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Short term and long term motives for the internationalization of marathon events

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Abstract

The current study aims to answer the question of how the motives for internationalization of leisure sports companies can be understood through the example of international running events. We present the phenomenon of globalisation and internationalisation as a context of leisure sports, linking the conceptual frameworks of leisure sports and international business (IB). The paper highlights the characteristics of leisure sports companies in the process of internationalization. More specifically, we examined the global business trends of marathons, with particular attention of event organizers in the Central-Eastern European (CEE) region in our preparatory study. Data about experiences, entry fee, international communication and sponsorship were collected from the eight most significant CEE marathons and two semi-structured interviews were done with event organizers. Our main findings reveal that market seeking and strategic asset seeking motives are dominant in the case of CEE marathon organizers with a notable distinction between short term and long term perspectives.

Keywords: internationalization, marathon, Central-Eastern Europe, leisure sports services, motives for internationalisation

1.INTRODUCTION

Sports, and in particular leisure sports, play an increasingly important role in society and at the same time, its economic impact is becoming more significant. Furthermore, leisure sports potentially create value on the societal, economic and individual levels, as well as for companies that operate in the leisure sports industry or are otherwise linked to leisure sports. The competition between leisure sports events organizers for international consumers and sponsors is a key contextual factor of analysis because of its impact on tourism and the wider economy (Czeglédy et al., 2018).

Our preparatory study aims to fill the literature gap of examining leisure sports services from the aspect of internationalization. The literature of international business and sports management is extensive, and the intersection of them is also rich (Deitz et al., 2013; Healy and McDonagh 2013; Herrmann, Kacha and Debaix, 2016). These articles, however, focus on professional sport, while the internationalization of recreational sports is less addressed. With the processing of available literature and the conceptual description of running events, our aim is to establish a long-term research programme. This is only the first step; there will be further steps and research on this topic. In this paper, we show the key definitions and markets of the leisure sports industry. We focus on the internationalization of marathon events in the Central and Eastern European (CEE) region, with special attention to the market of consumers, sponsors and sports equipment suppliers.

Applying a mixed-method research approach we are seeking an answer to the main research question: How can the motives for internationalization be identified in case of international running events in the Central-Eastern European region? Based on primary and secondary analyses we examine the global and regional business trends of running events, especially the characteristics of the most important CEE marathons. Our interdisciplinary research focuses on a fast-growing industry in a developing region and aims to provide a foundation for researching leisure sports from selected aspects of international business.

2.LITERATURE REVIEW

2.1.Definitions and concepts of leisure sports

The separation between leisure and professional sports first occurred in the 20th century for a variety of reasons. First, the amount of leisure time in society increased considerably. Second, as people became more health-conscious and began to recognize the importance of a healthy lifestyle, a new form of sports appeared where the main goal was simply to maintain or improve physical fitness. In this type of sport, the goals of competition and achievement disappeared entirely and were replaced by the goal of recreation. Leisure sports could become a branch of the service industry (Fóris and Bérces, 2005). The academic literature describes three general approaches to conceptualize leisure sports. The first states that the activity must take place during free time, must be voluntary and organized – passive participation is entirely excluded. The second approach excludes elements that apply to professional sports (working, earning money). The third approach lists various sporting activities and their effects (Szabó, 2012). The three general approaches to conceptualize leisure sports by academic literature, the motives of marathon runners and the expressions of “health sports” and “experience sports” mentioned in Waśkowski (2015a) which support the understanding of leisure sports business. In experience sports, the main objective is to gain experience and momentary well-being; leisure-time athletes tend to think in the short term (Zhou et al., 2000, cited by Min and Yin, 2010).

In our understanding, leisure sports can be any physical recreational activity done regularly or irregularly in our free time which goal is to maintain or restore health, recreation, amusement, or to achieve a feeling of physical and spiritual well-being, both during and after the exercise. We can identify the following prerequisites for the consumption of leisure sports (Budai, 1999): sufficient free time, adequate living standards, money, and the right attitude. In our opinion, the most important element is the right attitude. Meanwhile, research by Paár (2010) suggests that spending on sports is considered as luxury expenditure in Hungary. All in all, we can state that we can do sports in our free time easily if the economic and sociological surroundings are adequate for it. Leisure sport is not a basic need. Consumer-oriented services and satisfied customers could be key factors (Szabó, 2012).

In our paper, we focus on the running events, especially on the marathons. We make our analyses on a regional level and we concentrate on the Central and Eastern European marathons.

2.2. Leisure sports markets and business operations

Based on the models of Gratton and Taylor (2000) and Parks, Quarterman and Thibault (2007) and the works of András (2003, 2004) on professional sports markets, Szabó (2012, 2014) described the leisure sports markets. The consumer, sponsorship and merchandising markets are not only relevant to professional sports, but also in leisure sports. In addition, leisure sports include markets for sports equipment, sportswear and sports professionals (organizers, trainers, consultants). Leisure sports markets not only generate income for for-profit leisure sports providers, but they may also create revenue for non-profit providers of leisure sports.

The direct sources of income are the consumers, sponsors and merchandising markets. The sports equipment and sportswear markets usually do not yield income for the provider of sports, except for the case where there is a strategic partnership or agreement between the provider and the producer/distributor. An increase in consumer market would bring growth in the markets for sports equipment, sportswear, sports professionals, sponsorship and merchandising. Involving international consumers are a good opportunity to increase the consumer market.

The participants who create the demand part of the running market can be divided into three groups:

The first group is made of the participating runners. According to Miller and Kelli, over 8 million runners participate in marathons each year (Miller and Kelli, 2008.).

The second group is made up of people accompanying the participants, especially those who come from other areas. Research conducted by the Poznan University of Economics and Business on over 4 400 runners shows that in most cases the marathon runners travel with 1-2 people, whose presence is helpful especially at the start and finish lines (Waśkowski, 2014).

The third group, important for the attractiveness of an event, is made up of supporters that gather around the course. It is estimated that the world's biggest marathons (New York, Berlin, London, Paris) have around 1 to 2 millions of supporters (Waśkowski, 2015a).

2.3. Globalization, internationalization and the leisure sport

2.3.1. The general motives for internationalization

The most widely used conceptual framework for understanding the motives for the internationalization of companies was defined by Dunning (1988), approaching the issue from the aspect of competitive advantages. The framework can be understood either from the theoretical lens of transaction cost

economics or the resource-based view. According to Dunning (1988), there are four basic types of motives that drive companies to internationalise in their quest for developing and maintaining their competitive advantage in international markets.

Market-seeking motives aim the company getting access to additional foreign markets as potential sources of revenues. This is often the case when domestic and existing foreign markets are saturated, and the company seeks to leverage its competitive advantage in untapped foreign markets to expand its revenues base. Efficiency-seeking motives are relevant for firms that have already achieved some type of economies (of scale or scope etc.) and they aim to extend their competitive advantage by further increasing their exposure to potential economies. Resource seeking firms focus their internationalisation efforts on acquiring and exploiting scarce resources available in other markets. The fact that the availability of such valuable resources is limited, creates an opportunity for sustainable competitive advantage in international markets. Finally, the fourth motive is understood to aim to get access to strategic assets that may provide opportunities to improve the company's competitive advantage. Most typically, strategic assets comprise technical knowledge, learning experiences, management expertise, organizational competence, or a combination of those.

In the period when converging economies of Central-Eastern Europe reopened their markets to global competition, there was a tendency of major multinational firms to expand internationally for any of the above reasons. However, the role of strategic asset seeking gained ground increasingly, reflecting the tendency that the above mentioned knowledge-related sources of competitive advantage were seen to provide a more sustainable source of competitive advantage than other sources (Pearce and Papanastassiou, 1997; Dunning, 1998; Cantwell, Dunning and Janne, 2004). With regards to small and medium-sized enterprises in developed markets, analytical studies of the time highlighted the need for these firms to improve their organizational capacities and capabilities to strengthen their competitive edge in international markets (e.g. O'Gorman and McTiernan, 2000; c.f. Brouthers, 2002).

In his synthesising study based on a large-sample study of Suisse firms, Hollenstein (2005) drew the conclusion that the main drivers of internationalisation tend to appear fundamentally knowledge-based, irrespective of firm size and internationalisation strategy. However, the knowledge-based motives on which the competitive advantages of smaller firms were based were narrow: built on capabilities mainly related to incremental innovations, while major firms could rest their competitiveness on more far-reaching innovations. Any location advantages, especially wages and regulatory framework were understood to be more relevant for small firms, but knowledge-related advantages were dominant even in that class of companies.

In the early 2000s the attention of the researchers of international business turning towards the role of institutions in affecting the competitiveness of firms and the development strategies of countries (Sen, 1999; Williamson, 2000; Peng, 2001; Dunning, 2004 and 2006). This involved more awareness of, and more attention paid to a wider range of stakeholder considerations, reflecting issues like human rights, belief systems, social capital and the different aspects of freedom. This emphasis on institutions does not seem to abate even today, especially in the context of dynamic capabilities in a turbulent business environment (Dunning and Lundan, 2010).

The Central-Eastern-European region has been the subject of contextual studies in international business literature more recently. With regard to the motives of internationalization, one of the early works on enterprises in the region (Marinov and Marinova, 1999) highlighted the lack of proactive strategic approaches to internationalization resulting loss of competitive advantage. Another comparative study on internationalization motives (Tatoglu, Demirbag and Kaplan, 2003) noted that host country

considerations dominate firms' strategy, while domestic market conditions are less influential. In a large-sample, cross-country survey of small to medium-size enterprises' internationalization Svetlicic, Jaklic and Burger (2007) found that market seeking motives are widespread, while financial barriers and capacity problems hinder the companies' expansion abroad. In his study of the extant literature on multinational enterprises from Poland, Trapczynski (2016) noted that while previous findings in the context of Central and Eastern Europe emphasised the prevalence of market-seeking motives of internationalization, this was not directly supported at the level of firm declarations about their investment objectives. Nevertheless, market attractiveness was proven as a significant determinant of the companies' performance abroad.

2.3.2. International business considerations in leisure sports

While the international aspects of professional and leisure sports are popular subjects of academic publications, analytical frameworks of the international business discipline are seldom applied. In her synthesising work, Ratten (2011) identified the major topics of sports management literature all of which reveal apparently an international character. Sports are understood to support the development of cross-cultural exchanges, and mainly through the global proliferation of technology, sports are also a platform for promotion worldwide. Over the last four decades, business-related subjects of sports emerged, including new aspects in recruitment, the economic impact of events, sponsorship, corporate social responsibility, branding, sports law, sports tourism and the regional development of sport. Most of these categories were in line with Thibault's (2009) identification of issues arising from the globalization of sports.

