

## **A Scoping Review of the Causes and Consequences of Fraud in Sport**

Lucie Vanwersch<sup>1</sup>, Annick Willem<sup>2</sup>, Bram Constandt<sup>2</sup>, & Wim Hardyns<sup>1</sup>

<sup>1</sup> Institute for International Research on Criminal Policy, Faculty of Law and Criminology,  
Ghent University

<sup>2</sup> Department of Movement and Sport Sciences, Faculty of Medicine and Health Sciences,  
Ghent University

### **Note about the authors:**

Lucie Vanwersch is a PhD researcher at the Institute for International Research on Criminal Policy, Universiteitstraat 4, 9000 Gent, Belgium

Annick Willem is Professor of Sports Sciences at the Department of Movement and Sport Sciences, Watersportlaan 2, 9000 Gent, Belgium

Bram Constandt is Professor of Sports Sciences at the Department of Movement and Sport Sciences, Watersportlaan 2, 9000 Gent, Belgium

Wim Hardyns is Professor of Criminology at the Institute for International Research on Criminal Policy, Universiteitstraat 4, 9000 Gent, Belgium

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Correspondence concerning this article should be addressed to Lucie Vanwersch, Ghent University. Email: Lucie.Vanwersch@UGent.be

### **Abstract**

This study provides a structured overview of the literature published between 2010 and 2020 on the causes and consequences of fraud in sport using a systematic search strategy. Our results show that the current literature on this phenomenon is mostly focused on football as a specific type of sport, and on competition manipulation as a specific type of fraud. Guided by the routine activity theory, we observed that motivated offenders, suitable targets, and the lack of capable guardians render sport vulnerable for fraud in general, and for competition manipulation, corruption, financial fraud, and human trafficking in particular. The consequences of fraud in sport are mostly financial, through a diminution in the public's trust combined with a decrease in attendance and spectatorship to sport events. The phenomenon of fraud in sport remains strongly under-researched through empirical designs, and an interdisciplinary approach is required to tackle its complex nature and scope.

*Keywords* : Competition Manipulation, Match-fixing, Corruption, Financial Fraud, Routine Activity Theory

## Introduction

Fraud in sport has received growing scientific interest over the last decades, focusing mainly on doping in the 1990s, on bidding processes and their potential for corruption in the 2000s, and most recently on match-fixing in the 2010s (Masters, 2019). Although this increased academic attention for fraud in sport has united scholars from a variety of scientific disciplines, the particular field studying its causes and consequences remains severely under-theorized and under-researched (Kihl et al., 2017; Numerato, 2016). Additionally, the existing literature addressing the causes and consequences of fraud in sport contains varied contributions in terms of study designs and methods. As a result, forming an idea of the main causes of fraud in sport in the context of informing preventive measures has become a labor-intensive task. Moreover, the consequences of fraud on sport and the different actors involved in sport are often underestimated. For instance, some international sport federations do not qualify the action of deliberately losing a competition as match-fixing, but rather as a valid competition tactic (Chappelet, 2015).

Despite the lack of a universal approach to fraud in sport, it is of great importance that different sport organizations and other stakeholders are informed about the different risk factors for and potential harmful consequences of fraud in sport. The aim of this study is to provide an overview of the most recent academic contributions on the causes and consequences of fraud in sport, as to inform future research endeavors and policy makers on the current state of the academic literature on the topic. A review of the literature using systematic search techniques has, to our knowledge, not yet been conducted in this particular field of research. In fact, scholars who have summarized the existing literature (e.g., Forrest, 2018; Harms & Kaiser-jovy, 2017; Moriconi, 2020; Tak et al., 2018b; Vamplew, 2018) have not used methodologies based on systematic search strategies. Therefore, this study is also of

great relevance for researchers who wish to base their future research on the current gaps in the literature regarding the causes and consequences of fraud in sport.

Fraud in sport is not a new phenomenon. In fact, there are early reports of its existence during the ancient Olympic Games and other premodern sport events (Huggins, 2018; Maennig, 2005). However, relatively recent technological developments that allow any individual to bet on sport competitions around the world and to follow the performance of international teams and players seem to have precipitated and facilitated the commission of fraud in sport (Dietl & Weingärtner, 2012). The increased criminalization of sports (see e.g., Masters, 2015) has been explained by developments such as sports' professionalization, medicalization, politization, and commercialization (Paoli & Donati, 2014). The ever-evolving nature of technology and globalization therefore impacts the nature of and the ways in which fraud is carried out in the sport sphere. Hence, this area of research focuses on a highly relevant societal challenge of the 21<sup>st</sup> century.

In the remainder of this introduction, we further address existing typologies and definitions of fraud (in sport), and the scope of this literature review. In the method section, we discuss the procedure of the scoping literature review. In the result section, we discuss the findings according to the pieces of information that were extracted from the literature. Lastly, a future research agenda based on a number of identified gaps in the literature is formulated, and the limitations of this study are addressed.

### **Typologies and Definitions of Fraud in Sport**

The academic literature has encountered significant difficulties in the description of the range of activities that can be considered unethical, illegal, or against the spirit of sport. The current debate is mostly focused on the use of the terms *fraud* or *corruption* to define these activities in the context of sport (Brooks et al., 2013). Transparency International

(2022a) defines fraud as “the offence of intentionally deceiving someone in order to gain an unfair or illegal advantage (financial, political or otherwise)”. Corruption, however, is described as “the abuse of entrusted power for private gain” (Transparency International, 2022b). A variety of definitions of corruption applied to the sport context specifically are frequently used in this field of research (e.g., Chappelet, 2016; Maennig, 2005; Masters, 2015). Yet, we have chosen to use the term *fraud in sport* to indicate the range of activities that we will be looking at in this literature review. Given the aforementioned debate, we will first address the rationale behind this choice before discussing any other information relating to the scope of our research.

Firstly, it has been mentioned that the pervasive use of the term corruption in this field of research might expose it to imprecision and superficiality (Gardiner, 2018). Additionally, the numerous existing legal definitions of fraud grant it a more solid conceptual basis than corruption (Brooks et al., 2013). In fact, Rose (2017) found that definitions of corruption rather disagree about the behaviors that should be included in its scope, which hinders the conceptualization of this phenomenon. Additionally, corruption is often described as offering or accepting bribes when it is criminalized, which excludes other types of corruption that can lead to similar abuses of power (Gardiner, 2018). This is the case in the United Kingdom, where corruption is mostly prosecuted through the Bribery Act (2010), that is centered around the offering or receiving of financial or other advantages against the improper performance of one’s function. However, according to the UK Fraud Act (2006), a person can be found guilty of fraud by dishonestly making a false representation, failing to disclose information they are under a legal duty to disclose, or abusing their position. The latter bears noticeable similarities with Transparency International’s aforementioned definition of corruption, possibly contributing to the current definitional debate. Additionally, fraud has been frequently linked to the act of deception in its definitions (Beals et al., 2015; Transparency International,

2022a). Looking at the sport context, most unethical or illegal activities that occur in sport do contain a certain amount of deception, even if it only concerns the public who is expecting a tournament to be administered and played in an honest manner (Masters, 2015). Based on its firmer conceptualization within legal definitions and its more fitted theoretical parallel with the behaviors that are part of the scope of this literature review, we will use *fraud in sport* as the overarching concept of this study.

As was previously mentioned, most definitions found in the current academic literature use the term corruption in sport. Maennig (2005), for instance, is the author of one of the widely used definitions of corruption in sport. Given the comprehensiveness of the behaviors described within this definition, we will first address this definition, before further defining the scope of this specific review. The author differentiates between competition corruption and management corruption in sport. He defines competition corruption as

the exertion of a delinquent influence over: competition results ... whereby the provider and the recipient of the bribes can be athletes only; sporting officials and other non-athletes, e.g., referees, only (sometimes without the knowledge of the athletes involved); athletes and officials. (Maennig, 2005; p.189)

Management corruption, however, is described as a

decision by sporting bodies and sports officials ... and in particular regarding: host venues for important competitions; allocation of rights (for example for televised transmission); nomination for positions (including honorary positions); commissioning constructions works for sports arenas and other venues. (Maennig, 2005; p.189)

Maennig (2005) is not the only academic who makes the distinction between activities harming the integrity of sport pertaining specifically to sport competitions, and corrupt and fraudulent actions that can also be found in other economic sectors, and are therefore not

specific to sport. In fact, Chappelet (2016) differentiated, in a Transparency International report, between on-field and off-field corruption in sport.

Based on these typologies, fraud in sport includes two broad types of activities:

(1) Doping, match-fixing (i.e., spot-fixing, match-fixing for sporting results), and tanking – that involve the manipulation of competitions related to sportive outcomes. There is a distinction in the literature between competition manipulation that is related to betting interests and competition manipulation that is related to sportive interests. As indicated in its name, the first type consists of manipulating the outcome, or a certain element in the case of spot-fixing, of a sporting contest in order to acquire financial gains that depend on betting activities taking place next to the manipulation (Boniface et al., 2012; Hill, 2013; Spapens & Olfers, 2015). The second type of competition manipulation, also called non-betting-related competition manipulation (Boeri & Severgnini, 2013), is essentially based on sportive and competitive interests (Boniface et al., 2012; Spapens & Olfers, 2015). Lastly, tanking is the purposive loss of one or multiple games at the end of a season in order to be better positioned for the drafts of the next season. In certain leagues, the lower a team is positioned at the end of the season, the better position they get to draft new incoming players for the next season (Bricknell, 2015).

