# Exploring Attitudes and Perceptions of Athletes and Support Staff Towards Betting-Motivated Corruption in Australian Sport


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## Published

2024-06-24

## Thesis Type

Thesis (PhD Doctorate)

## School

School of Crim & Crim Justice

## DOI

https://doi.org/10.25904/1912/5589

# EXPLORING ATTITUDES AND PERCEPTIONS OF ATHLETES AND SUPPORT STAFF TOWARDS BETTING-MOTIVATED CORRUPTION IN AUSTRALIAN SPORT

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**Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy**

**November 2023**

## Abstract

Over the past decade, there has been an increase in the reported cases of betting-motivated corruption (e.g., match-fixing, spot-fixing, and the misuse of inside information) within Australian sport. The increasing visibility of this type of corruption has raised commentary relating to the integrity of sport, both within Australia and internationally. Despite the growing threat to sport's integrity, research around betting-motivated corruption in Australian sport is still in its infancy. Currently, there is a need for research to investigate the application of regulation and anti-corruption concepts from other sectors to the sport context to further understand betting-motivated corruption prevention in Australian sport. To do this, a quantitative survey approach involving athletes and support staff (e.g. coaches, trainers, administrators) from sub-elite Australian rugby league and basketball was conducted over three interconnected studies: Study One explored the knowledge and beliefs of athletes and support staff in relation to the prevalence of betting-motivated corruption within their sport, their reasons for engaging in corruption, what would deter them, and what they believe would best prevent athletes and support staff from engaging in betting-motivated corruption; Study Two applied the Klockars integrity scale and explored attitudes of athletes and support staff towards four different betting-motivated corruption scenarios that could occur within their sport, and their perception of the culture around these unethical behaviours; and Study Three explored the 'code of silence' notion within the betting-motivated corruption context and identified key correlates of athletes' and support staff's reluctance to report, including perceptions of procedural justice and compliance, and the influence of organisational culture. Overall, the research contributes theoretical and practical considerations to inform academia, policymakers, and sport administrators concerned with the prevention of betting-motivated corruption in sport within Australia and internationally.

## Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the dissertation document contains no material previously published or written by another person except where due reference is made in the document itself.

Reynald Lastra

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# Acronyms and Abbreviations

| | |
|---|---|
| ACIC | Australian Criminal Intelligence Commission |
| AFL | Australian Football League |
| ASADA | Australian Sports Anti-Doping Authority |
| BA | Basketball Australia |
| COMPPS | Coalition of Major Professional and Participation Sports |
| FIBA | International Basketball Federation |
| FIFA | Fédération Internationale de Football Association |
| FIFPro | The Fédération Internationale des Associations de Footballeurs Professionnels |
| ICSS | International Centre for Sport Security |
| NBL | National Basketball League |
| NISU | National Integrity of Sport Unit |
| NRL | National Rugby League |
| NRLW | National Rugby League Women's |
| PCA | Principal Component Analysis |
| QAS | Queensland Academy of Sport |
| QBL | Queensland Basketball League |
| QRL | Queensland Rugby League |
| RCT | Rational Choice Theory |
| SEABL | South East Australian Basketball League |
| SIA | Sport Integrity Australia |
| UNODC | United Nations Office on Drugs and Crime |
| WADA | World Anti-Doping Agency |
| WNBL | Women's National Basketball League |

# Acknowledgements

I would like to express my deepest gratitude to my supervisory team, Professor Christine Bond, Dr Caroline Riot and Mr Jason Saunders. Without their guidance, patience, and expertise, I would not have been able to undertake this research. I am also grateful to the Queensland Academy of Sport Centre for Sport Performance Innovation and Knowledge Excellence, which provided scholarship support and connection into the Australian sport industry. I would also like to thank the National Rugby League, Queensland Rugby League, Basketball Queensland, and Basketball Australia, who supported my research work and assisted with recruiting athletes and support staff to partake in this research.

I am also extremely grateful to Dr Peter Bell, who inspired me to explore a research pathway, one which has brought about so many opportunities and experiences. I am also thankful to those who assisted me in various stages of my research, including my PhD colleagues, research interns, academics, and subject matter experts within law enforcement, intelligence, and sport industries.

Lastly and most importantly, this endeavour would not have been possible without the support of my family, especially my parents, Reynaldo and Josefina, and sister, Bregendhal. Furthermore, words cannot express my gratitude to Poonam, who, since the start of my research journey, has been my sounding board, motivator, and biggest supporter.

# Chapter 1: Introduction

Sport is considered an integral part of Australian culture (Blood, 2021). Fundamental to success and community confidence in sport is maintaining its integrity; that is, ensuring honest and fair competition, as well as positive conduct by sport stakeholders on and off the field (Agnew et al., 2017). This is particularly important due to the commercialisation of sport, whereby integrity issues can bring about financial and reputational harm. Betting-motivated corruption is a phenomenon that has threatened the integrity of sport across amateur, sub-elite, and elite levels in Australia and internationally (Bricknell, 2015). While only a limited number of reported cases involving this type of corruption have occurred in Australian sport, the current research contributes towards proactively safeguarding Australia's sport integrity by exploring betting-motivated corruption in Australian sub-elite rugby league and basketball through the lens of athletes and support staff (i.e., coaches, trainers, administrators). This introductory chapter presents the background to the research and justification for the study, including defining corruption in general and betting-motivated corruption specifically, before outlining the significant threat it poses to sport. Following this, a brief overview of the research questions, research context, and design is presented. To conclude, the chapter outlines the thesis structure.

## 1.1 Defining corruption

There is no universally accepted definition of 'corruption' (Jain, 2001). The definition of corruption typically depends on the context in which it occurs, and this often determines the aspect or component of corruption that is measured. The lack of consensus on a definition has reduced the reliability of research into the prevalence of corruption, regardless of its context (Gorta, 2006). Therefore, it is important to review existing definitions of corruption to identify common elements to provide a foundation for defining betting-motivated corruption within sport for this research.

Corruption has been widely studied in the context of the public sector. In reviewing this research, a range of definitions is evident. Klitgaard (1998), whose definition has been frequently used, defines corruption as the private wealth-seeking behaviour of an individual within the execution of their job representing public authority. Accompanying this definition, Klitgaard presented a formula that describes conditions in which corruption occurs: C = M + D – A, where corruption (C) equals monopoly power (M) plus discretion by civil servants (D) minus accountability (A). This means that corruption is most likely to occur when a public official's role affords them monopoly power and discretionary powers, along with no accountability to anyone. Alternatively, Transparency International (2016b. p. 1) defines corruption as 'the abuse of entrusted power for private gain'. Similarly, the World Bank (1997) views corruption as an individual using their public position for illegitimate private gains, while Rose-Ackerman (2007, p. 1) suggests most corrupt acts occur when 'a private individual or firm makes a payment to a public official in return for a benefit'. Similar definitions are also found within the law enforcement context, where police corruption is defined as involving the 'illegal use of organisational power for personal gain' (Quah, 2006a). Commonalities across these definitions include four elements: (1) an individual who holds some sort of power; (2) exploits that power; (3) for their own private gain; and (4) is an activity that has public disapproval.

Although most definitions of corruption focus on the public sector, corruption also occurs within the private sector. For instance, the United Nations Office on Drugs and Crime (UNODC) proposes a definition that includes both public and private sectors: 'the misuse of a public or private position for direct or indirect personal gain' (UNODC, 2004, p. 23). Again, these three elements appear: an act that involves an individual using their public or private position for personal gain through means that are against the rules and entail strong public disapproval (Jain, 2001).

However, there are other definitions of corruption that recognise the misuse of power not related to personal gain. For example, 'noble cause' corruption has been a well-documented form of corruption in the policing context. Noble cause corruption involves an individual committing an activity that is against the rules, not to benefit personally but to achieve 'good ends' for society (Dean et al., 2010). For example, in the policing context, this could involve the fabrication of evidence by an officer because ensuring a 'guilty' suspect is charged with a crime is a good outcome for society. Similarly, in the private sector context, an employee working for an organisation that requires further funding could use illegal means to help their employer secure financial stability. Therefore, noble cause corruption moves away from personal gain and attempts to provide a beneficial outcome for the perceived 'greater good'.

Some scholars have classified corruption by the seniority of those involved. Rose-Ackerman (2007) set out two levels of corruption: grand corruption and petty corruption. Grand corruption, also known as systemic corruption, involves high-level officials in a government or organisational hierarchy who can influence its central functioning. Grand corruption can impact public confidence in the governance of a government or organisation, as corruption at this level portrays the message that the behaviour is acceptable (Rose-Ackerman, 2007). Petty corruption involves officials on the lower-end of an organisation's hierarchy who disregard existing regulations and exploit opportunities to benefit personally (Rose-Ackerman, 2007). Petty corruption becomes grand corruption when bribes paid at the low level are part of a system where higher-level officials in the organisation hierarchy coordinate and reap benefits because of the petty corruption (Rose-Ackerman, 2007). Importantly, corruption at all organisational levels should be prevented as an increase in petty corruption can develop into systemic corruption (grand corruption), where corrupt behaviour becomes part of an organisation's culture.

Overall, a review of several definitions of corruption identified the common theme that corruption involves an individual or organisation using their position or power for either personal gain or to create a particular outcome. Therefore, this research adapts elements of the broader corruption definition put forward by UNODC (2004, p. 23): 'corruption is the misuse of a public or private position for direct or indirect personal gain, or for a particular outcome'.

### 1.2 Defining betting-motivated corruption

Applying this definition to the sport context, corruption can involve sport actors using their position for personal gain or to achieve a particular outcome. Of particular interest is what might be called 'competition corruption': the misuse of positions within competitions, which in turn negatively impacts sport's fundamental principles of honest and fair competition (Gorse & Chadwick, 2011).[1] Key types of competition corruption include doping (i.e., the use of performance-enhancing drugs) and influencing parts or final outcomes of matches (Bricknell, 2015). Competition corruption involving the betting market and the manipulation of competition outcomes has increasingly gained attention in the media.

[1] Corruption can also occur within sporting organisations, such as bribing selectors to be included in teams. Here, I am interested in the types of misuse that affect competition.

In the literature, there are various terms that encompass corruption involving the betting market. For example, the universal term ‘manipulation of sports competitions’ developed by the Council of Europe Convention on the Manipulation of Sport Competitions, is commonly used (Council of Europe, 2014). ‘Manipulation of sports competitions’ is a term used to incorporate match-fixing, spot-fixing and misuse of inside information. However, the term is broad and covers both betting and non-betting related corruption.

