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Match-Fixing in European Sports: Attitudes and Experiences

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ABSTRACT

Over the past years, the scholarly interest in match-fixing has grown. Although several empirical studies have tried to map the prevalence of match-fixing, the scope has often been limited to a given country, sports discipline, level of sports, and/or type of match-fixing. Moreover, match-fixing is often stereotyped as a problem caused by external criminals, while match-fixing by internal stakeholders occurs on a larger scale. When it comes to internal stakeholders, research to date has mainly focused on the vulnerability of athletes and referees to match-fixing. Nevertheless, other internal stakeholders in sports can also be the instigators of match-fixing, and may have different attitudes toward match-fixing. This study aims to fill these gaps by examining match-fixing among various internal stakeholders ($n = 4958$) involved in different sports across Europe. The results showed that internal stakeholders' attitudes toward match-fixing were not uniform. Additionally, almost one fifth of the respondents indicated (in)direct match-fixing incidents in the questionnaire. The majority of the cases concerned sporting-related match-fixing, while our results also revealed that sporting- and betting-related match-fixing can happen together. By examining various internal stakeholders' attitudes toward and experiences with match-fixing in European sports, this study could navigate future match-fixing prevention initiatives.

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Introduction

Next to issues such as performance-enhancing drug use, hooliganism, and sexual transgressive behavior, match-fixing has been positioned as one of today's most pressing forms of deviance in sports (Forrest and McHale 2019). Consequently, the academic interest in match-fixing has increased over the past years. Several empirical studies have been conducted to examine match-fixing and its prevalence (for a short overview, see e.g., Tak, Sam, and Choi 2020). However, the scope of these studies has often been limited to a certain country (e.g., the Netherlands, see Spapens and Olfers 2013, 2015), sports discipline (mainly soccer, see e.g., FIFPro 2012), sports level (mainly professional, see e.g., Frenger, Emrich, and Pitsch 2019) and/or type of match-fixing (mainly betting-related, see e.g., Lastra, Bell, and Bond 2018). Nonetheless, match-fixing is a complex phenomenon that takes on many different forms, transcends national borders, sports disciplines and levels of sports (Tak, Sam, and Jackson 2018).

Additionally, match-fixing is often stereotyped as a problem caused by external criminals who infiltrate in sports (Moriconi 2020). However, match-fixing by internal stakeholders (e.g., athletes, coaches, board members, referees) might pose an even bigger threat (Spapens 2021). After all, internal

stakeholders are often targeted by (external) fixers or may even be the instigators themselves, which may complicate the detection and prevention of match-fixing (Holden and Rodenberg 2017). While the vulnerability of athletes and referees for match-fixing has widely been acknowledged and studied (e.g., athletes, see Tak et al. 2020; referees, see Visschers, Paoli, and Deshpande 2020), there is still a paucity of research on various internal stakeholders' attitudes toward and experiences with match-fixing. Moreover, empirical figures have not yet explicitly examined and compared various internal stakeholders in sports when it comes to match-fixing.

Given this context, the first aim of this study is to gain insights into the attitudes of various internal stakeholders toward the seriousness, risk, and acceptability of match-fixing. A second aim of this study is to provide more complete, cross-national, and cross-sports figures on the prevalence of match-fixing, by examining to what extent internal stakeholders in European sports knew of others who had already been approached for match-fixing and whether they had already been approached themselves to fix a game/match.

Literature review

Match-fixing

During the past two decades, there has been much debate about what constitutes match-fixing (Serby 2015). Various match-fixing conceptualizations and definitions have been established by multiple researchers and associations to better describe the phenomenon (for an overview, see e.g., Van Der Hoeven et al. 2020). To date, the predominant definition is the one of the Council of Europe (2014) which defines match-fixing or the “manipulation of sports competitions” as:

An intentional arrangement, act, or omission aimed at an improper alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the aforementioned sports competition with a view to obtaining an undue advantage for oneself or for others. (art. 3.4)

Although the Council of Europe's (2014) definition also includes other types of manipulation, such as doping and the falsification of documents, it is more or less considered the norm to currently describe match-fixing in the literature (Chappelet 2015, Moriconi 2020). Therefore, we also used the Council of Europe's (2014) definition of “manipulation of sports competitions” in this study to define match-fixing.

Based on the underlying motivation for match-fixing, a general distinction is usually made between betting- and non-betting-related (or sporting-related) match-fixing (Spapens and Olfers 2015). In betting-related match-fixing, people aim to fix a match to make profits on the betting market. A specific subtype of betting-related match-fixing is spot-fixing, where people try to fix specific elements within a match (e.g., the first yellow card). In sporting-related match-fixing, on the other hand, people aim to fix a match for sporting purposes (e.g., to avoid relegation of a specific club or athlete, or to enable a specific club or athlete to become champion).

Prevalence of match-fixing

Empirical research on match-fixing steadily increased during the past decade (Vanwersch et al. 2022). A considerable amount of research examined match-fixing based on single cases (e.g., Feltes 2013, Petropoulos and Maguire 2013), on single countries (e.g., Aquilina and Chetcuti 2014, Lee 2017) or single sports events (e.g., Blair 2018). Although suggestions to curb match-fixing could be derived from the presented cases, quantitative figures were frequently lacking (Frenger et al. 2019). Hill (2013) attempted to move beyond single-case analyses by elaborating different databases, and thus enabling a more quantitative investigation into match-fixing. Following Hill's (2013) pioneering work, more empirical studies emerged that examined the size of the problem. Zamante (2012), the Belgian social network site for soccer athletes, for example, examined match-fixing among 945 soccer athletes who

were mainly involved on an amateur level. They showed that 14.5% of the respondents had been contacted directly to fix one of their matches, and that 34.5% of the respondents claimed to know one or more athletes or coaches who had been contacted to fix matches (Zamante 2012).

Within a broader European context, a first large scale attempt to examine the prevalence of match-fixing was made by FIFPro (2012), the global union for soccer players. They interrogated 3,357 professional soccer players across 15 Eastern European countries, and revealed that 11.9% of them indicated that they had been approached to fix a match. Moreover, 23.6% of the professional soccer players was aware of match-fixing cases in their national competition. Another large scale research, as part of the “Don’t Fix It!” project, questioned 1,585 soccer players from amateur to professional levels across eight European countries to examine their knowledge of match-fixing, and reported the figures country by country (Harvey and Levi 2014). A third large scale study, conducted by Theodorou (2017), examined match-fixing among amateur and professional athletes in 12 different sports disciplines in Greece, Cyprus, and Austria. Theodorou (2017) results showed that 12.6% of the respondents indicated that they had already played in a match that was fixed, 15% revealed that they had been approached to fix a match in the last 12 months, and 34.7% believed that matches in their league may have been fixed in the past 12 months. However, a limitation of FIFPro’s (2012), Harvey and Levi’s (2014), and Theodorou (2017) research is that the reported prevalence figures did not make a distinction between betting- and sporting-related match-fixing.

