Key for The Test

Question No.	Answer Code	Question No.	Answer Code	Question No.	Answer Code
1	A	11	B	21	A
2	C	12	C	22	A
3	D	13	B	23	D
4	D	14	D	24	A
5	C	15	A	25	A
6	C	16	B	26	A
7	A	17	B	27	D
8	D	18	B	28	D
9	A	19	C	29	D
10	D	20	B	30	C

Based on the arithmetic averages of the answers, the researcher relied on some previous studies in determining the next ladder to classify the cognitive outcome of the sample members, as indicated by the study of (Elbaradei, 2004), (Shalan, 2019) and (Alsub, 2022).

Less than 50 (Very Weak)

From 50 to 59 (Low)

From 60 to 69 (Acceptable)

From 70 to 79 (Good)

From 80 to 89 (Very Good)

From 90 to 100 (Excellent)

Psychometric Properties of Measuring

Let us begin with honesty. Honesty was determined through a set of procedures, represented by the following:

1. Virtual Honesty:

The measuring was presented to a group of specialists in order to express their opinion in terms of the following:

- language formulation,
- validity of items to measure and what they are designed to measure,
- appropriateness of the terms to the nature of the research sample,
- matching items,
- knowing the sufficiency of the number of items,
- delete, modify, or add items.

2. Formative Honesty (Internal Consistency Honesty):

Internal Consistency Honesty between the measuring dimensions and the total score was calculated by calculating the correlation coefficient between

the score of each phrase and the total score of the dimension and the total score of the measuring on a rationing sample of 20 from the study population. Table 4 illustrates this.

Table 4
Correlation coefficients between the score of each statement and the domain and the total score of the measuring

Para.	a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	Total	
Correlation Coefficient	.549*	.266*	.519*	.275*	.454*	.280*	.572*	.346*	.644*	.551*	.760*	First Domain
Significance Level	<.001	.005	<.001	.003	<.001	.003	<.001	<.001	<.001	<.001	<.001	
Para.	b1	b2	b3	b4	b5	b6	b7	b8	b9	b10		
Correlation Coefficient	.342*	.345*	.492*	.411*	.329*	.249*	.298*	.378*	.239*	.366*	.751*	Second Domain
Significance Level	<.001	<.001	<.001	<.001	<.001	.009	.002	<.001	.012	<.001	<.001	
Para.	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10		
Correlation Coefficient	.515*	.514*	.328*	.536*	.198*	.243*	.239*	.209*	.451*	.285*	.547*	Third Domain
Significance Level	<.001	<.001	<.001	<.001	.038	.010	.012	.028	<.001	.003	<.001	

* Function at level ($\alpha \leq 0.05$)

It is clear from Table 4 that the correlation coefficients between the degree of each phrase and the domain and between the domains and the total measuring were statistically significant at a level of ($\alpha \leq 0.05$) for all items, which indicates the sincerity of internal consistency of the measuring under study.

3. Difficulty and Discrimination Coefficient

Difficulty and Discrimination Coefficient was used for the answers of the rationing sample. It was found that the coefficients of difficulty for all phrases ranged from 0.20 to 0.80 and that the coefficient of discrimination for all phrases was positive and its values were greater than 0.20.

Measuring Stability

Stability was calculated using **Pearson's Correlation Coefficient between application and re-application**.

The stability coefficient of the tests used in the study was calculated by applying and re-applying the test with an interval of two weeks on the rationing sample (20) from the study population, and the Pearson's correlation coefficient was found between the two applications, which is illustrated by Table 5.

Table 5

Values of Pearson's Correlation Coefficient between application and re-application of the sample (n = 20) on measuring knowledge

		Arithmetic Av- erage	Standard Devia- tion	Correlation Coef- ficient	Significance Level
Pearson's Cor- relation Coeffi- cient	Application	.3386	.07799	0.996	*.000
	Re-Applica- tion	.3414	.07909		

* Significant correlation at the level ($\alpha \leq 0.05$)

The results from Table 5 indicate that there is a strong, statistically significant correlation between the results of application and re-application, which indicates the stability of the measuring.

Study Variables

- a) Independent Variables
 - Gender
 - Years of Experience
- b) Dependent Variable
 - Knowledge

Statistical Methods

- Arithmetic Average
- Standard Deviation
- Pearson's Correlation Coefficient
- (Tow Way- ANOVA)

Research results and discussion

This chapter includes a detailed presentation of the results of the study and their discussion in the light of the questions posed, which aimed to identify the

level of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak. The following is a presentation of the results of the study according to the sequence of its questions, as well as a discussion of the findings of the study and the recommendations emanating from these results.

The answer to the first question

The first question concerned the level of knowledge of the international law of table tennis among physical education teachers in Al-Karak. To answer this question, the arithmetic means and standard deviations were calculated for the responses of the study sample members on the cognitive outcome measuring. Table 6 shows the results.

Table 6
Arithmetic means and standard deviations of the level of knowledge

Domain	Arithmetic Average	Standard Deviation	Rank	Level
Playing Conditions	.3227	.13109	1	Very Weak
Players	.2136	.13305	2	Very Weak
Playing System	.0918	.09780	3	Very Weak
Total	.2094	.08437		Very Weak

Table 6 shows that the arithmetic averages of the level of knowledge outcome of the international law of the game of table tennis among Physical Education teachers in Al-Karak came at the overall level to a very weak degree with an arithmetic average (.2094). As for the domains, the playing conditions domain came first with a very weak score and an arithmetic mean (.3227), and the playing system domain came in second with a very weak score and an arithmetic mean (.2136), and third and finally the players domain with a very weak score and an arithmetic average (.0918). This result can be explained by the fact that all three fields of study came with a very weak score.

The researcher attributes this result to the fact that the level of knowledge outcome (of the law of table tennis) of Physical Education teachers in Al-Karak was weak due to the lack of knowledge of Physical Education teachers on the law of table tennis and the new amendments to it, or the dependence of Physical Education teachers on their field experiences, or on their practice of the game as a recreational activity and the failure to allocate quotas to the articles of table tennis law within the curriculum of the Ministry of Education, limiting them to the game of football as it is known in all schools due to students' love for the game of football.

The researcher also attributes this result to the belief of Physical Education teachers in the difficulty of this sport and their inability to teach and train stu-

dents due to material capabilities it needs related to its own tools, physical capabilities and skills, and consequently the lack of interest in it and not teaching it in schools.

This result agreed with the study (Shawkat, 2015) whose results showed that the cognitive outcome of the law of gymnastics among Physical Education teachers in Al-Karak was at a very weak level. It also goes along with another study (Hatamleh, 2002) whose results indicated that the level of knowledge of the international law of handball among students of the College of Sports Sciences at Mutah University is weak. The same applies to a study (Al-rahhalah, 2007) whose results showed that the degree of Physical Education teachers' possession of cognitive competence in sports modernity in the city of Mosul came to a low degree. Similarly, it is true of a study (Zayed, 2011) whose results indicated that the knowledge of Physical Education teachers in the physiology of physical effort was at the weak level. Finally, one has to mention a study (Al-rahhalah, 2007) whose the results indicated weakness in the knowledge of students in general.

The answer to the second question

Are there statistically significant differences at the level of ($\alpha \leq 0.05$) in the level of the knowledge outcome of the international law of table tennis among Physical Education teachers in Al-Karak according to the variables of gender and experience?

To answer this question, the arithmetic means and standard deviations were calculated, and Table 7 shows this.

Table 7

Arithmetic averages and standard deviations in the level of knowledge of the international law of table tennis among physical education teachers in Al-Karak, according to the variables of gender and experience

Variable	Category	No.	Average	Standard Deviation
Gender	Male	.2615	45	.09820
	Female	.1733	65	.04758
	Total	.2094	110	.08437
Experience	Less than five	.2556	24	.10104
	From five to less than ten	.2146	48	.08803
	Ten and above	.1737	38	.04529
	Total	.2094	110	.08437

The data in Table 7 indicate that there are apparent differences in the arithmetic averages in the level of the knowledge of the international law of table tennis among Physical Education teachers in Al-Karak, according to the variables of gender and experience.

In order to detect whether these differences were statistically significant, the analysis of variance (Way-ANOVA) was used, and Table 8 shows the results of that.

Table 8

Results of the multiple variance analysis to reveal the differences in the estimates of the study sample members in the level of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak according to the variables of gender and experience

Contrast Source	Total Squares	Freedom Degrees	Average Squares	F value	Significance Level
Gender	.201	1	.201	45.110	<.001
Experience	.096	2	.048	10.720	<.001
Error	.473	106	.004		
Total	5.599	110			

The data in Table 8 indicate that there are statistically significant differences at the level of ($\alpha \leq 0.05$) in the estimations of the study sample members in the level of knowledge outcome of the international law of table tennis among Physical Education teachers in Al-Karak, according to the gender variable, in favor of males, with an average of (0.2615) compared to females with an average of (0.1733). This can be explained by the fact that male Physical Education teachers may have played table tennis more during their time in college compared to female Physical Education teachers.

The researcher attributes this to the fact that male Physical Education teachers have more interest in the law of table tennis than female Physical Education teachers, due to their commitment to the career side more than the female teachers. This is due to many concerns of the teachers and the requirements of life that place great burdens on them, which makes them not interested in what is new and modern regarding the game of table tennis, due to the difficulty of the law of the game and the lack of interest of the educational supervisors in evaluating the teachers of the game of table tennis, and Ministry of Education's neglect of the teaching of table tennis within the physical education curriculum.

The researcher attributes this to the fact that male Physical Education teachers are more involved in various sports activities and follow up on sports programs in general as a result of the nature and structure of the community in Al-Karak and how it looks at the role of females in this field.

This study agreed with the study of (Hatamleh, 2022) that there are statistically significant differences according to the gender variable and they are in favor of males.

It conflicted with the results of the study (Shawkat, 2015) which showed that there were no statistically significant differences according to the gender variable, academic degree, years of experience, the Directorate of Education, and the

study (Al-rahhalah, 2007). The results of the study showed that there were statistically significant differences according to the gender variable and they were in favor of females.

The data in Table 8 also indicate that there are statistically significant differences at the level of ($\alpha \leq 0.05$) in the estimations of the study sample members in the level of knowledge of the international law of table tennis among Physical Education teachers in Al-Karak, according to the variable of experience. To detect in favor of which category these differences are, Scheffe' Test was used, and Table 9 illustrates this.