Within the existing body of literature, other definitions are narrower and relate to match-fixing. For example, Boniface et al. (2012, p. 6) propose the definition of match-fixing linked to sports betting as ‘any manipulation or attempted manipulation of a result or aspect of a game with the aim of enrichment on the sports betting market’. Alternatively, Maennig (2005) proposes match-fixing as:

> … the form of behaviour by athletes who refrain from achieving the levels of performance normally required in the sport in question to win the competition and instead intentionally permit others to win, or behaviour by sporting officials who consciously perform their allocated tasks in a manner in variance with the objectives and moral values of the relevant club, association, competitive sports in general and/or society at large. (p. 189)

Hill (2015, p. 32) suggests that match-fixing is ‘when a player or referee deliberately under-performs during a sporting contest to ensure that one team loses or draws the match’. Others have also used the term betting-related match-fixing, but it is too narrow to encompass the other behaviours that might be linked to betting (Marchetti, Filho & Constandt, 2021).

However, within the national betting-motivated corruption policies around the world, particularly in Australia, betting-motivated corruption has been broadened, recognising that it is more than just ‘match-fixing’ (Hume, 2017). For example, *Australia’s National Policy on Match-Fixing in Sport* (2011) specifies match-fixing as only one of three corrupt activities that are influenced by sports betting. Therefore, the key focus of this thesis is best represented by the term “betting-motivated corruption”, which was developed based on Cornish and Clarke’s (1987) crime specific focus perspective to understanding criminal behaviour (refer to footnote for explanation) [2]. Betting-motivated corruption refers to a group of activities where the key motivation is to make financial gain through the sports betting market. Chosen over the broad term ‘manipulation of sport competitions’, betting-motivated corruption provides specificity to the current study (i.e. betting related only) and aligns with the crime specific focus perspective adopted within criminological research (Cornish and Clarke, 1987). Furthermore, the use of this term provides consistency and linking with published and widely cited papers produced by the author e.g. (Lastra et al., 2016; Lastra et al., 2018).

As presented in Figure 1.1, betting-motivated corruption consists of three activities adopted from Gorse and Chadwick’s (2011) classification of corruption in sport. These activities are:

- Match-fixing—the manipulation of results to gain financially through the betting market for those involved (e.g., fixing the winner of a match before it has started).
- Spot-fixing—the manipulation of aspects of a competition to gain financial benefit through the betting market (e.g., fixing the first points scorer).

[2] Cornish and Clarke (1987) in discussing the rational choice theory, argue the importance of investigating precisely defined problems by adopting a crime specific focus when attempting to understand or prevent criminal behaviour. In particular, when identifying the crime specific focus of a study, Cornish and Clarke (p. 935) assert through the rational choice perspective that “specific offences are chosen and committed for a specific reason”. Moreover, in deciding to categorise specific offences under a specific label, Cornish and Clarke suggest the goal of the offending can be a key criteria for grouping particular behaviours together for analysis and comparison. Therefore, in defining the terminology used throughout this research for the key types of corruption being explored, this perspective was adopted.

- Misuse of inside information—the use of inside information to determine the betting market (e.g., accessing information regarding the injury of a key player before it is made public and using it to gain an advantage in the betting market).

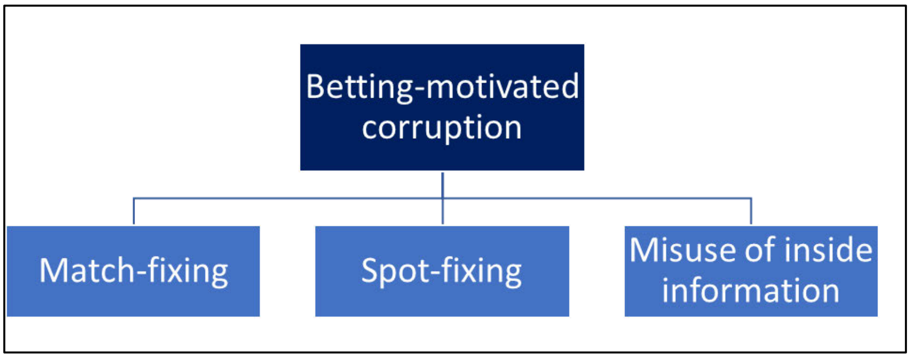


*Figure 1.1. Three activities of betting-motivated corruption.*

### 1.2.1 Threat to the 'business' of sport

As noted by Armstrong and Hodges-Ramon (2015, p. 5), 'for good or for bad, television rights, sponsorship, increased betting markets and infrastructure projects have turned sport into a lucrative industry'. With this increasing commercialisation of sport, the success of sport organisations as a 'business' relies on supporting sport integrity—the fundamental values of honest and fair competition that are expected by external stakeholders, such as spectators, sponsors, and other key stakeholders (Sport Integrity Australia, 2022a). However, where substantial amounts of money become involved, corruption is a constant threat (Armstrong & Hodges-Ramon, 2015; Vidal, 2013). In particular, the betting market has functioned as a catalyst for corruption, which can detrimentally impact sport integrity, affecting the credibility and image of sport brands (McLaren, 2010; SportsAccord, 2011), as well as losing the trust of external stakeholders and sponsors, decreasing participation and supporters, and breaking down competitions (Hill, 2010; McLaren, 2010).

Further, betting markets have changed. Although gambling on sport has existed for centuries, until the late 20th century, punters were limited to physically placing bets directly with a bookmaker on a contest within their domestic market (non-interactive gambling) (Humphreys, 2011). Since the mid-1990s and with the rapid development of the internet, the way punters place bets on sport events has transformed. The inception of 'interactive gambling', also known as online betting, has broadened the opportunities for punters and globalised gambling by providing a platform to place bets on any sport, played anywhere in the world, at any time from the comfort of their home (Gainsbury, 2014). Coinciding with the rapid development of the smart phone in 2007 (when the iPhone was first introduced), it was suggested that over half of the Australian population who started online betting did so after this period (Gainsbury et al., 2013). Since then, bookmakers have developed interactive gambling websites and applications that allow punters to gamble wherever they are. As a result, interactive gamblers have become more prevalent and are three times more likely to bet on sports than non-interactive gamblers (Gainsbury et al., 2013; Wood & Williams, 2011).

Along with the globalisation of sports betting because of the rapid development of the internet, the number of betting options available to punters has increased (International Centre for Sport Security [(ICSS)], 2014). In addition to the traditional option of betting on the outcome of a competition, punters can place exotic bets on events to occur during a match/competition (such as the number of penalties) and bet live while a match/competition is underway (Boniface et al., 2012). Additionally, betting exchanges have also emerged, which provide better odds compared to traditional betting methods as they operate like the stock exchange, where punters buy and sell bets at the odds they want (Koning & vanVelzen, 2009; Smith et al., 2006). Overall, Rompuy (2015) argues that punters' ability to bet on the loser of a competition in betting exchanges, bet live, and place exotic bets increases the chances of betting-motivated corruption.

With the rapid growth of legalised and regulated online betting markets, the internet has also provided the opportunity for punters to access illegal (unregulated) betting markets around the world (Australian Criminal Intelligence Commission [ACIC], 2017). While betting-motivated corruption can occur through regulated betting markets, illegal betting markets provide anonymity and the ability to launder money—perfect conditions for organised crime groups (Etges & Sutcliffe, 2008). Hence, one of the biggest concerns around illegal betting markets is that they are often linked to betting-motivated corruption and organised crime (Boniface et al., 2012).

Online gambling, including sports betting, continues to increase within Australia and internationally. A study estimating gambling prevalence among adults found that approximately 18% of adult Australians gambled in 2019, more than double the 2011 rate (8%) (Hing et al., 2021). Similarly, Williams et al. (2021) identified a six-fold increase in gambling within Canada, comparing the 2002 and 2018 proportions. A key factor for this increase is the substantial amount of advertising and sponsorship by betting agencies that portray gambling as a part of the spectator's experience (Thomas et al., 2012). Central Coast Gambling Help (2015) suggests that the next generation of youth will not be talking about who their favourite sport team is but rather what the odds are for a competition. With the increase of sports betting, there is a concomitant increase in the number of trouble gamblers who 'chase the money'. The issue is that it provides an environment for creating innovative ways to beat the betting market by manipulating results. This can lead to two contexts of betting-motivated corruption: lone-actor corruption and multi-party corruption.

Holden and Rodenberg (2016) argue that the existing literature has a lack of awareness around the threat of lone-actors: individuals who engage in betting-motivated corruption on their own. This may be spot-fixing in a team sport such as cricket, or match-fixing in an individual sport such as tennis. This approach to corruption is suggested to be harder to detect due to having fewer people involved (Rompuy, 2015). Conversely, multi-party corruption involves more than one individual in the corrupt activity. A common characteristic is that there is usually a mastermind, whether it is the captain of the team, a coach, or a party external to the sport, such as a betting syndicate or organised crime group (Holden & Rodenberg, 2016). Multiple parties are involved, receiving part of the financial rewards from engaging in betting-motivated corruption. Holden and Rodenberg argue that most of the literature surrounding betting-motivated corruption focuses on multi-party rather than lone-actor corruption. However, a range of cases of lone-actor corruption in Australian sport exists, such as the Ryan Tandy spot-fixing case in the National Rugby League (NRL) (Hume, 2017). Therefore, to address the lack of knowledge surrounding lone-actor corruption, this research integrates both lone-actor and multi-party corruption by exploring individuals' perceptions surrounding activities that are increasingly likely to involve lone-actors, particularly spot-fixing, the misuse of inside information, and betting on your own sport. Further, this research captures individuals' perceptions and attitudes, as well as the influence of others (i.e., culture).

With the large sums of money involved in the sport industry, along with the large earning potential within the sport betting market, it is not surprising that organised crime groups and betting syndicates have embraced the opportunity. Along with the ability to remain anonymous through unregulated and illegal betting markets, it is a perfect environment for money laundering (Etges & Sutcliffe, 2008). Armstrong and Hodges-Ramon (2015) and Bozkurt

(2012) state that the ability to make a profit in the betting market through activities such as match-fixing far outweighs the risk of getting caught. For example, Heron and Chen (2010) state that organised crime groups can make approximately US$4–5 million in three months through betting-motivated corruption in sport. The existing literature states that Asian and Eastern European organised crime groups are most prominent in corrupting betting outcomes, hence why most cases of betting-motivated corruption around the world have occurred throughout Europe and Asia (Heron & Chen, 2010). However, Heron and Chen claim that the crackdown on betting-motivated corruption across Europe and Asia has increased the risk of displacing the issue to Australia. This is due to Australia having the ideal environment for betting-motivated corruption due to a shared time zone with Asia, a lack of financial stability among clubs, a wide range of competitions, and a large betting industry (Heron & Chen, 2010). All of this supports the need for Australian sport to proactively prepare for an environment with increasing threats to its integrity.

As discussed, betting-motivated corruption is a threat to the integrity of the Australian sport industry. The prevalence of sports betting has led to the activity becoming a part of the spectator experience. Unfortunately, it has also functioned as a catalyst for an increase in betting-motivated corruption around the world, with lone-actor and multi-party corrupters taking advantage of the substantial amounts of money to be made, negatively impacting the integrity of sport. This highlights the importance of gaining a deeper understanding of betting-motivated corruption and its prevention to ensure that it does not affect the integrity of Australian sport in the future. The following section presents a brief overview of the prevalence of betting-motivated corruption worldwide.