It was not until the Dutch study of Spapens and Olfers (2013, 2015) that the prevalence of both, betting- and sporting-related match-fixing, was simultaneously explored. Spapens and Olfers’ (2013, 2015) study revealed that people who suspected match-fixing in their sports pointed more to sporting-related (44%) than betting-related match-fixing (20%). Next to measuring suspicions, Spapens and Olfers (2013, 2015) also examined personal experiences with match-fixing approaches. More specifically, 8% of the respondents claimed to know persons who had been approached to fix matches, and 4% indicated that they had been invited themselves to fix matches. Although Spapens and Olfers (2013, 2015) stated that the majority of the latter cases also concerned sporting-related match-fixing, no specific figures were formulated regarding both types of match-fixing. Building on Spapens and Olfers’ (2013, 2015) work, Van Der Hoeven et al. (2020) examined betting- and sporting-related match-fixing in Flemish (Belgian) soccer, tennis, and badminton. Out of the 567 respondents who completed the questionnaire, 36 respondents (6.3%) indicated that they had been approached personally to fix a match, and 101 respondents (17.8%) indicated that they knew someone else who had been approached for match-fixing. Out of the 36 personal match-fixing approaches, 33 cases (91.7%) were about sporting-related match-fixing, whereas only three cases (8.3%) were related to betting.

Although previous studies thus already aimed to map match-fixing, it is apparent that research including both types of match-fixing is still limited, particularly on a cross-national and cross-sports scale (Frenger et al. 2019). The present study aims to fill this gap by examining both types of match-fixing in a European context, in various sports disciplines, on different sports levels, and among various stakeholders.

Match-fixing stakeholders

As illustrated by the multiple match-fixing scandals that already occurred in sports, various stakeholders can be involved in match-fixing (see e.g., Carpenter 2012). Stakeholders are classically defined as “those groups who can affect or are affected by the achievement of an organization’s purpose” (Freeman 1984: 49). In the context of match-fixing, Manoli and Antonopoulos (2015) investigated match-fixing in Greek soccer and made a distinction between direct and indirect stakeholders, depending on the level of their association with match-fixing. Yilmaz, Manoli, and Antonopoulos (2019) examined the Turkish soccer match-fixing scandal (so-called “Sike Davasi”-case), and made a distinction between primary and secondary stakeholders. Primary stakeholders were convicted for match-fixing and were part of one of Turkey’s leading clubs (described as the “criminal organization”). Secondary stakeholders were also convicted for match-fixing, but were not part of the “criminal

organization” (i.e., players, presidents, and club officials of opposing teams). Caneppele, Langlois, and Verschuuren (2020) examined the main stakeholders engaged in the fight against match-fixing (i.e., sports organizations, regulatory and law enforcement agencies, and the betting industries and related services). They showed that those who fight against match-fixing have only a fuzzy idea of match-fixers’ characteristics, but are well aware of the processes used to fix matches. Additionally, they also explained how the interactions between these three groups of stakeholders has progressively grown. Spapens (2021) made a distinction between “outsiders” (e.g., external criminals) and “insiders” (e.g., athletes, coaches, board members, referees), to categorize external and internal stakeholders who can affect or are affected by match-fixing.

Although various stakeholder classifications have thus been used in the match-fixing literature so far, Yilmaz et al. (2019) and Spapens (2021) generally agreed that match-fixing is rather an activity organized by “inside” or internal stakeholders¹ in sports than by “outside” or external stakeholders. After all, internal stakeholders (e.g., athletes, coaches, board members, referees) that actively participate in or manage sports, can be approached by criminals external to sports, and are also the ones who can eventually perform the manipulation on the field. In line with this, this study focused on internal stakeholders in relation to match-fixing.

Match-fixing research on sports internal stakeholders to date has mainly focused on the involvement of athletes (e.g., FIFPro 2012, Frenger et al. 2019) and referees (e.g., Boeri and Severgnini 2011, Visschers et al. 2020) in match-fixing. Frenger et al. (2019), for example, examined the prevalence of match-fixing among 425 German elite athletes in Olympic sports, and estimated that 8.42% of the athletes had been approached to manipulate a competition. Visschers et al. (2020), on the other hand, revealed that 23.5% of the 595 examined Belgian soccer referees stated that they had already witnessed or suspected match-fixing throughout their career. Moreover, they showed that approximately 44% of the referees believed that at least one in 10 Belgian soccer games is fixed (Visschers et al. 2020). The focus on athletes and referees is not surprising, since their vulnerability for match-fixing is widely acknowledged (Manoli and Antonopoulos 2015, Yilmaz et al. 2019). After all, athletes and referees play an important role in the outcome and the course of a match and the overall success of sports (Manoli and Antonopoulos 2015, Yilmaz et al. 2019). In addition, referees’ vulnerability is often emphasized by stating that they are frequently the lowest paid stakeholders on the field, certainly in professional soccer (Forrest, McHale, and McAuley 2008).

Nevertheless, other internal stakeholders in sports can also be approached for and involved in match-fixing. Coaches, for example, have earned their position as “the most valuable non-playing individuals on the bench of a club” and have a high impact on a match (Manoli and Antonopoulos 2015: 203). Several scandals have already shown how coaches can play a pivotal role in match-fixing (e.g., Zheyun Ye case, see Visschers et al. 2020). Boucher (2022) even showed how Chinese table tennis coaches were worried about the risk of being denounced when they would fix a match, and therefore rather chose to falsify the age of their athletes. Another primary group of internal stakeholders are board members (Hill 2009, Manoli and Antonopoulos 2015). Yilmaz et al. (2019), for example, revealed the leading role of soccer club’s (vice-)presidents, managers, and board members in the Turkish match-fixing scandal. They showed how a sports club hierarchical structure coordinated the overall process of fixing. In addition, Manoli and Antonopoulos (2015) also discussed how board members sometimes entered the dressing room during half-time, specifically aiming to ensure the desired result is achieved. Furthermore, also other (less obvious) internal stakeholders in sports, such as the medical staff or even stadium technicians, can be involved in match-fixing (Boniface et al. 2012).