(2) Bribery, managerial corruption, and financial crimes mainly take place off-field and in more organizational and administrative contexts. Bribery and managerial corruption in sport are often described through the practices of vote rigging for the purpose of Sport Mega-Events (SMEs) host selections (Gardiner, 2018). Adding to the list of off-field activities are also abuses of authority and power, conflicts of interest, and nepotism (Brooks et al., 2013; Maennig, 2005). Lastly, financial fraud taking place in the context of sport involves activities such as ticket fraud, tax evasion, and crimes like money laundering (Europol, 2020; Manoli et al., 2016).

Recent academic contributions show the importance of addressing the phenomenon of fraud in sport from a broad theoretical perspective. Manoli et al. (2020), for instance, have organized focus groups in the United Kingdom asking participants to discuss their perception of the integrity of sport, and their current willingness to engage with sport. Their results show that even though participants perceive sport's lack of integrity to be normalized, they are still prepared to spectate, participate in, and volunteer at sport events (Manoli et al., 2020). These findings seem to contradict one of the most widely used definitions of *corruption* in sport. In fact, Masters (2015) describes it as “the deviation from public expectations that sport will be played and administered in an honest manner” (p.113). In the focus groups organized by Manoli et al. (2020), the public expectation was however that sport lacked integrity, and a deviation from it might therefore rather be that sport be ‘administered and practiced in a honest manner’, as mentioned by the authors (p.216). Further adding to the complexity of defining phenomena such as fraud or corruption in sport are their links to, often hidden, political outcomes (Tak et al., 2018a). For these reasons, we decided to define the scope of this review of the literature in a clear and explicit manner, basing ourselves on existing academic literature.

### **Scope of the Review**

The goal of this review is to map the current state of the literature focusing on concepts that are recurrently described in existing typologies (e.g., Brooks et al., 2013) or in need of a stronger academic spot light. In order to do so, the types of fraud in sport that were considered in this review were categorized based on the apparent similarity of their criminal opportunity structures, according to a situational criminological approach (Benson et al., 2009). In fact, a number of authors in the criminological literature have emphasized the importance of using crime-specific explanations to analyze the opportunity structures of different types of crime (Benson et al., 2009; Clarke & Felson, 1993), hence the importance of



classifying the types of fraud in sport (instead of considering fraud in general). Contributing to the conceptualization of the phenomenon, Gardiner (2018) created three categories of activities that can harm the integrity of sport: (1) match- and spot-fixing, (2) irregular financial dealings, and (3) bribery in the context of SMEs.

In order to clarify the scope of our review, we decided to allocate the different types of fraud in sport that were found in the literature into these three broad categories. Additionally, we placed non-betting-related competition manipulation in the first category, though Gardiner (2018) considered cheating and gamesmanship to be distinct activities as they are not related to financial outcomes. However, the academic literature indicates that this type of competition manipulation is also often linked to financial benefits such as prize money and bribes (Jetter & Walker, 2017; Tak et al., 2020). Regardless of the specific benefits that are gained through the manipulation of competitions, both types (i.e., betting- and non-betting-related) involve a strong diminution of the uncertainty of outcome that is characteristic and essential to sport contests (Chappelet, 2015; Harvey, 2015).

For this reason, the literature was reviewed focusing on the causes and consequences of the following activities related to fraud in sport: **competition manipulation** (both betting-related and non-betting-related), such as match-fixing, tanking, and spot-fixing (e.g., Gorse & Chadwick, 2010; Haberfeld & Sheehan, 2013; Maennig, 2005; Visschers et al., 2020), **corruption** in the context of SMEs and the governance of sport organizations, such as bribery, vote rigging, and managerial corruption (e.g., Bean, 2018; Brooks et al., 2013; Garcia & Borbély, 2014; Gorse & Chadwick, 2010; Ionescu, 2015; Maennig, 2005), and **financial fraud**, such as money laundering, ticket fraud, and tax evasion (e.g., Brooks et al., 2013; De Sanctis, 2014; Europol, 2020; Manoli et al., 2016; Nelen, 2015). Additionally, **human trafficking** and illegal immigration through and for the purpose of sport are also severely unknown and under-researched phenomena (Andreff, 2019; De Sanctis, 2014). Albeit these

phenomena do not fit perfectly within the aforementioned definition of fraud in sport, their perpetrators often make use of fraudulent activities, such as forging passports and contracts, to illegally import young players to their clubs (Andreff, 2019; Brooks et al., 2013). Additionally, these activities could be categorized as employment fraud, where the victim is scammed into or out of employment, according to the taxonomy of fraud of Beals et al. (2015). In fact, the victims of illegal immigration through sport are often promised long-term and successful employment in Western sport clubs (Tsuma, 2016), which is often in drastic contrast with the conditions they experience once employed by these sport clubs/agents (Andreff, 2019). Consequently, the relative severity of this crime, the thin line between illegal immigration and human trafficking, and the considerable lack of academic attention it receives qualify it to be part of the scope of this review. Human trafficking, according to the United Nations Office on Drugs and Crime (2022), involves the “recruitment, transportation, transfer, harboring or receipt through force, fraud, or deception, with the aim of exploiting them for profit”. Within sports, the trafficked victims are vulnerable individuals such as underaged athletes (Yilmaz et al., 2020), and players immigrating from developing countries (Okwechime & Adetiloye, 2019).

According to the Council of Europe’s recent typology framework (GoC, 2020), doping is also a type of sport manipulation. However, as research on the phenomenon of doping in sport is already in a more advanced stage (i.e., Paoli & Donati, 2014 wrote a comprehensive book on the topic), we will not address it here. When it comes to the different sports that fraud can occur in, e-sports were also kept out of the analysis. The relative recency of the phenomenon of eSports, its inherent differences with ‘traditional’ sports, and the resistance of many sport fans to even call it a sport (Tjørndal, 2021) render it ineligible for this review.

## Methods

A scoping review was implemented to answer our central research question. The scoping review is a particular type of literature review. Scoping reviews are more appropriate than systematic reviews when studying broad topics in fields that contain varied study designs, as is the case in the study of fraud in sport (Arksey & O'Malley, 2005). They are used to map the main sources of evidence within a field (Mays et al., 2001). The original definition mentions that this can be done 'rapidly'. However, Daudt et al. (2013) replaced this word with 'thoroughly' and 'thoughtfully'. Scoping reviews can therefore be an appropriate tool to conduct comprehensive literature reviews. The broad research questions that guide scoping reviews should, however, be combined with clear scopes and research aims (Levac et al., 2010). In our case, the scope of this scoping review has been clearly defined and delineated in the previous section. Amongst the four aims of scoping reviews mentioned by Arksey and O'Malley (2005), two specific aims were chosen for this particular review. The first one is the identification of current gaps in the existing literature, and the second involves examining the extent, range, and nature of the research activity in the field of fraud in sport. This review is based on the framework formulated by Arksey and O'Malley (2005) and further refined by Levac et al. (2010) and Daudt et al. (2013), that consists of six steps, the last one being optional: (1) identifying the research question, which is mostly broad in nature, (2) identifying relevant studies as comprehensively as possible, (3) selecting studies according to inclusion and exclusion criteria, (4) charting the data according to key issues and themes, (5) collating, summarizing, and reporting the results, and (6) consulting key stakeholders and experts in the field.

### **Identifying the Research Question**

In addition to being a relatively new field of research, the field of fraud in sport seems to consist of extremely varied contributions, both in terms of designs and approaches. This observation was made by the authors based on preliminary examinations of the literature. For

this reason, the research question guiding this review is broadly formulated, allowing the researchers to structure the selected literature according to existing criminological frameworks.

*RQ:* What is known about the causes and consequences of fraud in sport in the academic literature?

### **Identifying Relevant Studies**

To identify relevant studies for our scoping review, we searched three academic databases: i.e., Web of Science, Scopus, and ProQuest. The searches were restricted to the time frame between 2010 and 2020. Although Masters (2019) identified an increasing trend in studies about corruption surrounding bidding processes for SMEs starting at the beginning of the 21<sup>st</sup> century, multiple preliminary and explorative searches informed us that a great majority of sources relevant for our particular research question date from the last decade.

The same search string was used in all databases (see Appendix 1). This search string was constructed using keywords found in a preliminary search of the literature (Boland et al., 2017). Importantly, the broad nature of scoping reviews renders their process iterative rather than linear (Arksey & O'Malley, 2005). Therefore, the search term was constructed iteratively to assess its sensitivity and specificity. When an apparent balance was reached, the first search of all three databases was performed on the 18<sup>th</sup> of December 2020. A second search was executed on the 21<sup>st</sup> of January 2021 to include the last publications of the year 2020 in the results. All electronic search results ( $n= 1177$ ) were imported to EndNote, where duplicates were removed ( $n= 238$ ).