### 1.2.2 Prevalence of betting-motivated corruption

For as long as betting has been available in sport, the risk of betting-motivated corruption has existed (Forrest & Simmons, 2003). One of the earliest recorded reports dates back to the 18th century within cricket (Forrest & Simmons, 2003), which became the catalyst for the codification of the sport's rules. Other examples include a well-known case involving the Chicago White Sox, a major league baseball team in the United States of America (US), in the early 1900s. At the time, eight players were each bribed with the sum of US$12,500 (equivalent to the annual wage of a baseball player in that period) to lose the World Series games to support betting on the match (Devine, 1994). In more recent years, there have been several high-profile cases of betting-motivated corruption involving match-fixing, spot-fixing, and the misuse of inside information which are highlighted in the following paragraph. Interestingly, many of these cases have occurred within male-dominated sports. However, with the recent growth in the popularity of elite women's sport, Douglas (2016) suggests women's sport is increasingly at risk of betting-motivated corruption.

Betting-motivated corruption in sport is less prevalent in Australia compared to other countries (ICSS, 2014). Past media reporting on cases of corruption has primarily been around countries within Europe and Asia, across a wide range of sports from football (soccer), cricket, basketball, and tennis, as well as snooker and sumo wrestling (Forrest, 2012; ICSS, 2014). For instance, Wolfers (2006) found at least 1% of 44,120 men's college basketball matches played between 1989 and 2005 were manipulated, as players were bribed to influence betting outcomes. Another example from soccer involved a Fédération Internationale de Football Association (FIFA)-grade referee who was bribed approximately US$60,000 to manipulate matches in the Chinese Football League during the early 2000s (Maennig, 2005). Other cases include the spot-fixing scandal involving members of the Pakistani cricket team in 2010, fixing involving Nikolay Davydenko, a professional tennis player, in 2007, various scandals involving English and Italian soccer leagues (Carpenter, 2012), as well as two Algerian tennis players being handed bans over multiple match-fixing incidents from 2016 (Fox Sports, 2023).

In comparison, Australia has seen a noticeably smaller number of reported cases of betting-motivated corruption in sport, but it is still classified as a threat considering its greater prevalence in other countries (Sport Integrity Australia, n.d.). Examples of high-profile cases include the fining in 1994 of Australian cricket players Mark Waugh and Shane Warne for providing information to an Indian bookmaker during the Australian team's tour of Sri Lanka (Hume, 2017). In 2013, players and a coach from a Melbourne soccer club (Southern Stars FC) fixed a few matches in the Victorian Premier League (Bricknell, 2015). In the 2010 NRL Competition, Ryan Tandy was the first player to be caught spot-fixing (Bricknell, 2015). Furthermore, in 2015 and 2016 a few NRL matches were subject to match-fixing allegations (ABC News, 2016), and a life ban was given to NRL player Tim Simona for betting on several matches (ABC News, 2017). In tennis, a sub-elite player was charged with betting-motivated corruption-related offences at a tournament in 2016 (Hume, 2017), while more recently the Victorian Police charged two men in 2019 for attempting to fix a second division national premier league (football) match in 2017 (ABC News, 2019). Overall, it is evident that betting-motivated corruption has occurred in a range of sports in Australia and internationally. The increasing number of reported cases within Australian sport in recent years and the limited research on the issue have illuminated the need for enhancing understanding of the issue.

Most research on the prevalence of the issue in sport uses anecdotal evidence, case study analyses, or self-reported estimates of corruption, similar to how the prevalence of corruption is generally explored in other contexts. Furthermore, research on the prevalence of betting-motivated corruption has primarily explored the issue overseas, with limited academic research within the Australian context, despite the prevalence of betting-motivated corruption in sports. It is important to note that understanding the prevalence of betting-motivated corruption from reported cases provides limited scope, given the majority of occurrences are unreported and hidden in nature, such as is the case in the other types of corruption (Peurala, 2013).

Within the international context, particularly in Europe, a range of studies have been conducted to explore athletes' and support staff's perceptions of the prevalence of betting-motivated corruption in their sport (FIFPro, 2012; Frenger et al., 2019; Van Der Hoeven et al., 2023). For instance, Harvey and Levi (2014) conducted a multi-country betting-motivated corruption prevalence study where several footballers across nine countries (England, Finland, Greece, Hungary, Italy, Norway, Romania, Scotland, and Slovenia) completed a questionnaire ($N$ = 3206). In this study, participants' self-reported responses to the prevalence of match-fixing in their own competitions were captured, as well as their perceptions of deterrent and motivational factors and the efficacy of particular prevention strategies. The study was indicative of the limited extent to which corruption is present within the football competitions of the research participants, as well as factors useful in informing prevention strategies. Furthermore, Frenger et al. (2019) surveyed 425 elite-level German athletes to explore their views on the prevalence of betting-motivated corruption, particularly match-fixing, during their careers. Frenger et al. (2019) found 8% of athletes reported being asked to participate in match-fixing and 7.5% reported involvement in match-fixing during their careers. These studies highlight the importance of better understanding the prevalence of betting-motivated corruption in Australia.

Additional studies have examined cases of betting-motivated corruption internationally to establish prevalence estimations. For instance, ICSS (2014) analysed suspected cases of betting-motivated corruption internationally over 3 years (2011–2014). Their analysis highlighted that they could only view the beginning or 'tip of the iceberg' and therefore did not provide an estimate of prevalence. Gorse and Chadwick (2011), in research commissioned by the Remote Gambling Association, analysed 2,089 proven cases of sport corruption (doping and betting-motivated corruption) across Europe, North America, and Australia between 2000 and 2010. They found that 3.21% ($n$ = 67) of cases were betting-related match-fixing and misusing inside information (Gorse & Chadwick, 2011). They concluded that, based on the cases analysed, one out of 60 cases of sport corruption was related to betting-related match-fixing[3] and that betting-related match-fixing was far more likely in lower leagues and sporting events (i.e., semi-professional/sub-elite and amateur levels) compared to doping (which is more prevalent in elite-level sport events) (Gorse & Chadwick, 2011).

Betting-motivated corruption prevalence research in the Australian context is limited; however, what exists has focused on the analysis of key cases. For instance, Bricknell's (2015) research on sport corruption in Australia explored a number of high-profile cases reported in the media; however, Bricknell stated that the extent of corruption in Australian sport remains unclear and is yet to be further explored. Similar assertions were made in a recent review of Australian Sport Integrity, suggesting that there is no definitive estimate of the prevalence of betting-motivated corruption, particularly due to its hidden nature (Wood, 2018). The Australian Crime Commission, now the Australian Criminal Intelligence Commission (ACIC), highlighted the hidden and secretive nature of betting-motivated corruption in sport and how understanding its prevalence is restricted to reported cases and individual experiences of key stakeholders involved in sport (ACIC, 2013).

[3] They did not mention whether the ratio included misuse of inside information for betting purposes.

A small number of empirical studies have explored the prevalence of betting-motivated corruption within the Australia sport context, particularly from the perspective of key stakeholders such as athletes and support staff. These include a qualitative study by Lastra et al. (2018) and a mixed-methods study by Agnew et al. (2019). Lastra et al. interviewed a select number of athletes and support staff (i.e., coaches and administrators) ($N = 21$) from elite and sub-elite levels of three Australian sports (rugby league, swimming and water polo). From the small sample of interviewees, the common view was that betting-motivated corruption is non-existent in their individual sports. A limitation of this finding, however, is that a small sample of stakeholders was involved, and the level of understanding among participants regarding betting-motivated corruption varied based on the sport they played. Some participants did, however, allude to the fact that gambling is a growing issue in sport, including within their own sports (Lastra et al., 2018).

Furthermore, Agnew et al. (2019) conducted interviews and surveys with semi-professional footballers from South Australia. Their data sources included seven interviews with a mix of players, a coach, and a football operations manager, as well as 167 survey responses from players (Agnew et al., 2019). While Agnew et al. did not solely focus on betting-motivated corruption, covering other integrity issues (e.g., doping), they did report that the study participants perceived gambling as an integrity risk as it is a prevalent activity among players. Moreover, Agnew et al. reported that 98% of footballers who participated in the study were unaware of the gambling policies of their competition and, therefore, players may be risking their individual integrity.

## 1.3 The current thesis

Considering the negative impacts betting-motivated corruption can have on the integrity of sport, which is strongly connected to the Australian identity (Commonwealth of Australia, 2023), research is needed to progress the knowledge and evidence base. Research on betting-motivated corruption in sport has grown in the past decade, but we still know less about this type of corruption compared to other types, such as the misuse of performance-enhancing drugs (doping).

Most of the research on betting-motivated corruption has been explored in international contexts, while research on Australian sport is limited, with only a handful of studies conducted. Existing research internationally has typically adopted a legal or sports management lens. Although there has been some adapting from criminological frameworks (such as routine activities theory), more research is needed, drawing on the evidence from other contexts to build a deeper understanding of betting-motivated corruption. For instance, previous research that has explored corruption in the public sector and police integrity can provide additional ways of thinking about risk, regulation and prevention in the context of betting-motivated corruption.

Furthermore, it is evident from research conducted on corruption in other contexts that self-reported perceptions of key stakeholders (such as athletes and support staff for the context of this research) are an important source of data for exploring the prevalence and gaining a deeper understanding of the issue. Studies that have focused on the Australian context have either had a small sample size (e.g., Lastra et al., 2018) or focused on a single sport (e.g., Agnew et al., 2019). To assist with gaining a deeper understanding of betting-motivated corruption, the current thesis draws on both existing betting-motivated corruption research and anti-corruption and integrity research outside the sport context, namely police research.

This research explores a number of knowledge gaps identified in the existing knowledge base, specifically the prevalence of betting-motivated corruption in Australian sport, the influence of demographic factors on individual perceptions, the impact of culture on perceptions, and identifying factors that influence sport stakeholders to report corruption and comply with anti-betting-motivated corruption rules/policies. The current research addresses the following research questions (RQs):

- RQ1 How do the perceptions of athletes and support staff in relation to the prevalence of betting-motivated corruption differ between sports?
- RQ2 What is the relationship between demographic factors and individual perceptions of motivational, deterrent, and preventative factors regarding betting-motivated corruption?
- RQ3 How do an individual's own perceptions and their organisation's culture impact the attitudes of athletes and support staff regarding different vignettes (hypothetical scenarios) of betting-motivated corruption?
- RQ4 How do demographic, attitudinal, and cultural factors influence an individual's willingness to report betting-motivated corruption?
- RQ5 How do demographic, attitudinal, and cultural factors influence compliance with betting-motivated corruption rules?