As such, it becomes clear that we are not seeing the complete picture if we would just focus on athletes and referees when it comes to match-fixing. The present study aims at contributing to fill this gap by exploring various internal stakeholders’ experiences with and attitudes toward match-fixing in European sports.

¹In this study, we use the term “internal stakeholder.”

Attitudes toward match-fixing

When it comes to attitudes toward match-fixing, research to date remained rather scarce (Lastra et al. 2018). Lastra et al. (2018), for example, examined the attitudes of athletes and non-athletes in Australian rugby, swimming, and water polo toward the nature and perceived risks of betting-related match-fixing in their respective sports. They found that athletes and non-athletes viewed betting-related match-fixing and the involvement of transnational organized crime as non-existent within their sports (Lastra et al. 2018). While Lastra et al. (2018) only focused on betting-related match-fixing, Van Der Hoeven et al. (2020) assessed the attitudes toward match-fixing in general (i.e., including betting- and sporting-related match-fixing). More specifically, Van Der Hoeven et al. (2020) examined the differences between people involved in soccer, tennis, and badminton regarding the estimation of the seriousness of match-fixing in their sports in Flanders and the risk of being approached personally for match-fixing. Van Der Hoeven et al. (2020) results showed that people involved in soccer assessed the seriousness of match-fixing in their sports higher than the people involved in tennis, who in turn assessed the seriousness of match-fixing significantly higher than the people involved in badminton. Additionally, the people involved in soccer and tennis believed that there is a much higher chance that they could be approached themselves for match-fixing compared to those involved in badminton (Van Der Hoeven et al. 2020). Although Lastra et al. (2018) and Van Der Hoeven et al. (2020) provided valuable insights into the attitudes toward match-fixing, they did not explicitly compare various internal stakeholders in sports. Moreover, Frenger et al. (2019) argued that sporting-related match-fixing may be found more acceptable than betting-related match-fixing among stakeholders, although they did not examine this. Consequently, this study also aims to address these knowledge gaps by examining various internal stakeholders' attitudes toward the seriousness, risk, and acceptability of match-fixing.

Methods

Sampling procedure and final sample

This study has been carried out within the project "Evidence-based Prevention Of Sporting-related Match-fixing" (EPOSM), which was co-funded by the Erasmus+ Programme of the European Union. Following ethical approval from an independent ethics commission of the university of the first author, data were collected using an online questionnaire in Austria, Belgium, Croatia, France, the Netherlands, Switzerland, and the United Kingdom from May 2020 to November 2020. The target group of the study was current and former internal stakeholders in sports (i.e., people of 18 years or older who were related as current or former athletes, referees,² coaches,³ board members⁴ or in another way to their sports). The online questionnaire was disseminated through e-mail, social media, and paper and pencil versions. Local and national sport governing bodies of soccer, tennis, basketball, field hockey, and others were informed and asked to help in dispersing the questionnaire to their members using their own channels (e-mail, social media and newsletters). In addition, project members further communicated the online questionnaire on Facebook, Twitter, LinkedIn, and some of them also visited sports clubs in person to recruit respondents via paper and pencil versions. Before potential respondents could start the questionnaire, they had the opportunity to read the conditions and an information letter which formulated the purpose of the study and the fact that we would collect, analyze, and report the data completely anonymously. All participants provided informed consent, completed the questionnaire voluntarily, and could quit the questionnaire at any time without consequences.

²The term "referee" refers to "referee," "(video) assistant referee," "(fourth) official," and "jury member" in this study.

³The term "coach" refers to "coach," "trainer" and "assistant coach" in this study.

⁴The term "board member" refers to "board member," "assembly member" and "manager of a sport club" in this study.

Table 1. Characteristics and descriptive statistics of the questionnaire respondents (descriptive statistics, $n = 4958$).

	Total $n = 4958$	Athlete $n = 2984$	Coach $n = 414$	Referee $n = 864$	Board member $n = 286$	Other $n = 410$
Country						
Austria	679	589	51	1	31	7
Belgium	958	395	83	347	92	41
Croatia	467	122	33	258	24	30
France	358	225	9	113	6	5
Netherlands	1061	780	105	61	54	61
Switzerland	206	144	20	31	7	4
United Kingdom	1229	729	113	53	72	262
Gender						
Man	4170	2376	371	813	264	346
Woman	776	602	42	49	22	61
I prefer not to say	12	6	1	2	0	3
Age: M (SD)	40.3 (15.4)	37.2 (15.2)	45.7 (12.3)	40.5 (14.7)	52.1 (13.3)	49.2 (14.0)
Sports discipline						
Soccer	2911	1606	239	619	173	274
Tennis	744	586	40	17	52	49
Basketball	261	140	32	52	22	15
Field hockey	544	359	85	51	16	33
Other	498	293	18	125	23	39
Level of sports						
Professional	485	253	70	72	28	62
Semi-professional	712	441	61	160	21	29
Amateur	3761	2290	283	632	237	319

M = mean; SD = standard deviation.

A total of 14,303 people across the seven countries started the questionnaire, whereof 5,059 fully completed the questionnaire and 9,244 partially completed the questionnaire. For the partially completed questionnaires to be retained for the analyses, at least the statements about the seriousness, risk, and acceptability of match-fixing had to be completed. Questionnaires with less answers had no substantial value. Only 57 partially completed questionnaires could be retained, as the other 9,187 respondents had answered less questions, or in most cases (almost) nothing. Subsequently, respondents who did not fulfil the criteria (i.e., respondents of 18 years or older who were related as current or former athletes, referees, coaches, board members or in another way to their sports) were omitted from the data. More specifically, 96 respondents were removed from the sample because they were younger than 18 years old, 6 respondents were removed because they had not specified their sports, and 56 respondents were removed because they had not indicated how they were mainly related to their sports.

After data cleaning, the final sample consisted of 4,958 adult internal stakeholders in sports (men = 4,170; women = 776; I prefer not to say = 12) of varying ages ($M = 40.3$; $SD = 15.4$; min = 18; max = 82), who were mainly related to sports as athletes (60.2%), followed by referees (17.4%), coaches (8.4%), board members (5.8%), or in another way (8.3%) (see Table 1). The respondents were involved in various sports disciplines (i.e., 58.7% soccer, 15.0% tennis, 5.3% basketball, 11.0% field hockey, and 10.0% other sports), on different sports levels (9.8% professional; 14.4% semi-professional; 75.9% amateur) across the seven countries.