One of the most significant of the above topics with far-reaching implications for leisure sports is analysing the impact of sport events especially in regards of the most visible and impactful event of sports globally, the Olympic Games. Tien, Lo and Ze (2011) performed the assessment of 24 Olympic Games to conclude that their economic impact was only significant in terms of GDP growth and unemployment, at least in the short term. Rosentraub and Swindell (2002) also warned of the unreasonable demand for public subsidy for developing sports facilities for events, while Chalip and Leyns (2002) urged local coordination of businesses to leverage the opportunities of sports events. More recently, some studies highlight the potential in smaller scale international events, as their economic and social impact is more visible, hence the justification of related public investment (Laczkó and Stocker, 2018). Meanwhile, Schulenkorf, Sherry and Rowe (2016) noted the increasing focus on social and educational outcomes from youth development, as key considerations in sports development, widening the scope of mostly economic analyses of the field, while also highlighting a trend of shifting academic interest in the foreseeable future. This is in line with findings from Paár and Laczkó (2018) and Laczkó and Paár (2018).

Meanwhile, some studies from the Central-Eastern European region applied analytical concepts and frameworks of international business to the field of professional sports. András, Havran and Jandó (2012) examined market entry methods and the internationalization process of services of professional sports companies, based on Czakó and Reszegi (2010). They highlighted that in the case of professional sports markets, patterns of the internationalization of services can be applied. According to their results, professional sports companies can be competitive at an international level by increasing the number of international consumers and sponsors. Kozma and András (2016) examined how league strength explains the observed differences between the international strategies of professional sports clubs in Hungary. In their conclusion, they noted that that strategic focus on improving service provision and sales is critical even if they receive windfall support from the government.

3.METHOD

In this paper, we concentrate on the international aims and motivations of marathon organizers. We seek an answer to the main research question:

How can the motives for internationalization be identified in case of international running events in the Central-Eastern European region?

To answer the main question, we identified 3 sub-questions (R 1-3), now we describe the used methods in case of the different research questions. Our work is a compilation of “separated smaller research projects” about this theme.

When designing the research process, we selected those qualitative methods described in international literature that matched the research topic best. As a first step, our objective was to study the international literature, focusing on leisure sports (markets and typology), internationalization, leisure sports and business. In the theoretical part of our paper, we provided a synthesis of the literature. We summarised the works of authors discussing this topic.

Based on secondary research, in the second step (chapter 4.1.), we aim to identify international trends in running. Additionally to receive the answer to the following question: R1 - How has the popularity and business of marathons changed internationally?

In the third step, we conducted a "desk" research (chapter 4.2.). Based on objective criteria's, we selected eight out of the 50 largest European marathons in Central and Eastern Europe. Five Polish (Marathon.Poznan, 2019; Mw.com, 2019; Pzumaratonwarwzawski, 2019; Cracoviamaraton, 2019; Orlenmarathon, 2019), a Czech (Pim.cz, 2019; Runczech, 2019), an Austrian (Vienna-marathon, 2019) and a Hungarian (Futanet, 2019; Marathon.runinbudapest, 2019) marathon were examined. In this context, primary data collection was carried out focusing on the eight selected competitions. The research aspects were as follows: organiser and their model, history of the competition – experiences, entry fee, international communication, and sponsorship (we collected sponsors and dedicated sponsors on start number, 2-4 sponsors per each competition).

We search for the answer to the following question: R2 - How can we evaluate the business characteristics and internalization of marathons in the CEE region?

In the fourth step, we made two semi-structured interviews with marathon organizers (chapter 4.3.). Five of the eight marathons are in Poland, so a researcher of the running business from the Poznan University of Economics and Business was involved in the research. In the case of Budapest Marathon, we interviewed the CEO and owner of Budapest Sports Office in 2018, and it lasted about one and a half hour (Budapest interview, 2018). Árpád Kocsis knows everything about the Hungarian and also about the international marathons, he and his company has been dealing with them for 30 years. In the case of Poland, we interviewed the manager of organisers of Poznan Marathon, in 2018, and it lasted also about one and a half hour (Poznan interview, 2018). Our research question in this part of the research is the following: R3 - What kind of foreign market goals can be identified in case of marathons in the CEE region? Our aim is to identify market seeking, research seeking and strategic asset seeking motives.

During the semi-structured interviews, we examined six key issues as follows: foreign owner, foreign sponsorship, foreign consumers, foreign subcontractors, international knowledge, and local specialities.

4.RESULTS

4.1.Global trends of running a business – a secondary analysis

We focus on running, an individual outdoor health sport, more specifically running events, marathons. Running could be a big business nowadays, because running is: (1) a global phenomenon, with double-digit annual growth considering participants globally; (2) a mass participatory sport taking place year-round; (3) one of the important revenue drivers of leisure sports industry (shoes, clothes, watches, etc.). Running (4) has the highest ratio of participant to viewers, and (5) there is increasing popularity of running events. Nowadays there are more than 500 marathons in Europe each year, while (6) marathon-tourism is on the rise, and high percentages of the marathon-tourists belong to the higher educated and upper-income segments (Hermann, 2012). Running events may have multiple stakeholders who have different requirements and benefits: runners, family and friends of runners (spectators), hosting country, hosting cities (local government, and citizens), race organizers, technical and strategic partners of the organizers (suppliers), sportswear industry, tourism industry, media, charity organizations, sponsors and volunteers (Hermann, 2012; Waśkowski, 2015b). Among these stakeholders, there could be also international ones.

According to Scheerder, Breedveld and Borgers (2015) 12% of the 15-80 years population run in the EU 28, which sums an altogether 49.9 million runners. Denmark and Germany are the best “running nations”, with 31% and 25% rate of the population, but 10% of the Hungarians also run. Expenses on running reach 9.6 billion euros in EU28 altogether Scheerder et al. ,2015

A research conducted in 2014 showed that around 30% of adult Poles practice running on a regular basis, spending 450 million euros a year on it (Waśkowski, 2017). According to Waśkowski (2017) ca. 90% of the participants do not live more than 100 km from the event venue, and only a small number of participants (1-2%) coming from abroad, and there is a high and still growing expectation of the runners. Based on Scheerder et al. (2015) the number of marathon events worldwide has increased close to 4000 and the number of finishers has grown to 1.6 million. The authors identified a significant growth rate in marathon finishers in developed countries since the 1970s and in other parts of the world in the 2000s.

We have to mention the results of commercialization and professionalization in leisure sports and also in running (Scheerder et al., 2015): for-profit providers meet needs of runners, more and more running events organizers, technological innovations such as online registrations, microchips, after race services, training advice, all in all, more differentiated package of services and customer-related marketing have occurred. Research also shows that the participants of the Frankfurt am Main marathon in 2014 spent over 2 million euros (Waśkowski, 2015a). Overall (R1), we can state that the popularity and commercialization of international running events have been increasing in developed countries. Globally, between 2016 and 2019 we can see a 13% decrease in the event participation but the growth continuous in Asia. The percentage of people travelling to a foreign country for a race has increased significantly. For marathons, from 1994 to 2018 it has increased from 0.2% to 3.5% (RunRepeat, 2019).

4.2.Marathons in the Central and Eastern European Region

Publications about Central-Eastern European marathons and leisure sports industry are very limited, but we highlight the trends in Poland and Hungary. We can find the intensive increasing of running events in Poland: the number of running events in Poland increased approximately from 500 to 4,000 between 2000 and 2018 (Waskowski 2017) but we see some decrease in 2019 (Maratony polskie, 2019). In Hungary, the number of participants at the Budapest Marathon event was 8,096 in 2008 and it increased

to 18,171 until 2012 (Perényi, 2015) and to 33,495 until 2018 (Futanet, 2019). Both cases support the fact that the running business has been growing steadily.

In the running events of RunCzech in Prague and two other cities in 2011 more than 80,000 people were attended. „All visitors together spent 215,560,000 CZK on accommodation, transport, food or other services and shopping in connection with RunCzech events” (Schwartzhoffová, 2015, p 255). Foreign visitors spent more than 138 million CZK so it is a benefit to the economy of the country

After the stagnation of 2016, the number of participants in European marathon races raised by 3% in 2017. Among the 50 biggest marathons in Europe, there were 8 marathons from the CEE-region in 2017 (Prague, Poznan, Vienna, Warsaw, Cracow, Orlen Warsaw, Budapest and Wroclaw), of which 5 were in Poland (Table 1). In 2013 there were 131 half marathons and 89 marathons in Poland (Waškowski, 2015b).

Table 1: Most significant marathons in CEE - based on the number of finishers:

<i>Rank 2017</i>	<i>Event</i>	<i>Country</i>	<i>Finisher 2017</i>	<i>Rank 2011</i>	<i>Finisher 2011</i>
22	Prague Marathon	CZE	6510	24	5996
23	Poznan Marathon	POL	6362	27	4630
24	Vienna Marathon	AUT	6351	20	5942
29	Warsaw Marathon	POL	5646	31	4061
30	Cracow Marathon	POL	5615	36	3199
31	Orlen Warsaw Marathon	POL	5522		
32	Budapest Marathon	HUN	5415	37	2984
37	Wroclaw Marathon	POL	4631	41	2773
	Total		46052 (155%)		29585 (100%)

Source: Laufmarkt (2017)

In the followings, we examined the selected 8 marathons more detail. With the examination of the 8 selected CEE marathons (Table 2), we can see different types of marathon organizers: private (business), public (local government) and mixed/non-profit.

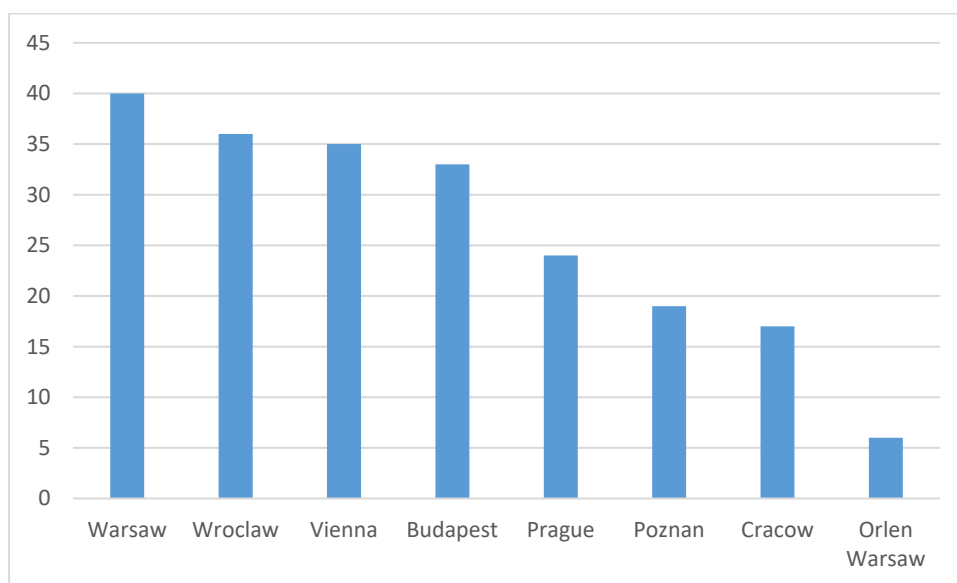
Table 2: Type of the organizer companies

<i>Marathon</i>	<i>Organizer</i>	<i>Ownership</i>
	Sport- und Leichtathletikclub Wien	
<i>Vienna</i>	Enterprise Sport Promotion GmbH	Private
<i>Prague</i>	Prague International Marathon, spol.s.r.o.	Private
<i>Budapest</i>	Budapest Sportiroda	Private
<i>Wroclaw</i>	Wroclaw city	Local government
	City of Poznań	
<i>Poznan</i>	Poznań Sports and Recreation Centres	Local government
<i>Warsaw</i>	Warsaw Marathon Foundation	Non-profit
	Municipality of Cracow – Sports Infrastructure	
<i>Cracow</i>	Management Board of Cracow	Local government
<i>Orlen Warsaw</i>	MyPlace	Private

Source: edited by the authors

Figure 1 shows the experiences and tradition of CEE marathons. Marathon of Vienna, Budapest, Warsaw and Wroclaw has been organized for more than 30 years so the history of CEE marathons goes back to the socialist system. Since 2013, two marathons have been organized in Warsaw every year.