Next to the database searches, hand searches were conducted based on the 'snowball sampling' method that consists of searching the reference lists of the already selected literature, and a number of relevant journals in the field. This method is used in combination

of database searches in the specific context of scoping reviews in order to confirm that data saturation was reached and to ensure comprehensiveness (Arksey & O'Malley, 2005; Daudt et al., 2013). In our case, this hand search resulted in a small proportion of the total number of search results, indicating that most relevant sources were acquired through the database searches ( $n=11$ ; 1,2%).

### Selecting Studies

The remaining search results were then further refined by using pre-defined inclusion and exclusion criteria applied to their title and abstract (see Figure 1 for a PRISMA flow chart of the full selection procedure). The following criteria were used to finally select 214 search results for a full-text assessment of their eligibility:

#### *Inclusion:*

- Published between 2010 and 2020, AND
- Concerns athletes, referees, coaches, fans, sponsors, club officials, sport governing bodies, organized crime groups, AND
- Contributes to knowledge on the causes of fraud in sport (e.g. vulnerabilities of the sport sector or of specific actors within it, and/or cultural, social, financial, organizational, contextual, and criminal factors contributing to fraud in sport), OR
- Contributes to knowledge on the negative consequences of fraud in sport on the sport sector itself and the concerned actors in the aftermath of their detection (e.g. social, psychological, reputational financial, organizational, and ethical consequences), OR
- Theory-based research to explain the occurrence of fraud in sport (e.g. economical, criminological, psychological theories).

#### *Exclusion:* (all 'OR')

- Doping

- eSports
- So called ‘sports’ involving animals without significant interference by humans (e.g., dog fights, greyhound races)
- Damage control by (financial) stakeholders in the aftermath of sport scandals (e.g., empirically informed recommendations for financial stakeholders such as sponsors and financial investors to efficiently react in the aftermath of a fraud scandal)
- Impact of fraud in sport on individuals and organizations that are not directly involved in sport

Two authors performed a proof second selection based on the aforementioned criteria on independent samples, which led the authors to conclude positively about the reliability of the selection method. The second and last selection of the literature resulted in  $n= 115$  final sources to be analyzed for data extraction.

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INSERT FIGURE 1 HERE

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### **Charting the Data**

After the second selection, data was extracted from the remaining sources. 11 pieces of information were recorded about each source: author(s), date of publication, geographical scope, sport, sport level, study design, causes/consequences of the fraud mentioned in the study, level of analysis, types of fraud addressed in the study, involved/impacted actor(s), and general comment. We considered that recording those pieces of information on each source would allow us to make informed decisions during the fifth stage of the review, when collating, summarizing, and reporting the results. As our scoping review has the aim of examining the extent and nature of the existing literature in the field of fraud in sport, we did not select literature on the basis of a judgment of the quality of their research design, as would have been done when conducting a systematic review.

The first decision made to structure the data was to separate the causes from the consequences of fraud in sport. To further chart and structure the extremely varied *causes* of fraud in sport that were mentioned in the literature, we decided to use Felson's routine activity theory (RAT) as a theoretical framework. This situational criminological theory relies on the premise that an opportunity must be present for a crime to occur, and can be used to analyze and organize the opportunity structures that lie at the basis of different types of offences, including white-collar offences (Benson et al., 2009). According to the RAT, the opportunity for a crime originates from routine occupational and daily activities that may cause the convergence of likely offenders, suitable targets, and the lack of capable guardians (Cohen & Felson, 1979). Although the theory was initially developed to explain the occurrence of direct-contact predatory crime, the combination of these factors offers an interesting framework for the study of the causes of fraud in sport (Clarke & Felson, 1993; Nelen, 2015; Peurala, 2013). As this theory functions as a 'causal theory' where changes in the routine activities are expected to influence the crime rates (Clarke & Felson, 1993), it is fitted to address one of the aims of this scoping review, namely the mapping of the causes of fraud in sport.

Factors contributing to rendering a certain individual a likely offender of fraud in sport might be internal and personal (e.g., financial motivations, career ambitions) or external (e.g., social and cultural pressures, intimidations and threats). We will categorize all individuals that commit fraud in sport as offenders in the theoretical sense of Felson's theory, but consider it important to nuance this use of vocabulary by differentiating between the type of motivators that lie behind such acts in the result section. According to Felson's theory, suitable targets are valuable, visible, accessible, and inert (Cohen & Felson, 1979). The suitable targets of fraud in sport are, in our case, not individuals (except in the case of human trafficking), but sport organizations or competitions that are rendered vulnerable to crime through factors tied

to their nature and context. In sum, sport itself can be considered a target of fraud (Boniface et al., 2012; p.19). Lastly, the guardians against fraud in sport represent the regulations and codes of conduct that govern sport organizations, and the individuals responsible for their enforcement. Structuring our data according to the RAT therefore allowed us to divide each factor mentioned in the literature as directly or indirectly contributing to the occurrence of fraud in sport into three categories: i.e., likely offenders, suitable targets, and the lack of capable guardians.

To organize and structure the *consequences* of fraud in sport, we based ourselves on Greenfield and Paoli's harm assessment framework (2013). This framework allows researchers to categorize the harms associated with certain types of crime according to their type and bearers in a systematic manner. Focusing on the harms of different types of fraud in sport, we argue, has the potential to contribute to the formulation of priorities in terms of investigation and prosecution (Paoli & Greenfield, 2018). In fact, certain forms of match-fixing, for instance, are still the subject of debate in the eyes of sports persons regarding their moral reprehensibility (Van Der Hoeven et al., 2020). Additionally, this framework does not require causality, but rather is used to describe associations (Greenfield & Paoli, 2013). Given the type of evidence often found in the literature on fraud in sport, our findings deal mostly with conclusions based on associations and not causations.

The framework considers four main categories of *bearers of harm*: i.e., individuals, private sector entities to which sport organizations belong as non-governmental non-profit organizations, government entities, and the environment. When the framework is applied to fraud in sport, the environment element is only applicable in its social form, as fraud in sport does not influence the quality of air, water, or soil. The social environment component includes "public nuisance, social fragmentation, and community dissociation" (Greenfield & Paoli, 2013; p.870). The framework also distinguishes between four types of harm: i.e.,



functional integrity including physical and psychological losses, material interests, reputation, and privacy. As the under-theorization of this specific field of research has been repeatedly mentioned in the recent literature (Numerato, 2016), we attempt to address this gap by structuring and mapping the current state of the literature on fraud in sport using these two established theories.

### **Collating, Summarizing, and Reporting the Results**

To summarize the data, tables and figures were created to represent the different pieces of information extracted from the selected literature. Only the tables/figures considered to contribute to a significant extent to answering the research question were ultimately included in this article. Tables and figures that contained information on important gaps in the literature were also selected to illustrate our recommendations for future research.

### **Consultation Exercise**

The findings of this review were presented during the annual congress of the European Association for Sport Management in October 2021. Additionally, our findings were tested by the opinion of five interdisciplinary experts in the field of sport (fraud)<sup>1</sup>. This was done in a structured manner, by first presenting the findings of our scoping review, then asking a number of prepared questions to the experts with regards to their field of expertise. During these consultations, the first author mostly inquired about possible omissions or gaps in the findings that could be identified by the experts for their field in particular (e.g., sport

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<sup>1</sup> Our findings were presented to senior researchers (professors) working on a Flemish project (the ProFS project) that has the aim of studying fraud in sport in a holistic and integrated manner, involving various disciplines (e.g. psychology, criminology, law, economics, management) and methodologies.

management, law, psychology, criminology). As fraud in sport is a multi-faceted phenomenon, it requires such multi-disciplinary perspective (Kihl, 2018).

## Results

From the 11 pieces of information that were recorded for each study, the ones containing general information about the studies will be discussed first. Subsequently, content-specific information related to the research question will be discussed.

### General Information on the Selected Studies ( $n= 115$ )

Almost 80% ( $n= 90$ ) of the selected literature was published during the second half of the last decade (2015-2020). This means that the studies used in our analysis can be considered to be very recent contributions to the field of fraud in sport (see Figure 2).

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As depicted in Table 1, the research designs of the selected studies are rather varied but mostly non-empirical, as almost half of them are literature-based ( $n= 51$ ; 44,3%). The types of literature that those studies are based on are academic literature (e.g. journal articles, book chapters), grey literature (e.g. governmental reports, court proceedings), and media resources. A few of those literature-based studies are also based on theory: i.e., Felson's routine activity theory (Nelen, 2015; Peurala, 2013), Ajzen's theory of planned behavior (Barkoukis et al., 2020), Becker's economic theory of rational choice (Boeri & Severgnini, 2013; Forrest, 2018; Hill, 2015), public choice theory (Follert et al., 2020), von Neumann's game theory (Breuer, 2018), and Rest's theory of moral decision-making (Van Der Hoeven et al., 2020). Additionally, qualitative designs were found in 27 studies (23,5%). They included empirical qualitative data collection methods such as interviews and analyses of discourse, ethnographic studies, and case-based studies. The 19 quantitative studies that were included were empirical quantitative trials, and tests and developments of mathematical models. Lastly,

15,7% ( $n = 18$ ) of studies used multi-methods designs including combinations of literature-based, quantitative, and qualitative designs. The majority of literature-based research present in our results confirms that the ‘empirical poverty’ described by Numerato (2016) in the study of match-fixing is still applicable today, and might extend to other types of fraud in sport as well.