There are, however, some limitations to the sampling procedure. Due to the fact that respondents had control over whether or not to participate in the questionnaire (i.e., non-random sampling), we acknowledge the possible influence of self-selection. It is possible that potential respondents who had already been approached for match-fixing refused to participate in the questionnaire and/or that other respondents completed the questionnaire because they wanted to voice a certain opinion on the subject. As such, we have to be aware that self-selection may have influenced our results. Additionally, given the sensitive subject of match-fixing, respondents may have answered in a socially desirable way (Fukukawa 2002). To deal

with this concern, we guaranteed respondents anonymity and controlled for social desirability in our analyses (see *infra*).

Questionnaire

An online questionnaire on match-fixing was developed, based on the work of Van Der Hoeven et al. (2020). However, compared to Van Der Hoeven et al. (2020) work, current and former internal stakeholders in sports were included in this study and additional statements (see *infra*) and more fine-grained questions regarding respondents' match-fixing experiences were added. The questionnaire consisted of 27 questions, and it took on average 15 minutes to complete the questionnaire. After the designing phase, the questionnaire was translated into the respective languages, and subsequently implemented in the online programme LimeSurvey. Prior to the first question, the respondents were explained what betting- and sporting-related match-fixing entails and which example cases have already occurred in sports. The first section of the questionnaire collected demographic information such as gender, age, and main sports discipline. In addition, respondents were asked how they were mainly related to their sports discipline and at what level of sports they were mainly involved. Subsequently, the respondents' degree of socially desirable responding was measured using Strahan and Gerbasi's (1972) short-form scale X1. Strahan and Gerbasi's (1972) short-form scale X1 consists of 10 items, whereof the first five items describe desirable behaviors (e.g., I always try to practice what I preach), and the last five items describe undesirable behaviors (e.g., There have been occasions when I took advantage of someone). The items are scored using a "true" or "false" forced-choice format and scores ranges from 0 to 10, with higher scores indicating a higher degree of socially desirable responding. In a second section, we examined the respondents' attitudes toward match-fixing by means of 4 statements, which could be answered on a seven point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). More specifically, Van Der Hoeven et al. (2020) two statements to assess the seriousness of match-fixing and the risk of being approached personally for match-fixing were adapted, while two additional statements to assess the acceptability of sporting- and betting-related match-fixing were added. After all, Frenger et al. (2019) suggested that match-fixing for sporting purposes may be found more acceptable than betting-related match-fixing, despite a lack of supporting figures. In a following section, we asked whether they personally knew someone who had been approached to fix a game/match. If yes, further details of the approached person they knew best were examined. In a fourth and final section, the respondents were asked whether they had ever been approached themselves to fix a game/match. When respondents testified of one or more personal match-fixing approaches, further details were asked about the last (or only) time they were approached to fix a match. Eventually, the respondents could indicate whether they had consented to the match-fixing proposal or not.

Data analysis

Data analyses were executed with SPSS 24 software. Data were checked for plausibility and implausible values were set to missing values. We conducted primarily descriptive statistics, describing the respondents' answers to the questions posed. In addition, we performed a one-way multivariate analysis of covariance (MANCOVA, followed by univariate analyses) to compare the various internal stakeholders with regard to their attitudes toward the seriousness, risk, and acceptability of match-fixing. The dependent variables in the one-way MANCOVA were (a) "Match-fixing is a real problem in my sports discipline in my country.", (b) "I could be approached myself to fix a match. (regardless of whether or not you would agree to it)", (c) "Participating in match-fixing to avoid relegation of my team, is acceptable.", and (d) "Participating in match-fixing to make money through betting, is acceptable.", whereas the fixed factor was "how related to sports." The covariates in the one-way MANCOVA were "country", "sports discipline", and the extent of socially desirable responding. Furthermore, an independent sample t-test was performed to examine the difference in socially

desirable responding between the respondents who indicated (in)direct match-fixing incidents in the questionnaire and those who indicated that they did not know others who had been approached for match-fixing and had not been approached themselves for match-fixing.

Results

In this section, the results of the questionnaire data are presented. First, we describe the internal stakeholders’ attitudes toward the seriousness, risk, and acceptability of match-fixing. Subsequently, we provide an overview of the respondents’ (in)direct experiences with match-fixing.

Match-fixing: its seriousness, risk, and acceptability

Results showed that there is a significant difference between the internal stakeholders regarding the attitudes toward match-fixing (one-way MANCOVA: Wilks’ $\lambda = .956$, $F(16, 15114) = 13.978$, $p < .001$, $\eta_p^2 = .011$) (see Table 2).

When it comes to the respondents’ belief that match-fixing is a real problem in their sports discipline in their country a significant univariate effect could be identified (univariate effect: $F(4, 4950) = 2.735$, $p = .027$, $\eta_p^2 = .002$). However, post hoc Bonferroni tests did not reveal significant pairwise differences between the stakeholders regarding the estimation of whether match-fixing is a real problem in their sports discipline in their country (all $ps > .05$). Moreover, there appeared to be a significant difference between the stakeholders regarding the estimation of whether they could be approached themselves for match-fixing (univariate effect: $F(4, 4950) = 30.726$, $p < .001$, $\eta_p^2 = .024$). As shown in Table 2, athletes believed that there is a much lower chance that they could be approached themselves for match-fixing than those related as referees ($p < .001$) or board members ($p = .015$) to their sports. Moreover, coaches assessed the chance that they could be approached themselves significantly lower than those involved as referees ($p < .001$). In addition, referees assessed the risk that they could be approached for match-fixing significantly higher than those involved as board members ($p = .009$). Furthermore, those involved in another way to their sports discipline (e.g., medical staff, administrative assistant, deputy, fan/spectator, grounds man, youth coordinator) assessed the chance that they could be approached themselves for match-fixing significantly lower than those involved as referees ($p < .001$).

Moving onto matters of acceptability, a significant difference was found between the stakeholders regarding the assessment of the acceptability of match-fixing to avoid relegation

Table 2. Attitudes toward the seriousness, risk, and acceptability of match-fixing (one-way MANCOVA, $n = 4958$).