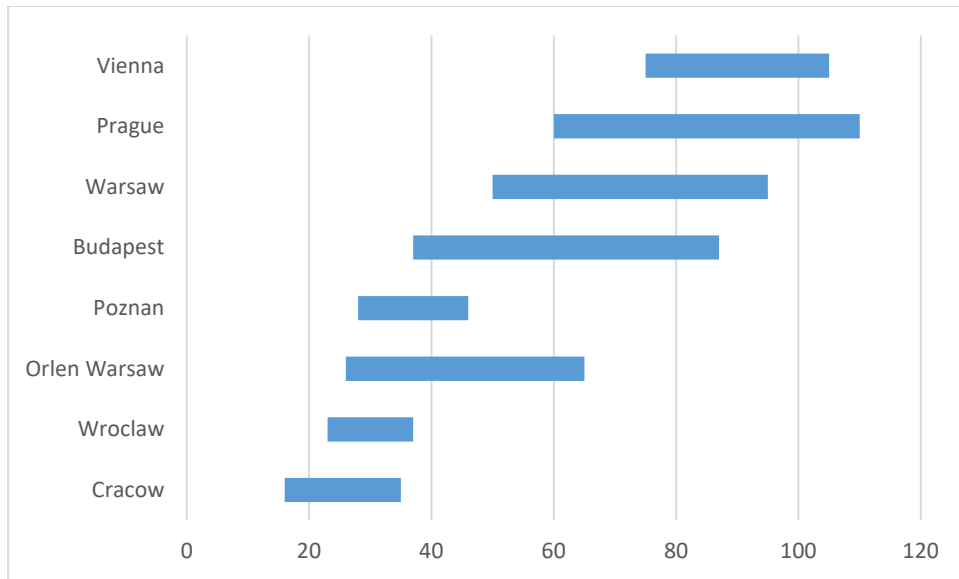
Figure 1: Experiences - the number of marathons until 2018, in the past more than 30 years



Source: edited by the authors

With regard to entry prices (Figure 2), Vienna and Prague stand out, followed by Warsaw and Budapest, while the other Polish competitions are considerably cheaper. This is consistent with the number of international runners.

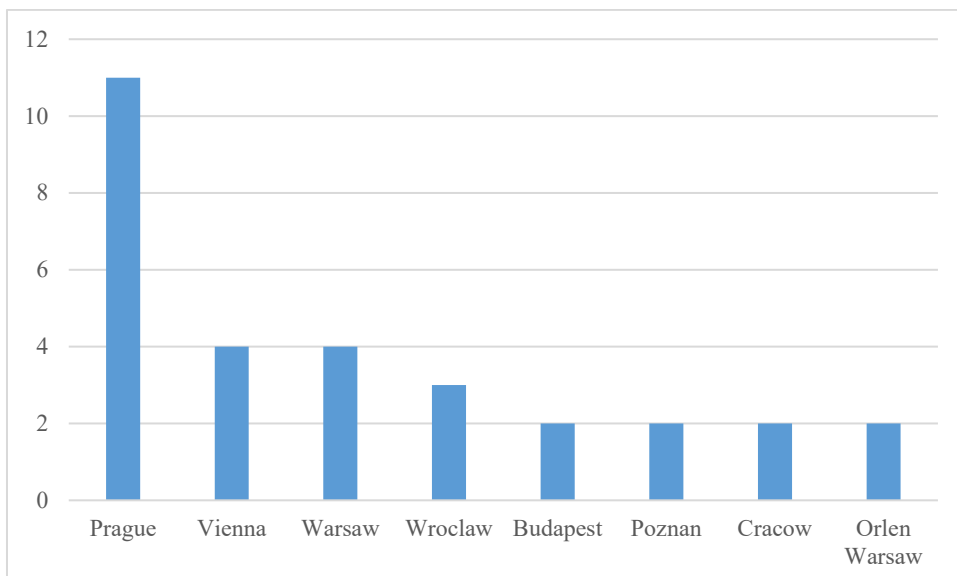
Figure 2: Entry fees in the examined marathons in 2018, data in euro



Source: edited by the authors

Figure 3 shows the number of languages in the web pages of CEE marathons. The result of the Prague Marathon is outstanding; runners can find the information in 10 different languages. Vienna and Warsaw use 3 different languages, the other marathons operate with two languages: the language of the host country and the English.

Figure 3: International nature of web pages: number of languages



Source: edited by the authors

In Table 3 we collected the main sponsors of the 8 marathons (2-4 companies in every case).
 Table 3: Sponsorship and scope of the sponsors

<i>Country</i>	<i>Sponsors' scope</i>	<i>Home country of the sponsor company</i>
<i>Czech Republic</i>	Global	Germany
<i>Hungary</i>	Global	Western-Europe
<i>Austria</i>	Regional	Austria
<i>Poland – 1st type</i>	Local	Poland
<i>Poland – 2nd type</i>	Regional/Global	Poland

Source: edited by the authors

With a similar population, in the Czech Republic and Hungary, there are Western European sponsors, while in Austria local companies. The post-socialist Poland dominated by domestic companies, due to the larger size of the country and the higher share of domestic competitors. In Poland, it is very interesting that two types can be identified: Wroclaw and Poznan build on the local audience, while in Warsaw and Cracow aim foreign runners too. The ratio of foreign runners in Cracow and Warsaw is about 8-10% and in other Polish cities is about 1-5% (Biegowe, 2017). This is in line with the number of international runners. Table 4 shows the name sponsors of the examined marathons.

Table 4: Name sponsors

<i>Race</i>	Vienna	Prague	Buda- pest	Wroclaw	Poznan	Warsaw	Cracow	Orsen Warsawa
<i>Name sponsor</i>	none	Volkswagen	Spar	PKO BP Bank	PKO BP Bank	PZU insurance	PZU insurance	Orlen oil company

Source: edited by the authors

Most important sponsors come from the following industries in the region (number of competitions in brackets): sportswear (5), finance (5), food (3), energy (2).

With the desk research, we compared the biggest marathons in CEE, and we highlighted the business characteristics and internationalization of CEE marathons. We can identify the relationship between the number of foreign runners and the appearance of sponsors with international market goals. In case of private organizers, we can find higher nomination fee and more foreign runners (R2).

For a better understanding of international operations in the next step, we made semi-structured interviews with two managers from the eight CEE marathon events.

4.3. The International Business aspects of marathons in Central-Eastern Europe

According to the desk research and our interviews, we can highlight, that looking through the lens of the International Business, the marathons and other running events in Central-Eastern Europe are mainly “market-seeking” motivated. For example, the Prague Marathon is owned by an Italian-Czech joint venture. The main reason for forming this joint venture was to unite the international experience of the Italian organizer and the awareness of the Czech one (Emil Zatopek). With a combination of this two, the Prague Marathon became the largest and most prestigious marathon in the region with a high number of international participants. Although building up a new race is very risky and difficult, there are several solutions to mitigate those risks. The main challenges of organizing a running event in a foreign country are that it requires too many resources (both material and immaterial), the knowledge about the local

market and the main environmental (i.e. political, social and legal) issues. Thus, foreign ownership is mainly done through franchises. One example is the Spartan Race which has fifteen races in the region and the franchise licence is owned by a Czech company, but they organize the races together with local partners. The main advantage of such race series that the participants' competing in it travels around the countries involved. Thus, the franchise is the best way of building international ownership in the running market.

Attracting *foreign consumers* is something which also stands at the centre of most of the organizers. However, races such as the Poznan marathon did not have this kind of intentions. The reason behind this – as we previously showed – is the evenly growing number of domestic runners and the fact that Poznan has only a little to offer for foreign participants. In case cities touristically interesting for foreigners – Prague, Budapest, Wien – they can build a good tourist image, thus able to attract foreign runners and create guest nights and spending. The high number of foreign runners is most important for the stakeholders other than the organizers and it creates a higher income through sponsors and governmental funding. While the CEE marathons did not see each other as main competitors, thus they recommend their runners to try different marathons in the region and vice versa. The reason behind this act is the consumer behaviour of the runners. Most runners only run one or two marathons a year and they wish to visit as many international venues as they can. Or they are locals, who are not willing to travel to distant competitions. This results in a high amount of cooperation among the organisers in the region.

As of the “resource-seeking” aspect, we can conclude that local subcontractors are always needed, while the local conditions may differ a lot from the ones in the owner's country. The owner of Budapest Sports Office has raised some Hungarian particularities, such as the music played before, during and after the event, the ways of involving the participants (speaking their names aloud, welcome the ones with a birthday, etc.). Also, an important strategy to contact the local subsidiaries of global companies which sponsor running events in the home country or in other countries. These tries are not always paid off. In the case of Budapest Marathon, the organisers failed to attract the sponsors of the Vienna Marathon although they had a local branch in the country. On the other side, the global company Mattoni (sponsor of the Prague Marathon) sponsored the event soon after the acquisition of the Hungarian Szentkirályi Aqua Company and its market-leading mineral water brand. We summarize the most important findings in Table 5.