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Football was the sport that was mentioned with the highest frequency in our results ( $n = 49$ ; 42,6%) (see Table 2). Very few studies targeted other sports than football. In fact, none of the other sports represented more than 3,5% of the total. However, 37 studies (32,2%) did not specify a type of sport they focused on in particular, and addressed sport in general. Eleven studies (9,6%) included more than one sport in their scope. When different conclusions were drawn for the different types of sport present in one study, these were recorded separately during data collection. These results are in line with the findings of Gorse & Chadwick (2011) who measured the prevalence of doping and competition manipulation internationally by performing statistical analyses on a database of proven cases. The authors found that a great majority of cases of both betting- and non-betting-related competition manipulation were found in football (Gorse & Chadwick, 2011). The large focus on football as a sport in particular, might also be due to its global popularity, and proneness to fraud through its easily penetrable market and the colossal sums of money involved (Nelen, 2015).

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When it comes to the geographical scope of the selected studies, a wide variety of countries were represented in our results, as well as all five continents. However, most countries were not mentioned more than five times. Only Italy appeared eight times in the list. Additionally, more than half of them were either situated in Europe or in Asia (respectively

33% and 16,5%). Twenty-three studies (20%) were considered to have a global scope, which means that they did not specify being applied to a certain country or continent, but addressed international sport federations such as the Fédération Internationale de Football Association (FIFA) or the International Olympic Committee (IOC). Lastly, 23 studies (20%) did not mention any information that could allow the researchers to identify their geographical scope.

### **Research-Specific Information Acquired from the Selected Studies ( $n= 115$ )**

The following information is directly relevant to answer the research question of this scoping review. To map the existing literature on the causes and consequences of fraud in sport, data was collected about the types of fraud addressed in the literature, and the causes and consequences attributed to the phenomena of interest. A great majority of studies, 65,1%, were focused on competition manipulation ( $n= 82$ ) (see Table 3). More specifically, this percentage was divided between the different types of competition manipulation encountered in the literature. Thirty-two of them (25,4%) were interested in betting related competition manipulation in particular. Twenty-eight studies (22,2%) looked at non-betting related competition manipulation. The remaining 22 studies (17,5%) about competition manipulation did not use this type of categorization. The other types of fraud in sport, corruption and financial fraud, gathered respectively 23 and 8 studies (18,3% and 6,3%). The very under-researched phenomenon of human trafficking through and in sport was only mentioned in four studies. In the next sections, we discuss the causes and consequences of these types of fraud in sport as they were mentioned in the selected literature.

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### **The Causes of Fraud in Sport in the Literature**

#### ***Betting-Related Competition Manipulation***

Looking at the literature about competition manipulation as a sub-type of fraud in sport, studies focusing on betting-related competition manipulation constituted 39%. Here, the opportunity structures for this type of fraud are mostly related to the presence of likely offenders. Given that a likely offender can be “anybody who for any reason might commit a crime” (Clarke & Felson, 1993, p.2), we will look at the reasons behind the decisions of a number of sport actors to participate in betting-related competition manipulation. According to the literature, the individuals that initiate and perform the fixing of (parts of) a sport contest (e.g., athletes, referees, coaches, and clubs) are mainly looking for financial benefits (Agur, 2015; Aquilina, 2018; Bricknell, 2015; Forrest, 2012; Manoli et al., 2019; Peurala, 2013). In the case of athletes (and referees), this might be especially motivated by low or unpaid salaries (see for instance: Banks, 2017; Campman, 2019; Hill, 2014; Serby, 2015; Spapens & Olfers, 2015), and the relative disparity between their salary and the high liquidities involved in the betting sector (Hill et al., 2020). The end of athletes’ sport career nearing (Hill, 2015; Lastra et al., 2018), and gambling behavior (Numerato, 2016) or gambling addiction (Soldani, 2015) were also mentioned as financial factors influencing athletes to become likely offenders of betting-related competition manipulation.

Another reason behind athletes’ decision to commit this type of fraud is the intimidation used by some organized crime groups who wish to launder criminal money through the betting sector (Di Ronco & Lavorgna, 2015; Soldani, 2015), and the social ties and pressures present within sport organizations, such as clubs and federations (Han, 2020). Here, a link can be drawn to the rational choice approach that is often used in the study of crime (Jancsics, 2014). In fact, participants to betting-related competition manipulation seem to be driven by a cost-benefit analysis of their situation before making a decision (Forrest, 2013; Rebeggiani & Rebeggiani, 2013; Van Der Hoeven et al., 2020). However, this analysis is mostly bound by ‘limited rationality’ as offenders are confined by the limits of time and the

availability of information during their decision-making process (Clarke & Felson, 1993). Consequently, athletes who have less emotional involvement in the competition are more prone to participate in betting-related competition manipulation (Lastra et al., 2018). The aforementioned results indicate that the literature on the reasons why some individuals become likely offenders of betting-related competition manipulation is rather extensive, and focuses mostly on individual rational choice perspectives, and relational perspectives.

Now that we have established a clear picture of the reasons of likely offenders to commit this type of fraud, we need to look at the instances where these offenders will come in contact with a suitable target. Initially, the suitable target element of the RAT was defined as “any person or object likely to be taken or attacked by the offender” (Clarke & Felson, 1993, p.2). In the case of fraud in sport, the target is rarely an individual or a specific object. Rather, the target of fraud in sport is sport itself (Boniface et al., 2012), for instance a sport organization, a specific tournament, or a sub-part of a sport contest. Sport can indeed become the target of betting-related competition manipulation through the imperfect governance of its governing bodies and their lack of risk management and transparency (Kalb, 2015). Additionally, the recent developments in the gambling sector contribute to sport’s vulnerability to betting-related competition manipulation through the extremely competitive prices of the illegal betting market, and the possibility to bet on sub-parts of contests and live during contests (Brooks et al., 2013; Forrest, 2012, 2017; Holden, 2020). Sport betting is now also based on the accuracy of the bet instead of on win/lose dynamics (Serby, 2015). These new types of betting behavior originate from the strongly affected and attenuated property rights of betting operators due to 21<sup>st</sup> century globalization and technological developments (Dietl & Weingärtner, 2012).

Also responsible for the heightened vulnerability of sport are the extremely high liquidities present in the betting sector (Forrest, 2012, 2013), which allow organized crime

groups to bet relatively high amounts without attracting unwanted attention. Lastly, the prohibition of sport betting in some states in the USA and in most Asian countries, and the consequential deregulation of the betting sector in these countries push it in the criminal under-world, where organized crime groups thrive (Boniface et al., 2012; Campman, 2019). All in all, the sport sector as a whole, though certain sports more than others (Saha, 2015), is highly likely to become the target of betting-related competition manipulation if likely offenders, such as poorly paid athletes, become aware of the aforementioned vulnerabilities related to the betting sector, in the absence of guardians capable of preventing them to act upon this opportunity.

As the target of betting-related competition manipulation is not a tangible object or person, the guardians responsible to safeguard its integrity are not necessarily individuals either. Here, the guardians of the integrity of sport are, for instance, the sport governing bodies, such as (inter)national sport federations, and their codes of conduct, but also public authorities, who are responsible of keeping an eye on sport without harming its autonomy (De Herdt & Verhelst, 2012), as well as the media (Manoli & Janečić, 2020). In fact, sport suffers from a lack of regulation and supervision, which is partly sustained by its autonomy (Mcnamee, 2013), and by the betting prohibition leading to a deregulation of the betting sector in some countries (Forrest, 2012, 2013; Hill, 2010). Additionally, a climate of tolerance reigns in some countries, such as Italy (Di Ronco & Lavorgna, 2015), and in international sport federations (Hill et al., 2020), where individuals usually expected to be the face of the fight against fraud, such as politicians and board members, implicitly tolerate it. This seems to be the case in South Korea, where sport institutions have been reported to focus primarily on their social acceptance in the eyes of the public instead of on managerial efficiency against the threats of competition manipulation (Tak, 2018). However, when sport organizations do choose to invest in the detection of betting-related competition manipulation, they are not

always effective at it. For instance, the Early Warning Systems (EWS) used in the football leagues in South-Korea to detect suspicious bets seem to have limited efficiency as they focus solely on legal betting operators and are apparently unable to detect large bets that are divided in smaller amounts (Tak et al., 2018a). Lastly, mobile phones and other technological devices might also form a network linking offenders with the target of their crime (Benson et al., 2009), as they are important facilitators for organized groups of manipulators to build large networks of fraud (Agur, 2015).

When it comes to laws and regulations, not all countries have laws that are sport-specific to prosecute betting-related competition manipulation, but most are able to prosecute these offences on the basis of existing laws addressing bribery or money laundering (Vandercruysse et al., 2021). However, some countries, such as Finland, do not have any general organ responsible for the fight against corruption (Peurala, 2013), which renders the investigation and prosecution of those offences quite difficult. Similarly, in Australia, the legal landscape allows competition manipulation to take place through a number of loopholes (Kerr, 2018).