Statements	1 2 3 4 5						Univariate tests		
	Total	Athlete	Coach	Referee	Board member	Other	F (4, 4950)	p	η_p^2
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)			
Match-fixing is a real problem in my sports discipline in my country.	3.47 (1.74)	3.40 (1.69)	3.50 (1.82)	3.61 (1.84)	3.69 (1.83)	3.50 (1.76)	2.735	.027	.002
I could be approached myself to fix a match. (regardless of whether or not you would agree to it)	2.62 (1.87)	2.46 ^{3,4} (1.78)	2.56 ³ (1.81)	3.31 ^{1,2,4,5} (2.07)	2.83 ^{1,3} (1.92)	2.29 ³ (1.75)	30.726	<.001	.024
Participating in match-fixing to avoid relegation of my team, is acceptable.	1.80 (1.35)	1.84 ^{3,4} (1.35)	1.85 ³ (1.46)	1.44 ^{1,2,4,5} (.98)	2.07 ^{1,3} (1.59)	2.00 ³ (1.59)	12.669	<.001	.010
Participating in match-fixing to make money through betting, is acceptable.	1.60 (1.29)	1.61 ³ (1.27)	1.72 ³ (1.49)	1.33 ^{1,2,4,5} (.90)	1.79 ³ (1.54)	1.87 ³ (1.56)	6.301	<.001	.005

Athletes ($n = 2984$), coaches ($n = 414$), referees ($n = 864$), board members ($n = 286$), other ($n = 410$); Covariates: country, sports discipline, and social desirability.

of their team (univariate effect: $F(4, 4950) = 12.669, p < .001, \eta_p^2 = .010$). More specifically, people involved as referee found match-fixing to avoid relegation of their team significantly less acceptable than athletes ($p < .001$), coaches ($p = .001$), board members ($p < .001$), and people related in another way to their sports ($p = .003$). People involved as board members, on their turn, found match-fixing to avoid relegation significantly more acceptable than athletes ($p = .013$). Lastly, a significant difference was found between the stakeholders regarding the assessment of the acceptability of betting-related match-fixing (univariate effect: $F(4, 4950) = 6.301, p < .001, \eta_p^2 = .005$). Referees found betting-related match-fixing significantly less acceptable than athletes ($p = .013$), coaches ($p = .005$), board members ($p < .001$), and people related in another way to their sports ($p = .040$). Furthermore, the results also indicate that all stakeholders generally perceived match-fixing to avoid relegation of their team as more acceptable than match-fixing for betting purposes.

Direct and indirect experiences with match-fixing

Of the 4958 respondents, 4940 answered both the questions “Do you personally know anyone who has been approached to fix a game/match?” and “Have you yourself ever been approached to fix a game/match?” No fewer than 945 respondents (19.1%) indicated (in)direct match-fixing incidents in the questionnaire. More specifically, 527 respondents (10.7%) knew one or more persons (not themselves) who had been approached to fix a match, 336 respondents (6.8%) knew one or more persons who had been approached for match-fixing and acknowledged to have been approached personally for match-fixing. Additionally, 82 respondents (1.7%) indicated to have been approached personally for match-fixing without knowing of other persons who had also been approached. In all, the respondents indicated 863 cases (17.5%) of knowing that one or more other persons had been approached for a match-fixing proposal and 418 cases (8.5%) of having been approached themselves. Furthermore, those who indicated (in)direct match-fixing incidents in the questionnaire answered significantly less socially desirable ($M = 5.87, SD = 1.82$) than the respondents who indicated that they did not know others who had been approached for match-fixing and had not been approached themselves for match-fixing ($M = 6.15, SD = 2.0$) (independent sample t-test: $t = -4.094, df = 1529, p < .001$).

Knowing of others who had been approached for match-fixing

Of the 863 respondents who indicated that they personally knew someone who had been approached to fix, 437 respondents (50.6%) indicated that they knew one person, 127 respondents (14.7%) indicated that they knew two persons, and 299 respondents (34.6%) indicated that they knew three or more persons who had been approached to fix. Subsequently, more details were asked about the approached person they knew best. For example, the respondents indicated that the approached person they knew best was involved in soccer (66.8%), tennis (14.5%), field hockey (7.1%), basketball (4.9%), or in another sports (6.0%) (e.g., handball, cricket, athletics, badminton, fencing, cycling). The remaining 0.7% indicated that they did not know in which sports the person was involved. At the moment of the supposed match-fixing proposal, the approached person they knew best was mainly related as an athlete (53.3%) to his/her sports. In other cases, they indicated that the approached person was related as a referee (19.5%), coach (14.5%), board member (7.8%), or in another way (2.1%) to his/her sports. In the remaining 2.8% of the cases, the respondents indicated that they did not know how the person was related to his/her sports at the moment of the proposal. As shown in Table 3, according to the respondents, the persons they knew best were mainly approached by board member(s), followed by athlete(s), coach(es), bettor(s)/gambler(s), former athlete(s), sponsor(s), agent(s) of an athlete, referee(s), and medical staff.

Table 3. Details of the approached person they knew best (descriptive statistics, $n = 863$).

Who approached this person?	$n = 863$	%*
Board member(s)	246	28.5
Athlete(s)	241	27.9
Coach(es)	200	23.2
Bettor(s)/gambler(s)	107	12.4
Former athlete(s)	59	6.8
Sponsor(s)	45	5.2
Agent(s) of an athlete	37	4.3
Referee(s)	30	3.5
Medical staff	17	2.0
Someone else	35	4.1
I don't know who	118	13.7

*The sum of the figures exceeds 100%, because multiple answers were possible to the question.

Table 4. Characteristics and descriptive statistics of the respondents at the moment of their last or only match-fixing proposal (descriptive statistics, $n = 391$).

	Total $n = 391$	Athlete $n = 190$	Coach $n = 49$	Referee $n = 117$	Board member $n = 26$	Other $n = 9$
Country						
Austria	7	6	1	0	0	0
Belgium	160	60	17	67	13	3
Croatia	47	20	1	22	4	0
France	23	14	2	7	0	0
the Netherlands	74	54	8	11	0	1
Switzerland	9	6	1	2	0	0
United Kingdom	71	30	19	8	9	5
Gender						
Man	352	164	46	111	25	6
Woman	38	25	3	6	1	3
I prefer not to say	1	1	0	0	0	0
Age: M (SD)	31.9 (11.3)	29.0 (10.3)	34.3 (9.1)	32.8 (12.3)	41.5 (8.3)	41.8 (13.0)
Sports discipline						
Soccer	261	104	39	91	21	6
Tennis	56	50	2	2	1	1
Basketball	15	3	3	5	4	0
Field hockey	37	22	4	10	0	1
Other	22	11	1	9	0	1
Level of sports						
Professional	53	35	7	5	5	1
Semi-professional	64	30	11	16	4	3
Amateur	274	125	31	96	17	5

M = mean; SD = standard deviation.