Table 9
Scheffe' Test to detect differences between groups

Arithmetic Average	Category	Five years or less	More than five to ten years	More than ten years
.2556	Less than five	—	.0410	.0819*
.2146	From five to less than ten	-.0410	—	.0409*
.1737	Ten and above	-.0819*	-.0409*	—

The results of Table 9 indicate that there are differences in the estimates of the study sample members in the level of the cognitive outcome according to the experience variable between the category (less than five) and the category (ten and above) and in favor of the category (less than five). There are differences between a category (from five to ten) and a category (ten and above) in favor of a category (from five to ten), meaning that the less experienced category has a better knowledge outcome than the more experienced category. This result can be explained by the fact that physical education teachers with less experience are more familiar with the knowledge of the law of table tennis.

The researcher attributes this to the fact that less experienced Physical Education teachers have knowledge of the table tennis law, because they are new graduates from the faculties of Physical Education, which makes them more knowledgeable in the law of table tennis, and they are registered in more than one course related to the game of table tennis, according to the plan of the Department of Physical Education. The researcher also attributes this to the fact that recently graduating Physical Education teachers take training and knowledge courses related to different sports, as part of a plan set by the Ministry of Education in Jordan.

This study agreed with the study (Al-rahhalah, 2007) whose results showed that there were statistically significant differences according to the variable of experience, in favor of 5 years.

It contradicted the results of the study (El-baradei, 2004) showing that the level of academic achievement and experience has a significant impact on the level of knowledge between players and coaches.

The results of this study agreed with the results of the studies of (Alsoub, 2022), (Shalan, 2019) and differed with the results of the studies of each of (Al-khaswneh, 2007) and (Al-kurdi, 2006). The reason for the difference is due to the difference in the study population.

Conclusions

The teachers of Physical Education in Al-Karak do not possess sufficient knowledge of the law of table tennis, especially female teachers and more experienced teachers. This means that Physical Education teachers should follow up on recent developments related to the concepts and contents of the international law of table tennis by holding training courses to raise Physical Education teachers' awareness of the international law of table tennis for both sexes and those with more experience.

STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the / Scientific Research Ethics Committee at Mutah University (AL-Karak, Jordan) /. All participants provided written informed consent to participate in this study

DECLARATION OF CONFLICTING INTERESTS

The author declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *Measuring the Level of Knowledge of the International Law of Table Tennis Among Physical Education Teachers in Al-Karak*.

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Appendix

Distribution of questions according to the form in the study tool

1. The playspace must be rectangular, not less than
 - A. 14 m long, 7 m wide and 5 m high.
 - B. 15 m long, 7 m wide and 7 m high.
 - C. 12 m long, 8 m wide and 6 m high.
 - D. 10 m long, 6 m wide and 5 m high.
2. The player or pair who gets ahead of his opponent wins the half
 - A. 10 points.
 - B. 9 points.
 - C. 11 points.
 - D. All of the above is true.
3. The referee gives the game a yellow or red card in the following cases:
 - A. Uttering impolite words
 - B. Deliberate damage to gaming equipment
 - C. Disrespect for match judges
 - D. All of the above is true.
4. The height of the table from the ground is
 - A. 74 cm
 - B. 75 cm
 - C. 67 cm
 - D. 76 cm
5. The players fall under the authority of from the time they arrive at the tournament site until the time they leave.
 - A. coach
 - B. admin
 - C. public referee
 - D. table referee
6. The playing surface must be of a dark and opaque color, along the edges of which a white line is drawn whose width is
 - A. 5 cm.
 - B. 7 cm
 - C. 2 cm
 - D. 4 cm
7. The period during which the result is calculated is called
 - A. point.
 - B. retry.
 - C. no point calculated
 - D. all of the above is wrong.
8. The players have the right to practise at the match table for no more than right before the start of the match
 - A. three minutes
 - B. ten minutes
 - C. five minutes
 - D. two minutes

-
9. The weight of the ball which the game is played with in official matches is
- A. 2.7 g.
 - B. 2.9 g.
 - C. 3.7 g.
 - D. 3.9 g.
10. The one who picks the game ball is the:
- A. coach.
 - B. player.
 - C. admin.
 - D. referee.
11. "Playtime" is the time when a ball is
- A. unplayed.
 - B. played.
 - C. break.
 - D. time-out.
12. The ball should be round-shaped, with a diameter of
- A. 10 Millimeters
 - B. 20 millimeters
 - C. 45 millimeters
 - D. 40 millimeters
13. The period for which the result is not calculated is called
- A. point
 - B. retry
 - C. A+B
 - D. all of the above is wrong.
14. "Racket" is the hand that
- A. doesn't hold the racket.
 - B. A+B C.
 - C. holds the racket.
 - D. All of the above is wrong.
15. The player shall leave their racket.....during play stops, unless the referee permits otherwise.
- A. at the game table
 - B. at the referee's table
 - C. at the table of the public referee
 - D. all of the above is wrong
16. The top surface of the table is called the "play surface", and it should be rectangular , in width.
- A. 145.5 cm
 - B. 155.5 cm
 - C. 175.5 cm
 - D. 152.5 cm
17. The players fall under the authority of the from the time they get to the play area until they leave.
- A. coach
 - B. table referee

- C. public referee
 - D. admin
18. If both players or pairs score 10 points, then the winner wins the first half of the competition
- A. by one point.
 - B. by two consecutive points.
 - C. by three points.
 - D. All of the above is wrong.
19. There must be at least..... of the body thickness of the bat made of natural wood.
- A. 50%
 - B. 60%
 - C. 85%
 - D. 20%
20. When the referee receives a valid request for a time-out, he has to stop the play and lift the ... with the hand closest to the player or pair who requested the time-out.
- A. red card
 - B. white card
 - C. yellow card
 - D. red and yellow card
21. The net is lifted with a thread that connects each end to a vertical stand which measures:
- A. 15.25 cm.
 - B. 17.25 cm.
 - C. 12.5 cm.
 - D. 15.55 cm.
22. The player or pair may request one timeout for a period not exceeding in the individual match.
- A. one minute
 - B. three minutes
 - C. four minutes
 - D. ten minutes
23. The play may be stopped in the following cases:
- A. to correct an error in the Play system.
 - B. to apply the alternative method.
 - C. to warn or punish the player or mentor.
 - D. All of the above is true.
24. The playing surface is conditioned if a legal ball falls on it from a height of 30 cm to bounce to a distance of
- A. approximately 23 cm.
 - B. approximately 27 cm.
 - C. approximately 30 cm.
 - D. approximately 32 cm.
25. Any player is entitled to a break of no more thanafter each half of the match.
- A. one minute
 - B. three minutes
 - C. four minutes
 - D. ten minutes

26. The player who has to be next to him in the hit ball is called
 - A. receiver.
 - B. shooter.
 - C. A+B
 - D. All of the above is true.
27. The top surface of the table is called the “play surface”, and it should be rectangular, in length.
 - A. 275 cm
 - B. 274 cm
 - C. 270 cm
 - D. 278 cm
28. In the serve, the server throws the ball up to a distance of not less than
 - A. 15 cm.
 - B. 9 cm.
 - C. 12 cm.
 - D. 16 cm.
29. Calculation of a point shall take place
 - A. if one’s opponent fails to throw a proper serve.
 - B. if one’s opponent fails to give a proper response.
 - C. A+B
 - D. All of the above is true.
30. The players have the right to short pauses to dry up their sweat after each ... from the beginning of each half.
 - A. three points
 - B. five points
 - C. six points
 - D. seven points

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CZĘŚĆ III

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PHYSICAL ACTIVITY AND FUNCTIONAL FITNESS OF STUDENTS

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Aktywność fizyczna a poziom sprawności funkcjonalnej studentów

Streszczenie

Badania wskazują, że 45% Europejczyków nie uczestniczy w aktywności fizycznej, a niezdrowe nawyki związane ze stylem życia, nabyte podczas lat uniwersyteckich, mogą utrzymywać się w życiu dorosłym. Podejmowanie aktywności fizycznej wiąże się z wieloma korzyściami, ale także zwiększa prawdopodobieństwo przeciążeń i urazów. Wykorzystanie skutecznych metod predykcji urazów umożliwi przesiewowe badanie populacji, przyczyniając się do zwiększenia świadomości podczas stosowania aktywności fizycznej, ograniczenia występowania urazów, a w konsekwencji – wpływania na stan zdrowia społeczeństwa. Celem niniejszej pracy jest zbadanie związku między poziomem aktywności fizycznej a sprawnością funkcjonalną studentów oraz ocena ryzyka urazów związanych z podejmowaną aktywnością fizyczną. Do badania włączono 114 studentów (44 kobiety i 70 mężczyzn) w wieku od 19 do 23 lat. Przeprowadzono badanie poziomu aktywności fizycznej (International Physical Activity Questionnaire – IPAQ) oraz test sprawności funkcjonalnej – Functional Movement Screen (FMS). U większości badanych wzorce ruchowe są zaburzone, ponieważ występują asymetrie i kompensacje funkcjonalne, które wymagają podjęcia działań profilaktycznych oraz ćwiczeń kompensujących. Ryzyko urazu, szacowane na podstawie oceny FMS, wynosi od 25 do 35%. Studenci, w porównaniu ze studentkami, wyróżniają się przeciętnie lepszymi wynikami w próbach testu, ujętych jako wzorce mobilności (WM); charakteryzują się także lep-

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szymi wynikami we wzorcach stabilności (WS). Obserwuje się istotne związki między intensywną aktywnością fizyczną a wzorcami stabilizacji bocznej miednicy, tułowia i bioder (FMS 2), stabilizacją tułowia (FMS 6) oraz wzorcami stabilności (WS). Całkowita aktywność fizyczna wykazuje istotną dodatnią korelację z próbą ugięcia ramion w podporze.

Słowa kluczowe: aktywność fizyczna; sprawność funkcjonalna; FMS; studenci.

Abstract

Research demonstrates that 45% of Europeans do not participate in physical activity, and unhealthy lifestyle habits acquired during college years can persist into adulthood. Undertaking physical activity brings many benefits but also a greater likelihood of overload and injuries. The use of effective injury prediction methods enables the screening of the population, contributing to its greater awareness when engaging in physical activity, reducing the occurrence of injuries, and, consequently, influencing the health of society. The aim of this study is to examine the relationship between the level of physical activity and the functional fitness of students and to assess the risk of injuries related to physical activity. A total of 114 students (44 women and 70 men) aged 19-23 took part in the research. A physical activity level test (International Physical Activity Questionnaire-IPAQ) and a Functional Movement Screen (FMS) test were performed. In most subjects, movement patterns are disturbed due to asymmetries and functional compensations that require preventive measures and compensatory exercises. The risk of injury, estimated based on the FMS assessment, is 25-35%. Compared to female students, male students achieve, on average, better results in test samples classified as mobility patterns (MP); male students have better results in stability patterns (SP). Significant relationships are observed between intense physical activity and lateral stabilization patterns of the pelvis, trunk, and hips (FMS 2), trunk stabilization (FMS 6), and stability patterns (SP). Moreover, total physical activity shows a significant positive correlation with the trunk stability push-up.