Table 5: The main questions and findings of the interviews

<i>Questions</i>	<i>Main findings</i>	<i>Budapest interview</i>	<i>Poznan interview</i>
<i>Who are the most significant competitors of the organiser (represented by the interviewee) at domestic, regional and global level?</i>	- Local races (in the same country) - There is a great variety of races which creates a competition for human resource, especially experts.	There is NO real international competitor. “Most of the people run one or max. two marathon per year and foreigners try as many venues as they can”.	Local races in Poland: Warsaw Marathon (2 per year) Wrocław Marathon Cracow Marathon

<p><i>What does internationalisation mean for the event organiser?</i></p> <p><i>Apart from the runners, what other aspects of international operations can be identified?</i></p> <p><i>What is the motivation of the event organiser for internationalisation according to the different aspects?</i></p>	<p>- To attract as many runners from abroad as possible</p> <p>- Networking: to cooperate with other marathon organisers and to learn from each other</p> <p>- To learn the know-how</p>	<p>The higher number of international participants is important for the sponsors.</p> <p>e.g. Joint registration of the Prague and Budapest marathon.</p>	<p>“To be a part of the global running village.” For instance to have the IAAF Road Bronze Label.</p> <p>The main motivation is to achieve 10 000 participates in Poznan Marathon, including much more foreign runners than currently.</p>
<p><i>Do event organisers cooperate with foreign event organisers? With whom? Why do they cooperate?</i></p>	<p>- Provide better race conditions</p> <p>- Provide better services</p> <p>- Learn the new trends</p> <p>- Exchange information</p>	<p>The organisers of the Prague Marathon, International organizations.</p> <p>To exchange information</p>	<p>IAAF, AIMS, Run Czech, Running Ukraine – direct cooperation. Exchanging information, sometimes shared meetings.</p>
<p><i>How can event organisers learn „from abroad“?</i></p> <p><i>Who do they learn from? Who are the „market leaders“?</i></p> <p><i>How do you learn from others?</i></p>	<p>- To participate in other marathons</p> <p>- Follow the online presence of benchmark events</p> <p>- In Europe: Berlin, London, Paris, also: Frankfurt Marathon, Rome Marathon, Barcelona Marathon</p>	<p>Travelling around the market and participating in related Conferences.</p> <p>The importance of taking care of each runner individually and the music before, during and after the race.</p> <p>Mainly participating in “bigger” events than their own.</p>	<p>The benchmarks for Poznan Marathon are the three biggest marathons in Europe.</p> <p>The Director of Poznan Marathon travels all over the European running market, taking part as a participant in big European marathon runs, observes the best practice, the best organising solutions, for example concerning the organisation of the event office, start zone, route, finish zone etc.</p>
<p><i>Does the event have any foreign suppliers, subcontractors and/or partners (in fields like for example time-keeping, sports drinks, international, marketing, race alliances, etc)?</i></p>	<p>- Marathons in the region have regional and local partners.</p> <p>- Partners aim is to build their awareness and uses the events as PR opportunities.</p>	<p>Budapest Marathon organisers have local or domestic suppliers.</p>	<p>Poznan Marathon organisers have local or domestic suppliers.</p>
<p><i>Do the main sponsors have international aims with the supporting of the event?</i></p> <p><i>Are they focusing only on the local market, or they would like to reach</i></p>	<p>- Larger (in reputation, not in scale) marathons have global and regional sponsors, while the smaller ones usually have nation based regional or local ones.</p>	<p>The sponsors need either image or brand building or there is a direct connection between the product of the company and the runners (e.g.</p>	<p>The main titular sponsor is the Polish Bank PKO BP. This bank operates on the Polish market only.</p> <p>Their goal is to build an image and do PR activity.</p>

<i>regional or global consumers sponsorship?</i>	<i>with</i>	- The main goal of the sports equipment or nutritional supplement). The internalization is not an issue.
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Source: edited by the authors based on semi-structured interviews

As can be read in Table 5 that strategic asset seeking motives also seem to be significant, as gaining and integrating “*international knowledge*” is one of the most important issues of marathon organisers. We should point out that based on the interviews; marathon organisers are not seeing each other as rivals at an international level. On the contrary, they often cooperate with each other. They learn from another and give useful advice to other organisers. In order to do so, they try to participate as many regional and benchmark marathons as they can. They choose marathons “superior” to theirs because in this way they are able to learn the recent technological and consumer trends. The Hungarian organiser recalled a case where the organiser of the Milano marathon advised him to change the number of members of a team to four instead of three or five which led to the duplication of the number of teams next year. The use of a new chip technology was also a piece of advice from a fellow organiser (from the Rotterdam Marathon). They also participate in Conferences and Exhibitions organised around the new technologies, trends (e.g. new distances, pair races) and best practices (e.g. handling transport problems). As a result, we can conclude that running events and especially marathons gather an evenly growing attention and international participation which requires the implementation of best practices and technologies from foreign peer events. The main goal of these events is to increase the number of participants, to be part of the “of the global running village”, to form alliances with other event organisers and to utilize the synergy effects of other marathons in order to increase their revenues from participation, sponsorship and merchandising (R3).

5.DISCUSSION and CONCLUSION

According to our research questions, we can state that (R1) the popularity and commercialization of international running events has been increasing in the developed countries.

We can also conclude (R2) that popularity of running events and the total revenue on the most important leisure sports markets (consumers, sponsors, sport equipment) has been increasing and getting more international in CEE. Data support that the running business has been growing steadily in the CEE region, especially in the Czech Republic, Hungary and Poland, despite the setback of the global market. This is also true regarding the number of runners attending these events and the sum the different participating stakeholders – runners, supporters etc – spend on and during these events. We can also conclude that for international runners the touristic attractiveness of the organising city plays an important role and at the same time, we see the rise of entry prices, internalization approach and extended sponsorship deals as the number of foreign runners and the appearance of sponsors with international market goals could be identified.

While (R3) we can identify market seeking and strategic asset seeking motives in the case of marathon events in CEE. The market-seeking motivation can be first underlined with the case of the Prague marathon which, with the help of the international joint venture, was able to become the largest marathon in the CEE region. The second example is the evenly growing existence of marathon franchises in the region, while the third is the attraction of foreign runners as one the most important goal for different stakeholders as they expenditure is way exceeds the local participants or the non-sport related tourists.

The strategy asset seeking is primarily driven by gaining and integrating international knowledge mainly from benchmark events.

For our main research question of “how the motives for internationalization can be identified in the case of international running events in the Central-Eastern European region?” our results are in line with international findings that confirm market seeking motives to be dominant in the Central-Eastern European region. Furthermore, our results are compatible with the international tendency that strategic asset seeking motives are gaining strength in most of the markets. Interestingly, in case of the Hungarian case analysed, the market seeking motives are more pertinent as a short-term solution to quality issues in the service offering, i.e. attracting foreign runners is understood to be a more effective opportunity to raise the attendance of the event than developing the relatively small domestic target market. Meanwhile, strategic asset seeking behaviour is understood to be a more long-term consideration, as learning from international examples and refining the local services accordingly is less a solution for immediate issues but more an opportunity to gain a competitive edge for a longer horizon.

Our main findings are that market-seeking and strategic asset seeking aims can be identified in the case of CEE marathon organizers, but they have different motivations in short-term and long-term.

This was only our first step, this study should be seen as a starting point for further research. The limitation of our research is that it only involves two interviews and not covers all the markets of the CEE region. In the future, we wish to expand the number of interviews with the 8 organizers in Austria, Czech Republic and Poland. Try to expand international academic cooperation by involving more researchers from the region in the field of International Business or Leisure Sports. Willing to enlarge the sample with developing markets/events of Romania (Timisoara Marathon), Slovakia (Kosice Marathon) and Slovenia (Three Hearts Marathon). Finally expand the examined IB theoretical aspects including foreign entry modes, the importance of the nationality of the organizer and the strategy in internationalization.

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Investigation of the Relationship between Attitudes to Moral Decision Making and Moral Disengagement in Youth Student Basketball Players

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Abstract

The aim of this study is to determine the predictive relationships between the attitudes to moral decision-making and the moral disengagement of youth student basketball players doing school sport. Participants were composed of 98 girls (%43,4) and 128 boys (%56,6) totally 223 high school student athletes who compete in the Inter-School Basketball Group Championship. Their average age was 16,16 and their average sport experience was 6,15 years. Both 2 scales used as data collection tool indicated acceptable fit to the data. Correlation analysis showed that moral disengagement was positively associated with cheating ($r = 0.47$) and gamesmanship ($r = 0.47$). Regression analyses showed that cheating, gamesmanship and keep winning in proportion (KWIP) variables explain approximately 31% of the total variance of moral disengagement in sports ($R=0.554$, $R^2=0.307$, $p=0.000$). In line with the evidence obtained from the research showed that cheating and gamesmanship attitudes are significant predictors of the moral disengagement but KWIP not. It can be said that student athletes who accept cheating and gamesmanship can use moral disengagement mechanisms more. In addition, there is no evidence that having positive social attitudes reduces moral disengagement in student athletes.

Keywords: Moral disengagement, Cheating, Gamesmanship, Keep winning in proportion, Morality in sport, School sport

1. INTRODUCTION

In a competitive physical education and sport environment where universal moral principles are adopted, students and athletes are expected to act with the principles of sportsmanship and sports ethics rather than the idea of “win at all costs”. However, at every level of competition, people faced with behaviors that do not comply with sports ethics. Shields and Bredemeier (2007) stated that athletes adopt different types of moral frameworks during the competition. The most important aim of coaches, teachers and experienced managers should be to use sports as a tool in the regulation of the social and psychological states of young athletes. In recent years, researchers have focused on personal and social factors that prevent or facilitate the congruous behavior and feelings of youngsters (Balaguer et al., 2016). From this point of view, it is thought that there may be various motivations and attitudes that can lead students and athletes to behave moral or immoral.

Attitude is defined as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object (Fishbein and Ajzen, 1975). Attitudes express the more general principles embodied in values in relation to specific target objects or issues. Evaluating youth's attitudes towards sports has been an important area of interest for the past 20 years. However, there were some problems related to difficulties in explaining the conceptual framework, as well as lack of a suitable scale to measure the targets in the researches. Conceptual complexity of issues made it difficult to measure such situations. Attitudes to moral decision making in youth sport questionnaire developed by Lee et al. (2007) has become one of the existing scales in sport contexts that measure the specific attitudes of accepting cheating, accepting gamesmanship and keep winning in proportion (KWIP). There are conceptual and functional differences between the terms of cheating and gamesmanship. Cheating means “breaking the rules without getting caught or noticed in order to gain an unfair advantage” (Loland, 1998). The concept of gamesmanship (the art of winning games without actually cheating), which was first used by Potter (1947), was described as “using suspicious and possible methods to reach the desired goal without being caught and pushing the limits of the rules” (Lumpkin et al., 2003). Gamesmanship involves actions such as slangy talk and/or slowing down the game to disadvantage the opponent and tactical fouls to prevent points or goals; whereas cheating includes movements such as try to get an unfair penalty and try to make a goal without showing it to the referee. KWIP is a concept that emphasizes the importance of winning properly and emphasizes that winning and losing is part of life (Lee et al., 2007). When the researches conducted to date is examined, attitudes to moral decision-making have been stated to be related with prosocial and antisocial behaviors (Alemdağ, 2019), goal orientations (Mallia et al, 2018), moral attitudes (Lucidi et al., 2017), moral disengagement (Šukys, 2013), motivational climate (Palou et al., 2013), values (Lee et al., 2008).