Personal match-fixing approaches

Of the 418 respondents who stated that they had been approached personally for match-fixing, 178 respondents (42.6%) indicated that they had been approached just once, 155 respondents (37.1%) indicated that they had been approached 2 to 3 times, 73 respondents (17.5%) indicated that they had been approached more than 3 times, and 12 respondents (2.9%) had not specified how many times they were approached. Subsequently, more details were asked about the last or only match-fixing proposal they received. Of the 418 respondents, 391 specified their demographics at the moment of the last or only match-fixing proposal they received (see Table 4).

As shown in Table 4, the majority of the respondents who had personally been approached for match-fixing were men involved in soccer on an amateur level and related as athletes or referees to their sports at the moment of their last or only match-fixing proposal. However, Table 4 also clearly shows how widespread and diverse the stakeholders approached for match-fixing can be.

Table 5. Motive behind the last or only match-fixing proposal they received (descriptive statistics, $n = 387$).

	Total $n = 387$	Professional $n = 53$	Semi-professional $n = 64$	Amateur $n = 270$
Only betting-related motive	37	24	7	6
Both motives	19	11	8	0
Only sporting-related motive	265	13	41	211
Other motive*	47	3	5	39
Sporting-related and other motive*	9	0	1	8
"I don't know"	10	2	2	6

*Other motive has not been specified by the respondents.

Subsequently, 387 respondents further specified the motive behind the last or only match-fixing proposal they received (see Table 5).

As can be seen in Table 5, the majority of the respondents ($n = 265$, 68.5%) indicated that the last or only match-fixing proposal they received had solely a sporting-related motive. These respondents were mainly involved on an amateur level and specified that they were mainly approached by board members, coaches, and athletes, who were mainly affiliated with the opponent (see Table 6).

Additionally, the respondents who indicated that the last or only match-fixing proposal they received had solely a sporting-related purpose, further clarified that preventing the relegation of a specific club or player was the main motive (63.0%), followed by enabling a specific club or player to win the championship (42.6%), determining who the next-round opponent would be (7.9%), or making the competition or tournament more exciting (5.7%). The outcome of the game/match (who wins/loses) was mostly at stake, and they mainly tried to execute the manipulation by underperforming. Furthermore, around half of the respondents who indicated that they had been approached solely for a sporting-related purpose, stated that they were offered money. The majority of them received between €100 and €500 to fix the match. Next to this, 35.7% were offered other material inducements. The formulated inducements varied greatly, ranging from, for example, a holiday, to a car, a luxury watch, a dinner, to food and (a keg of) beer. 18.8% of the respondents who had been approached for a sporting-related motive stated that they were threatened or pressured to fix the match. Eventually, 26.8% of the respondents who were offered only a sporting-related match-fixing proposal consented to the proposal, mainly because they saw the match-fixing proposal as "a friendly gesture toward another club or athlete" (see Table 6).

On the other hand, 37 respondents (9.6%) indicated that the last or only match-fixing proposal they received had solely a betting-related motive (see Table 5). The people who indicated that the last or only match-fixing proposal they received had solely a betting-related motive, were mainly involved on a professional and semi-professional level (see Table 5) and were mainly related as an athlete to their sports at the moment of the proposal (see Table 6). Nevertheless, some respondents also indicated that they were related as board member, referee, or coach to their sports at the moment of the betting-related match-fixing proposal. Moreover, they were mainly approached by bettor(s)/gambler(s) and athletes to fix the match. The respondents further specified that the people who approached them were mainly affiliated with the opponent or that they did not know with whom they were affiliated. Some respondents specified that the people who approached them were affiliated with other instances, such as "the Eastern European gambling circuit," "an independent bookmaker," or "nobody." In the majority of the cases the outcome of the match was at stake, followed by the exact result of the game/match, and specific events during the game/match. Similar to the respondents who had only received a sporting-related proposal, they mainly tried to execute a deliberate underperformance. Furthermore, 78.4% of them were offered money to fix the match, mainly between €1000 and €5000. Furthermore, 45.9% indicated that they were offered other material inducements, 37.8% indicated that they were threatened or pressured to fix the game/match, and eventually 35.1% consented to the proposal, mainly because they experienced financial difficulties at that time or because of the money and/or material inducements offered.

Table 6. Details of the match-fixing approaches for only a betting-related, only a sporting-related, or both motives (descriptive statistics).

	Only betting-related motive	Both	Only sporting-related motive
<i>How were you related to the sport, at the moment of that proposal? (n = 321, one answer possible)</i>			
	<i>n = 37</i>	<i>n = 19</i>	<i>n = 265</i>
Athlete	25	11	124
Coach/Trainer/Assistant coach	2	5	37
Referee/(Video) Assistant Referee/(Fourth) official/Jury member	3	2	77
Board member/Assembly member/Manager of a sport club	7	1	18
Other	0	0	9
<i>Who approached you? (n = 310, one answer possible)</i>			
	<i>n = 33</i>	<i>n = 18</i>	<i>n = 259</i>
Athlete(s)	9	4	68
Former athlete(s)	2	2	2
Coach(es)	2	4	69
Medical staff	0	1	3
Agent(s) of an athlete	1	0	8
Referee(s)	1	1	8
Board member(s)	4	4	83
Sponsor(s)	1	1	5
Bettor(s)/gambler(s)	11	1	2
Someone else	2	0	11
<i>The people who approached you, were affiliated with: (n = 317, one answer possible)</i>			
	<i>n = 37</i>	<i>n = 19</i>	<i>n = 261</i>
The opponent	10	13	161
Your own club/team	9	5	53
I don't know	13	1	24
Other	5	0	23
<i>What was the motive of the people who approached you? (n = 321, multiple answers possible)</i>			
	<i>n = 37</i>	<i>n = 19</i>	<i>n = 265</i>
To earn money by betting on the manipulated game/match	37	19	0
To prevent a specific club or player from being relegated	0	12	167
To enable a specific club or player to win the championship	0	13	113
To determine who the next-round opponent would be	0	6	21
To make the competition or tournament more exciting	0	4	15
<i>What were these people seeking to influence? (n = 321, multiple answers possible)</i>			
	<i>n = 37</i>	<i>n = 19</i>	<i>n = 265</i>
The outcome of the game/match (who wins/loses)	25	12	214
The exact result of the game/match (e.g., 2–0 in soccer, 0–6 in tennis)	13	12	39
Specific events during the game/match (e.g., who gets the first yellow card, who serves the first double fault)	8	5	21
Other things (without specification)	0	1	15
I don't know	1	0	1
<i>What did these people try to make happen on the sport field/during the manifestation of the manipulation? (n = 320, multiple answers possible)</i>			
	<i>n = 37</i>	<i>n = 19</i>	<i>n = 264</i>
Deliberate underperformance	23	10	126
A specific event during the game/match (e.g., first yellow card, first double fault, first throw-in)	14	16	52
Manipulation of personal information (e.g., gender, age, weight)	4	8	23
Manipulation of the equipment (e.g., manipulation of the ball)	0	8	6
I don't know	3	0	15
Other things	0	1	70
<i>Were you offered money to fix the game/match? (n = 319, one answer possible)*</i>			
	<i>n = 37</i>	<i>n = 19</i>	<i>n = 263</i>
Yes, less than €100	5	0	21
Yes, between €100 and €500	7	0	61
Yes, between €500 and €1000	5	7	27
Yes, between €1000 and €5000	8	7	15
Yes, more than €5000	4	4	7
No	8	1	132