Keywords: physical activity; functional fitness; FMS; students.

Introduction

The importance of regular physical activity (PA) for optimal functioning of humans is a fact confirmed by extensive scientific evidence and recommendations issued by organizations and scientific societies (Luan et al., 2019; WHO, 2020). The level of physical activity of modern human beings is a resultant of lifestyle, particularly evident in attitudes towards active and passive leisure activities. Research on sports and physical activity of Europeans shows that 45% of them do not engage in physical activity. Young persons aged 15–24 (54%) are the most likely to participate in sports with some regularity. Those aged over 20 who continue their education are particularly active (European Commission, 2022). A review of studies on physical activity and physical fitness of university students indicates that it is satisfactory (Kljajevic et al., 2022). Among other things, studies often use the International Physical Activity Questionnaire (IPAQ) to assess physical activity (Osipov et al., 2020; Pituk et al., 2019). To assess the

fitness level of students, authoritative and standardized fitness test batteries are most often used (Griban et al., 2020; Mitrović et al., 2016; Vrublevskiy & Asienkiewicz, 2018) or, less frequently, VO₂max measurement on a treadmill or bicycle ergometer (Kang et al. 2021; Shimamoto et al., 2021). A decline in physical activity levels is observed during the transition of young adults into early adulthood, with the steepest decline at the start of college, most dramatically when respondents begin their studies (Kwan et al., 2012; Sigmundova et al., 2013). Bray and Born (2004) emphasise the fact that one third of active secondary school students became insufficiently active after transitioning to university life. Observation of the determinants of students' health behaviours in the field of PA indicates that half of them are physically inactive and activities promoting change bring about moderate effects (Keating, 2005). The period of studies involves the transfer of a young person from the family home and the school desk to the conditions of university education, leading to independence in organizing the day, changing the lifestyle and managing free time (Deliens et al., 2015; Wang et al., 2015). Research conclusions provided by Sweileh (2023) suggest that unhealthy lifestyle habits acquired during university years may persist into adulthood, especially since this is the last moment in which young people are involved in a compulsory study programme, including sports activities, with a wide range of sports and recreational activities as well as access to university sports facilities.

Undertaking physical activity is associated with numerous benefits, but also a greater likelihood of overload and injuries in young persons engaging in recreational and sports activities (Gage et al., 2012; Wojtkowski et al., 2014; Złotkowska et al., 2015). In order to assess the risk of injury while practising PA, several tests have been developed to target movement by function, which also enables preventive measures (Clifton et al., 2016; Emery & Pasanen, 2019). One of the most popular functional tests assessing the risk of injuries is the Functional Movement Screen (FMS) (Cook et al., 2006a, 2006b). It enables a comprehensive analysis of the quality of basic movement patterns, assessment of the risk of injury, and identification of the existence of limitations and asymmetries that may not be observed in other standard anthropometric and physiological assessments. It is used in sports and physiotherapeutic practice as it offers the possibility of quick, simple and inexpensive assessment using just 7 movement tasks involving basic movement patterns in the area of stability, mobility and motor control (Cook et al., 2014a, 2014b). Correct movement patterns are a manifestation of the proper function of the respective body parts treated as a whole as a biokinematic chain. Disorders in one of the body parts manifest themselves in the progressive dysfunction of movement and compensation, leading to incorrect functioning of individual parts of the body when undertaking PA, which may, in turn, result in greater susceptibility to injuries. (Chorba et

al., 2010; Cook et al., 2006a, 2006b; Garrison et al., 2015). The assessment of the effectiveness of the use of FMS functional assessment combined with a synthesis of the scientific literature based on the review of 34 topical articles indicate FMS as a tool for predicting sports results, assessing the risk of injuries and assessing the effectiveness in designing training programs. The conclusions from the studies in question indicate that most scientific reports list FMS as a reliable tool to prevent injuries in people practising PA, provided the assessment is carried out by an experienced assessor (>100 attempts) (Kraus et al., 2014). Many of the available studies focus on assessing the FMS of a population of athletes, so a meta-analysis from published data on a group of children and adolescents indicating gender- and age-related differences in functional test scores, as well as the clearly negative relationship between body mass index and physical fitness, provides normative reference values for physical activity and physical education practitioners (O'Brien et al., 2022).

The university period is an important and critical moment in the lives of young people (Manzheley & Cherniakova, 2014), while creating a favourable environment shaping health and forming proper habits during this period constitutes the basic task of educational institutions (Geidne et al., 2013; Wright et al., 2013). Trudeau and Shephard (2008) believe that educational institutions should organize a wide range of activities contributing to the improvement of the health culture of students and shaping a healthy lifestyle in the later years of their lives. Kljajevic et al. (2022) state that universities are ideal environments to promote physical fitness and activity. It is particularly important to develop an optimal fitness programme (Randall et al., 2009) or encourage regular physical activity as the main way to instill a healthy lifestyle in students (Bozhkova et al., 2017; Forshee et al., 2004). On the other hand, the use of effective injury prediction methods involving the assessment of movement patterns in the areas of stability, mobility and motor control, enables the screening of populations, contributing to their greater awareness in the use of physical activity, reducing the incidence of injury and, consequently, influencing health. There is a lack of studies of student populations following this approach to the assessment of physical fitness.

Therefore, the purpose of this study is to assess the level of physical activity and the level of functional fitness of the male and female students surveyed and to examine the relationship between the level of physical activity and the functional fitness, with the differences between genders in mind, as well as to assess the risk of injuries related to physical activity. It also aims to identify potential movement pattern disorders which can be the basis for recommending preventive actions and compensatory activities that may contribute to improving the quality of life of students and minimizing the risk of injuries in the future.

Material and research methods

Study Design

The research was conducted in 2019 among 114 students (44 women = 38.6% and 70 men = 61.4%) of the University of Zielona Góra (Poland). All students agreed to participate in the research voluntarily and were informed about its purpose and the anonymity of the results. The research concept was approved by the Bioethics Committee of the Regional Medical Council in Zielona Góra (No. 07/118/2019, Zielona Góra, Poland).

Measures/Inventories

As part of the research, a survey was conducted among students using the International Physical Activity Questionnaire (IPAQ) – its shortened Polish version, while the Functional Movement Screen (FMS) test was used to determine the level of functional fitness of the subjects. In addition, a survey was conducted among the students (research particulars), which determined the respondents' place of residence, self-assessment of health and declared level of physical activity. Basic somatic measurements (body height and body weight) were also performed.

Physical Activity Questionnaire (IPAQ) – its shortened Polish version including 7 questions regarding all types of physical activity related to everyday life, work and recreation (Biernat et al., 2007). Activities performed at work, at home and in its surroundings, in moving from place to place and in free time devoted to recreation, exercise or sports were examined. Information was collected on time spent sitting, walking and time spent on physical activity – intense and moderate. The questionnaire only takes into account activities lasting at least 10 minutes (without a break). Each type of physical activity can be expressed in MET-min/week units by multiplying the coefficient assigned to such an activity by the number of days it is performed per week and its duration in minutes per day. For the short version of the questionnaire, there are three types of physical activity (physical exercise): walking, moderate activity, intense activity. Based on the results using (IPAQ), those tested can be classified according to their level of physical activity. Three levels are distinguished: high, sufficient, insufficient (Biernat et al., 2007).

Functional Movement Screen (FMS) test consists of 7 movement tasks. Each movement task is graded on a scale of 0-3 points. Each examinee has three attempts to perform each exercise and the best result is assessed (Cook et al., 2014a, 2014b). The maximum number of points that can be scored in the test is 21 points. The results are classified into three ranges (Kiesel et al., 2007). The evaluation criteria and classification of the FMS test are shown in Table 1. The test trials can be divided into

three types of movement patterns: global, mobility and stability. The global patterns (GP) include the following tests: *deep squat*, *hurdle step*, *in-line lunge*. Mobility patterns (MP) include: *shoulder mobility*, *active straight leg raise*. For stability patterns (SP) *trunk stability push up*, *rotational stability*.

Table 1

Functional Movement Screen (FMS) Assessment Criteria and Classification

Movement Task	Type of Movement Pattern Assessed	Scoring	Classification
FMS1 – Deep Squat	Hip, knee, ankle, and shoulder joint mobility	– 3 points – correct execution of the movement pattern;	– 18–21 points – correct movement patterns, the body
FMS2 – Hurdle Step	Lateral stability of the pelvis, trunk, and hips	– 2 points – execution of the movement pattern with an element of compensation;	– moves properly, the risk of overload injury is minimal;
FMS3 – in-line lunge	Balance and stability of hip, knee and ankle joints	– 1 point – unable to perform the movement pattern;	– 14–18 points – movement patterns are disturbed, there are asymmetries and compensations
FMS4 – shoulder mobility	Range of motion of the shoulder girdle	– 0 points – pain during movement	– the risk of injury is estimated at 25–35%,
FMS5 – active straight leg raise (ASLR)	Flexibility of the rear thigh muscles		– 14 points and fewer – the risk of injury is high, estimated at 50%
FMS6 – trunk stability push up	Stabilization of the torso during arm work and arm muscle strength		
FMS7 – rotational stability	Balance and rotational stabilization of the trunk		

Procedures

The research was conducted in April 2019 during mandatory physical education classes. During the classes, the students responded to surveys – Research Information and International Physical Activity Questionnaire (IPAQ) – its shortened, Polish version (Biernat et al., 2007). After completing the survey, the students were subjected to somatic measurements: body height using an anthropometre and body weight on the medical scales. Then they underwent functional assessment by means of the full FMS protocol, consisting of seven movement patterns, following the order described by the creators of the method: (1) “Deep squat”; (2) “Hurdle step”; (3) “In-line lunge”; (4) “Shoulder mobility”; (5) “Active straight-leg raise”; (6) “Trunk stability push-up”; and (7) “Rotary stability” (Cook et al., 2014a, 2014b). The assessments were conducted using the official FMS™ kit by a person certified and experienced to carry out assessments using this method. The assessor explained each movement pattern to the par-

ticipants in a standard manner. The students made three attempts at each movement, and the best results were then selected for analysis. The ability to perform the movement pattern was assessed on a 4-point scale (0, 1, 2 or 3 points). The highest result from three attempts was recorded on a special sheet.