Another concept is that explains the immoral attitudes, which emerge in the sports environment is moral disengagement. The Social Cognitive Theory of Moral Thought and Action developed by Bandura (1991) describes a process in which moral behavior is regulated. In this theory, it is claimed that people experience emotions such as pride or guilt by looking at the positive or negative results of the actions. It is thought that when a person acts in a negative manner, the motivation of the person decreases, when a person acts in a positive manner, the motivation of the person increases and it is thought that individuals who experience these emotions will also regulate their behavior accordingly. Although these emotions are likely to regulate moral actions, people still continue to their immoral actions. Selection and use of eight psychosocial processes called "moral disengagement mechanisms" creates a ground for people to act immorally without negative effects, and thus, they reduce the pressure on their future negative behavior. Boardley and Kavussanu (2007) developed the Moral Disengagement in Sport Scale (MDSS) based on these moral mechanisms however, the fact that MDSS has 32 items

made it difficult to apply this scale with different scales within the same timeframe and made the scale unpractical (Boardley & Kavussanu, 2008). Instead, they developed a 8-item scale called Moral Disengagement in Sport Scale Short Form (MDSS-S), which measures the moral disengagement in general rather than the individual measurement of each moral mechanism (Boardley and Kavussanu, 2008). These 8 mechanisms are frequently encountered in sport context under different behaviors. An athlete's telling a lie about a position to the referee for the benefit of the team is called Moral Justification; an athlete's do not accept that they are breaking the rules but states only bend a little is called euphemistic labelling; an athlete's comparing violent behavior with slang speech and making slang speech legitimate is called advantageous comparison; an athlete's blame the coach because of his own unsportsmanlike behavior (stating that doing the relevant behavior because the coach wants) is called displacement of responsibility; athletes' make a team decision about a negative behavior and thus they think that their responsibilities regarding negative behavior are reduced due to team decision is called diffusion of responsibility; athletes' refraining from learning the extent of injury caused by them or deny the seriousness of a injury they are aware of is called distortion of consequences; athletes' describe their opponents, like an animal or state that they are lack human qualities is called dehumanization; athletes's retaliate against an injurious act against themselves or their teammate and thinking that the opponent deserves this is called attribution of blame (for detailed information and the Turkish scale, see Gürpınar, 2015).

There are also a lot of researches in the literature to understand the relationship between moral disengagement and different psychological structures in sports. In some studies conducted to date, it has been revealed that psychological structures such as doping likelihood (Ring & Hurst, 2019), moral attitudes and behaviors (Mallia et al., 2017), narcissism (Jones et al., 2017), gender, contesting orientations, moral identity and done form of moral attentiveness (Shields et al., 2015), performance enhancing drugs (Wilson, 2015), cheating (Šukys, 2013) and values (Šukys and Jansonienė, 2012) were related with moral disengagement. When the literature is analyzed, it is seen that there is limited study in the school sport context that reveals the relationship between moral disengagement and moral attitudes such as cheating, gamesmanship and KWIP. Based on the literature we first hypothesized that negative moral decision-making attitudes (cheating and gamesmanship) would have a positive relationship between moral disengagement, while positive moral decision-making attitude (KWIP) would have a negative relationship between moral disengagement. Second, we hypothesized that moral decision making attitudes predict moral disengagement. In line with this, the aim of this study is to determine the predictive relationships between the attitudes to moral decision-making and the moral disengagement of youth student basketball players.

2.METHOD

Research Model

The research was carried out in correlational survey model. The predictive correlational survey model, which is the type of correlational survey model, determines the change between two or more variables and the degree of this change (Cohen, Manion and Morrison, 2000).

Participants

Participants were composed of 98 girls (%43,4) and 128 boys (%56,6) totally 223 high school student athletes who compete in the Inter-School Basketball Group Championship. Their average age was 16,16 and their average sport experience was 6,15 years. Fifty of the students (22.1%) were in the 9th grade; 57 (25.2%) of them were in the 10th grade; 89 (39.4%) of them were in the 11th grade and 30 (13.3%)

of them were in the 12th grade. They were informed about the study, participation was voluntary, honesty in responses was vital, and data would be confidential. Before the implementation of the scales, a consent form was given to the participants. Data were collected from participants who read the form and agreed to participate in the study. After consenting, they completed the measures a scale. The implementation of the scales took approximately 10 minutes. Ethical rules were followed while conducting this research.

Instrument

In the research, “Attitudes to Moral Decision-making in Youth Sport Questionnaire-AMDYSQ” which was developed by Lee, Whitehead and Ntoumanis (2007) to measure the moral decision-making attitudes of student athletes was used as data collection tool. Gürpınar (2014) adapted the scale to Turkish culture. The original scale is a 9-item scale with 3 sub-dimensions and scored with a 5-point Likert type grading system between strongly disagree (1) and strongly agree (5). The sub-dimensions of the scale are accepting cheating (eg: I would cheat if I thought it would help me win), accepting gamesmanship (eg: I sometimes try to wind up the opposition) and KWIP (eg: winning and losing are a part of life). Cronbach’s alpha coefficients were 0.60 for accepting cheating, 0.62 for accepting gamesmanship and 0.64 for KWIP. The confirmatory factor analysis done for testing the validity of the scale was shown in Table 1.

Table 1. Confirmatory factor analysis results of the AMDYSQ

	χ^2	df	χ^2/df	RMSEA	CFI	TLI	SRMR
Model	42.485	22	1.93	0.066	0.947	0.913	0.054

When the results are evaluated, it can be said that the value of χ^2/df is less than 3 and the model has a perfect fit. When other fit indexes are evaluated, it can be said that RMSEA's being below the value of 0.08 indicates perfect fit (Kline, 2005), CFI and TLI's being above the value of 0.90 indicates good fit (Byrne, 2010), SRMR's being below the value of 0.08 indicates perfect fit (Hu and Bentler, 1999). In general, when the results of confirmatory factor analysis are evaluated, it is possible to say that the structure regarding moral decision-making attitudes is confirmed.

Table 2. Confirmatory factor analysis results of the MDSS-S

	χ^2	df	χ^2/df	RMSEA	CFI	TLI	SRMR
Model	33.963	18	1.88	0.064	0.927	0.887	0.050

According to the results, because the χ^2/df is less than 3, the model has a perfect fit. When other fit indexes are evaluated, it can be said that RMSEA's being below the value of 0.08 indicates perfect fit (Kline, 2005), CFI's being above the value of 0.90 indicates good fit and TLI has an acceptable fit (Byrne, 2010), SRMR's being below the value of 0.08 indicates perfect fit (Hu and Bentler, 1999). In general, when confirmatory factor analysis results were evaluated, it was determined that the structure was confirmed.

Data Analysis

In the data set, missing values were checked and outliers were detected. The normality of the data was checked by the skewness-kurtosis coefficients. For the skewness-kurtosis coefficients, the interval of ± 1 was accepted as the cut-off point. Since the values obtained for the skewness-kurtosis coefficients of the data are in the range of ± 1 , it is assumed that the data show normal distribution. Multiple regression analysis was carried out to determine the predictive relationships between variables.

3.RESULTS

Multiple regression analysis was carried out to determine whether cheating, gamesmanship and KWIP scores predict moral disengagement scores in sport and the results of the analysis are shown in Table 3.

Table 3. Multiple regression analysis regarding predictive level of moral disengagement in sport

Variable	B	Std. Error _B	β	T	p	Partial r	Part R
Constant	1.243	0.308	-	4.038	0.000*	-	-
Cheating	0.392	0.074	0.335	5.316	0.000*	0.467	0.336
Gamesmanship	0.318	0.065	0.315	4.888	0.000*	0.467	0.312
KWIP	0.047	0.067	0.041	0.698	0.486	0.084	0.047
R=0.554	$R^2=0.307$						
$F_{(3,222)}=32.758$	p=0.000						

* $p < 0.001$

When bilateral and partial correlations between predictor and predicted variable are examined, there is a positive moderate relationship between student athletes' moral disengagement levels and cheating scores ($r = 0.47$), when other variables are controlled, the correlation between moral disengagement and cheating scores is $r = 0.34$. It was observed that there was a positive moderate relationship between the student 'athletes' moral disengagement levels and their gamesmanship scores ($r = 0.47$), and when other variables were controlled this correlation was $r = 0.31$. It was seen that there was no significant relationship between student athletes' moral disengagement levels and KWIP scores ($r = 0.08$), and when other variables were controlled this correlation was $r = 0.05$.

In the regression analysis on whether the variables of cheating, gamesmanship and KWIP explain the moral disengagement in sports, it is seen that the model is significant ($R=0.554$, $R^2=0.307$, $p=0.000$). These three variables explain approximately 31% of the total variance of moral disengagement in sports. According to the standardized regression coefficients (β), the order of importance of the predictive variables among moral disengagement appears as cheating, gamesmanship and KWIP. According to the t-test results on the significance levels of the regression coefficients, cheating and gamesmanship are significant predictors of the moral disengagement. It has been determined that KWIP variable does not seem to have a significant effect.

4.DISCUSSION and CONCLUSION

In this study, the predictive relationships between attitudes to moral decision-making and moral disengagement in sports were examined. With this research, it was tried to determine whether attitudes of cheating, gamesmanship and KWIP in young competitive basketball players predict moral disengagement in sports. In addition, it was determined which attitude was the most predictive attitude to moral disengagement. Accordingly, this study is one of the first studies to examine the relationship between some positive and negative attitudes in sports and moral disengagement.

According to the results of the research, while there was a positive moderate relationship between cheating and moral disengagement, a positive moderate relationship was also found between gamesmanship and moral disengagement. There was no relation between KWIP and moral disengagement. It is noteworthy that cheating and gamesmanship, which are negative attitudes, are similarly related to the moral disengagement, while KWIP, which is a positive attitude, is not related to moral disengagement. Mallia et al. (2017), in their study, found a positive moderate level relationship between cheating and gamesmanship and moral disengagement, while they found a negative low level relationship between KWIP and moral disengagement. While the research findings are similar to this study in terms of negative attitudes, they are not similar in terms of positive attitudes.