(Continued)

Table 6. (Continued).

	Only betting-related motive	Both	Only sporting-related motive
<i>Were you promised other material inducements to fix the game/match? (e.g., an iPhone, a voucher to buy online, tickets for sport events, special discount in shops, a keg of beer) (n = 319, one answer possible)</i>			
Yes	n = 37	n = 19	n = 263
No	17	17	94
	20	2	169
<i>Were you threatened or pressured to fix the game/match? (n = 317, one answer possible)</i>			
Yes	n = 37	n = 19	n = 261
No	14	15	49
	23	4	212
<i>Did you consent with the proposal to fix the match? (n = 317, multiple answers possible)</i>			
Yes, because of the money and/or other material inducements offered	n = 37	n = 19	n = 261
Yes, because I experienced financial difficulties at that time	3	11	14
Yes, because I was pressured by those who approached me	4	5	10
Yes, because I was pressured by my own team	2	6	11
Yes, in the interests of my own club	2	6	15
Yes, as a friendly gesture toward another club or athlete	2	4	13
Yes, out of sympathy for the person who made the proposal	0	4	17
Yes, for some other reason (without specification)	1	2	6
No, I did not consent with the proposal	1	2	8
	24	3	191

*The currency was adjusted for the respective countries.

Additionally, 19 respondents (4.9%) indicated that the last or only match-fixing proposal they received had both a betting- and sporting-related motive (see Table 5). These respondents were mainly involved on a (semi-)professional level (see Table 5) as athletes (see Table 6). They indicated that they were mainly approached by athletes, coaches, or board members who were mainly affiliated with the opponent (see Table 6). The main motives behind the proposals were to gain money through the betting market, and to enable a specific club or player to become champion or to avoid relegation. In addition, the respondents indicated that they were mainly seeking to influence the outcome or the exact result of the game/match. They tried to achieve this by trying to make specific events happen during the match. Moreover, almost all of the respondents (18 of the 19) were offered money and never less than €500. 17 of the 19 respondents were also offered other material inducements. The respondents formulated inducements such as “a brand new car,” “a voucher,” “an iPhone,” “more money after the match,” whereas consumer goods were not mentioned. 15 of them were threatened or pressured. Eventually, 16 of the 19 respondents indicated that they had consented to the match-fixing proposal, mainly because of the money and/or material inducements offered, or because they were pressured by those who approached them or by their own team.

As can be seen in Table 5, the remaining cases concerned 47 respondents (12.1%) who indicated that the proposal had another motive (without further specification), 9 respondents (2.3%) who indicated that the proposal had a sporting-related and other motive (without further specification), and 10 respondents (2.6%) who indicated that they did not know what the motive behind the proposal was.

Discussion

This study aimed to gain insights into the attitudes of various internal stakeholders toward the seriousness, risk, and acceptability of match-fixing. Additionally, this study aimed to provide more complete, cross-national, and cross-sports figures on the prevalence of match-fixing, by examining to what extent internal stakeholders in European sports knew of others who had already been

approached for match-fixing and whether they had already been approached themselves for match-fixing.

The results showed that various internal stakeholders' attitudes toward match-fixing were not uniform. Athletes, for example, estimated the chance that they could be approached themselves for match-fixing significantly lower than those related as referees or board members to their sports. This finding is remarkable and actually contradictory to our prevalence figures and the literature, which describe athletes as one of the most vulnerable stakeholders in sports for match-fixing. Visschers et al. (2020: 91) clarified this as an "attitudes vs. experience" paradox when it comes to match-fixing. However, in their case, it was the other way around. More specifically, many referees perceived match-fixing as widespread at the professional level, but none of the referees active at the professional level witnessed or suspected match-fixing (Visschers et al. 2020). Moreover, this result emphasizes that athletes' awareness of the seriousness and risk of match-fixing is still fairly low, despite their proven vulnerability. Referees, on the other hand, assessed the risk that they could be approached themselves for match-fixing the highest. Furthermore, all stakeholders generally estimated the chance that they could be approached themselves for match-fixing lower than the estimation that match-fixing is a problem in their sports discipline in their country. This finding again emphasizes that people generally underestimate their own vulnerability for match-fixing and the overall danger of match-fixing.

When it comes to the acceptability of match-fixing, people involved as referees found both types of match-fixing significantly less acceptable than the other stakeholders. In addition, board members found match-fixing to avoid relegation of their team significantly more acceptable than athletes. As shown by our results, this could be explained by the fact that board members are frequently the people who approach others when it comes to the sporting-related type of match-fixing. Furthermore, the results also indicated that all stakeholders generally perceived match-fixing to avoid relegation of their team as more acceptable than match-fixing for betting purposes. This could be explained by the fact that people often do not view certain sporting-related behavior as deviant, but rather as an integral part of sports (Van Der Hoeven et al. 2022). Deviant behavior is sometimes even expected or may be seen as "desirable" or the norm by athletes, coaches and fans, because it is normalized in sports (Van Der Hoeven et al. 2022). Accordingly, Van Der Hoeven and Willem (2022: 73) further argued that sporting-related match-fixing appears to be more institutionalized, and easier to rationalize and socialize, which could explain why "sporting-related match-fixing seems to be more normalized in sport (sic) or that it is at least more vulnerable to the normalization process."