Statistical Analyses

The statistical analysis of the results was carried out using Statistica 13 software. The average level of physical activity expressed in MET-min/week units was presented along with the standard deviation (SD) and the range of variability (min-max) in individual categories of physical activity (PA) of the surveyed students, taking into account the division by gender. The numerical and percentage distribution of people in the respective categories of physical activity level (insufficient, sufficient, high) was also presented, considering gender divisions. The point results obtained as part of the FMS test (both in individual tests, as well as in terms of the overall result and results in individual categories of movement patterns) were presented using descriptive statistics (M, SD, min-max). The significance of statistical differences between the results of women and men was confirmed using the Mann-Whitney U test. A p value of less than 0.05 was considered to indicate statistical significance. Correlations between the types of physical activity (PA), level of physical activity (expressed as MET-min/week) and functional capacity (determined using the FMS test) were calculated using Spearman's rank order correlation.

Results

Background Information and Demographics

The respondents were representatives of various fields of study and different living environments: large cities – 46.5%, small towns – 30.7% and villages – 22.8%. They declared to be in a good shape, as good health was reported by 99.1% of them, and only 8.1% mentioned suffering from chronic diseases, and 11.4% took medications regularly. Self-assessment of health was high. The health condition was assessed as very good by 34.3% of men and 36.4% of women, and as good by 54.3% of men and 34.1% of women. Self-assessment of physical fitness was also high: 28.6% of men rated their physical fitness as very good, 50% as good, and 15.7% as average. Among women, 25% declared very good, 34.1% good and 34.1% average physical fitness. Regular physical activity was mentioned by 45.5% of the women and 65.7% of the men, and periodic physical activity by 52.3% of the women and 34.3% of the men. The numerical characteristics of somatic features are presented in Table 2.

Table 2

Numerical characteristics of the height and weight of the examined students

Feature	Females (n = 44)				Males (n = 70)			
	M	SD	Min	Max	M	SD	Min	Max
Body mass [kg]	59.6	9.0	48	85	77.6	10.9	51	106
Body height [cm]	167.1	6.1	154	180	180.9	7.1	163	193

Level of physical activity of the surveyed male and female students

Compared to the female students, the male students revealed a generally higher overall level of physical activity (men – 5,210.8 MET; women – 3,422.7 MET). On average, higher rates of physical activity were achieved by the male students in all types of PA. The men and the women differed in terms of physical activity undertaken (Table 3). The female students were mainly active in the form of walking and intense exercise. The male students were more likely to engage in intense exercise rather than walking and doing moderate exercise.

Table 3

The level of physical activity expressed in MET-min/week units in individual categories of physical activity (PA) of the surveyed students

Feature	Females (n = 44)				Males (n = 70)			
	M	SD	Min	Max	M	SD	Min	Max
Walking	1553.6	1385.6	0	5940	1831.9	2396	0	11088
Moderate PA	694.5	761.3	0	3360	966.9	1085.8	0	5040
Intensive PA	1174.5	1262.6	0	4800	2412	2295.3	0	8640
Total PA	3422.7	2362.4	0	8865	5210.8	4050.8	0	23382

The surveyed male and female students were mainly characterized by a high level of physical activity, but their proportional share in the respective areas differed (Table 4). A high level of PA was observed in 88.6% of the male and 75% of the female students. A sufficient level of physical activity was achieved by 15.9% of the women and 4.3% of the men. 9.1% of the female students and 7.1% of the male students had an insufficient level of PA.

Table 4

The level of physical activity of the students by gender

Physical activity level	Females (n = 44)		Males (n = 70)	
	N	%	N	%
Insufficient	4	9.1	5	7.1
Sufficient	7	15.9	3	4.3
High	33	75	62	88.6
Total	44	100	70	100

The level of functional fitness of the surveyed male and female students

The surveyed male and female students show a similar average level of overall functional fitness (the men – 16.5 points, the women – 16.1 points). The results obtained by the respondents in individual attempts vary (Table 5). Only in two movement tasks was the average score the same: FMS4 (range of motion in the shoulder girdle) and FMS7 (balance and rotational stabilization of the trunk). The female students achieved statistically significantly higher results in two attempts: FMS3 (balance and stability of hip, knee and ankle joints) and FMS5 (flexibility of the rear thigh muscles). The male students performed better as far as the following three tests were concerned: FMS1 (mobility in the hip, knee, ankle and shoulder joints), FMS2 (level of lateral stability of the pelvis, trunk and hips) and FMS6 (trunk stability and arm muscle strength), with statistically significant differences only in the FMS6 sample. All respondents achieved the highest results in the FMS 4 and FMS5 tests.

Statistically significant differences also occurred for test samples classified as mobility (MP= FMS4 and FMS5) and stability (SP= FMS6 and FMS7) patterns. Compared to the male students, the female students achieved, on average, better results in test samples classified as mobility patterns (MP), the male students achieved better results in stability patterns (SP).

Table 5

Point values obtained by the subjects in the respective attempts of the FMS test and its general index and categories of movement patterns

Movement pattern	Female (n = 44)				Male (n = 70)				U	Z	p
	M	SD	min	max	M	SD	min	max			
FMS 1	1.9	0.8	0	3	2.1	0.7	0	3	1390	0.87	0.38
FMS 2	2.16	0.4	1	3	2.2	0.5	1	3	1413	0.74	0.46
FMS 3	2.8	0.4	2	3	2.3	0.5	1	3	924	-3.58	0.00
FMS 4	2.9	0.2	2	3	2.9	0.2	2	3	1514	0.15	0.88
FMS 5	2.9	0.3	2	3	2.6	0.6	1	3	1150	-2.27	0.02
FMS 6	1.5	0.7	1	3	2.3	0.7	1	3	690	4.95	0.00
FMS 7	2.1	0.4	1	3	2.1	0.3	1	3	1504	0.21	0.84
Total FMS	16.1	1.8	13	20	16.5	1.8	12	21	1368	1.00	0.32
GFA	2.07	0.5	1	3	2.2	0.5	1	3	1309	1.34	0.18
GP	6.80	1.2	4	9	6.6	1.2	4	9	1371	-0.98	0.33
MP	5.82	0.4	4	6	5.6	0.6	4	6	1173	-2.14	0.03
SP	3.50	0.8	2	5	4.3	0.8	3	6	750	4.60	0.00

GFA – general functional ability, GP – global patterns (FMS1 and FMS2 and FMS3), MP – mobility patterns (FMS 4 and FMS5), SP – stability patterns (FMS 6 and FMS7)

The level of functional fitness in most respondents (FMS test result in the range of 14–17 points) indicates the performance of movement patterns with compensation or asymmetry, which results in a 25–35% probability of injury. In this group, a higher percentage of women (70.5%) than men (67.1%) can be observed. Correct movement patterns (FMS test score above 18 points) are observed more often in the male students (28.6% of the respondents) than in the female ones (18.2% of the respondents). As for the level of functional fitness, indicating the lowest functional efficiency, the probability of injury increases to over 50% due to disturbed movement patterns (the score below 14 points in the FMS test) – 4.3% of the men and 11.4% of the women reported it.

Table 6

Assessment of the level of functional fitness of students by gender

Levels of functional ability	Female (n = 44)		Male (n = 70)	
	N	%	N	%
I – movement patterns disturbed, risk of injury 50%	5	11.4	3	4.3
II – movement patterns disturbed, risk of injury 25%-35%	31	70.5	47	67.1
III – correct movement patterns, minimal risk of injury	8	18.2	20	28.6

The relationship between physical activity and functional fitness in the surveyed students

There were statistically significant positive values of the correlation coefficient between the variable: V (intense PA) and FMS2 test trials ($r = 0.31$) and FMS 6 ($r = 0.28$), which indicates that with the increase in the duration of intense physical activity per week (e.g., fast running, fast cycling), the results of the attempt improve when it comes to lateral stability of the pelvis, trunk and hips and a trunk stability and arm muscle strength test (Table 7). Intense physical activity also shows a statistically significant positive correlation with stability patterns (SP = FMS6 + FMS7) ($r = 0.24$). Moreover, significantly positive correlations were noted between: total PA and FMS6 ($r = 0.23$) variable. It indicates that as the duration of total physical activity per week (total MET-min/week) of the surveyed students increases, the test result of trunk stability during symmetrical arm work and arm muscle strength improve. The coefficient values for the remaining pairs of variables do not show statistical significance.

Table 7

Spearman rank order correlations between types of physical activity (PA) and functional fitness as determined by the FMS test

Feature	W	M	V	Total PA
FMS1	0.06	0.06	0.07	0.06
FMS2	0.01	0.05	0.31*	0.17
FMS3	0.04	-0.03	-0.07	-0.09
FMS4	-0.09	0.01	-0.06	-0.13
FMS5	-0.05	-0.04	0.02	-0.08
FMS6	0.06	0.04	0.28*	0.23*
FMS7	-0.04	-0.06	-0.07	-0.12
Total FMS	0.02	-0.06	0.16	0.04
GFA	-0.06	0.03	0.12	-0.01
GP	0.05	0.03	0.12	0.05
MP	-0.07	-0.03	0.00	-0.10
SP	0.04	0.02	0.24*	0.18

W – walking, M – moderate PA, V – intense PA, GFA – general functional ability, GP – global patterns (FMS1 and FMS2 and FMS3), MP – mobility patterns (FMS 4 and FMS5), SP – stability patterns (FMS 6 and FMS7); * $p < 0.05$, ** $p < 0.01$

4. Discussion

Appropriate preparation of the body for physical activity constitutes the key element of training. Detecting abnormalities in functional efficiency can be helpful to minimize the risk of overload and injuries (Kochański et al., 2016). The FMS test is one of the tools that can be utilised to assess basic movement patterns. It can be used to assess people who engage in recreational or competitive activity.

Variations in FMS test scores have been observed in athletes in the context of the sport played and its proficiency level. For example, a study by Arslan et al. indicated that rowers had higher FMS test scores than soccer players (Arslan et al., 2021). In contrast, a study by Ridan et al. (2017) noted that soccer players had better FMS test scores than the control group. In weightlifting, for example, the average score was 18.08 points, with higher results for people with longer training experience (Adamczyk et al., 2012). Boxers scored an average of 14.84 points (Kochański et al., 2015), young female soccer players from China 16.2 points (Zhang et al., 2022), and NCAA Division 1 football students 14.3 ± 2.2 (Wil-ligenburg & Hewett, 2017). A review analysis by Bonazza et al. (2017) demonstrates that athletes have limitations in movement patterns, which increases their risk of injury. As such, the Functional Movement Screen (FMS) test is gain-

ing importance as a tool to identify asymmetries, weaknesses and movement limitations. Early detection of these problems leads to the implementation of targeted interventions and tailored training programs, which can reduce the likelihood of injury. The FMS test is also used to assess functional fitness in various professional groups. In soldiers, the average score was 14.8 points, with a greater risk of injuries observed with lower scores (Teyhen et al., 2012). Firefighters of the Volunteer Fire Department scored an average of 11.92 points, indicating a high risk of injuries (Kałużny et al., 2017). Physiotherapists scored an average of 13.51 points, with results ranging from 6 to 20 points (Kochański et al., 2016), which may suggest insufficient care for their own musculoskeletal system.