### *1.3.1 Research sites and design*

To address the research questions, this thesis focuses on two sub-elite-level Australian sports (research sites): rugby league and basketball. These sports were selected because, within the

Australian sport context, they represent high risk (rugby league has had previous cases of corruption) and emerging risk (basketball was labelled as the next biggest threat to Australian sport) in terms of betting-motivated corruption (ICSS, 2014; Ward, 2017). It is recognised that these sports differ to those that would be identified as high risk within international research, where sports like football are typically explored (Vanwersch et al., 2022). However, football (soccer) in Australia does not have the same level of commercialisation and popularity as occurs in other nations. In terms of data collection, self-report questionnaires were distributed that asked questions relevant to each of the research questions. Quantitative analyses, including descriptive statistics, *t*-tests, and ordinary least squares (OLS) regression, were used to explore the questionnaire data and provide insight and key considerations for sport administrators, policymakers, and other researchers.

### 1.3.2 Thesis structure

Following this introductory chapter, Chapter 2 presents a literature review on the topic of betting-motivated corruption, highlighting research regarding its prevalence, drivers, attitudes and perceptions of key stakeholders in sport, as well as identifying gaps in the current research base. Chapter 3 presents a literature review of anti-betting-motivated corruption strategies and anti-corruption research in other contexts, which can assist in better understanding the sports betting-motivated corruption context. Chapter 4 discusses the methodological approach implemented, including the quantitative approach adopted, data collection, data analysis, reliability and validity of the research, and ethical considerations. Chapters 5 to 7 present findings from studies One to Three, respectively. Chapter 8 discusses the overall key findings of this thesis, theoretical and practical implications, limitations, and suggestions for future research.

# Chapter 2: Perceptions of Betting-Motivated Corruption in Sport: A Review of Past Research

Research evidence on betting-motivated corruption in sport is limited internationally, and even more so in Australia, providing sparse evidence for understanding behaviours and attitudes or designing policies and programs to enhance sport integrity. For instance, a recent review of research on fraud in sport (a broader concept) identified 115 studies, of which two-fifths (51 studies) were literature-based and a quarter (32 studies) focused on betting-related competition manipulation (Vanwersch et al., 2022). Thus, betting-motivated corruption by athletes and support staff remains under-researched, especially empirically.

This chapter presents a comprehensive review of past empirical research on athletes' and other support staff's attitudes towards, and perceptions of, betting-motivated corruption in sport, both internationally and within Australia. It also overviews key research on the known drivers for individuals to engage in betting-motivated corruption. Intertwined within these themes is a discussion of the research evidence from other contexts of corruption, particularly police corruption, which share similarities to sport (e.g., code of silence/brotherhood-like culture), and has established, reliable, and valid corruption/integrity research measures (e.g., police integrity scale). The purpose of drawing other contexts with more established research evidence, such as criminology and police corruption, is to develop a deeper understanding of betting-motivated corruption and, as a result, inform evidence-based prevention approaches.

## 2.1 Understanding perceptions of corruption

Previous research has explored individuals' attitudes and perceptions of corruption, particularly in terms of identifying drivers and factors that deter offending. Within betting-motivated corruption research, there is a gap in understanding the phenomenon from the perspective of athletes and support staff, particularly within the Australian context. Existing research predominately relies on the analyses of cases. While this is still useful, case analyses do not necessarily provide the perspective of stakeholders who are involved in sport each day and are affected by betting-motivated corruption regulations imposed by their sport governing body and national government (which is the case for sport in Australia). Overall, there is a dearth of research that has explored the self-reported attitudes and perceptions of key stakeholders in sport. This section reviews research aimed at understanding attitudes to and perceptions of corruption in contexts outside sport before exploring the existing knowledge base focused on the sport context.

### 2.1.1 Self-reported perceptions: corruption in other contexts

Exploring the attitudes of individuals who are affected by regulations regarding corruption is important in identifying the interplay between organisational culture and developing evidence-based prevention strategies. Ivkovic (2003) states that without measuring corruption, there is no way to understand and determine a baseline estimate of the current corruption climate of an organisation, as well as evaluate the impact of different corruption strategies on an organisation without relying on using the number of scandals that appear in the media. The purpose of this section is to review research evidence regarding self-reported perceptions of corruption in contexts outside of sport, particularly within law enforcement agencies.

Within the law enforcement/policing context, officers are bound by constraints of the law and organisational policies and codes of conduct, dictating acceptable behaviour among officers (UNODC, 2011). When officers violate these boundaries, they are deemed as partaking in corruption or misconduct, while non-violation of these boundaries suggests the officer is displaying integrity (Miles-Johnson & Pickering, 2018). A similar theme is evident within the sport context, where athletes and support staff are the ‘officers’ bound by laws and organisational policies and codes, whereby if they violate these, they are seen as undermining their sport’s integrity. Policing research offers a theoretical framework that contributes to a better understanding of the concept of integrity among athletes and support staff regarding betting-motivated corruption (Klockars et al., 2000).

A key issue experienced among researchers in understanding corruption within the policing context is the limited response rate experienced when taking a direct approach; that is, asking police officers to provide examples of corruption in their organisation. The secretive nature of corrupt behaviour makes it difficult to obtain accurate measurements of corruption, including the actual number of incidents and offenders. Therefore, researchers have developed different methods, like the integrity scale, to explore perceptions surrounding corruption (Ivkovic, 2003). To overcome this problem, Klockars et al. (1997) developed an alternative method to elicit perceptions regarding police corruption by measuring integrity instead. The ‘police integrity’ concept focuses on not only individual police officers but also the organisational aspect of policing and how culture can influence corrupt behaviour. Focusing on integrity and asking related questions has been a successful approach compared to posing direct questions on police corruption (Ivkovic et al., 2012). Measuring police integrity has been met with less resistance and has been used to explore the integrity levels of a wide range of policing agencies worldwide (Ivkovic et al., 2020).

Based on the concept of ‘police integrity’, Klockars et al. (1997) developed the police integrity scale—referred to as the ‘integrity scale’—to measure the attitudes of police officers and their organisation’s culture regarding different corrupt/misconduct situations they may face. The scale was developed based on organisational theory, which highlights the importance of organisational culture and its ability to influence corruption (Klockars et al., 2000). Essentially, the integrity scale has been used across policing agencies to understand how police view single cases of corrupt behaviour through non-threatening questions to elicit respondents' knowledge of organisational norms and their opinion regarding specific policing scenarios (Klockars et al., 2000). Klockars (1999) discusses the advantage of using police integrity scenarios:

> The major propositions of the idea that controlling corruption is an organizational rather than an individual problem are questions of fact and opinion that can be explored directly and without anything like the resistance that direct inquiries about corrupt behaviour are likely to provoke. It is, for example, possible to ask factual questions about officers' knowledge of agency rules, opinions about the seriousness of their violation, and the punishment they deserve or are likely to receive, and their estimates of officers' willingness to report such behaviour, without asking them directly about their own or others' corrupt behaviour. (pp. 209–212)

The integrity scale (Klockars et al., 1997) measures participants' attitudes towards the following concepts for each of the 11 scenarios respondents are presented: seriousness, violation of official policy, willingness to report, and disciplinary action. Previous research has found that the scenarios presented tend to cluster into two categories: more serious corrupt behaviour and less serious corrupt behaviour (Jenks et al., 2012). The concepts explored have been found to positively influence officers' behaviour in terms of compliance with organisational rules and reporting corruption. For instance, Porter et al. (2015) found in their sample of 856 officers within an Australian policing agency that both the respondent's own perceptions of seriousness, colleagues' views of seriousness, and whether their colleagues would report corruption were contributing factors that predicted an individual's willingness to report corruption.

Other studies have been conducted employing the integrity scale, where common findings include: management-level and frontline police officers sharing similar perceptions across concepts (i.e., seriousness and willingness to report) (Vito et al., 2011); when seriousness levels increase, so does individual willingness to report and perceptions of punishment severity (Klockars et al., 2000); during multi-nation comparisons there were variations of what was considered acceptable and tolerated (Ivkovic, 2003); and, while the code of silence is apparent across multiple countries, the scenarios that would be shielded by the code differed depending on the scenario as well as the sample being examined (Ivkovic & Haberfeld, 2015). Furthermore, Ivkovic and Haberfeld (2015) highlight that respondents tend to rate seriousness higher than discipline or willingness to report. This is primarily due to seriousness ratings not having any behavioural consequences, suggesting that respondents may overestimate their assessments or that there is a correlation between the harshness of discipline and the seriousness of a scenario (Klockars et al., 2004). The main difference across studies that have employed the integrity scale is the varying assessments of willingness to report between countries, highlighting the importance of culture (organisational or country-specific) in shaping an individual's behaviour (Ivkovic & Haberfeld, 2015). This suggests that corruption tolerated in one country or organisation does not suggest it will be acceptable in another. Overall, the integrity scale is by no means the 'magic solution' to measuring corruption; however, evaluations have tested its reliability and capability in measuring integrity within organisational environments that participants are employed in (Maskaly et al., 2020).

### 2.1.2 Self-reported perceptions: sport context

Research that has explored the perspectives of key stakeholders within sport, particularly the perceptions of athletes and/or support staff, has predominately focused on sport contexts overseas, with limited research in Australia (Bricknell, 2016; Lastra et al., 2018). In the international context, researchers have used questionnaires and conducted interviews with athletes to understand their perceptions of betting-motivated corruption in a range of sports, particularly soccer (football). A key example of research where interviews were conducted is Hill (2015), where using mixed-methods research interviews were conducted with a wide range of stakeholders who could potentially be involved in betting-motivated corruption, including persons external to sport, such as law enforcement, gamblers, and corruptors, as well as internal stakeholders, such as athletes and sport officials.

A recent study by Moriconi and De Cima (2020a) explored the perceptions of Portuguese athletes regarding the conditions in which they engage in sports betting, particularly on their own matches and/or sport. Through interviewing and ethnographic methods, Moriconi and Cima identified that Portuguese athletes viewed betting on one's own match as an incentive or motivator, similar to how extra prizes and payments are given if an athlete performs well. Betting on one's own match, however, is prohibited as per Portugal's sport policies (as in Australia). Moriconi and De Cima highlight how betting on one's own games or sport is an established practice and continues to occur despite it being prohibited due to the perception of inefficient controls set up by Portugal's anti-betting-motivated corruption regulations. This perceived lack of detection mechanisms creates an opportunity for sport actors betting on their own games/sport to engage in more serious activities, such as fixing for financial gain through betting markets.

Meanwhile, other studies have administered surveys to athletes and support staff to explore their perceptions of betting-motivated corruption. A number of studies have been conducted across Europe and Asia, using self-reported experiences to build an evidence base to inform enforcement and prevention strategies. These studies include Harvey and Levi (2014), Visschers et al. (2019), Chung et al. (2017) and more recently Van Der Hoeven et al., (2023).