When the results of the regression analysis of this research are examined, it was seen that cheating and gamesmanship is an important predictor of the moral disengagement in sports, while KWIP has no effect in explaining the moral disengagement. In his study, Sukys (2013) also revealed that moral disengagement is a predictor of cheating. This literature finding shows that there is a relationship between cheating and moral disengagement. Sarı and Deryahanoğlu (2019) stated that performance climate is a significant determinant of moral disengagement in sports and performance climate is associated with many negative behaviors in sports. When the results of this research evaluated as a whole with the results of correlation and regression, it is possible to say that student athletes with negative attitudes such as cheating and gamesmanship use moral disengagement mechanisms and that student athletes with positive attitudes do not use moral disengagement. In addition, in the literature, moral disengagement is reported to be an important mediator of antisocial behavior in sports (Boardley et al., 2020; Hodge and Gucuardi, 2015; Stanger et al., 2013). Therefore, it is thought that attitudes such as cheating and gamesmanship may have important effects on antisocial behavior in school sport.

In this study, it was aimed to reveal the predictive relationships between negative and positive attitudes and moral disengagement, and new evidence was found. Cheating and gamesmanship are significant predictors of the moral disengagement but KWIP not. It can be said that student athletes who accept cheating and gamesmanship can use moral disengagement mechanisms more. In addition, there is no evidence that having positive social attitudes reduces moral disengagement mechanisms in athletes. The current findings provide new information about the positive links between negative attitudes in sports and moral disengagement. It will be beneficial for the trainers, physical educators and other sports trainers and they should be aware of the fact that their student athletes with negative attitudes could accept more moral disengagement mechanisms and should organize their educations and trainings accordingly.

Our findings should be interpreted in the light of potential research limitations. Firstly, in this research, the attitudes expressed by the student athletes themselves were measured. Considering that there may be differences between self-reported attitudes and behaviors, it is possible to say this situation as a limitation of this research. In addition, it is difficult to reach an opinion about causality since it is a cross-sectional study. Finally, these data were collected from Turkish student basketball players.

Collecting data from athletes from different cultures, different school types, different sports branches and different competition levels will increase the generalizability of the results. In future research, it will be useful to examine the relationship between moral decision-making attitudes and antisocial behavior.

5. References

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Physical activity and physical fitness levels of convicts/detainees remaining in closed penalty execution institutions

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Abstract

The purpose of this study was to determine whether the levels of physical activity and physical fitness of convicts/detainees in Gaziantep L Type Closed Penal Execution Institution differs according to the age and length of the sentence and their relationship with the time spent in prison. Overall, 463 male convict and detainees participated in the study. The average age of the participants was 30.05 (SD= 8.66). The Leisure Time Exercise Questionnaire and Physical Fitness Questionnaire were used to collect data. Within the scope of the research, the necessary ethics committee approval and permissions were obtained from official institutions before data was collected. Only volunteer convicts/detainees were included in the research. In terms of research findings, a difference was found between the physical activity levels of convicts/detainees between age groups that the physical activity level of convicts/detainees aged 30 and lower was higher than those of convicts/detainees aged 41 and older, but the level of physical activity of convicts/detainees aged between 31-40 was similar to that of the other two age groups. The physical activity levels of the convicts/detainees did not make any a difference in terms of the length of the penalty received. In general, the physical activity level of convicts/detainees was found as "active" (30 years old and below) and "moderately active" (31-40 years old, 41 years old and above). It was found that the physical fitness level decreased with increasing age. Physical fitness levels of younger convicts/detainees were higher. In terms of the sentence period received, the level of physical activity showed difference, and the physical fitness level of the convicts/detainees, whose sentence was 10 years or less, were found to be higher than those of 11-20 years or more. However, in general, physical fitness levels of convicts/detainees emerged as "inactive". While the findings obtained showed high levels of physical activity based on the statements of convicts/detainees, they do not indicate the same positive finding at the level of physical fitness. For this reason, it is recommended to conduct more research on physical fitness and physical activity levels of convicts/detainees and to examine them with different samples.

Keywords: Physical activity, leisure time physical activity, physical fitness, convict, detainee

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1. INTRODUCTION

The physical activity is defined as energy expenditure as a result of anybody movement through skeletal muscles, which requires energy consumption above basal level (Saygın, Karacabey, & Saygın, 2011; World Health Organisation [WHO], 2018a). The positive effects of regular moderate-intensity (walking, cycling, etc.) on diseases such as cardiovascular diseases, diabetes, colon and breast cancer, depression has been scientifically proven; and it was determined that the absence of physical activity is among the important causes leading to death in the world with 3.2 million people every year (WHO, 2018b). According to WHO (2010) data, 23% of individuals aged 18 and over in the world in 2010 had insufficient physical activity levels; in Turkey, this ratio has been reported to be 28.1%. In its report published in 2018, WHO stated that inadequate physical activity is among the 10 important causes of death; one in every four people in the world is not active enough; and more than 80% of the world adolescent population is being inadequately active. To benefit from the effects of physical activity, adults between the ages of 18-64 recommended to do at least 150 min of moderate intensity physical activity throughout the week; at least 75 min high intensity; or physical activity involving a combination of moderate to high intensity activity; increasing physical activity to 300 minutes per week for physical activity to provide additional health benefits; and muscle strengthening activities involving the main muscle groups are also recommended to be done 2 or more days a week (WHO, 2018c).

Physical fitness is the set of qualities that people possess or attain, unlike physical activity, which is related to the movement of individuals (Caspersen, Powell, & Christenson, 1985). The components of physical fitness are basically divided into 2: health-related physical fitness and skill-related physical fitness. Health-related physical fitness includes cardio respiratory endurance, muscular endurance, muscular strength, body composition, and flexibility; skill-related physical fitness includes agility, balance, coordination, speed, strength, and reaction time (Caspersen et al., 1985). Physical activity and physical fitness are closely related that physical fitness is determined as a result of physical activity performed for certain weeks or months; and physical fitness of individuals who do physical activity often increases (Blair, Cheng, & Holder, 2001). Research has shown that physical activity and physical fitness reduce the mortality rate from all causes of death, including cardiovascular diseases, but it has not precisely determined how intense physical activity has an impact on the stated causes of death. Some researchers argued that moderate and high intensity physical activity had more impact, while others emphasized that moderate intensity physical activity would be safer, especially for individuals who followed a sedentary way in their previous lives (Warburton, Nicol, & Bredin, 2006; Faff, 2004; Paffanger, Hyde, Wing, & Hsieh, 1986).

Since scientific research findings is demonstrated that physical activity and a certain level of physical fitness are beneficial not only physically but also psychologically for all individuals (Paluska & Schwenk, 2000; Netz, Wu, Becker, & Tenenbaum, 2005), programs for increasing physical activity and physical fitness level are implemented in every segment of society. Convicts/detainees who are in prisons for various crimes are also part of the society, and the right to organize activities that will contribute to the mental and physical development of prisoners is among the duties of the state to protect and ensure the physical and mental health of the convicts/detainees (Ministry of Justice, 2020). Diseases threatening the world with a death such as cardiovascular diseases, cancer, respiratory system diseases, diabetes create more danger for convicts/detainees. According to WHO's research findings on Prisons and Health in 2014, 48% of deaths in prisons worldwide are caused by cardiovascular diseases, 21% cancer, 12% respiratory system diseases, and 3.5% diabetes; the vast majority of these deaths occur in low and medium income countries. It was also stated that the four important factors causing these deaths in prisons were smoking, unhealthy nutrition, inactivity and excessive alcohol (WHO, 2014).

While physical fitness and physical activity have been given importance in terms of public health, research conducted for the convicts/detainees not only in Turkey, but also in the world is limited. The scarcity of these scientific researches prevents the problem from being revealed. In the limited number of studies conducted abroad, it was emphasized that the prison population is more disadvantageous in terms of health than the general population, and physical activity and physical fitness levels are inadequate (Mannocci et al., 2015; Fazel & Baillargeon, 2011; Olaitan, Shmaila, Sikiru, & Lawal, 2010). However, there are also studies showing that the prison population has a higher level of physical activity and physical fitness than the general population. The number of studies especially examining physical activity and physical fitness levels of convicts/detainees is so limited. Considering that prisons are not just a punitive place where criminals stay for punishment, but also a rehabilitation area, it is a fact that convicts'/detainees' healthy lives in prisons will be reflected in their life after prison. From this point of view, it is important to reveal the physical fitness and physical activity levels of convicts/detainees in prison, in order to take precautions regarding the issue beforehand. For this reason, the purpose of this study is to examine whether the physical fitness and physical activity levels of the convicts/detainees staying in the Gaziantep Closed Penal Execution Institution differ according to age and the duration of the sentence, and whether physical fitness and physical activity levels are related to the period of conviction.

2.METHOD

The descriptive model that aims to identify and quantify the variables measured in this study as they exist; the comparative research model aimed at examining the differences between two or more groups on one or more dependent variables; and the correlational model that examines the causal relationships between two or more variables in one or more groups were used (Fraenkel, Wallen, & Hyun, 2011).

Participants

In total, 463 male convicts/detainees who stayed in Gaziantep L Type Closed Penitentiary Institution participated in the study. The age range of the participants varies between 19-72 years. Mean age was found 34.05 ($SD= 8.66$). Of a total of 463 participants, 39.3% are aged 30 and under, 40% are between 31-40 years old and 20.7% of them are 41 years old and above. In addition, 21.4% of the convicts/detainees who participated in the study were sentenced to 10 years or less, 29.6% to 11-20 years, and 47.1% to 21 years or more.

Data Collection Instruments

In order to collect data, "Demographic Information Form", "Physical Fitness Questionnaire" and "Leisure Time Exercise Questionnaire" was used in the research.

Demographic Information Form

In the Demographic Information Form developed by the researcher, there are questions regarding the age, punishment and conviction, detention period for convicts/detainees.

Leisure Time Exercise Questionnaire

The Leisure Time Exercise Questionnaire (LTEQ) used in the study includes questions about the exercise habits of individuals in their free time at least 15 minutes in a week and aims to reveal the activity level of individuals (Godin & Shephard, 1985, 1997; Godin, 2011). The LTEQ was adapted to Turkish for use in the adult population by Yerlisu Lapa and Yağar (2015). Although the questionnaire

is single-factor, it consists of 3 questions in total and determines the level of strenuous, moderate and mild/light leisure time exercise in line with the answers given to the questions. To calculate the total score; the scores obtained by multiplying the high-intensity activities with 9, medium intensity activities with 5 and mild-intensity activities 3 and adding scores obtained. The total score obtained shows the level of activity of the individual in leisure time. The evaluation ranges are designed to be “active” with scores of 24 and above, “moderately active” with scores of 14-23, and “insufficiently active/sedentary” with scores of 13 and below. LTEQ is formulated as follows:

$$\text{LTEQ score} = (9 \times \text{strenuous exercise}) + (5 \times \text{moderate exercise}) + (3 \times \text{mild/light exercise})$$

The test-retest reliability coefficient of the original questionnaire is .74 for the overall questionnaire and .94, .46 and .48 for each question, respectively (Godin & Shephard, 1985); in the process of adapting the questionnaire to Turkish, the reliability coefficient was calculated as .84 for the overall questionnaire and .80, .76 and .72 respectively for each question (Yerlisu Lapa & Yağar, 2015). In order to calculate the test-retest reliability coefficient within the scope of this study, a questionnaire was applied to a 200 convict and detainee group twice with an interval of about two weeks. The test-retest reliability coefficient obtained was calculated as .87 for the overall questionnaire was .84, .89 and .87 for each question.