The results of our own research confirmed some of the tendencies described in the studies listed above. The functional efficiency of the surveyed students varies in general terms and in terms of basic movement patterns. The majority of the respondents obtained a result within the range of 14–17 points. This means that their movement patterns are disturbed, there are asymmetries and functional compensations, and the risk of overload injury is estimated at 25–35%. Correct movement patterns and minimal risk of injury, with a score of 18–21 points were more common among the men than the women. The score below 14 points, where the probability of sustaining an injury to the musculoskeletal system is estimated at 50%, was obtained by significantly more women than men.

The male and female students surveyed differed significantly in terms of movement patterns only in three tests: FMS3, FMS5 and FMS6. The men were, on average, better than the women in tests of trunk stability and rotational stability (SP), and the women performed better in active straight leg raises and arm mobility (MP) components, resembling the study by Schneiders et al. (2011). The women generally achieved better results in FMS3 and FMS4 tests, while the men achieved better results in FMS1, FMS2 and FMS6 tests. The highest number of points (2.9) was achieved by all subjects in FMS4 test (bilateral range of motion in the shoulder girdle) and by the women also in FMS5 test (flexibility of the rear thigh muscles). Most researchers agree that gender is not a factor differentiating the overall FMS test result within one research group. Schneiders et al. (2011), examining the functional efficiency of a population of active, healthy individuals, partially confirm the tendencies in gender differences in individual FMS test samples.

Some authors focus their research on analyzing gender variation in FMS test scores. Studies by Chimera et al. (2017) and Anderson et al. (2015) indicate that despite the lack of significant statistical differences in the total FMS test score between the sexes, significant differences are observed in the case of ratings of individual motor tasks of the FMS test. Also, Schneiders et al. (2011), studying the functional fitness of a population of active, healthy individuals, in part confirm the trend of gender differences in individual FMS test attempts. They

showed that men performed better in a test requiring stability and strength (FMS3 – in-line lunge, FMS6 – trunk stability push up and FMS7 – rotational stability), while women scored higher in a mobility test (FMS4 – shoulder mobility, FMS5 – active straight leg raise). Gender differences in these tests were also confirmed by Miller and Susa's (2019) study of Division IA collegiate athletes. These studies coincide with the regularities of human biological development in the context of sexual dimorphism, especially with regard to the level of development of individual motor characteristics (Kaczmarek & Wolanski, 2018; Kibler et al., 1989).

The greatest area of scientific interest in the context of FMS concerns the relationship between the FMS test and the risk of injury. Research on the FMS test and its relationship to injury risk among athletes has yielded mixed results. Kolodziej and Jaitner (2018) conducted their research on a group of men – amateur soccer players. Their results indicate that soccer players who scored below 14.5 in the FMS test had twice the risk of injury compared to the rest of the study group. Moreover, the risk of injury was significantly higher among players who scored low on specific stability exercises. Another study, conducted by Landis et al. (2018) on a group of 187 women practising various sports at the university level, showed significant differences in the FMS test results between athletes with and without injuries. FMS scores were lower among women with injuries, suggesting that the test may be used to identify female athletes at a higher risk of injury. Kiesel et al. (2007) found in their study that athletes with an FMS score of 14 or less had as much as 11 times the risk of in-season injury compared to those who had a score of 15 or more. These results demonstrate the potential merit of the FMS test as a tool for predicting injury risk. In contrast, other authors suggest that the FMS test can be a useful tool to identify athletes with an increased risk of injury, but that a low FMS test score has no direct correlation to injury occurrence. Dorrel et al., 2015 indicate that the diagnostic accuracy of FMS for predicting injury is low. A study by De la Motte et al. (2019) found little predictive value and limited clinical utility of the FMS test. Maltownik et al. (2017) also found no clear relationship between FMS scores and injury risk among handball players.

Other research points to the link between muscle flexibility and the risk of injury. De la Motte et al. (2019) and Witvrouw et al. (2004) noticed that athletes with less muscle flexibility were more susceptible to injuries. Bradley and Portas (2007) confirmed these results, indicating that greater muscle flexibility may provide athletes with a safeguard against injuries.

The quality of movement patterns and the level of physical fitness influence the risk of injury, which raises further questions as to their relationship (Koźlenia & Domaradzki, 2021; Lisman et al., 2013). In literature, attempts have been made to establish relationships between functional and physical fitness, but cer-

tain differences in observations do not allow for definite conclusions on this issue to be reached. In the research by Koźlenia and Domaracki (2021), in young, healthy women, the abdominal muscle flexibility and strength are significantly associated with the quality of movement patterns, expressed as the overall FMS score and FMS asymmetries. Moreover, flexibility is the component of physical fitness that exerts the most substantial impact on the quality of movement patterns in the overall FMS score and the number of asymmetries, while abdominal muscle strength only affects asymmetries in FMS. These results indicate the importance of abdominal muscle flexibility and strength for the quality of movement patterns among young women. The appropriate range of motion in the joints with the strength of the abdominal muscles that provides trunk stability helps avoid movement compensation. This potentially suggests that FMS outcomes may be shaped during the development of abdominal muscle flexibility and strength (Koźlenia & Domaradzki 2021).

The research by Lloyd et al. (2015), on the other hand, revealed that among young soccer players (aged 11-16), a deep overhead squat, in-line lunge, active straight leg raise and rotational stability test were significantly correlated with all physical fitness tests performed. This study showed that variation in the physical fitness of young soccer players could account for the performance of the functional test.

There are questions among researchers as to the relationship between the level of physical activity and the level of functional fitness assessed by the FMS test. In our own research, the men were more physically active (5210.8 MET-min/week) than the women (3422.7 MET-min/week). The male students more often performed intensive exercise (PA = 2412 MET-min/week), while the female students preferred walking activity (PA = 1553.6 MET-min/week). Moderate activity undertaken by the male and female students is clearly lower (F = 694.5 and M = 966.9 MET-min/week). No significant relationship between moderate physical activity and walking with FMS test results was found. Only the results of test 6 (stabilization of the torso during arm work and arm muscle strength) significantly correlated with the total and intense physical activity of the respondents. FMS2 – assessing the functional stabilization of the pelvis, trunk, and hips was only associated with intense physical activity. Moreover, intense physical activity also shows a statistically significant positive correlation with stability patterns (SP = FMS6 + FMS7).

Other studies also confirm that low total physical activity (expressed in MET-min/week) has no significant relationship with FMS test results among students (Liu et al., 2023). In the same study, regression analysis was used to show the relationship between individual variables, including the level of physical activity, BMI, FMS test result, and sports injuries. It was shown that the composite FMS score and the level of physical activity, expressed in MET-min/week, are a more

significant predictor of sports injuries than gender, BMI and age. The study demonstrated that the FMS composite score is an acceptable predictor of injury in a sample of college students with low to moderate levels of physical activity. It indicates that the FMS result can correctly identify people at risk of sports injury who belong the group of low and moderate levels of physical activity.

The cited studies can be accounted for by the fact that people with low and moderate physical activity often exhibit impaired movement patterns, resulting in greater susceptibility to injury. In contrast, in people with high physical activity, the risk of injury, despite good motor preparation, is associated with many other factors, especially in a dynamic and unpredictable sports environment, hence the predicting and preventing acute emergency injuries is extremely difficult.

5. Conclusions

1. The surveyed male and female students are characterized by a high level of physical activity. The men are more active and engage in intense activity, while the women engage in more frequent walking.
2. In most subjects, movement patterns are disturbed due to asymmetries and functional compensations that require preventive measures and compensatory exercises. The risk of injury estimated based on the FMS assessment is 25 – 35%.
3. The probability of sustaining an injury to the musculoskeletal system is estimated at 50% and it occurs more often in the women. Participating in special exercise programs improving weak links in the kinematic chain is recommended.
4. Compared to the male students, the female students achieved, on average, better results in test samples classified as mobility patterns (MP), the male students achieved better results in stability patterns (SP).
5. Significant relationships are observed between intense physical activity of the surveyed students and lateral stabilization patterns of the pelvis, trunk and hips (FMS 2), trunk stabilization (FMS6) and stability patterns (SP = FM6 + FMS7). Total physical activity shows a significant positive correlation only with the test assessing trunk stabilization (trunk stability push up).

STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Bioethics Committee of the Regional Medical Council in Zielona Góra (No. 07/118/2019, Zielona Góra, Poland). All participants provided written informed consent to participate in this study.

DECLARATION OF CONFLICTING INTERESTS

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REVISITING INTENTION IN FOOD SERVICE OUTLET OF FIVE-STAR HOTELS: A QUANTITATIVE APPROACH BASED ON FOOD SERVICE QUALITY

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Zamiar ponownych odwiedzin w świetle usług gastronomicznych pięciogwiazdkowych hoteli: podejście ilościowe oparte na jakości usług gastronomicznych

Streszczenie

Celem badania było ustalenie, w jaki sposób jakość usług gastronomicznych wpływa na satysfakcję gości, i ponowne przyjrzenie się polityce hotelowych usług gastronomicznych. Zebrano 260 odpowiedzi od gości 17 restauracji pięciogwiazdkowych hoteli, a proponowane korelacje przeanalizowano za pomocą PLS-SEM. Ankiętę przeprowadzono wśród gości restauracji hoteli pięciogwiazdkowych, w rezultacie potwierdzono dwie z trzech przedstawionych hipotez i pięciowymiarowy charakter DINESERV. Niniejsze badanie analizuje zastosowanie DINESERV w restauracjach w celu pogłębienia wiedzy na temat jakości usług gastronomicznych. Przeprowadzone badanie dostarcza empirycznych spostrzeżeń na temat jakości usług gastronomicznych oraz satysfakcji gości, w powiązaniu z chęcią ponownej wizyty. Analiza DINESERV tego badania poszerza wiedzę o zarządzaniu hotelami z punktu widzenia zarówno gości, jak i pracowników. Wyniki badania poszerzyły wiedzę na temat najlepszych praktyk w zakresie jakości usług gastronomicznych w branży hotelarskiej i myślenia o nich. Badanie ocenia jakość usług gastronomicznych i odpowiada na kilka fundamentalnych pytań dotyczących znaczenia zadowolenia gości, jego praktycznych implikacji oraz zrozumienia, dlaczego goście zapewne wrócą do pięciogwiazdkowego hotelu w Bangladeszu.

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Kierownik ds. żywności i napojów w hotelu może wykorzystać wyniki badań, aby zaoferować gościom niepowtarzalne doświadczenie w celu zwiększenia szans na ich ponowne odwiedziny, zapewniające hotelowi dochód.