Harvey and Levi's research involved a large study conducted on betting-motivated corruption prevalence, in particular match-fixing. Through a survey of 3,206 football athletes from nine European countries, the study added significantly to the body of knowledge about match-fixing and relevant prevention strategies. Furthermore, a recent study by Van Der Hoeven et al. (2023) surveyed 4,958 athletes across several European countries. Participants were involved in various sport disciplines (mainly soccer, tennis, field hockey and basketball), and were predominately involved at semi-professional or amateur levels. Through this research, Van Der Hoeven et al. gained insights into the attitudes of athletes towards the seriousness, risk and acceptability of betting and non-betting related match-fixing. Importantly, they found that attitudes towards match-fixing across various internal stakeholders (e.g. athletes vs support staff vs referees) was not uniform. In particular, athletes estimated the chance of being approached to match-fix as lower than administrators or referees, which opposes existing literature describing athletes as the most vulnerable to sport corruption (Van Der Hoeven et al., 2023).

Harvey and Levi, Visschers et al., Chung et al. and Van Der Hoeven et al. all share common themes, including examining the perceptions of respondents in relation to their perceptions of match-fixing prevalence, causal factors, preventative measures, and who they trust to report corruption to, as well as what would prevent them from notifying authorities. Across each of the studies, the findings highlight that while betting-motivated corruption has a low prevalence, a range of factors (e.g., financial difficulties) can increase the risk of an individual engaging in corruption. Strategies that prioritise prevention instead of prosecution are predominately reported, as well as enhancing reporting mechanisms and the likelihood of athletes and support staff informing authorities of betting-motivated corruption they are aware of.

Within the Australian context, two key projects have explored self-reported perceptions of key stakeholders, particularly athletes and support staff. Firstly, Lastra et al. (2018) conducted interviews with a mix of elite- and sub-elite-level athletes and support staff (*N*=21) to gain insight into their perceptions of betting-motivated corruption in a range of Australian sports, including rugby league, swimming, and water polo. Lastra et al. (2018) found that culture plays a major role in athletes' and support staff's behaviour, and the Australian sporting culture of excelling and 'doing your best' acts as a protective factor. However, interviewees highlighted the risk of betting-motivated corruption in the future, mainly due to the gambling culture within sport. The second study by Agnew et al. (2019) interviewed and surveyed sub-elite Aussie rules football (Aussie Rules) athletes on a range of integrity issues. While the study was not specifically on betting-motivated corruption, they did gain insight into the high-risk gambling behaviours athletes engage in, which have the potential to impact societal perceptions of their integrity.

### *2.1.3 Research gaps*

This review of research evidence highlights the importance of understanding the perceptions of stakeholders who are impacted by regulations. Corruption research is well established within the police/law enforcement context and demonstrates the importance of eliciting perceptions by measuring integrity rather than taking an inefficient direct approach by asking about individuals' own corruption experiences. The police integrity scale developed by Klockars et al. (1997) measures corruption by asking participants to report their own perceptions of what they would do and their organisation's culture in relation to hypothetical corruption scenarios. This approach is beneficial as it avoids resistance that would likely occur if direct questions about their own or others' corruption behaviour were posed.

The implementation of a scenario-based approach to understand the perceptions of sport actors in relation to betting-motivated corruption remains sparse (O'Shea et al., 2021). Most recently, O'Shea et al. (2021) in their survey of athletes (n=427) across five European countries used a scenario-based approach to explore the effect of power, attributions and morals in deciding to fix a match. Through this approach, O'Shea et al. confirmed that engaging in match-fixing was highly likely occur due to factors relating to individual athletes themselves, such as satisfying a gambling habit. Further, the results showed pressure to engage in this behaviour from a powerful authority was an important determinant of match-fixing, highlighting the important role of the socio-cultural environment on athletes' decision making to engage in corruption.

To date, a range of studies have collected perceptions of predominantly athletes in relation to themes including prevalence, motivational, and deterrent factors, as well as reporting corruption behaviour. Empirical research focusing on the Australian sport context is sparse, with only a handful of studies gaining insight into betting-motivated corruption through athlete and support staff perceptions. Two key studies have explored the perceptions of a small number of athletes and support staff (*N*=21) from different sports (e.g., Agnew et al., 2019; Lastra et al., 2018); however, there is a need for further research in this area. On an international scale, Van Der Hoeven et al. (2023) states that research to date remains scarce, citing Lastra et al. (2018) as one of the few studies that have examined the attitudes of athletes and non-athletes towards betting-motivated corruption. Furthermore, learnings from police corruption research indicate innovative approaches to gaining a deeper understanding of athletes and support staff in relation to their own attitudes towards corruption, as well as the influence of organisational culture through adaption of the integrity scale. This is particularly important as cultural factors are key contributors to corruption flourishing, as detailed in section 2.2.3.

Overall, the key gap in research identified within the betting-motivated corruption knowledge base is the need to explore the perceptions of a broader group of athletes and support staff, particularly their own perceptions of betting-motivated corruption and the influence of culture on behaviour. Furthermore, there is a gap in knowledge in exploring the application of the integrity scale—an established, reliable and validated measure used in police research to explore perceptions relating to integrity, particularly cultural influences, within organisations—to the sport context. This research aims to adapt this measure to better understand betting-motivated corruption, which is the first of its kind. Consequently, this highlights the need for RQ1–RQ3:

- RQ1. How do the perceptions of athletes and support staff in relation to the prevalence of betting-motivated corruption differ between sports?
- RQ2. What is the relationship between demographic factors and individual perceptions of motivational, deterrent, and preventative factors regarding betting-motivated corruption?
- RQ3. How do an individual's own perceptions and their organisation's culture impact the attitudes of athletes and support staff regarding different vignettes (hypothetical scenarios) of betting-motivated corruption?

## 2.2 Understanding the drivers of corruption

Understanding the underlying causes of illicit behaviour is important for informing evidence-based prevention strategies. As identified in the previous section, a number of empirical studies have used perception-based research to explore the different factors that may influence or deter an individual from committing a corrupt act. The purpose of this section is to provide a framework for why it is important to understand individuals' perceptions when exploring corruption within a particular context.

### *2.2.1 Importance of understanding the context*

The review of corruption research highlights that underlying drivers of corrupt conduct are often context-based. For example, in a study on police corruption in colonial Singapore, Quah (2006b) found seven factors influencing corruption: low salaries; poor working conditions; a high degree of formalism; poor recruitment and selection criteria; limited training programs; ample opportunities for corruption due to inadequate controls; and an organisational culture where corruption was acceptable. Shah (2006) states that corruption within the public sector context occurs due to a range of factors, including the level of accountability, the quality of management within the public sector, and the degree of transparency. Furthermore, in an analysis of sport corruption controls internationally, Masters (2015) concluded that corruption varies from place to place and sport to sport. It is apparent that various underlying factors may drive corruption, but common across all contexts is the involvement of a self-interested individual who is willing to accept a bribe or work alone if the expected benefits outweigh the possibility of being caught out for corrupt conduct (Jain, 2001).

#### *2.2.1.1 Vulnerability of sub-elite competitions*

In relation to the betting-motivated corruption context, learnings from broader corruption research suggest how different sports and sporting levels (i.e., the elite vs sub-elite vs amateur) can experience both similar and dissimilar factors that influence corrupt behaviour, therefore highlighting the importance of understanding context-specific factors that influence corrupt behaviour. A review of existing literature indicates a gap in knowledge focused on different contexts relating to betting-motivated corruption, including research focused on popular Australian sports, as well as athletes/support staff involved in sub-elite-level competitions. Commentary surrounding lower levels of sport (e.g., sub-elite) argues that this competition level poses a much greater risk of betting-motivated corruption than the elite level, particularly due to reduced scrutiny and financial incentives to athletes, support staff, and other sport stakeholders (Wood, 2018). A number of studies conducted internationally, such as Aquilina and Chetcuti (2013) and Harvey and Levi (2014), have explored sub-elite levels of sport. A limited number of studies, however, have explored sub-elite levels in Australian sport utilising empirical data, with Lastra et al. (2018) and Agnew et al. (2019) being two key exceptions. Therefore, exploring betting-motivated corruption within the sub-elite level is particularly important, considering existing research has identified athletes/support staff within these competitions are most at risk of corruption.

### *2.2.2 Individual and situational factors*

Although this current study does not specifically test any theories, their application within the broader corruption literature provides insight into individual and situational factors that can influence an individual towards engaging in corrupt activity. For instance, economic perspectives are commonly applied to explain the occurrence of corruption (Jain, 2001). Rational choice theory (RCT) explains how offenders take an economic approach in deciding whether to commit a crime or not by weighing up the potential costs and benefits (Cornish & Clarke, 1987; Piliavin et al., 1986). Ultimately, RCT sees offenders as decision-makers, which should be reflected in measures taken to reduce corruption. This means that deterring corruption should increase the risks (e.g., punishment or risk of detection) for illicit behaviour in anticipation that the punitive measures outweigh the benefits.

Another example is neutralisation theory, which is based on the notion that individuals feel guilty and shameful when they commit a crime (Sykes & Matza, 1957). When individuals perceive a particular behaviour as acceptable, they will continue with their actions compared to when the behaviour is thought to be unacceptable. Neutralisation suggests that individuals temporarily remove themselves from their guilt and morals to engage in criminal behaviour (Sykes & Matza, 1957). This process allows individuals to 'drift' back and forth between non-delinquent and criminal behaviour. Sykes and Matza (1957) suggest five methods individuals apply to justify their criminal activity: denial of responsibility, denial of injury, denial of the victim, condemnation of the condemners, and appeal to higher loyalties. A review of the broader corruption literature shows the limited application of this theory; however, Lauchs (2012) applied white-collar crime ideologies to police corruption and found that individuals rely on neutralisation to justify their offending behaviour. Gorta (1998) also states that neutralisation could explain why people use the way they are treated within their workplace to justify committing a crime. This idea relates to the concept of organisation justice which is discussed later in sections 2.2.3.1 and 3.2.

Within the sport context, betting-motivated corruption can involve individuals who either act alone or accept a bribe in circumstances where the rewards attainable through the betting market outweigh the risk of getting caught (Holden & Rodenberg, 2016). However, this is not always the case, as individuals may also be coerced into corrupt conduct by organised crime groups who use stand-over tactics (i.e., intimidation) (ACIC, 2013). The existing literature suggests a range of reasons as to why an individual may be driven to take actions to corrupt a betting outcome.

A key motivation for individuals connected to sporting organisations to accept bribes from a third party or engage in corrupt behaviour themselves is due to the financial incentives linked to the betting market (Armstrong & Hodges-Ramon, 2015). Delving deeper into the issue, Misra et al. (2013) suggest that financial problems can be an underpinning motivation as athletes, referees or other support staff may receive low salaries, especially individuals involved in lower-tier competitions. Furthermore, Spapens and Olfers (2015) state that gambling problems among athletes, referees, and support staff can influence corrupt conduct. Lim et al. (2016) found that gambling is prevalent among professional footballers as it is a way for young players to socialise and pass the time. In a recent study, Russell et al. (2019) identified individuals who are younger in age and had a higher personal income (much like sub-elite/elite athletes), were at higher risk of gambling problems, which can then increase the potential for mixing with criminal activity. Similarly, Gray and Porreca (2024) found athletes who have previously been caught for match-fixing were driven by financial strain/demands, while those caught for doping were motivated by career aspirations.