Regarding the prevalence of match-fixing, our results revealed that almost one fifth of the respondents indicated (in)direct match-fixing incidents in the questionnaire. More specifically, 17.5% of the respondents knew one or more persons who had already been approached for match-fixing, and 8.5% indicated that they had already been approached themselves to fix a match. These figures are in keeping with those of Van Der Hoeven et al. (2020) who found that 17.8% of the respondents in Flemish soccer, tennis, and badminton knew someone who had been approached for match-fixing, and that 6.3% of them had already been approached personally for match-fixing. Compared to the other large scale studies of FIFPro (2012) and Theodorou (2017), our figures are fairly low. However, a comparison with the latter two studies is difficult, since FIFPro (2012) focused solely on professional soccer players, and Theodorou (2017) included a time frame of the last 12 months. Nevertheless, our results also showed that those who indicated (in)direct match-fixing incidents in the questionnaire answered significantly less socially desirable than the respondents who indicated that they had not (in)directly experienced match-fixing. This could mean that our study's figures are actually an underestimation of the prevalence of match-fixing.

Furthermore, of the respondents who indicated that they had been approached personally for match-fixing, 68.5% specified that the last or only match-fixing proposal they received had only a sporting-related motive, while 9.6% indicated that the last or only match-fixing proposal they received had solely a betting-related motive. These figures confirm Spapens and Olfers' (2013, 2015) and Van Der Hoeven et al. (2020) findings that sporting-related match-fixing seems to be more

common overall, certainly at lower levels of competition. Nevertheless, the proportion of betting-related match-fixing cases seems to be higher on a professional level. In addition, this study also found that both types of match-fixing can happen simultaneously, as 4.9% of the approached persons indicated that the last or only match-fixing proposal they received had both a betting- and sporting-related motive. After all, if those involved are aware of the assured outcome or course of the match, they may also take the opportunity to bet on it (Spapens 2021).

By examining match-fixing on an international scale, in various sports disciplines, on multiple sports levels, and among various internal stakeholders, this study offers a multifold empirical and practical contribution. First, by explicitly comparing different internal stakeholders' attitudes toward and experiences with match-fixing, we offer a more fine-grained multi-stakeholder approach to match-fixing. As our results show, various stakeholders may have different attitudes toward match-fixing and can be involved in match-fixing. As such, we suggest that education and prevention initiatives should not only be provided to athletes and referees, but also to coaches, board members and others in the entourage of sports. In addition, all levels of sports should be targeted as shown by our results. Second, this study extends previous prevalence research on match-fixing. We provide a more complete picture of the extent of the problem and show how diverse and widespread the phenomenon is. While our results confirm previous smaller scale studies (i.e., Spapens and Olfers 2013, 2015, Van Der Hoeven et al. 2020) by showing that sporting-related match-fixing seems to be more common overall than betting-related match-fixing, this is the first time that this has been studied on such a broad international scale. Consequently, we also argue that sporting-related match-fixing should be given a prominent place in match-fixing research and prevention initiatives. Additionally, this is the first time, to the best of our knowledge, that prevalence figures show that both types of match-fixing can happen together. This is an important finding that should be taken into account when elaborating and optimizing future prevention and education initiatives. After all, research to date has mainly considered both types of match-fixing as two separate phenomena. Furthermore, by taking the extent of socially desirable responding into account, this study also revealed that prevalence figures may be an underestimation of the real size of the problem.

Limitations and future research

The present study has some limitations that present opportunities for future research. First, as the respondents had control over whether or not to participate in the questionnaire, we have to be aware that self-selection may have influenced the final sample. After all, it is possible that potential respondents who had already experienced (in)direct match-fixing incidents did not want to participate in the questionnaire and/or that others participated to voice a certain opinion. Moreover, it is possible that certain respondents participated because their club or federation obliged them. As such, we have to be aware that our non-random sampling strategy has not taken these issues into account. Additionally, as we examined the sensitive subject of match-fixing, we cannot exclude the possibility that respondents' answers were influenced by social desirability (Fukukawa 2002). However, by assuring an anonymous approach, and checking for social desirability in our analyses, we have tried to deal with this concern. Future match-fixing research should further apply more rigorous methods to identify and control social desirability bias, such as the randomized response technique (Pitsch 2015). Third, our study only included cross-sectional data, and consequently does not allow to identify any trends.

A fourth limitation of this study is related to the sample characteristics. Despite the fact that we aimed to reach a diverse group of internal stakeholders in different sports, the majority of the final sample were athletes and referees involved in soccer. The large sample size enabled us to include some other sports in the analyses. Nonetheless, we have been careful and reserved/cautious to draw conclusions at a sport specific level. Although the internal stakeholders of whom the vulnerability for match-fixing has already been widely acknowledged were again strongly represented in our data (i.e., athletes and referees), significant insights were also obtained for other internal stakeholders in

sports such as coaches and board members. Future research could further examine the role of coaches and board members in relation to match-fixing. Additionally, in line with the work of Caneppele et al. (2020), it would be worthwhile to further investigate the perceptions of “external” stakeholders, such as betting operators and law enforcement, in relation to match-fixing. Similar to Caneppele et al. (2020) approach, focus groups or interviews could be used in order to circumvent the pitfalls that are discussed in this paper. Furthermore, as this study has addressed its aims within a Northern/Central European context, a broader international area should be covered in future research.

Conclusion

Although match-fixing is often stereotyped as a form of deviance in sports caused by external criminals, this study shows that match-fixing by internal stakeholders in European sports might even be the bigger problem in terms of frequency. While different internal stakeholders in sports varied greatly in their attitudes toward the seriousness, risk, and acceptability of match-fixing, this study also demonstrates how diverse and widespread (stakeholders involved in) match-fixing can be. Moreover, this is the first time that a large scale international study shows that sporting-related match-fixing seems to be more common overall than betting-related match-fixing, and that both types of match-fixing can occur simultaneously. As such, by exposing different stakeholders’ attitudes toward and experiences with match-fixing, this study could navigate future match-fixing prevention initiatives.

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