Physical Fitness Questionnaire

Researches have revealed that aerobic fitness is one of the important indicators of cardiovascular health and the most valid and accepted procedure that determines aerobic fitness is the maximum oxygen intake (ventilatory gas analysis). While VO₂peak expresses the maximal use of oxygen used by the individual when he exercises large muscle groups; indirectly, the treadmill depletion time can be measured by obtaining the submaximal amount of work or the response of the heartbeat to exercise. Although the importance of aerobic physical fitness for health and VO₂peak is naturally known, these measurements are generally performed by few people in health centers or laboratory environments due to their expensive and time consuming features. For this reason, “nonexercise” measurements came to the agenda and gained popularity. The purpose of these measurements is to estimate VO₂peak with easily accessible information such as age, gender, physical activity based on the declaration, and body composition. The "exercise-free" VO₂peak (cardiorespiratory fitness) method used in this study is the method that the research group, which Nes, Janszky, Vatten, Nilsen, Aspenes and Wisloff (2011) belong to, has validity with a sample of 4637.

Parameters used in the determination of physical fitness within the scope of the current research; gender, age, height (cm), body weight (kg), maximum heart rate (220-age), frequency of exercise, duration of exercise, degree of difficulty of the exercise, waist circumference, resting heart rate. As a result of entering these parameters, a physical fitness score is obtained. For men, these parameters are formulated as (Nauman et al., 2017; Nauman, Tauschek, Kaminsky, Nes & Wisloff, 2017; Nes et al., 2011; Nes, Vatten, Nauman, Janszky, & Wisloff, 2014):

$$\text{Physical Fitness Score} = 100.27 - (0.296 \times \text{age}) - (0.369 \times \text{waist circumference}) - (0.155 \times \text{resting herat rate}) + (0.226 \times \text{physical activity})$$

Data Collection Procedures

Before starting the research, necessary permits were obtained from Mersin University Social Sciences Research Ethics Committee and General Directorate of Prisons and Detention Houses. After obtaining the official permissions, the convicts/detainees who remained in Gaziantep L Type Closed Penitentiary Institution were visited and given information about the research and only those who volunteered to participate in the research were included.

Data Analysis

In analyzing the data, IBM SPSS 20.0 Statistics Package Program was used. In order to determine whether there is a statistically significant difference between physical activity and physical fitness levels in terms of convicts/detainees according to their age groups (age 30 and under, age 31-40, age 41 and over) and penalty periods (10 years and under, 11-20 years, 21-30 years) Kruskal-Wallis and Mann Whitney-U Test; and to determine whether there is a statistically significant relationship between convicts'/detainees' convict/detention periods in terms of physical activity and physical fitness levels the Spearman's Rank Order Correlation was used.

3.RESULTS

The mean leisure time physical activity level of the convicts/detainees staying in a closed prison is 24.89 ($SD= 18.89$) and the mean of physical fitness score is 43.75 ($SD= 6.74$). Kruskal Wallis Test was applied to reveal whether the level of physical activity and physical fitness of convicts/detainees differed by age groups (30 and below, 31-40 years, 41 years and above), and the results of the analysis revealed that there was a statistically significant difference between the leisure time physical activity [$\chi^2 (2)= 6.70, p= .036$] and physical fitness [$\chi^2 (2)= 127.18, p= .001$] levels of 3 different age groups. According to the age groups of the participants, the mean averages of leisure time physical activity were 250.74 for the age group 30 and below, 224.67 for the age group of 31-40, 210.58 for the age of 41 and over; physical fitness levels were 303.78 for the age group 30 and under, 222.11 for the age group of 31-40 and 114.98 for the age of 41 and over. The average and standard deviation values of the participants for their leisure time physical activity and physical fitness level is shown in Table 1.

Table 1. Means and standard deviations for leisure time physical activity and physical fitness level of participants by age groups

		N	Mean	SD
Physical Activity	30 years and below	182	27.38	18.93
	31-40 years	185	23.96	18.78
	41 years and above	96	21.94	18.61
	Total	463	24.89	18.89
Physical Fitness	30 years and below	182	47.02	6.32
	31-40 years	185	43.52	5.36
	41 years and above	96	37.98	5.94
	Total	463	43.75	6.74

Mann-Whitney U test results applied to reveal the difference between three age groups showed that there was a statistically significant difference between the groups “30 years and below” and “41 years and above” in terms of leisure time physical activity level ($U= 7224.00, p= .017$); however, it was found that there was no significant difference between the groups “30 years and below” and “31-40 years” ($U= 14935.50, p= .060$), and “31-40 years old” and “41 years and above” ($U= 8336.00, p= .397$). According to these findings, the leisure time physical activity level ($Mdn= 21.00$) of the “30 years and below” group is higher than the participants whose age group is “41 years and above” ($Mdn= 18.00$). The leisure time physical activity level of the participants whose age group was “31-40 years” was similar to the participants in the other two age groups ($Mdn= 18.00$).

Mann-Whitney U Test also applied to reveal the difference between the physical fitness levels of participants in three age groups. The results of the analysis revealed that there was a statistically significant difference between the physical fitness levels of participants aged “30 years and below” and aged between “31-40 years” ($U= 10369.00, p= .001$); participants aged “30 years and below” and aged “41 years and above” ($U= 2137.50, p= .001$); and participants aged between “31-40 years” and aged “41 years and above” ($U= 4244.50, p= .001$). The physical fitness level of the participants aged “30 years and below” ($Mdn= 47.00$) is higher than the participants whose ages between “31-40 years” ($Mdn= 43.00$) and participants aged “41 years and above” ($Mdn= 39.00$). In addition, the physical fitness level of the participants whose age group was “between 31-40 years old” ($Mdn= 43.00$) was found to be higher than the participants aged “41 years and above” ($Mdn= 39.00$).

Kruskal-Wallis Test was applied to determine whether there was a statistically significant difference between leisure time physical activity and physical fitness levels according to the period of punishment (10 years and below, 11-20 years, and 21 years and above) that the convicts/detainees sentenced. The mean and standard deviation values of the participants according to the penalty time groups are shown in Table 2. The results of the Kruskal-Wallis Test revealed that there was no statistically significant difference in the leisure time physical activity level of the participants whose penalty period was "10 years and below", "11-20 years" and "21 years and above" [$\chi^2 (2)= 3.230, p= .199$]. The mean ranks of the leisure time physical activity levels of the participants whose penalty period was "10 years and below", between “11-20 years” and “21 years and above” were similar and 246.34, 215.56 and 226.45 respectively.

The results of the Kruskal-Wallis Test also revealed statistically significant difference between the physical fitness levels of the participants whose penalty period was "10 years and below" and between "11-20 years" ($U= 4854.50, p= .001$) and participants whose penalty period was "10 years and below" and "21 years and above" ($U= 7996.00, p= .001$). However, it was also revealed that there was no statistically significant difference between the physical fitness levels of the participants whose penalty period was between “11-20 years” and “21 years and above” ($U= 14171.00, p= .417$). According to these findings, the physical fitness level of the participants whose penalty period “10 years and below” ($Mdn= 47.00$) was significantly higher than the participants whose penalty period was between “11-20 years” ($Mdn= 43.00$) and “21 years and above” ($Mdn= 43.50$).

Table 2. Means and standard deviations for leisure time physical activity and physical fitness level of participants by length of sentence groups

		N	Mean	SD
Physical Activity	10 years and below	99	27.56	19.59
	11-20 years	137	22.25	16.22
	21 years and above	218	24.95	19.86
	Total	454	24.70	18.83
Physical Fitness	10 years and below	99	45.91	7.71
	11-20 years	137	42.91	6.49
	21 years and above	218	43.30	6.28
	Total	454	43.75	6.76

The results of Spearman's Rank Order Correlation analysis applied to determine whether there is a statistically significant relationship between convicts'/detainees' physical activity and physical fitness scores and their stay in prison revealed that the physical activity score does not have a significant relationship with the period of punishment, $r_s = -.033$, $p = .48$. There was a statistically significant, inverse and low level relationship between physical fitness score and time spent in prison, $r_s = -.134$, $p = .01$. According to these findings, as the time spent in prison increases, physical fitness decreases.

4.DISCUSSION and CONCLUSION

The findings obtained from the study showed that the physical activity levels of convicts/detainees differed by age groups, and that the level of physical activity of convicts/detainees aged 30 and below was higher than those of 41 years and older; He revealed that the level of physical activity of convicts/detainees between the ages of 31-40 is similar to the other two age groups. In addition to these findings that reveal the difference in terms of physical activity, it was found that convicts/detainees aged 30 and under were "active", and convicts/detainees aged 31-40 and aged 41 and over were "moderately active". Similarly, according to the duration of punishment, there was no difference in terms of physical activity level among convicts/detainees who received sentences of 10 years and below, 11-20 years and 21 years or more, and the level of physical activity was found to be "active". In addition to the physical activity level, the physical fitness level measured, and the physical fitness levels of convicts/detainees aged 30 and under, age 31-40 and 41 and over were found different. Research findings reveal that the physical fitness level decreases with increasing age. However, the physical activity level of the three age groups were found to be "inactive". Similarly, in terms of the duration of the sentence, there was a difference between the convicts/detainees who received sentences of 10 years and below, 11-20 years and 21 years or more; The level of physical fitness of convicts/detainees convicted of 10 years or less is higher than that of convicts/detainees who are between 11 and 20 years of age, and between convicts/detainees who are sentenced between 11 and 20 years and those convicted of 21 years or more, in terms of physical fitness level has been revealed. Again, despite

the difference that appeared according to the type of sentence, the level of physical activity of convicts/detainees in all three sentence groups were found to be “inactive”. These findings revealed that the inmates within the scope of the research had a high level of physical activity but a low level of physical fitness. When the literature on the subject is analyzed, researches that are parallel and not parallel to these findings were found.