All factors mentioned above contribute to occurrence of betting-related competition manipulation, but it is only when all three elements of the RAT converge that the chances of it actually taking place will be remarkable. In fact, regulating the betting sector to a larger extent, installing stricter laws with regards to the payment of athletes or increasing transparency with regards to the liquidities involved in sport transactions all might have radical effects on the opportunity structures of this type of fraud in sport.

### ***Non-Betting-Related Competition Manipulation***

Non-betting-related competition manipulation is mentioned in 34,1% of the studies about competition manipulation. In order to analyze the opportunity structures behind this



types of fraud in sport, we will also look at indications for all three elements of the RAT in the selected literature. First, the reasons behind individuals' decisions to become likely offenders of this type of competition manipulation are, as described in its definition above, mainly related to competitive/sportive advantages (Brooks et al., 2013; Moriconi, 2018; Van Der Hoeven et al., 2020). These competitive advantages can be acquired either during the contest that is being manipulated, as shown by reciprocal agreements in cycling (Christiansen & Hjørngard, 2013), or in order to create an advantage in future encounters. Interestingly, many factors that can act as motivators for potential future offenders of non-betting-related competition manipulation are highly similar to the ones listed above, and known to influence betting-related competition manipulation. In fact, competition advantages are also synonymous with financial rewards, such as prize money, transfer promises, academic benefits, and better employment contracts for athletes (Jetter & Walker, 2017; Kihl, 2018a; Tak et al., 2020; Yilmaz et al., 2019). As to referees, they are more prone to become the likely offender of this type of fraud in sport when they are promised career advances (Boeri & Severgnini, 2013), or when they rely on the bribes they receive to complete their monthly salary (Numerato, 2016).

Our search of the literature has revealed a number of other reasons that could motivate individuals to commit non-betting-related competition manipulation to various extents. In some cases, the manipulation of competitions is linked to more practical or emotional reasons such as animosities between long-time rival clubs, or to avoid travelling a long journey (Numerato, 2016). Moral and physical threats (Doidge, 2018), or in the case of referees, threats of receiving bad reviews of their work in the press, appear as contributing factors as well (Boeri & Severgnini, 2011). Lastly, and this is quite specific to non-betting-related competition manipulation, not all stakeholders or governing bodies agree on the (moral) reprehensibility of this type of fraud in sport in all its forms (Van Der Hoeven et al., 2020). In

fact, losing in order to encounter an easier opponent in a later stage of the contests is regarded as relatively acceptable in the sport community, compared to other acts of cheating (De Waegeneer et al., 2019). Even though the extensive involvement of betting in sport seems to hold a clear negative moral value in the eye of stakeholders and the public, activities such as tactical underperformance remain the subject of moral and regulatory debates (Vandercruysse et al., 2021). The existence of this debate combined with the fact that certain cultures seem to be more conducive/accepting of corruption than others (Constantin & Stănescu, 2020; Elaad et al., 2018; Lash, 2018; Nowy & Breuer, 2017; Woźniak, 2018) might lead sport actors to become likely offenders of non-betting-related competition manipulation without even knowing that they are.

After having described the ways in which individuals can become likely offenders of this type of fraud in sport, let us now turn to their potential target. In the case of non-betting-related competition manipulation, the ‘suitable target’ is found entirely in the competition structure of the manipulated contests (Schneider et al., 2016; Stronka, 2020). This is, for instance, the case for Australian football competitions. There, winning less than five games in a season qualifies clubs to draft pick new players for the next season with priority (Bricknell, 2015). A similar rule applies in some basketball leagues (Brooks et al., 2013). In sumo wrestling, winning eight contests is extremely valuable in terms of ranking points. The increase in ranks that a wrestler acquires after winning their eighth contest far outweighs the linear rank increases from any other number of wins (Duggan & Levitt, 2000). This tournament structure renders sumo wrestling vulnerable to non-betting-related competition manipulation when opponents’ incentives to win differ significantly during an encounter (Dietl et al., 2010). Lastly, European football leagues seem to be rendered vulnerable to non-betting-related competition manipulation by their structure (Csató, 2019), and their point system (three points for a win, zero points for a loss, and one point to each team for a draw).

Teams seem to have more interest in arranging that each of them wins their home game and is therefore awarded three points, than to risk going home with either one or zero points (Breuer & Kaiser, 2016). A similar situation that fails to reward good play at all levels of the competition took place during the London Olympic Games' badminton tournaments where two Chinese pairs were disqualified for not putting in their best effort (Sailors et al., 2015). Here again, we notice that the target of non-betting-related competition manipulation is rendered vulnerable to the offence by a number of factors. However, it is less likely to occur if the likely offenders find a well-guarded target (Clarke & Felson, 1993).

Only three studies addressed the third element of the RAT for non-betting-related competition manipulation, i.e., the 'lack of capable guardians'. According to Holden & Rodenberg (2016), sport is especially vulnerable to manipulation when the latter is initiated and carried out by one individual without consultation with others, also called lone-wolf competition manipulation, as it is the less detectable type of manipulation. Most of the countries that were analyzed by the authors did not have adequate criminal systems to tackle this problem. Additionally, international sport federations are not always armed to discipline and sanctions athletes/teams that manipulate sport contests for competitive benefits (Blair, 2018). In fact, having a code of ethics does not always mean that a federation will use it adequately and implement it efficiently (Constandt & Willem, 2021). Finally, criminal law is most likely to get involved with betting-related than with non-betting-related manipulation, the latter being only against the rules of a certain sport and not against the law (Ordway & Opie, 2016).

The elements discussed above all have a likely influence on the occurrence of non-betting-related competition manipulation as a sub-type of fraud in sport. We notice similar vulnerabilities on the individuals level than in the case of betting-related competition manipulation. The financial conditions in which certain athletes and teams find themselves

therefore have wider consequences than one might initially think, as they are also often fed by a culture of short contracts in sport (Agur, 2015; Marchetti et al., 2021). When these likely offenders come in contact with weakly structured sport contests in practically undetectable circumstances, competition manipulation will likely occur.

### ***Competition Manipulation (non-specified)***

The remaining 17 studies about competition manipulation did not specify whether they examined its betting-related type or not. The opportunity structures for competition manipulation according to those sources were, however, highly similar to those mentioned in studies that did distinguish between both types. Namely, likely offenders are financially motivated (Carpenter, 2012; Doewes, 2020; Frenger et al., 2019; Gardiner et al., 2012; Huang et al., 2018; Trumphyte, 2016). Social ties, pressure, and duress (Carpenter, 2012; Gardiner et al., 2012; Kihl, 2019; Lee, 2017; Tzeng et al., 2020; Tzeng & Lee, 2020), and conflicts of interests related to multi-club ownerships (Breuer, 2018) are also mentioned as contributing factors. Additionally, certain national contexts have been reported to possibly contribute to the presence of competition manipulation in these countries (e.g., Italy, Malta, Greece) (Aquilina & Chetcuti, 2014; Hamil et al., 2010; Manoli & Antonopoulos, 2015; Nowy & Breuer, 2017).

### ***Corruption***

As is visible in Table 3, relatively few studies discussed the phenomenon of corruption in sport as described in our scope, namely in relation to the management of sport governing bodies and bribery ( $n = 23$ ; 18,3%). The studies that did, concentrated mostly on international sport federations, such as the FIFA and IOC, and the organization of sport mega-events (SMEs), such as the FIFA World Cup and the Olympic Games. First, in order to analyze the opportunity structures behind this type of fraud in sport, we will address the reasons behind

individuals' increased likelihood of offending. Here, members of sport organizations are more likely to use corruption when the benefits of this activity outweigh its costs. This is for instance the case when they experience financial difficulties and need to support a certain kind of lavish lifestyle, an addiction, or deal with mental health issues (Kihl et al., 2021). In the latter cases, the rationality behind the decision is most probably limited (Clarke & Felson, 1993). This finding addresses the first of three major approaches used to study corruption in the interdisciplinary academic literature, namely the rational choice perspective where corruptors are viewed as rational actors (Jancsics, 2014).

The second approach regards individual decisions in relation to corruption as part of a larger structural and organizational context (Jancsics, 2014). In the context of sport organizations, countries and politicians can decide to use bribery to achieve their goal of hosting SMEs, because such events are associated with significant amounts of soft power for the hosting country or city (Geeraert, 2018). These events also increase economic activity in the hosting country by bringing in tourists and improving its reputation (Matheson et al., 2018). Additionally, it seems that the Olympic bidding process has a long history of bribery. Back in the 1960s, this behavior was merely perceived as a strong motivation from the candidate countries to achieve their goal of hosting the Olympic Games (Dichter, 2016). This 'culture of corruption' has apparently become the norm and common practice within some international sport organizations (Geeraert, 2018). Finally, corruption can also be studied through the lens of social relations and networks (i.e., the relational perspective) (Jancsics, 2014). In this context, a study of Italian football found that the prospect of future reciprocity motivated the use of bribes by club officials and politicians, showing the influence of horizontal social networks on corruption (Doidge, 2018). Additionally, the monopoly of large international federations over SMEs in which countries and cities compete and invest large sums of money and use rent seeking to become their host (Matheson et al., 2018; Zimbalist,

2016), might create a sort of vertical relationship where the few decision makers hold power over the candidates (Chappelet, 2018; Philippou, 2019). Rent seeking being extremely costly and disadvantageous economically, candidate countries have to deal with a certain urgency to be selected, creating incentives for bribery (Matheson et al., 2018; Zimbalist, 2016).