Słowa kluczowe: branża hotelarska, jakość usług gastronomicznych, satysfakcja gościa, zamiar ponownych odwiedzin.

Abstract

This research looked at how food service quality impacts guest satisfaction and revisited the intention of a hotel's food service outlet. We have collected 260 responses from restaurant patrons of 17 five-star hotels, and the proposed correlations were carried out using PLS-SEM. A questionnaire was administered to the restaurant guest of five-star hotels, resulting in evidence confirming two of the three presented hypotheses and the five-dimensional nature of DINESERV. This study examines the DINESERV application in restaurants to advance knowledge of food service quality. The research provides empirical insights regarding food service quality and guest satisfaction, being simultaneously linked with a revisiting intention. The DINESERV analysis of this study broadens knowledge within and beyond hotel management research. The output of the study has enhanced understanding of learning and thinking of the best practice in the hotel industry's food service quality. The study assesses food service quality and answers some fundamental questions concerning the importance of guest satisfaction, its practical implications, and understanding why guests are likely to return to a five-star hotel in Bangladesh. The hotel's food and beverage manager can apply the study findings to create a valuable experience for their hotel guests so that they would like to return, and ensure revenue.

Keywords: hotel industry, food service quality, guest satisfaction, revisiting intention.

Introduction

Due to increased competition among hotels and restaurants, gaining new guests does not guarantee revenue and success, but keeping current guests is critical (Liasidou et al., 2023). A competitive restaurant business environment provides guests with more options for selecting new catering establishments for food service quality. It is recommended by García-Salirrosas et al. (2022) that the high quality of food service be essential for building guest satisfaction and pride in the study. According to Majid et al. (2018), any food service establishment's primary objective is to provide quality food service quality so that guests get good value for their money. As a result, the food service industry is now a lucrative entrepreneurial venture. The rigor and trustworthiness of visitors toward 5-star category hotels will become challenging to investigate, paving the way for learning in the food and beverage service area. Bangladesh has 17 five-star hotels, among them eight five-star hotels in Dhaka (Mocat, 2023).

According to a survey conducted in star-category hotels, the hotel industry must enhance the quality of food service to survive in a competitive marketplace. Many researchers, i.e. George (2021), Nazri et al. (2022), and Talukder et

al. (2023) used the SERVQUAL version to measure first-rate service quality. On the other hand, LODGQUAL (Lodging Quality Model) has emerged as a specific program for the hotel business. This version is entirely based on SERVQUAL and is used in the lodging industry to estimate first-rate carrier. LODGSERV and HOLSERV were improved using the SERVQUAL version (Lodging Services Model). This version has been enhanced to examine the high quality of the hotel's food service offerings. The DINESERV version appears to be the best for grading first-rate food service quality (George, 2021; Talukder & Bhuiyan, 2021). The study by Knollenberg et al. (2021) expected to use the version's twenty-nine tools to obtain powerful outcomes, including 10 in tangibility, five in reliability, three in responsiveness, six in assurance, and five in empathy.

Therefore, we anticipate that enhancing the quality of the food services and guests' satisfaction with the hotel's food services will increase the intention to return to five-star hotels. To better understand the hotel sector, this study blends the quality of the food service with that of the guests' satisfaction.

Literature review

Food service quality

In a restaurant, the quality of the food and service is crucial for ensuring guest satisfaction (Nazri et al., 2022; Talukder et al., 2023). The research done by Biswas and Verma (2022) mentions that the quality of food service is essential in meeting the guest's needs and expectations, which is an integral part of a restaurant's total food service experience. The most important consideration when choosing a restaurant is food service quality, which is closely tied to guest satisfaction and their intent to revisit (Choi et al., 2022). It influences guests' intention to return, and guests evaluate the restaurant based on food service quality. Food service quality affects guests' satisfaction and willingness to return to the restaurant, based on speedy services (Ahmed et al., 2022). Some guests remarked on a sense of urgency about services because they might have sped outside the hotel premises (Kabadayi et al., 2020; Talukder, 2020). The impact of restaurant features and advantages was investigated taking into account patron satisfaction, behavioral intention, and restaurant familiarity (Tuncer et al., 2021).

Given that the variety of menu items is an essential aspect of the quality of food service, academic interest in restaurant menus is expanding (Baiomy et al., 2019). The research conducted by Mensah and Mensah (2018) mentioned that the reassurance of quality services is a significant aspect of food services. After getting food services, guests want to evaluate the services with perception impacting the overall food quality (Uzir et al., 2021).

Quality of food service is a relatively new concept because it measures the excellence of brands that impact the primary and secondary catering industry. The level of service provided by food service establishments affects how well guests are served (Slack et al., 2020). The quality of the food service leaves a lasting impact on guests, who then judge the standard of luxury hotels (Padma & Ahn, 2020). To maintain a sustainable competitive advantage, the food service industry provides high-quality food service to its guests (Knollenberg et al., 2021). The restaurant's food service quality determines guest satisfaction because the level of friendliness and care influences guests' evaluations of food service quality resulting in positive word of mouth, guest satisfaction, increased revisits, and increased business performance. Previous research by Megahed and Abbas (2021) and Padlee et al. (2019) suggests that food service quality improves guest revisits and behavioral intentions in the food service outlet of the hotel industry.

Guest satisfaction

Guest satisfaction encompasses pleasure and wellbeing in the service industry (Falter & Hadwich, 2020). Understanding what the guest expects from the service increases guest satisfaction (Padma & Ahn, 2020). According to Wijaya et al. (2019), consumer behavior and social psychology have extensively researched guest satisfaction. In the hotel industry, guest satisfaction is defined as "the guest's subjective assessment of the consumption experience based on certain associations between the guest's perceptions and objective product characteristics" (Talukder & Hossain, 2021; Zhang & Yang, 2021, Michel et al., 2021). The extent to which a consumption experience evokes favorable feelings is known as guest satisfaction (Lajante et al., 2021). Guest satisfaction "compares the guests' perceived efficiency, quality, or other consequences of a good service that meets an evaluation criterion" (Al Karim, 2019). The definition of "guest satisfaction" is "a guest's overall evaluation of an experience" (Padma & Ahn, 2020). Guest satisfaction results from meeting guests' needs (Aburayya et al., 2020). Guest satisfaction leads to increased repeat purchases and referrals (Shamsudin et al., 2020). Disappointed guests are reluctant to revisit the establishment (Ineson et al., 2019). A positive dining experience can encourage patrons to come back (Chen et al., 2019). When guests seek great core items and a high level of service because they are satisfied with the brand, positive WOM is generated (Serra-Cantalops et al., 2020). It was discovered that the quality of a website's service contributes to guest satisfaction, influencing guest satisfaction and engagement behaviors on kindness and professionalism (Muharam et al., 2021).

Many academics have studied guest satisfaction and service quality in various businesses. The research conducted by Parasuraman, Berry, and Zeithaml

was the most widely recognized example of standard service elements. SERVQUAL is a twenty-two-item instrument for evaluating service quality (Getachew, 2019). It was divided into two stages, including 29 items and ten service quality determinants (Shafei et al., 2019). Due to determinant overlap, the correct number was reduced to five. Tangibility, empathy, responsiveness, assurance, and empathy were the factors (Pakurár et al., 2019). It was suggested that the resulting model be used in future studies because it was reliable and valid. One of the previous models' shortcomings was that they needed to consider the impact of guest satisfaction on the growth of guest revisit intention levels (Damanik & Yusuf, 2022).

Revisit intention

Revisiting intention is “the extent to which a person has made conscious plans to perform or refrain from performing certain future behaviors” (Arya & Chaturvedi, 2020). This study refers the intent to revisit to the likelihood that visitors will return to the food service outlet (Richardson et al., 2019). The revisit aims to help “guests willing to return to a similar location for satisfying experiences and recommend the location to friends to develop loyalty” (Kumar et al., 2020). Guests form relationships with service providers based on their previous experiences with them (Kabadayi et al., 2019). This attitude can be manifested as a persistent reluctance to experience any similar service (Willis et al., 2020). This pertains to the visitor's desire to support the business and spread word of mouth (eWOM) online (Verma & Yadav, 2021). The intention to return is at the heart of the guest's satisfaction and commitment to return (Amoako et al., 2019). The desire to repurchase is essential to behavioral constructs and attitudes (Lim & An, 2021). The intention to return was described as an optimistic probability of returning to the restaurant (Rajput & Gahfoor, 2020).

Price was determined to be the most important factor, influencing the revisit intention in food service outlets of the hotel industry (Hashim et al., 2023). Price is also affected by geographic, demographic, psychographic, and behavioral factors (Ali & Ali, 2020). It is also directly related to the hotel's profitability. However, price determines the connection between value perception and quality. In a competitive environment, the cost can also attract more guests to a restaurant. Furthermore, a good location and good food service quality can influence revisit intention and profitability (Chun & Nyam-Ochir, 2020).

Objectives of the study

The researchers proposed the following goals for the remainder of the study based on available literature and current events:

- to analyze the relationship between food service quality and guest satisfaction of the five-star hotels of Dhaka,
- to investigate the relationship between food service quality and revisit intention of the five-star hotels of Dhaka guests,
- to ascertain the effect between guest satisfaction and revisit intention of the five-star hotels of Dhaka guests.

The hypothesis of the study

In five-star hotels, our study examined the connection between the food service quality level, guest satisfaction, and a revisit intention. The model described above is seen in Figure 1.

- H1** Food service quality positively affects guest satisfaction with five-star hotels in Dhaka.
- H2** Food service quality positively affects a revisit intention towards five-star hotels in Dhaka.
- H3** Guest satisfaction positively affects a revisit intention towards five-star hotels in Dhaka.

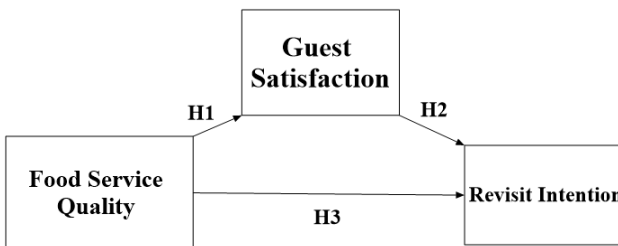


Figure 1

The proposed food service quality, guest satisfaction, and revisit intention model. Conceptual Framework

Source: Compilation by the Authors.

Research methods and materials

We opted to utilize the developed DINESERV tools (Abezie, 2020), which have proven to help measure guest satisfaction with food service quality. Additionally, we selected this model because it was created especially for the hotel sector. What is more, we used this pre-developed questionnaire to maintain objectivity concerning the established criteria and prevent future results from being skewed by our ideas or suggestions.

Food service quality, guest satisfaction, and the likelihood of a repeated visit were initially examined. We then experimented to see whether or not the hypothesized connections between the variables were stable. This indicates that we employed a deductive strategy in our investigation.