No number of research revealed physical activity and physical fitness levels of convicts/detainees in Turkey, but some research findings related to the parameters that affect physical activity and physical fitness levels in prisons reveal. For example, Yılmaz and Hazar (2004) examined the level of implementation of the physical education curriculum in prisons and the participation of convicts/detainees in physical education activities, and conducted a survey to 120 closed and 90 open prison inmates. It has been determined that 64.14% of the convicts/detainees participating in the study have been sentenced to 10 years or more and 79.52% have been in prison for 3 years or less. According to the findings of the research, Yılmaz and Hazar (2004) stated that convicts/detainees do not participate in sufficient sports activities in prisons and instead prefer more getting a profession and individual activities. Within the scope of the research, 26.7% of convicts/detainees staying in an open prison and 14.2% of those staying in closed prison participated in sports activities. Yılmaz and Hazar (2004) also reported that 58.6% of the convicts/detainees in prison were doing sports before entering prison, but this rate dropped 43.3% due to the lack of facilities in prisons. Again, 81.4% of the convicts/detainees stated that sports is an important need, but this facility is not available in prison and there is no shower facility after the physical activity. While the research findings of Yılmaz and Hazar (2004) reveal the inadequacy of prison in terms of physical activity facilities, the level of physical activity of prisoners (2020). However, the fact that the physical fitness level of prisoners is “inactive” contradicts these findings. One reason for high physical activity levels and low physical fitness levels is thought to be the inability of prisoners to determine their physical activity levels for various reasons.

Another study conducted by Özalp and Algun (2013) to compare the balance and physical performance of convicts/detainees and unconvicted men over 60 years of age and the researcher found no difference in weight, BMI, timed walk-and-go performance between the two groups, but BERG balance and six-minute walk were noticed. Inmate men's balance performances were lower than non-convicted men, but six-minute walking test performances were higher. The researcher attributed the reason for this low balance performance to the prisoners being in a limited area. Özalp and Algun (2013) stated that the prisoners walked in a straight line, not in different directions, depending on the restricted area. Özalp (2011) also stated that the prisoners spent most of the day with volleyed walks and this may have increased the six-minute walking test performance. Özalp and Algun's (2013) walking performance findings due to walking also support these study findings. The level of physical activity based on the statement of prisoners in the current study was found to be “active”. The reason for this finding is thought to be the high level of physical activity of prisoners due to walking.

There are also international studies that supporting or not supporting this study findings. For example, Olaitan et al. (2010) examined the relationship between the physical fitness level of prisoners in Nigeria and their terms of length of the sentence. According to the research, the physical fitness levels of the prisoners included in the sample were low. In addition, as the length of sentence increases, the levels of physical fitness of prisoners decrease. Researchers declared as the main reason for this situation that the facilities for physical activity are limited. The findings of the study by Olaitan et al. (2010) contain results parallel to these study findings. The low level of physical fitness of prisoners in the sample of Olaitan et al. (2010) is similar to the current study findings. Parallel with the findings of Olaitan et al., in this study, physical fitness levels of convicts/detainees were reported as “inactive”.

(2010). In addition, although there are differences between the groups of convicts/detainees whose length of the sentence is different, the physical fitness levels of all groups were found to be “inactive”; and the physical fitness levels negatively correlated with the sentence length. Olaitan et al. (2010) attributed this situation to the insufficient facilities available in prison. The same reason is thought to apply to the prison conditions in this study, which means that prisoners do not have the necessary facilities to improve their physical fitness. In another Nigerian sample, Oyeyemi, Jabbo, Oyeyemi and Aliyu (2015) examined the prisoners' cardiorespiratory fitness level and the relationship of this level with the prisoner's age, gender, and detention period. Findings have shown that although cardiorespiratory fitness of women is lower than men, cardiorespiratory fitness levels of prisoners are high. However, the findings also revealed that cardiorespiratory compliance was not related to the age and detention period. Oyeyemi et al. (2015) emphasized that the cardiorespiratory fitness of prisoners in high-security prisons is higher compared to the general population. This finding contradicts the findings of Olaitan et al. (2010) previously derived from the Nigerian sample. The researchers attributed this to the sporting opportunities that the prison offered for prisoners. The findings of Oyeyemi et al. (2015) contradict the current study and with the findings of Olaitan et al. (2010). These research findings showed that the level of physical fitness of prisoners was “inactive”, although there were differences in terms of the duration of the sentence. Oyeyemi et al. (2015) attributed this situation to the sports facilities of the prison. Based on the fact that the facilities that improve the physical fitness of the prison will have an impact on the physical fitness of the prisoners, the low physical fitness level of convicts/detainees in the current study was also linked to the lack of sports facilities.

In another study conducted in Italian prisons, Mannocci et al. (2017) were examined the characteristics of prisoners within the scope of various variables, including the level of physical activity. Emphasizing that physical well-being has a positive relationship with mental well-being, Manonocci et al. (2017) found that prisoners participated in the recommended daily physical activity level as in the general population of Italy. In addition, Mannocci et al. (2017) reported that age and duration of detention are related to physical activity; and also reported that the time spent for physical activity and exercise intensity increased with increasing age and detention. The reason for this is that physical activity is a good activity to spend time and to get life satisfaction for prisoners who have been sentenced for long periods and older ages. The findings of Mannocci et al. (2017) contradict and support the current study findings in some ways. First of all, Mannocci et al. (2017) found prisoners' physical activity level higher than the general population, and in the current study, the level of physical activity of prisoners (without comparison with the general population) was found to be “active” and “moderately active”. However, the finding of Mannocci et al. (2017) stating that the duration and intensity of physical activity increase depending on age do not coincide with this study. Although physical activity duration and intensity were not measured, the level of physical activity of convicts/detainees who were younger was higher in this study.

Herbert, Plugge, Foster and Doll (2012) found that Australian prisoners had more adequate and higher levels of physical activity than the general population compared to inmates in the UK. Emphasizing that this difference is not only due to cultural differences, the researchers stated that the wealth of opportunities provided for prisoners in Australia may have caused this difference. Herbert et al. (2012) also found that, in general, although the level of physical activity of prisoners varies, they participated sufficient in physical activity that WHO recommended globally (150 minutes and above). Cashin, Potter and Butler (2008), who examined the relationship between prisoners' physical activity and some psychological variables, stated that prisoners spent an average of 73.3 minutes of physical activity per week in the Australian sample, and 51% of female prisoners and 66% of male prisoners

participate in daily physical activity. In the American sample, Frey and Delaney (1996) examined the recreational activities of prisoners and found that weight lifting and jogging is the most popular sport-oriented recreational activity. In the study, it was also found that 51% of the prisoners never participated in weight lifting activity, 61% in light tempo running activity and 88% in handball activity. In addition, 31% of the prisoners were found to be moderately engaged in weight lifting activity, 35% light pace running and 11% in handball activity; 18% of the prisoners were found to be highly engaged in weight lifting activity, 8% in light tempo running activity and 4% in advanced handball activity.

The effects of sports-oriented initiatives on the psychological well-being of the prison population have also been demonstrated by various studies. In a report investigating the nutritional and exercise status in prisons in the UK, under the law, if conditions permit, prisoners aged 21 and over are given the opportunity to attend physical education for at least one hour a week (National Audit Office, 2006). Also, incentives provided for inmates under the age of 21 include organizing activities that will improve recreational facilities, physical education, physical training activities, on weekdays and weekends, and arranging free time for prisoners to participate in these activities. Although all these arrangements are being made, the findings obtained in the report showed that only 43% of the prisoners participated in organized physical education activities. In parallel with the findings of Herbet et al. (2012) in Australia, Oyeyemi et al. (2015) in Nigeria sample, in this report, it was stated that the opportunities in different prisons in the UK varied and this variation affected the level of physical activity of the prisoners. In the report, for example, it was emphasized that the rate of participation in physical activity in Britol prison is 11%, but this rate is 87% in Huntercombe prison. Nevertheless, regardless of prison differences, it was also reported that prisoners participated in physical activity on average 2.4 hours a week. Fischer et al. (2012) investigated the physical fitness and physical activity status of prisoners using A class drugs (heroin, cocaine, etc.) in England and researchers revealed that 60% of the participants had high level physical activity, 24% moderate and 16% low level. In addition, physical fitness levels of prisoners were also examined within the scope of their study and it was found that 28% of the prisoners' physical fitness level was higher than the average compared to the general population, 12% average level and 4% below the average. As a result of their research, the physical fitness and activity levels of the participants using A class drugs were found high, and this was attributed to the sample size and the participants' declaration. Supporting these findings, the opposition of physical activity and physical fitness levels in this study may be related to the contradiction in the participant's statement. In addition, since the development of physical fitness will depend on various parameters (frequency, intensity, etc.) of the physical activity, it can be said that the intensity and frequency of physical activity declared within the scope of this research is insufficient in terms of improving physical fitness (Hardman & Stensel, 2003; Plowman & Smith, 2008). In the French sample, Lagarrigue, Ajana, Capuron, Feart, and Moisan (2017) conducted a multi-faceted study and examined prisoners' mood, eating behavior, and physical activity levels. Research findings showed that there is a difference between male and female prisoners' physical activity levels; male prisoners were more active compared to female prisoners; and the high-intensity physical activity rate per week has also been shown to be higher in male prisoners. As a result of the research, 37% of the female prisoners and 11% of the male prisoners found to be inactive; it is also reported that 17.2% of female participants and 41.2% of male prisoners were highly active. Findings regarding the percentage of being "inactive" in male prisoners contradict the current study findings. Although in this study, the state of being physically active was not expressed with percentage values, inmates were found to be "inactive" in terms of physical fitness.

Emphasizing the relationship between physical activity and health, Amtman (2001) stated that regular physical activity reduces the mortality rate due to various diseases, and that this loss of life is undesirable for prisoners as well as the general public. He also reported that the negative effects of diseases related to inactivity on the national economy can be eliminated by increasing the level of physical activity in all areas of society. In addition, Amtman (2001) stated that the benefits of physical activity can reduce depression and anxiety, turn the emotional state into positive, and prevent individuals', in particular prisoners', attempts to violence against each other and the prison staff.

This study is the first step in revealing the physical activity and physical fitness levels of male prisoners in Turkey. Although this study demonstrated differences in physical activity and physical fitness levels by age, length of sentence, sentence duration, the findings revealed that the level of physical activity is "active" and "moderately active" level and the level of physical fitness is "inactive". The findings obtained to find contradictions between the level of physical activity and physical fitness contributed to the literature. Although the positive relationship between physical activity and physical fitness has been demonstrated in many studies, it is provoking that the increase in physical activity level does not reflect on the physical fitness level in this research. Physical education and sports activities play an important role in the opportunities provided to enable the convicts/detainees in prisons and detention houses to be regained as healthy and compatible individuals. When the laws and regulations on the subject are examined, it is seen that these possibilities are quite high (Ministry of Justice, 2020). However, although these opportunities were provided by law, the low level of physical fitness appeared to be an in-depth examination.

The reason for the contradiction in physical activity and physical fitness level should be examined in depth with quantitative, qualitative and mixed patterns. The research on physical activity and physical fitness levels of convicts/detainees should be repeated to include more comprehensive sampling prisoners. Since the level of physical fitness and physical activity is examined in this study exclusively for male convicts/detainees, research should also be conducted to include female convicts/detainees.

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