Having identified the likely offenders of corruption in sport, and some of the reasons behind their decisions to commit corrupted acts, we will now turn to their targets. A number of factors can render sport a suitable target to corruption, especially during the selection process of hosts for SMEs and their organization. More specifically, the international sport organizations proposing them have distinctive governance and organizational characteristics that create potential for such activities (Horne, 2016; Minikin, 2015). Firstly, the secretive nature of the proceedings allows stakeholders to discuss contractual terms behind the scenes (Henne, 2015; Szymanski, 2016). Secondly, these international sport federations, and in particular FIFA, are now so wide-ranging and global that they combine a variety of groups representing different motives, interests, and goals. In such cases, bribery often becomes a method to facilitate vote-passing and decision-making within these heterogeneous organizations (Follert et al., 2020).

From the information compiled above, we can conclude that the occurrence of corruption in sport in the context of the governance of sport organizations and SMEs will be likely if these organizations are not able to put in place a set of efficient guardians against it. Complicating the matter even more is the fact that sport organizations are simultaneously responsible for promoting and regulating sport activities (Di Marco, 2020), which gives them two, sometimes incompatible roles. Some international sport federations also lack good practices of governance (Pielke, 2016), and transparency and democracy (Geeraert, 2018) to deal with corruption within their ranks. In other cases, they lack the capacity, expertise, and resources to implement good governance practices (Geeraert, 2019). Liu (2017) has

confirmed this for the Chinese Football Association, and Lakshman and Akhter (2013) for the Indian Premier League of cricket.

Without harming the sacred autonomy of the sport sector, public authorities might also have a role to play in holding them accountable. However, it is a very challenging task, both legally and fiscally (Pielke, 2013). FIFA, for instance, has the ability to punish states that attempt to hold their national football federation accountable to good governance principles by excluding them from qualifying for the next World Cup (Boudreaux et al., 2016). Additionally, international sport federations benefit from their social position and social power in society, which further complicates the task of accountability holders (Nelson & Cottrell, 2016). Moreover, in the Balkan countries, a recent study indicated that even the media is unable to hold the sport sector accountable, even though accountability holding is often regarded as one of its important roles (Manoli & Janečić, 2020).

The convergence of the aforementioned opportunity structures for corruption in sport does have devastating consequences for the integrity of sport organizations. However, research has shown that the motivation to promote ethical behavior in a sport organization is an important determinant of the effectiveness of their code of ethics (De Waegeneer et al., 2017). More importantly in the case of managerial corruption, the inclusion of specifications with regard to the role of the management, and their conduct also was found to increase a code's effectiveness (De Waegeneer et al., 2017).

### ***Financial Fraud***

Eight studies addressed financial fraud as a form of fraud in sport in our selection (6,3%). Few studies discussed the reasons behind offenders' decision to commit financial fraud in the context of sport. Manoli et al. (2016) studied the occurrence of financial fraud in Greek football clubs. They argue that certain Greek clubs are pushed to commit financial

fraud, such as ticket fraud, due to the financial pressures that they are confronted with, and the reduced attendance in stadia. Additionally, clubs that experience financial difficulties might hardly be able to refuse the generous donations of investors, even when these donations come from dubious backgrounds (Medhi, 2016; Nelen, 2015).

In addition to the presence of likely offenders of financial fraud, the sport sector can become the target of this type of fraud due to a number of vulnerabilities. Football specifically is especially vulnerable to financial fraud as extremely large amounts of money are frequently transferred between clubs, agents, and players, and it is an easy economic market to penetrate (Cindori & Manola, 2019; De Sanctis, 2014; Nelen, 2015). This has been confirmed for the Italian and German Leagues in particular (Brooks et al., 2013). Transfers are particularly targeted as the value of players is intangible, which facilitates money laundering (Nelen, 2015). The vulnerabilities of sport, which lie in its structure and internal governance fragilities, render it a suitable target for criminal groups to cover their activities behind its positive public image (Anderson, 2018).

The presence/absence of capable guardians with regard to financial fraud in sport was also addressed in our selection of literature. In Greece, the ownership structure of the clubs allows them to be managed by anyone who has interest in them, creating significant conflicts of interest (Manoli et al., 2016). This structure combined with the mutual agreements made with politicians against their prosecution creates a situation where club owners and other officials can act with a certain level of impunity (Manoli et al., 2019). Additionally, Kihl et al. (2021) showed that a lack of financial oversight in community sport organizations can also increase the opportunities for fraud.

Clearly, this type of fraud in sport is in dire need of additional research to uncover additional factors that contribute to its opportunity structures. In fact, large-scale cases of financial fraud in sport are still recurrently reported in the media (e.g., Operation Clean Hands



in Belgian football where the financial constructions of a particular agent showed large-scale tax evasion).

### ***Human Trafficking***

Only four studies (3,2%) referred to human trafficking and illegal immigration in the context of sport. The reasons behind offenders' actions have, to our knowledge, not been studied extensively. However, one could safely hypothesize looking at the opportunity structures of the aforementioned types of fraud in sport that financial gains are to be obtained from these activities as well. Additionally, the targets of human trafficking in the context of sport are individuals, and not per se sport itself. More specifically, young African players whose poor background renders them vulnerable to offers of better living and working conditions made by unscrupulous agents (Tsuma, 2016). Additionally, these young players are extremely motivated to play in Western countries and to follow their idols' footsteps (Okwechime & Adetiloye, 2019). Unfortunately, and according to De Sanctis (2014), the FIFA regulations surrounding the transfer of players are easy to circumvent, and can even facilitate criminal activity. This lack of capable guardians was confirmed by Yilmaz et al. (2020), who wrote that regulations concerning who can become an agent are weakly formulated. The same is apparently true for the length of contracts with underage players, and the prohibition of their remuneration. Those conditions place young motivated players, often from third world countries, in a vulnerable position and in danger of being illegally brought to a Western country to play football or even trafficked (Yilmaz et al., 2020).

### **The Consequences of Fraud in Sport in the Literature**

Relatively few studies ( $n = 20$ ) addressed the consequences of fraud in sport, compared to its causes. From the 20 identified studies, 17 studies focused on the consequences of competition manipulation, two on the consequences of corruption, and one did not specify to

focus on any type of fraud in sport. We discuss the different types of consequences following Greenfield and Paoli's harm assessment framework (2013) (see Table 4).

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INSERT TABLE 4 HERE

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Firstly, on the individual (micro) level of analysis, four studies addressed the negative consequences of competition manipulation pertaining to functional integrity, which was described by the authors as pertaining to physical and psychological losses (Greenfield & Paoli, 2013). Namely, when caught, competition manipulators can receive prison sentences in countries such as Australia and Bulgaria (Carpenter, 2012), next to suffering from the psychological effects of being known as a 'cheater' or as untrustworthy (Robinson & Parry, 2018). In fact, it appears that some honest athletes choose to put their career to a hold or to withhold from a career in sport due to their powerlessness in the face of the widespread nature of the fraud in their sport (Chadwick et al., 2018; Numerato, 2016). Although the aforementioned consequences of fraud in sport might bear financial harm on their own, two studies mentioned additional harm to the material interest of individuals. Referees, for instance, are less likely to be assigned to future games when participating in competition manipulation as they have to increase their error rates, and therefore be less performant, to successfully manipulate games (Duvinage, 2012). Additionally, in the case of betting-related competition manipulation, betting operators, book-makers, and non-biased bettors also suffer financial losses when the outcome of a sport contest is artificially manipulated (Forrest, 2012). Lastly, it seems that even when athletes do not participate in competition manipulation, their reputation can be tarnished by high levels of corruption in their environment (Carpenter, 2012).

Concerning the consequences of fraud in sport on private sector entities, two studies addressed the harm that sport organizations such as clubs and federations bear on their

functional integrity. Concretely, this harm is mostly linked to the absence of uncertainty of outcome in manipulated contests, which is one of their central/essential elements (Harvey, 2015). This results in competitive imbalance between teams that use corruption and manipulation and teams that do not (Manoli & Antonopoulos, 2015). Evidently, sport organizations also bear financial and material losses from fraud in sport, as mentioned in six studies. Those financial losses are due to the diminished interest and attendance of fans when they become aware of the manipulation of their favorite club's competitions (Buraimo et al., 2016; Feltes, 2013; Prior et al., 2013). This is especially the case for organizations with low reputations as they are unable to mitigate the negative effects of such scandal (Kihl et al., 2018). Even the relegation of one important team to a lower league, as has happened after the Italian Calciopoli scandal, can have a negative financial effect on the other teams as the public's interest shifts to the lower league, following the relegated team (Amenta & Di Betta, 2021). Additionally, media channels and sponsors are more likely to turn away from investing in future events when those have been rigged with fraud in the past (Chadwick et al., 2018). A final type of material loss was addressed in the literature as being the result of fraud in sport. Namely, football organizations specifically have to invest in Early Warning Systems and compensate the teams that were disadvantaged by competition manipulation (Dietl & Weingärtner, 2012).