We utilized a preexisting survey and the DINESERV tools to collect accurate data from 260 participants on their evaluation of the food service quality, guest satisfaction, and a revisit intention. The questionnaire was distributed to the restaurant patrons of 17 five-star hotels in Bangladesh.

Since it was the most practical way to visit the top five-star hotels in Dhaka city, we chose non-probability convenience sampling. Additionally, we accomplished this by handing out comment cards to visitors in the dining areas of five-star hotels in Dhaka between June and December 2022. Other approaches were abandoned due to ethical and legal constraints that forbade the release of guest information without their express written consent.

Analysis and experiment results

We evaluated the data using the SPSS, SmartPLS software, and structural equation modeling (SEM). The characteristics of the sampled participants are displayed in Table 1 below. Table 2 shows the average values and ranges for guest satisfaction, food service quality, and the likelihood of returning.

Reliability test

The reliability of the questionnaire was evaluated using the Cronbach alpha test. Table 3 displays the results of the tests for the variables' reliability. With all reliability estimates above 0.70, scale reliabilities seem to be acceptable (Siri-mongkol, 2022).

First, the measurement model's convergent validity was tested. With the help of Composite Reliability (CR) and Factor Loadings, we analyzed the AVE (Dash & Paul, 2021). Table 4 displays that all composite reliability ratings for predicting the latent construct using the construct indicators exceed the threshold value of 0.7 (Ali et al., 2016). Table 4 shows that the variation explained by the latent construct was more than the threshold of 0.5 for the indicators (Ali et al., 2016).

We looked at the discriminant validity, measured by ensuring a few correlations between the significance and other concept measurements. Discriminant validity is "the extent to which the measurements are not a reflection of some other variables" (Ramayah et al., 2014). Table 5 demonstrates good discriminant validity by showing that the sum of the square roots of the values of all the constructs exceeds the corresponding correlation coefficients (Ab Hamid et al., 2017).

Table 1

The respondents' characteristics

Characteristics	n	%
Gender of the participants		
Female	124	47.7
Male	136	52.3
Age of the participants		
18-25	33	12.7
26-35	108	41.5
36-45	108	41.5
>45	11	4.2
Education of the participants		
HSC	13	5
Graduate	97	37.3
Postgraduate	149	57.3
PhD	1	0.4
Monthly income		
< 20000	37	14.2
20000-30000	63	24.2
30000-40000	72	27.7
40000-50000	47	18.1
50000 – 60000	27	10.4
60000- 70000	10	3.8
>70000	4	1.5

Source: Authors' Compilation.

Table 2

Mean values and standard deviations for food service quality, guest satisfaction, and revisit intention

Descriptive Statistics			
Study variables	N	Mean	Std. Deviation
Food Service Quality	260	3.8423	.66109
Guest Satisfaction	260	3.7067	.75556
Revisit Intention	260	3.8096	.77233
Valid N (list-wise)	260		

Source: Authors' Compilation.

Table 3
Reliability outcomes

Categories	No. of items	Cronbach's Alpha
Food service quality	10	0.965
Guest satisfaction	8	0.938
Revisit intention	6	0.876
Total	24	0.880

Source: Authors' Compilation.

Predicted structural features: outcome from smartPLS 3

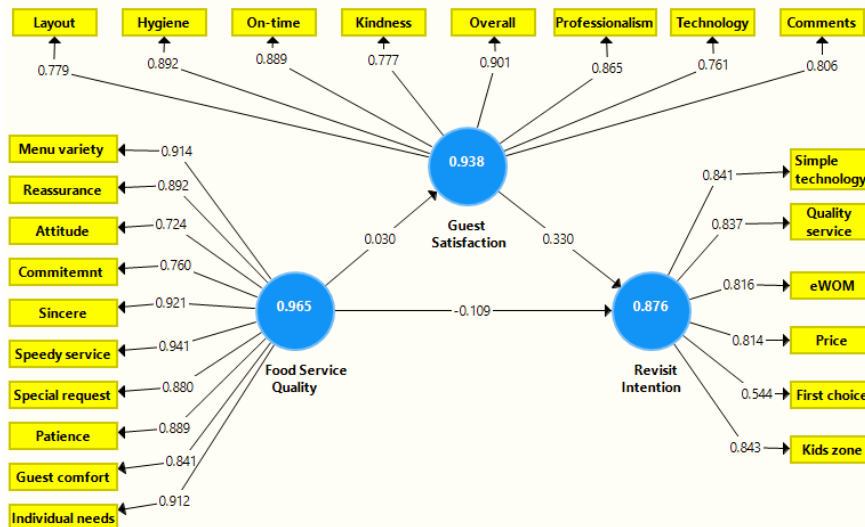


Figure 2

Estimation of the coefficient values and visualization of the pathways for structural models with all variables associated. Source: Compilation by the Authors

Table 4
Construction of reliability and validity

Study Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Food Service Quality	0.965	0.989	0.969	0.757
Revisit Intention	0.876	0.870	0.907	0.624
Guest Satisfaction	0.938	0.946	0.948	0.698

Source: Authors' Compilation.

Table 5
Discriminant Validity

Study Variables	Food Service Quality	Revisit Intention	Guest Satisfaction
Food Service Quality	0.870		
Revisit Intention	-0.099	0.790	
Guest Satisfaction	0.030	0.327	0.835

Source: Authors' Compilation.

Our research has shown that a measuring model is necessary in order to establish the convergent validity of the test, and this model has been shown to have sufficient convergent and discriminant validity. Table 6 also presents the Heterotrait-Monotrait (HTMT) ratio of correlations, which evaluates discriminant validity by reflecting on how it compares to other construct measures within the same model. This ratio may be found in the footnotes of the table. The vast majority of the research published so far suggests that discriminant validity between two reflective conceptions may be demonstrated if the HTMT score is lower than 0.90 (Hair et al., 2021).

Table 6
Heterotrait-Monotrait Ratio (HTMT)

Relation between study variables	HTMT score
Food service quality with a revisit intention	0.103
Food service quality with guest satisfaction	0.070
Guest satisfaction with a revisit intention	0.315

Source: Authors' Compilation.

Table 7
Cross loading

Measures	Study variables		
	Food Service Quality	Revisit Intention	Guest Satisfaction
Attitude	0.724	-0.025	0.006
Comments	0.033	0.285	0.806
Commitment	0.760	-0.005	0.065
First choice	-0.117	0.544	0.291
Guest comfort	0.841	-0.133	-0.007
Hygiene	-0.015	0.253	0.892
Individual needs	0.912	-0.078	0.060
Kids zone	-0.086	0.843	0.282
Kindness	0.054	0.306	0.777
Layout	0.094	0.264	0.779

Table 7
Cross loading (cont.)

Measures	Study variables		
	Food Service Quality	Revisit Intention	Guest Satisfaction
Menu variety	0.914	-0.069	0.026
On-time	0.064	0.246	0.889
Overall	0.008	0.292	0.901
Patience	0.889	-0.060	0.051
Price	-0.105	0.814	0.079
Professionalism	-0.064	0.322	0.865
Quality service	-0.016	0.837	0.265
Reassurance	0.892	-0.095	0.007
Simple technology	-0.013	0.841	0.251
Sincerity	0.921	-0.073	0.046
Special request	0.880	-0.090	0.022
Speedy service	0.941	-0.109	0.026
Technology	0.056	0.122	0.761
eWOM	-0.122	0.816	0.229

Source: Authors' compilation.

Table 8
Multicollinearity statistics

Model	Coefficients	
	Collinearity Statistics	
	Tolerance	VIF
Food service quality	.998	1.002
Guest satisfaction	.998	1.002

Source: Authors' Compilation.

Table 9
Common method bias

Component	Total Variance Explained					
	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Food service quality	1.278	42.610	42.610	1.278	42.610	42.610
Guest satisfaction	1.021	34.049	76.658			
Revisit intention	.700	23.342	100.000			

Extraction Method: Principal Component Analysis.

Source: Authors' compilation.

In Table 7 above, values in bold represent components under a specific concept (Nisar et al., 2021). Loadings across columns show that an indicator's significance is greater when used with its construct than with other constructs. The findings demonstrate that all ideas have discriminant validity in accordance with the cross-loadings requirement. With tolerance values below 0.20 and VIF values over 5, the critical importance for collinearity, a multicollinearity test was run using the tolerance and VIF values shown in Table 8.

Common method variance can significantly impact the observed connections between predictor and criterion variables (Podsakoff et al., 2003). According to Table 9, common method bias does not exist for further analysis when the proportion of variance is less than 50%.

The suggested model with three components was estimated using the SEM. The path coefficients for each of the model's proposed pathways are displayed in Table 10.

Hypothesis 1: The findings indicate a correlation between food service quality and guest satisfaction in the restaurants of five-star hotels, with a standard coefficient of 0.030 confirming the association.

Table 10
Estimation of Structural Parameters (Checking the Hypothesis)

Speculative route	Coefficient	Result
Hypothesis 1: FSQ Vs GS	0.030*	Supported
Hypothesis 2: FSQ Vs RI	-0.109*	Not Supported
Hypothesis 3: GS Vs RI	0.330*	Supported

Note: * $p < .05$. Source: Authors' compilation.

Hypothesis 2: Results show that although there is an association between food service quality and a revisit intention, statistical analysis could not support the link; the standard coefficient was -0.109.

Hypothesis 3: The study showed a correlation between guest satisfaction and intent to return to the five-star hotel's restaurant, with a standard coefficient of 0.330, validating the hypothesis.

Conclusion and discussion

It is important to remember that at 5-star hotels, guest satisfaction and food service quality are vital determinants of whether they would return. The study's findings align with a few others from the past. The results of earlier studies suggesting a correlation between guest satisfaction and propensity to revisit are

consistent with this conclusion. According to our research, the five-star hotel restaurant's food service quality significantly impacts guests' contentment. According to Nisar et al. (2021), the caliber of the hotel's dining services can affect guest satisfaction at five-star hotels. It also agrees with the vast majority of studies that have found that high-quality food service is a key factor in guest satisfaction across many service businesses, including hotels, restaurants, and cruise ships.

According to a study by Takiieddine and Tabbah (2020), the COVID-19 pandemic has made people more worried about viruses and infectious diseases, significantly impacting where they choose to eat and how satisfied they are with the service they receive. To increase the likelihood of repeat business, food service managers must increase guest satisfaction.

Restaurant guests are more likely to return to the same hotels in the future if they are pleased with the food service. In addition to providing high-quality food service, five-star hotels' food service outlets must be professionally run, clean, and hygienic to maintain a positive relationship with its guests and encourage them to return (Sepula, 2019).