Therefore, to provide greater insight as to why underlying factors such as financial troubles and gambling addictions can cause individuals to accept bribes to engage in betting-motivated corruption, Merton's (1938) strain theory can be applied. Strain theory suggests individuals commit crime in order to alleviate strain in their life that they cannot alleviate legitimately (Agnew, 2007). Hill (2015) conducted one of the first studies looking at why athletes fix matches and found that the average age players started fixing was 26 years old. Hill conducted mixed-methods research involving interviews with a range of sport stakeholders, including athletes, coaches, officials, corrupters, law enforcement, and gamblers (*N*=221), and analysed databases of fixed matches and confessions (quantitative data). Hill found that despite being well-rewarded in their careers in terms of status and wealth, each case of athletes accepting bribes to engage in betting-motivated corruption was motivated by greed or feeling discontent with what they have. For example, reasons for accepting bribes were to accept private school admission for children or invest in another business. Hill concluded that athletes who are nearing retirement may be more inclined to accept bribes to prepare for their near future—particularly if they do not have an education or a fall-back career to maintain their privileged life as an athlete. While strain theory is not specifically tested in this current study, it helps our understanding of the underlying reasons why an individual may engage in corrupt behaviour.

### 2.2.3 Cultural factors

While individual and situational factors may drive corruption, other researchers have suggested that a corruptive culture may have pervaded affected sports. For example, Di Ronco and Lavorgna (2014) state that match-fixing within football is reinforced by the sport's culture of tolerance from both its participants and spectators towards corruptive practices. Interestingly, Armstrong and Hodges-Ramon (2015) put forward the idea that the sporting culture could act as an antidote to deviance for some due to its core principles of competitiveness and the desire to win and succeed, which also underpin criminal activities such as betting-motivated corruption (e.g., to succeed financially). Furthermore, the closed environment of sporting organisations is comparable to that of law enforcement, where corrupt practices can become a part of the culture and the code of silence that involves not reporting on your colleagues, which can allow for the illicit behaviour to flourish (Boniface et al., 2012; Bricknell, 2015; Ivkovic et al., 2016; Punch, 2003a). Therefore, the purpose of this section is to explore the influence of an organisation's culture on an individual's behaviour, how a culture of tolerating petty corruption can be a precursor to more widespread and serious corruption, and the impact a 'code of silence' can have on keeping corruption hidden.

#### *2.2.3.1 Organisational culture*

Organisational culture is the term used to describe an organisation's 'personality'. Armstrong (2011) states that an organisation's personality can be openly apparent, yet not directly expressed, and guides the actions of individuals within an organisation. Put simply, it is 'the way things are done' and is often not explicitly conveyed but instead implied (Furnham & Gunter, 1993). Organisations or parts of organisations can be viewed as groups of individuals who work to achieve a common goal, and it is those individuals and their actions that develop the construct of culture (Stapley, 1993). Therefore, in the context of corruption, organisational culture has an important role in the inception or aversion of corrupt activity by individuals within an organisation.

To understand how organisations influence individuals' behaviour, the 'rotten barrels and bad apples' framework from police corruption research can be applied (Gottschalk, 2016). The notion of 'rotten barrels' can explain the influence of organisational culture on an individual's ethical or unethical behaviour (Trevino & Youngblood, 1990). Before detailing what 'rotten barrels' are, it is important to understand 'bad apples'.

The bad apples notion suggests that unethical behaviour is individualistic and implies that corruption within an organisation tends to be confined to a few unethical individuals or bad apples (Newburn, 2015). This notion, however, has been criticised as a way favoured by organisations, such as policing agencies, to mitigate the amount of public backlash against their agencies after corruption is uncovered (O'Connor, 2005). Newburn (2015) argues that attention to 'bad apples' can have negative implications when understanding why corruption has occurred, as it takes the attention away from others, such as organisational leaders, who should also be scrutinised, as an individual committed unethical behaviour while under their supervision. The importance of looking at organisational culture when exploring the prevention of corruption is highlighted in the following quote from an American reformist Commissioner, Patrick V. Murphy: ‘The task of corruption control is to examine the barrel, not just the apples—the organization, not just the individuals in it—because corrupt police are made, not born’ (Barker & Carter, 1986, p. 10).

Another perspective is the ‘barrel rotting the apples’ (Gottschalk, 2012). In other words, the ‘rotten barrel’ refers to the organisational environment and how it influences what behaviours are acceptable and unacceptable within an organisation. A meta-analysis conducted by Kish-Gephart et al. (2010) of previous research on individual and organisational antecedents of unethical choices uncovered that ‘barrels’ or organisational cultures can influence an individual's behaviour. For example, police corruption in Australia intensified as corrupt practices were the norm within policing organisations (Dean et al., 2010). As a result, police officers who were otherwise ethical people engaged in corrupt behaviour as it was the norm within the organisation. Furthermore, as highlighted by Willis (2022, p. 730), ‘culture eats strategy for breakfast’. In other words, the implementation of new policies and prevention programs will not be effective unless the organisational culture supports such change. This includes concepts such as the code of silence, which is commonly embedded within police cultures and involves police officers’ reluctance to report colleagues’ misbehaviour (Long et al., 2013; Sargeant et al., 2017). Organisations with strong ethical cultures that are clearly communicated to people (i.e., what is acceptable behaviour) tend to have fewer unethical instances within the organisation and experience greater organisational integrity (Boardman & Klum, 2013; Kish-Gephart et al., 2010).

Overall, this literature review regarding organisational culture highlights the importance of investigating how it contributes to the behaviour of athletes and support staff in relation to betting-motivated corruption. Organisational culture plays a key role in shaping an individual's behaviour within an organisation. While there may be a select few bad apples or individuals who engage in misconduct or corruption, it is important to explore the rotten barrels concept, in which the organisational environment plays a key role in setting what behaviours (good or bad) are acceptable in the workplace. For instance, research conducted in Greece around match-fixing surveyed sub-elite and elite athletes (*N*=99) from football, volleyball, and basketball (Barkoukis et al., 2020). Their findings support the notion that culture plays a key role in influencing individual intentions to engage in match-fixing. Similarly, a review of five prominent cases of match-fixing in Germany by Feltes (2013) and the 2011 K-league scandal (Tak, Jackson & Sam, 2023) in South Korea, highlighted the importance of organisational culture in successfully preventing against corruption. Furthermore, cultural impacts have been reported in several prominent cases of sport corruption internationally. Within the Australian sport context, there is a need for research that explores the intersection between organisational culture and betting-motivated corruption, which is a key contribution of this thesis.

On a side note, an important part of organisational culture is organisational justice—the promotion of organisational trust and fairness—as it is associated with promoting ethical behaviour within organisations (Gifford et al., 2019; Rae & Subramaniam, 2008). This body of knowledge is discussed further in section 3.2. The following sections expand on culture by discussing how tolerance of petty corruption can lead to more serious corruption, as well as the effect of a 'code of silence' culture in hiding corruption.

#### *2.2.3.2 Tolerance of petty corruption*

The 'slippery slope' and 'steep cliff' notions provide an explanation of how tolerance of petty corruption can result in more serious acts, which in turn become ingrained in an organisation's culture. Ashforth and Anand (2003) state that corruption is a process where corrupt practices become increasingly severe over time, commonly referred to as the slippery slope. This suggests that individuals start with minor corrupt acts and, as they avoid detection, they progress to acts of greater severity (Darley, 2005; Gino & Bazerman, 2009). Within organisations, the slippery slope concept refers to minor corrupt acts going undetected, gradually increasing in frequency/severity, before being embedded within an organisation's sub-culture. An opportunity then exists for corruption to become a systemic issue, deeply engrained in the organisation's normal practices (Ashforth & Anand, 2003). Important to note, however, is that opportunities exist to disrupt corruption during its gradual increase to more serious acts.

To highlight the 'slippery slope' notion within the sport context, a number of examples exist involving a broad range of corrupt acts, including doping, betting-motivated corruption, and fraud (Kihl et al., 2017); for example, the FIFA corruption scandal in 2015 (fraud) (Verver, 2015), Lance Armstrong and elite cycling doping (Bell et al., 2016), and the widespread match-fixing within the Chinese Super League (Heron & Chen, 2010). These examples share a common theme where corruption had been tolerated and flourished into widespread corruption, which resulted in negative implications for those involved and for the sports as a whole.

An alternative perspective is the 'steep cliff' notion, where engagement in corruption occurs abruptly. Kobis et al. (2017) found that a slippery slope may not always be the case, and a single opportunity for corruption may be easier to justify and less taxing on an individual's moral compass than repeated corrupt acts. This suggests that while it is generally argued that individuals gradually engage in corruption, others may take advantage of single opportunities that present large benefits.

Overall, the slippery slope notion highlights how tolerance of petty corruption can lead to a culture accepting of unethical behaviour, providing a gateway for more serious acts. As highlighted in the examples from the sport context, culture can influence corrupt behaviour. There is, however, limited research that specifically explores how culture influences the betting-motivated corruption context in Australia. In particular, there is limited research evidence regarding the code-of-silence notion, which is directly influenced by organisational culture and has the ability to allow corrupt behaviour to flourish, as discussed in the following section.

#### *2.2.3.3 Code of silence*

The code of silence or *omerta* is a phenomenon closely related to organisational culture and the preservation of corruption. The *omerta* originates from the Italian mafia and refers to the law of silence that prohibits individuals from discussing information about certain activities (e.g., corruption), particularly to those outside their organisation, ensuring activities remain covert (Bell et al., 2016; Dimeo, 2014). Several studies have established that the code of silence exists in a number of contexts, including nursing, policing, religious groups, and political institutions (Ivkovic et al., 2016, 2018; Mansbach et al., 2013; Skolnick, 2002; Westmarland, 2005; Whitaker et al., 2014). In a number of contexts, including sport, the code of silence has been reinforced by the potential for psychological or professional retaliation or is associated with the intention of protecting individual and collective interests (Erickson et al., 2017; Rehg et al., 2008). While reporting corruption is important for its detection and subsequent sanctioning, it is the code of silence and the stigma associated with 'blowing the whistle' that undermines sport's anti-corruption prevention efforts (Whitaker et al., 2014).