Lastly, nine studies addressed the consequences of fraud in sport in terms of the reputation of private sector entities. In fact, competition manipulation decreases the public's trust in sport in general as the premise of sport contests links winning with a mastery of the discipline in question, and the amount of training and efforts invested in a specific contest (Rebeggiani & Rebeggiani, 2013). Even international sport federations', such as the IOC's, reputation are harmed by fraud in sport (Robinson & Parry, 2018). Some leagues have even entirely collapsed after widespread allegations of competition manipulation and corruption

(Dietl & Weingärtner, 2012; Hill, 2010). Finally, sport teams and clubs lose fandom and the interest of their public when they are at the center of scandals concerning fraud in sport (Abeza et al., 2020; Chadwick et al., 2018; Soldani, 2015). Fans report being disappointed in sport (Lamberti & Hyatt, 2018), and even perceiving sport's lack of integrity to be the norm (Manoli et al., 2020). Interestingly however, sport fans have also been shown to be mainly interested in sport organizations' ethical leadership when it is directly related to their own interests (e.g., respecting and empowering fans) (Constandt et al., 2020). This might mitigate the negative effects of other types of breaches to the integrity of sport, when these do not directly affect fans' experience of sport. In fact, fans seem be willing to continue their engagement in and with sport, despite their perception that fraud is the norm in this context (Manoli et al., 2020). Fans' psychological bond with their sport could therefore be described as highly resilient (Lamberti & Hyatt, 2018).

### **Discussion and Limitations**

The goal of this scoping review was to provide an extensive overview of the literature on the causes and consequences of fraud in sport. To do so, we used the scoping review framework developed by Arksey and O'Malley (2005). Our search strategy resulted in 1188 results, from which 115 were selected after having passed through two selection procedures. Although our search did not exclude or focus on any type of sport except for eSports, nor any type of fraud in sport except for doping, our results remain strongly skewed. Namely, football was the most studied sport in our results, and match-fixing the most studied type of fraud in sport. However, the different types of fraud in sport all seem to be facilitated by the presence of opportunity structures linked to the three elements of the routine activity theory, i.e., likely offenders, suitable targets and the lack of capable guardians. All three elements of the RAT have a role to play in both types of competition manipulation (i.e., betting-related and non-betting-related), corruption, financial fraud, and human trafficking. Nonetheless, the extent of

their relative impact on each types of fraud remains unanswered, and might form an interesting path for future research. By reviewing the literature on human trafficking and illegal immigration in the context of sport, we wanted to draw academic attention toward this under-researched phenomenon. Additionally, we hope to encourage further research and policy to address it by showing that the opportunity structures are clearly present, and that a type of loophole ethics seems to exist through loosely formulated regulations (Kvalnes & Hemmestad, 2010). Concerning the consequences of fraud in sport, the lack of research in general, and of empirical research in particular, was clearly noticeable in our selection. This lack of empirical research was also pointed out by Numerato (2016), and seems to remain a current challenge in this field of research.

Looking at the results of this scoping review from a broader perspective, we notice that financial benefits appear to weigh heavily in all offenders' decision-making processes, regardless of the type of fraud in sport analyzed. However, despite the fact that this rational choice perspective is broadly used in the fraud in sport literature, we also observe that the structural and relational approaches should not be overlooked (Jancsics, 2014). In fact, cultural and social factors appear to have a significant influence on the opportunity structures of fraud in sport (Tak et al., 2020). Finally, sport has been reported to be a suitable and vulnerable target for fraud in a number of different contexts in the selected literature. Looking at these vulnerabilities with an aggregate view allows us to observe that a number of important challenges remain in sport's way toward integrity.

Most of the studies addressed in this review were context-specific, discussing the situation in one (e.g. Doidge, 2018; Spapens & Olfers, 2015), or two neighboring countries with similar backgrounds (e.g. Moriconi, 2018). This is in line with the argument that fraud in sport is most likely not governed by universal features (Carmi & Levy, 2020). However, it also seems to get easier for the organizers of modern manipulation schemes like match-fixing

to cross international borders (Caneppele et al., 2020). Therefore, adopting too narrow a view of the issue could become problematic. Similarly, a number of stakeholders have vested financial and political interests in the sport sector (e.g., betting companies, sponsors, governments). Therefore, it remains important to be aware of hidden agendas behind statements and actions against fraud in sport (Tak et al., 2018a).

This study has a number of limitations. Firstly, it seemed that saturation was attained to a certain extent by using the three aforementioned databases, as the last one brought a high number of duplicates and sources that had already been selected. However, complete comprehensiveness is a somewhat unattainable dream that is constrained by the practical choices made for the research (e.g., restriction to articles published between 2010-2020). A second limitation lies in the fact that the literature treated in this review was highly varied and mostly literature-based. Those characteristics were addressed with structural choices, such as the use of Felson's routine activity theory and Greenfield and Paoli's harm assessment framework, which can also be regarded as a limitation of this study. As part of these structural choices, the players and coaches were also considered to be some of the possible offenders of competition manipulation. However, in many cases, the players are the victims in this scenario, and the real offenders are outsiders or organized crime groups pressuring them into fixing matches. The rationale behind this choice lies in the fact that insiders were found to be more often linked to competition manipulation, rather than organized crime groups (Moriconi, 2020). There also seems to be a group of authors in this field of research that are present to a greater extent than others (e.g., Forrest, Hill, Kihl, Manoli). As a result, their view on the topic received relatively more attention, which might have distorted the results. Lastly, even though the research protocol, methodology, and results were extensively discussed, the decisions made for the selections of literature were made by one researcher only, after having tested the decision strategy through a sample analyzed by a co-author.

Fraud in sport remains a relevant area of research as threats to the integrity of sport keep being uncovered at the time of writing. For instance, Csató (2021) found that the qualification for the 2020 UEFA European Championship are unfairly designed, leading to incentives for competition manipulation. The increasing trend in literature written on the topic, as shown in this review, also indicates that this area of research is currently prospering in response to the growing awareness of fraud in sport. Future research is necessary to aid the competent authorities in tackling fraud in sport and to gather more knowledge on actionable elements with regards to its prevention. To this end, ethnographic context-specific research, as was conducted by Numerato (2016) in the case of the Czech Republic, and Manoli et al. (2019) for Greece, might be greatly beneficial for other countries as well. In fact, it seems that the phenomenon of fraud in sport varies significantly in its form and extent depending on cultural, political, and circumstantial factors (Aquilina & Chetcuti, 2014; Nassif, 2014). Moreover, the different types of fraud in sport are dependent from each other (Anderson, 2018; Forrest, 2018; Spapens, 2021), rendering researchers' task of accurately describing fraud in sport in different contexts a complex endeavor. Additionally, further criminological and sociological research on a more international level is also still necessary in order to map and describe the different networks involved in the commission of different types of fraud in sport and the often hidden links between them. New research should also focus on the conditions within sport organizations that can lead to or foster the occurrence of fraud. Kihl et al. (2021) have recently examined occupational fraud within community sport organizations in multiple countries using qualitative content analysis of cases of fraud. Further research using qualitative techniques, such as interviews, or quantitative methods similar to the ones used by Nowy & Breuer (2017) who surveyed a large number of European clubs about competition manipulation in relation to their organizational capacities, might aid to uncover

the types of organizational climate that are associated with higher rates of fraud within sport organizations.

On the level on individual decision-making, Van Der Hoeven et al. (2020) have empirically analyzed the moral challenges of those involved in betting-related and non-betting-related competition manipulation. Further empirical research into the personal constituents of individuals participating in fraudulent behavior in the context of sport will allow researchers to create targeted educational outputs to help preventing such behavior in the future. As situational factors can also play an important role in individuals' engagement in fraud in sport or refrainment from it, more empirical studies on the structure of competitions and their incentives using quantitative methods, such as in Duggan & Levitt (2000) in the case of sumo wrestling, and Jetter & Walker (2017) for tennis, are required to broaden the scope of knowledge in this specific area. Finally, the negative consequences of fraud in sport on communities, fans, and societies in a broader sense have also lacked academic attention. A few empirical studies have been conducted on the financial impact of uncovered fraud cases on sport organizations through fans' decreased attendance and interest (e.g., Amenta & Di Betta, 2021; Buraimo et al., 2016). However, very few have addressed the negative consequences of fraud in sport on social capital and individuals' willingness to practice sport in general. Manoli et al. (2020), however, found that the perception of a lack of integrity in sport did not seem to influence individuals' willingness to participate in sport-related activities. If such lack of negative consequences is also found in other contexts, future research should also attempt to uncover the mechanisms behind it. The public's perception of sport remains, after all, one of its biggest drivers.

In conclusion, fraud in sport's research field remains strongly under-researched from an empirical and data-driven point of view. An interdisciplinary approach is required to tackle this complex phenomenon involving a wide range of actors and contexts. After all, and as



Benson et al. (2009) put it “fraud is a dynamic game played between offenders, and controllers” (p.187). Hence, the use of insights from multiple disciplines might open doors to highly needed more comprehensive knowledge (Kihl, 2018b). In sum, research on fraud in sport is a quickly evolving field, that still has a lot to offer to interested researchers who wish to dig deeper into these complex processes.