But as mentioned by Hasan et al. (2020), we also discovered that the intention to return to a restaurant is directly unaffected by food service quality. This is consistent with the conclusions of Spagnoletti (2018), who claimed that food service quality has little bearing on guests' intent to return to a hotel. However, the data indicates that if visitors are not pleased with food service quality, they might not stay at the same hotel again (e.g., poor menu, late service, or less sincerity).

According to the study's findings, the quality of the food service provided at the hotel's five-star restaurant is critical in determining whether a guest would be satisfied. Additionally, the likelihood of returning is positively impacted by guest satisfaction. Interestingly, the food service quality level does not directly affect whether they plan to revisit.

These results support the need for high-quality food service, satisfied guests, and a desire to revisit. In evaluating the high standard of food service quality that may be expected to be found in the restaurants of five-star hotels, we have discovered some original contributions to the studied topic. It emphasized elements of guest satisfaction that may be maintained appropriately to encourage hotel guests to return. The study also confirms findings from earlier studies by demonstrating that food service quality does not directly impact the component of a revisit intention. However, successful return visits depend heavily on guest satisfaction factors in five-star hotels. DINESERV theoretically seems to be the best method for evaluating the caliber of the meal service offered by a hotel's food service outlet. The practical implication suggests that guest satisfaction with food service quality needs continuous improvement for guests to prompt their intention to revisit the hotel's restaurant. Lastly, the hotel authority should

prioritize creating guest satisfaction with food service quality. They can use the necessary dimensions of the study as a marketing tool for food campaigns on social or other media. It would have been preferable if we had managed to interview the hotel personnel, especially those at a higher level, to make the research generate new insights. However, there is not much time left for us to go further. Non-probability sampling was the method used for sampling (i.e., convenience sampling). This is due to a time limitation, and the cost of doing it is expensive. Therefore, we propose that future researchers use probability sampling in their research. Additionally, it will be advantageous if they can determine the effects of food service quality in other star-category hotels in Bangladesh.

STATEMENT OF ETHICS

This study titled *Revisiting intention in food service outlet of five-star hotels: A quantitative approach based on food service quality* was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Department of Tourism and Hospitality Management of Daffodil Institute of IT, Dhaka, Bangladesh. The participants of the study are hereby providing consent to participate in this study.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *Revisiting intention in food service outlet of five-star hotels: A quantitative approach based on food service quality*.

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**BIOGRAMY, DYSKUSJE, POLEMIKI, RECENZJE,
PRZEGLĄD WYDAWNICTW, SPRAWOZDANIA**



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[REV.] WOJCIECH J. CYNARSKI, *SOCIOLOGY OF FIGHTING ARTS*, WYDAWNICTWO UNIWERSYTETU RZESZOWSKIEGO, RZESZÓW 2023, PP. 120

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The subject of this review is a book written by Wojciech J. Cynarski *Socjologia sztuk walki / Sociology of Fighting Arts*. The content value of the aforementioned study, the structure retained, and the Author's formulation and explanation of the issues taken up will be discussed.

Thus, this review will consist of a discussion and evaluation of the thematic structure of the book and its content. The whole will be supplemented by a brief description of the silhouette of W.J. Cynarski.

The author of the reviewed book (a representative of physical culture sciences and sociology) is a scientist who, among other things, studies issues related to martial arts, combat sports and similar forms of activity (not only within the framework of physical culture). He is the author of a number of books on various fighting arts,¹ about eight hundred scientific publications, as well as the editor (or co-editor) of thirty volumes of printed volumes – non-serial publications. The author of *Sociology...* works at the Institute of Physical Culture Sciences of the College of Medical Sciences of the University of Rzeszow in Poland. He is also the leader of the complete Idokan Yoshin-ryubudo and Shibu Kobudo martial arts system in this country. He has been president and technical director of the Idokan Poland Association (IPA) since 1993, and president of the Interna-

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¹ W.J. Cynarski, *Martial Arts and Combat Sports. Towards the General Theory of Fighting Arts*, Katedra, Gdańsk 2019.

tional Martial Arts and Combat Sports Scientific Society (IMACSSS) since 2010. He has been practising martial arts and combat sports since 1977.²

The reviewed book consists of an introduction and six chapters (summaries are included only in selected chapters). The whole is supplemented by an index of concepts and an index of names. On the other hand, there is no summary of the entire book.

In the first chapter, a theoretical introduction is made. The theory of martial arts from the perspective of sociology, the current state of knowledge, as well as inspirations referring to the work of Margaret S. Archer are considered (within the framework of subchapters). The content of this chapter is supplemented by the author's discussion and conclusions. However, in the introduction to this part of the study, W.J. Cynarski poses the question regarding the existence and possibility of functioning in the scientific space of the sociology of martial arts as a sociological sub-discipline. In doing so, he proposes a semiotic approach (taking into account the symbolic dimension of the level of physical culture, mass culture and symbolic culture) and a new paradigmatic approach (using at the same time a systemic, humanistic/anthropocentric and cultural approach).

The second chapter presents the phenomenon of combat sports. Wojciech J. Cynarski undertakes the task of discussing the subject of audience needs regarding the existence of spectacles and modern gladiators. Other topics include ludic forms of combat, the modern world of sports and the participation of combat sports in it, the functioning of women in combat sports, the issue of amateurs and professionals in the same forms of physical culture, as well as the pathologies of combat sports in the modern world. Meanwhile, in a small summary, the author claims that,

The main change is the sportisation of many martial arts, in the sense of introducing them to the tracks of sports competition. Athleticism is both one of the causes and a manifestation of the globalization of martial arts – their global spread.

The third chapter discusses the athleticization of martial arts. To this end, W. J. Cynarski included here six subsections (*Between Tradition and the Olympic Idea, Globalization of Judo, Taekwondo and Karate, Dilemmas of Traditionalists and Innovators and Adaptations Against Tradition, Relations Between Sensei and Students, Institutional Justification of the Differences Between Teacher and Trainer, and Discussion*). In this aspect, the author discusses, among other things, aspects accompanying globalization and institutionalization of fighting arts. On this occasion, he also presents the claim that athleticism as a sub-process of cultural globalization is closely linked to commercialization, and that it

² L. Sieber, P. Pawelec, *Professors of Martial Arts. Holders of This Title in Martial Arts Science*, "Ido Movement for Culture. Journal of Martial Arts Anthropology" 2016, vol. 16, no. 3, pp. 15–26.

itself has a negative impact on the cultural and national heritage expressed by martial arts. However, at the same time he acknowledges that commercialization enables, among other things, their popularization.

Symbolism in the Physical Culture, Selected Symbols from Some Asiatic and European Military Cultures, Fashion for Recreation with a Japanese Sabre, Tourism for Martial Arts Studies "at the Source", Raising Your Child Through Discipline (Educational Systems), Qi Energy and Health are the titles of the subsections of chapter four relating to the issues of attractiveness of martial arts of the classical kind. The author locates the analysis devoted to it, among other things, in the symbolic perspective ("[...] The code thus established co-creates the axionormative system of a given culture or subculture.") and criticises the attribution of spirituality to some elements characteristic of Japanese martial arts ("[...] Ki is sometimes associated with spirituality, which the author considers to be completely wrong.").

Chapter five takes up the subject of corporeality and spirituality in martial arts. Brief characteristics of various spiritualities, knowledge of truth and reception of the body are elements of the content referring to its sociological approach. As the author himself pointed out,

For centuries, religious systems have been establishing the norms of social functioning, providing a person with a sense of "axiological security". It is also important to build on those canons of morality and spirituality that have proven themselves over the centuries. Isn't getting to know the systems of psychophysical improvement, coming from foreign cultures, some kind of threat to "spiritual health"? For a person with a strong identity, probably not [...].

The sixth chapter contains the subject of ideological orientations and pro-social attitudes from the perspective of the Author's considerations regarding the analysis of attitudes taking on three components: knowledge, emotion and behaviour (with these foundations the heritage of martial arts could be spread more widely than before). He also briefly discusses the character types of young people (Narcissus, Jopek, Julka, Oskarek, Seba, Zaneta, Krystian), along with a brief characterization and assessment as to their potential or actual involvement in the process of adopting theoretical and practical knowledge of martial arts.

The analysis of the book described in the previous chapters will also follow its structure. In this aspect, issues will be addressed in accordance with the content of the study under discussion.

In the first chapter, which is a theoretical perspective, the author rightly locates sociological theory as a development of the scientific school of another Polish researcher, Zbigniew Krawczyk. He also positively refers to the theory of M.S. Archer, although, as he himself admits, the cited practical application of the theory of the said researcher was made only on the basis of selected threads. Wojciech J. Cynarski repeats the claim present in the literature that

martial arts transcended the realm of physical culture long ago and entered, among other things, mass culture. However, the author also poses an interesting question regarding the atavistic needs concerning violence that may characterize modern man. Also noteworthy is the depiction of four archetypes of women practising various fighting arts (warrior, princess, dancer and witch).

Wojciech J. Cynarski also presents the thesis on the athleticization of martial arts. Among other things, the author points out the crossroads between tradition and the Olympic idea. In addition, using Japanese martial arts as an example, the author presents the issue of teaching law and the relationship between sensei and students. It can be assumed that in light of the subject matter shown, another interesting study would be the analysis of the perception of specific sensei (in light of the master titles they hold) by their adepts.

According to W.J. Cynarski, the traditions of military cultures are transmitted through, among other things, single symbols and compound symbols. Leaving aside the debatability of treating symbols as heraldically simple and complex,³ the way of juxtaposing them and indicating their meanings (in terms of martial arts) in two perspectives: European and Asian can be considered innovative.

Once again, W.J. Cynarski points to the correctness of the existence of the sociology of martial arts as a scientific sub-discipline. Hence, the study of the so-called subject matter. "Way" of martial arts could also be viewed from an interdisciplinary perspective, and the influence of this subdiscipline could be more broadly related to many of its other counterparts (e.g. the sociology of morality, the sociology of sports and others).

Wojciech J. Cynarski also presents an approach emphasizing the functioning of social relations in the area of fighting arts based on truth and credibility of all parties involved (e.g. master vs. disciple). Also interesting is the paragraph on the Jita Kyoei principle (by Jigoro Kano) indicating the pro-social sense of practising martial arts for a long time.

The reviewed book is a study that brings knowledge of selected aspects of the sociology of martial arts in a condensed way. As stated by the author, "Essentially, however, this book is a continuation of my own research programs since 1994." It is also the first such a synthetic account and a significant step towards such a relatively independent sociological sub-discipline. The value of the publication is also enhanced by an extensive bibliography corresponding to each of the issues covered.

³ A. Znamierowski, P. Dudziński, *Wielka księga heraldyki*, Świat Książki, Warszawa 2008.

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