Research on doping-related corruption has established that a code-of-silence culture exists within sport, which is expected considering the typically ‘closed’ environment within sporting clubs (Erickson et al., 2017; Kihl, 2017). However, despite the importance of addressing the code of silence in detecting corruption, limited empirical studies have been conducted, and there is reliance on case studies to understand the phenomenon within sport (Moston & Engelberg, 2016). In the international context, a key example where the code of silence has allowed for serious corruption to flourish is the Lance Armstrong doping case (Bell et al., 2016). Investigations revealed that Lance Armstrong’s doping, as well as the doping of many other athletes, flourished as it was within the sport’s culture not to report it to authorities (USADA, 2012). Both doping and the code of silence were embedded within the sport’s culture, particularly the elite-level Tour de France competition, enabling corruption to continue for decades (Fotheringham, 2016). Doping had become tolerated within the sport, leading it to become a systemic issue entrenched in the sport’s culture up to the elite level (Bell et al., 2017). Another example is the FIFA corruption scandal, which saw several members of FIFA management implicated in corrupt behaviour for many years and that was uncovered due only to a whistleblower (Geeraert, 2017). In these examples, similar themes were evident where petty corruption was tolerated and, due to the code of silence, the corruption flourished into widespread systemic corruption affecting the highest level of the sport.

Although previous research has explored the code-of-silence culture from a doping perspective, there is a dearth of research on the concept within the betting-motivated corruption context internationally. The existence of a code-of-silence culture surrounding doping and other corruption within sport indicates the likelihood of the same culture existing in the context of betting-motivated corruption (Bell et al., 2017). Moriconi (2018) highlights that sport actors remain reluctant to report due to the code of silence, limiting betting-motivated corruption prevention efforts. In particular, Moriconi and De Cima (2020a) conducted a mixed-methods study that involved interviews with key stakeholders in Portugal, including betting regulators, sport governing bodies, journalists, government actors, and past/present athletes, coaches, support staff, and referees (*N*=49). Moriconi and De Cima proffered that informal institutions (unwritten rules) exist which discourage reporting betting-motivated corruption, and individuals are fearful of the negative impact it can have on their sporting careers.

More recently, Moriconi (2024) interviewed on-field sport actors (n=11) and found similar results where sport actors reported fear of retaliation, despite reporting misconduct being an obligation set by their governing body. While undermining betting-motivated corruption prevention efforts, a code of silence that allows ongoing, low-level betting-motivated corruption (e.g., misusing inside information, betting on your own sport) can potentially influence more serious and widespread corruption, a lesson learned from existing research evidence (e.g., police corruption). Therefore, a knowledge gap exists surrounding the reality of a code of silence culture within Australian sport in relation to betting-motivated corruption.

### *2.2.4 Research gaps*

The review of Australian-based literature identified a need for greater knowledge surrounding stakeholder perceptions of potential drivers and deterrence factors relating to betting-motivated corruption (e.g., financial issues, low salaries, gambling problems, and bribery). Further research can assist in better understanding the phenomenon and inform evidence-based prevention strategies. While a handful of Australian studies exist, a key issue is their application of case study analysis (e.g., analysis of open-source media) or empirical research involving stakeholder interviews with a small number of respondents (e.g., Bricknell, 2015;

Lastra et al., 2018). There is a need to contribute to the research base through the collection of stakeholder perceptions from predominately sub-elite competition levels using research methods that allow for greater sample sizes, analytical methods that enable the controlling of factors, and the ability to capture perceptions surrounding themes discussed in existing research. Various methods of inquiry were identified from international literature and the small number of studies conducted within Australia. In particular, a survey approach was identified as a potential method to assess the perceptions of a larger sample of participants, as well as facilitate the use of multivariate analytical methods—an approach that is limited within the Australian context compared to internationally.

Betting-motivated corruption research explores the role of culture in either preventing or fostering the issue, similar to other types of sport corruption, such as doping. Learnings from other contexts highlight the key role organisational culture plays in allowing corruption to flourish. Within the betting-motivated corruption context, there is a gap in knowledge in relation to the impact of culture on an individual's decision-making, particularly the code of silence, which can contribute to keeping corruption hidden and act as a gateway for more serious corruption to flourish due to the tolerance of lower-level misconduct. Research on other types of sport corruption (e.g., doping) has established that a code-of-silence culture does exist; however, further research is needed exploring the betting-motivated corruption context within Australian sport.

The review of the literature regarding drivers of corruption, particularly the impact of culture, gives rise to RQ4:

RQ4 How do demographic, attitudinal, and cultural factors influence an individual's willingness to report betting-motivated corruption?

## 2.3 Conclusion

The purpose of this chapter was to review the broader literature, particularly concepts related to corruption in the policing context. The chapter highlights a range of concepts borrowed from police corruption/integrity research. The policing context shares a number of similarities with the sport context, including a code-of-silence culture that can protect corruption from detection. Further, this chapter discussed the integrity scale and its application for understanding one's attitudes towards corruption in sport, as well as how a sport organisation's culture may influence athletes' perceptions of such conduct. Organisational culture was unpacked further, particularly its influence on individual behaviour. The chapter then focused on an important part of organisational culture: organisation justice. The promotion of organisational trust and fairness (organisational justice) is further unpacked in the following chapter (section 3.2). In summary, the review of literature conducted in this chapter identified the following research questions:

- RQ1 How do the perceptions of athletes and support staff in relation to the prevalence of betting-motivated corruption differ between sports?
- RQ2 What is the relationship between demographic factors and individual perceptions of motivational, deterrent, and preventative factors regarding betting-motivated corruption?
- RQ3 How do an individual's own perceptions and their organisation's culture impact the attitudes of athletes and support staff regarding different vignettes (hypothetical scenarios) of betting-motivated corruption?
- RQ4 How do demographic, attitudinal, and cultural factors influence an individual's willingness to report betting-motivated corruption?

The next chapter presents a review of anti-corruption initiatives identified within the existing corruption evidence base.

# Chapter 3: Anti-Betting-Motivated Corruption Strategies

A review of the broad corruption literature has identified several successful anti-corruption initiatives. Implementing these initiatives is critical for an effective anti-corruption strategy and should involve the following elements: prevention, education, and enforcement (de Speville, 2010). It is widely established that the ideal approach to anti-corruption involves a system of measures involving a partnership of agencies/organisations that can assist in prevention, education, and punitive strategies. An anti-corruption strategy that does not include all three elements is likely to be ineffective (de Speville, 2010).

In implementing anti-corruption strategies, Poerting and Vahlenkamp (1998) suggest that effective anti-corruption must begin internally from within the organisation where the corrupt behaviour can occur, with the support of external stakeholders when required. Boniface et al. (2012) and Forrest (2012) support this notion, stating that the prevention of betting-motivated corruption should start at the sport organisation (internal stakeholder) level and operate with the support of external stakeholders, such as the government, law enforcement, betting agencies, and intelligence agencies. Betting-motivated corruption is a multi-faceted issue that no single organisation can address, hence the need for a holistic approach (Masters, 2015).

Internationally, Australia is renowned for its comprehensive anti-betting-motivated corruption protections (Wood, 2018). However, as identified in the Review of Australia's Sport Integrity Arrangements by Wood (2018), significant challenges remain in the detection and response of betting-motivated corruption, particularly due to a fragmented approach, despite the objectives to implement a coordinated and holistic response. Furthermore, issues surrounding detection, including reporting of corruption by athletes and support staff, continue to impact the effectiveness of Australia's betting-motivated corruption response (Wood, 2018). Therefore, the purpose of this chapter is to establish the importance of this research in examining athlete and support staff perceptions and the role of culture in detecting and preventing betting-motivated corruption.

To do this, responsive regulation will be applied, which is an established framework within anti-corruption and regulatory research. Application of the framework will assist in framing the importance of understanding the perceptions of athletes and support staff and the role of culture in detecting and preventing betting-motivated corruption. The following section introduces responsive regulation and its application in other contexts, followed by its application to betting-motivated corruption in sport.

## 3.1 Responsive regulation framework

A leading approach to building regulatory systems is based on the theory of responsive regulation (Ayres & Braithwaite, 1992). The motivation behind the development of responsive regulation theory was to integrate various regulatory approaches into one model. The development of a single model broadens the ability of regulatory approaches to attain compliance by moving beyond existing regulatory approaches, such as ‘command and control’ (e.g., enforcing strict penalties), that may work for one type of individual but not another (Nielsen & Parker, 2009). Responsive regulation comprises a structured framework, which focuses on influencing individuals to comply with set rules, ultimately achieving anti-corruption objectives. Through a range of techniques, which are incorporated in a tiered enforcement pyramid, responsive regulation assumes the idea that effective regulatory systems should combine command and control and cooperative-style mechanisms (Braithwaite et al., 2007).

The advantage of adopting this approach towards regulation is that it incorporates a range of theories regarding compliance and enforcement (Braithwaite, 2011). Responsive regulation ensures that compliance is sought from all types of people, such as those who comply if they think it is for their own good, as well as those who comply with rules due to normative or social reasons (Nielsen & Parker, 2009). In particular, responsive regulation (through the enforcement pyramid) sets out a combination of strategies that are based on both compliance-based, 'cooperative' (e.g., education, persuasion, and cooperation), and deterrence-based, 'command and control' (e.g., compliance is achieved through the presentation of strict penalties) perspectives to control behaviour. Furthermore, as Braithwaite (2011) suggests, responsive regulation is effective in controlling behaviour as it 'formulates ways to reconcile the research evidence that states punishment works and sometimes it backfires, and likewise with persuasion' (p. 3). As the key objective of regulation is compliance, the framework allows for differing motivations or mechanisms of compliance but also recognises that motivations within individuals or organisations change over time. Overall, numerous studies have established the long-term success of responsive regulation in achieving compliance within a range of contexts internationally (Parker, 2013).

An important part of the responsive regulation approach is that it enables organisations to take ownership in wanting to be compliant and pushes for self-regulation (Ayres & Braithwaite, 1992; Parker & Braithwaite, 2003). Self-regulation is a regulatory technique that can either be voluntary or enforced. This technique is associated with cooperative regulatory strategies and aims to make organisations accountable for achieving their own policy objectives (Ayres & Braithwaite, 1992). While it depends on the context as to which type of self-regulation is best, enforced self-regulation is more effective as it ensures that the regulators (external stakeholders) monitor compliance through self-evaluation conducted by the organisation (internal stakeholder) under regulation (Gunningham, 2011). Furthermore, it is through enforced self-regulation that governments set a minimum standard, and organisations can be innovative and create bespoke regulation that suits their organisation's processes and culture.

A key principle of responsive regulation is listening to multiple stakeholders, particularly those who are being regulated (Braithwaite, 2011). This includes giving voice to stakeholders, settling on agreed outcomes and how to monitor them, helping individuals find their own motivation to improve, and committing to resolving an issue until it is fixed (Braithwaite, 2011). Therefore, responsive regulation proffers that regulation is collaborative, drawing on the experiences of stakeholders being regulated in order to bring about the desired change. Listening is particularly important in ensuring strategies that make up the enforcement pyramid are based on an understanding of the environment/context being regulated (Ivec & Braithwaite, 2015). Therefore, this highlights the importance of the current research in contributing to preventing betting-motivated corruption. Through the lens of responsive regulation, exploring athlete and support staff perceptions provides insight into what sport governing bodies should consider for achieving compliance and consequently preventing corrupt behaviour.