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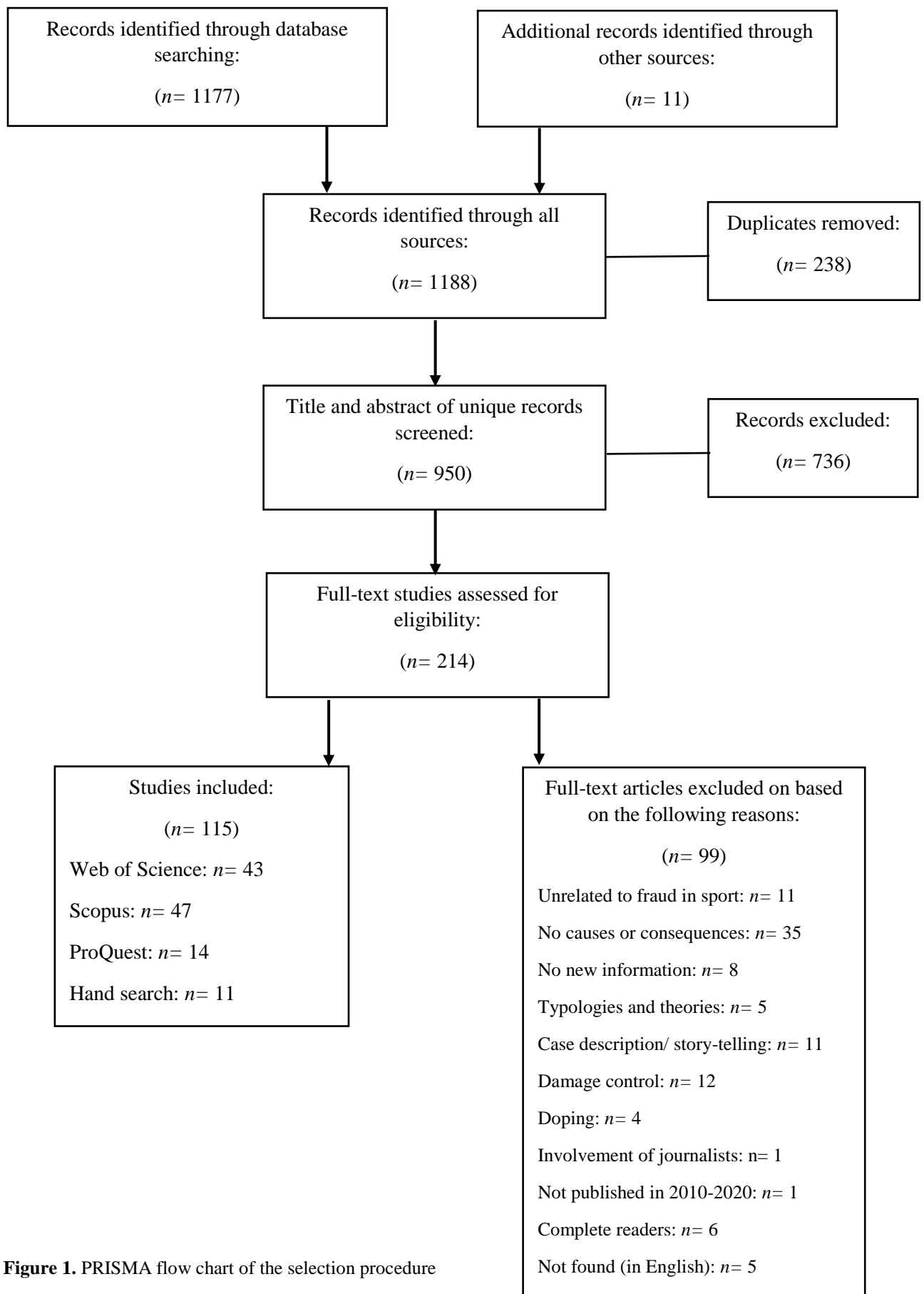
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## **Appendix 1. Search string**

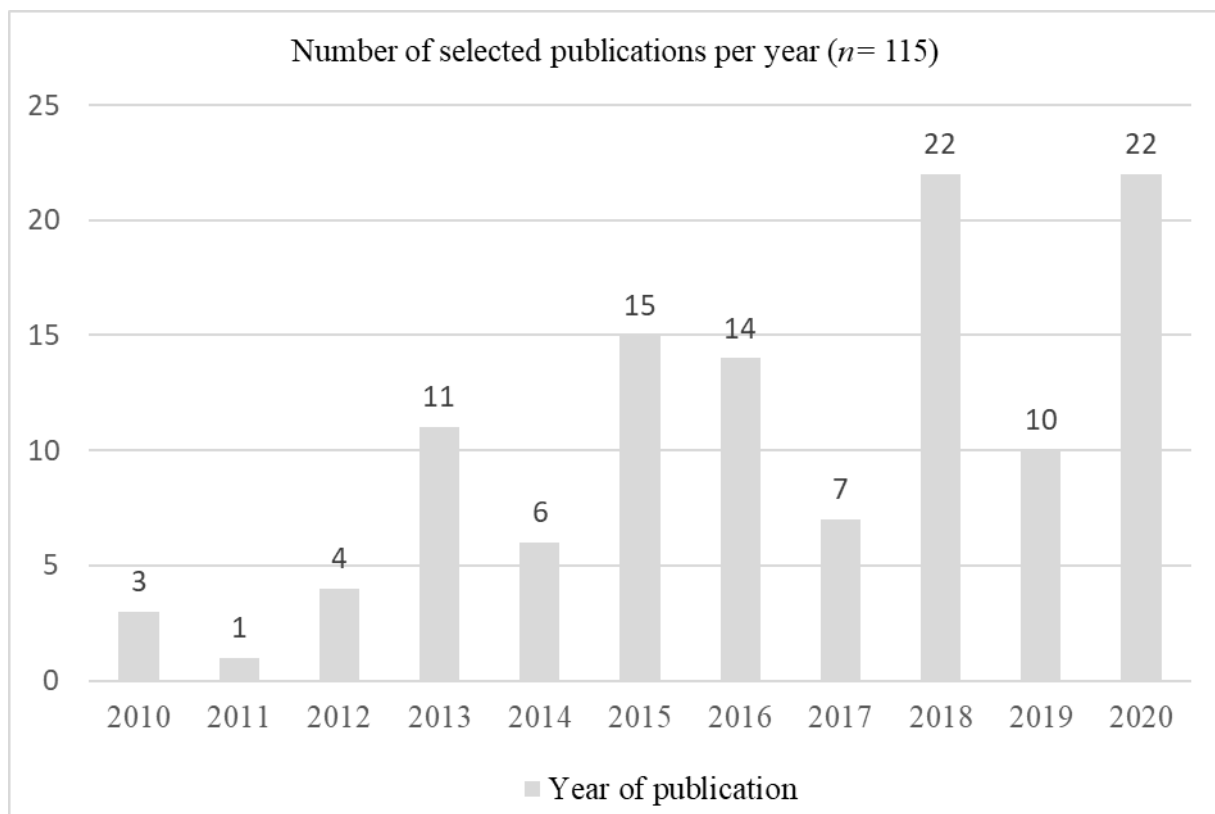
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**Figure 1.** PRISMA flow chart of the selection procedure



**Figure 2.** Distribution of selected publications per year



**TABLE 1** | Distribution of research designs in the selected literature

<i>n</i> = 115	
Literature-based	<b>51</b> (44,3%)
Qualitative	<b>27</b> (23,5%)
Quantitative	<b>19</b> (16,5%)
Multi-methods	<b>18</b> (15,7%)

**TABLE 2** | Distribution of sports in the selected literature

<i>n</i> = 115	
Football	<b>49</b> (42,6%)
Baseball	<b>4</b> (3,5%)
Cricket	<b>3</b> (2,6%)
College athletics	<b>3</b> (2,6%)
Basketball	<b>2</b> (1,7%)
Badminton	<b>2</b> (1,7%)
Australian football	<b>1</b> (0,9%)
Sumo wrestling	<b>1</b> (0,9%)
Tennis	<b>1</b> (0,9%)
Cycling	<b>1</b> (0,9%)
Multiple sports	<b>11</b> (9,6%)
Not specified	<b>37</b> (32,2%)

**TABLE 3** | Distribution of types of fraud in sport in the selected literature*n* = 126\*

<b>Competition manipulation</b>	<b>82</b> (65,1%)
Betting-related	32 (25,4%)
Non-betting-related	28 (22,2%)
Not specified	22 (17,5%)
<b>Corruption</b>	<b>23</b> (18,3%)
<b>Financial fraud</b>	<b>8</b> (6,3%)
<b>Human trafficking</b>	<b>4</b> (3,2%)
<b>Not specified</b>	<b>9</b> (7,1%)

\* The total number of sources from the table does not add up to *n* = 115 as some of them address more than one type of fraud in sport

**TABLE 4** | Harm associated with fraud in sport in the selected literature*n* = 24\*

	<i>Bearer of harm</i>			
	Individuals	Private sector entities	Government entities	Social environment
<i>Type of harm</i>				
Functional integrity	4	2	0	0
Material interest	2	6	0	0
Reputation	1	9	0	0
Privacy	0	0	0	0

\*The total does not match the *n*= 20 studies referred to above as some studies address more than one consequence of fraud in sport.