### 3.1.1 Enforcement pyramid

Responsive regulation's enforcement pyramid aims to achieve compliance among people with all types of motivations (Ayres & Braithwaite, 1992). The pyramid guides regulators on when to punish or persuade individuals. It is a toolbox of strategies starting with cooperative mechanisms at the base of the pyramid, increasing to more punitive mechanisms as regulatees fail to cooperate (Baldwin & Black, 2008). Punitive mechanisms form the top of the pyramid to highlight that they should be used less frequently and, as a last resort, compared to the cooperative mechanisms that form the wider base of the pyramid (Ivec & Braithwaite, 2015).

The cooperative mechanisms are what make modern regulation in the 21st century stand out as they encourage flexibility and assume that all individuals are compliant (Braithwaite et al., 2007). In the literature, the addition of 'cooperative' mechanisms before the onset of punitive 'command and control' mechanisms is suggested to be key to effective regulation (Braithwaite, 2011).

Figure 3.1 represents an example of the enforcement pyramid within an anti-corruption context (Mills, 2008). The pyramid offers six levels and operates on the presumption that strategies lower in the pyramid (i.e., at the base) are prioritised until they fail. Once a strategy fails or is ineffective, escalation up the pyramid occurs to a strategy higher up. From the base of the pyramid to its apex, a range of strategies are available and can be classified as mechanisms that are both preventative (cooperative) through to reactive (punitive) (Sparrow, 2000; Wood et al., 2010). The mechanism levels set out in the enforcement pyramid in Figure 3.1 are commonly found across a range of contexts and align with key strategies that should make up an anti-corruption framework, including risk management; management of and commitment to preventing corruption; monitoring implementation and evaluation of anti-corruption measures; and measures focused on prevention, deterrence, detection, and investigation (Independent Broad-based Anti-corruption Commission, 2014).

Figure 3.1 presents level one at the base of the pyramid, which involves awareness-raising through strategies such as regulatees receiving education and training of the organisation's code of conduct. Escalating up the pyramid are more proactive measures, such as monitoring and checking conflicts of interest/auditing betting accounts at level three, while level four involves reporting systems where regulatees can report corruption, which is consequently investigated (Australian Government, n.d.). The following section explores the prevention of betting-motivated corruption in Australian sport through the enforcement pyramid by discussing six levels of mechanisms. Through this, gaps in the research will be identified to highlight the importance of the present study in exploring the perceptions of athletes and support staff in relation to anti-corruption mechanisms, including reporting corruption, and culture and its impact on compliance.

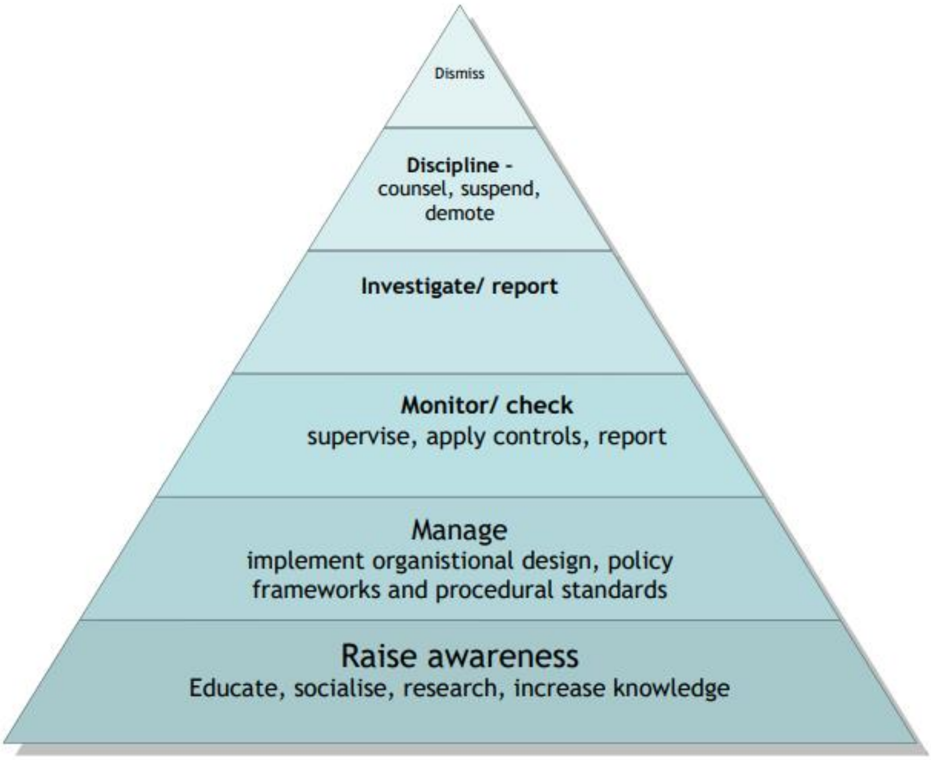


*Figure 3.1. Enforcement pyramid example for an anti-corruption context (Mills, 2008).*

### 3.1.2 Enforcement pyramid: betting-motivated corruption

The regulation of betting-motivated corruption in Australian sport involves sport governing bodies enforcing rules on the teams within their competitions. For instance, the NRL (under the Australian Rugby League Commission) conducts education and undertakes investigations and prosecution of their sport's code of conduct (NRL, 2023a). The subsequent discussion explores each of the levels presented in Figure 3.1 of the previous section for the sports betting-motivated corruption context (see Table 3.1 for a snapshot of each level). In particular, they draw on Australia's National Match-Fixing Policy, which sets out the range of mechanisms Australian sport governing bodies are expected to implement and apply to their sport (Sport Integrity Australia, 2011). Within the subsequent discussion of each enforcement pyramid level, the broader anti-corruption literature will also be drawn on to further highlight the comparability of both regulatory and anti-corruption frameworks.

*Table 3.1. Summary of enforcement pyramid levels applied to the Australian sport betting-motivated corruption context.*

| Level | Purpose | Example strategies |
|---|---|---|
| Level 1: Raise awareness | Develop an ethical culture through awareness raising of policies and procedures set by management. | - Education and training of anti-betting-motivated corruption policies and procedures |
| Level 2: Manage | Commitment of government and sport governing bodies towards preventing betting-motivated corruption through the setting of expectations for sport actors. | - Policies and procedures<br>- Codes of conduct |
| Level 3: Monitor/check | Supervisory function to check if sport actors are complying with regulations and whether anti-corruption measures are achieving their objectives. | - Audits of athlete and support staff betting accounts<br>- Monitoring betting markets for irregular wagers linked to corrupt activity<br>- Conducting evaluations |
| Level 4: Investigate/report | Detecting cases of corruption and subsequently investigating to establish whether disciplinary action is required. | - Monitoring betting markets for irregular wagers linked to corrupt activity<br>- Attaining information through reporting/whistleblowing pathways<br>- Investigation conducted internally by sport governing body<br>- Referral to an external law enforcement agency for investigation |
| Levels 5 and 6: Discipline and/or dismissal | Application of sanctions to deter offenders based on investigation outcomes and the severity of the case. | - Sport-imposed sanctions (e.g., fine, suspension, ban, dismissal)<br>- criminal-level sanctions (e.g., fine, imprisonment) |

#### 3.1.2.1 Level 1: raise awareness

Implementing a range of preventive measures to complement the more punitive and deterrence-based measures towards the apex of the pyramid is important for an anti-corruption strategy to be effective (Choi, 2016; Kuris, 2015). Instead of waiting for cases of corruption to become known, prevention is about being proactive and creating a clean culture that denounces corrupt activity at all levels within an organisation (Morgan et al., 2012). Gorta (1998) states that management has the most significant role in demonstrating the level of ethical behaviour wanted from employees. A key step to creating a clean culture is the adherence to policies and procedures at all levels of an organisation, which establishes the expected standard of behaviour. Drawing on the 'rotten barrels' concept discussed in section 2.2.3.1, ensuring there is a clean culture throughout the whole organisation influences policy and procedure compliance. This is important, as an individual's behaviour can be greatly influenced by their organisation's culture (Gottschalk, 2016). As such, it is imperative to build culture through awareness-raising exercises comprising education and training.

The provision of education and training is an important strategy that complements and raises awareness of policies and procedures aimed at managing corrupt conduct (refer to Level 2: Manage in Table 3.1). de Speville (2010) states that education is an important element of anti-corruption and has an important role in shaping staff behaviour and creating culture. For instance, to prevent police corruption in Singapore, police officers at all levels of the hierarchy must complete 40 hours of training on the code of conduct, police regulation, and government policies and procedures when they are first recruited (Quah, 2006a). Furthermore, police officers then receive training throughout their careers to ensure the core values of integrity and honesty are maintained. Therefore, education is an important element of anti-corruption as it assists in building resilience to corruption and reduces opportunities for illicit behaviour.

Within the betting-motivated corruption literature, similar arguments are made surrounding education. Several scholars suggest that education and training is a fundamental measure for addressing corruption in the sport context and supplements other strategies aimed at deterring individuals, such as moral clauses in contracts, codes of conduct, and lengthy sanctions (Abbott & Sheehan, 2013; Anderson, 2011; Bricknell, 2015; Carpenter, 2012; Forrest, 2012; Moriconi & De Cima, 2020b). Within Australia, the National Match-Fixing Policy also sets out expectations for sport governing bodies that have the ability to conduct self-governing activities and provide appropriate education to its players, support staff, administrators, and other sport stakeholders (Sport Integrity Australia, 2011). Within the existing research base, however, there is a need for more knowledge surrounding athlete and support staff perspectives concerning education aimed at preventing betting-motivated corruption in Australian sport.

#### *3.1.2.2 Level 2: manage*

This level encompasses the implementation of policy frameworks and standards which set the behavioural expectations of individuals being regulated (i.e., athletes and support staff within the sport context) (Mills, 2008). Another important strategy for the success of any anti-corruption approach is to have the commitment of those at the management level of an organisation or government (Meagher, 2005). The literature surrounding anti-corruption in a range of contexts states that commitment at the political level is crucial (Abdul-Gafaru, 2009). For instance, Quah (2006a), in a study analysing the approach taken in Singapore to curb police corruption, found that the commitment of the Singaporean Government was significant in addressing its problem of corruption across the public sector. The same commitment then filters down to stakeholders, and it is through their commitment to engage in anti-corruption efforts that a norm is developed against corrupt activities. In addition, commitment to anti-corruption can be established by setting organisational values as part of strategic plans and visions. For example, Meagher (2005) discusses a range of successful anti-corruption agencies in which their country's governments have established expectations and developed policy that addresses challenges and sets strategies to achieve their vision of eradicating or at least reducing corruption to a minimum.

Existing literature surrounding management commitment to addressing betting-motivated corruption in sport highlights the development of policies by governments worldwide to encourage a coordinated response to the issue within their country (Council of Europe, 2019). Internationally, Australia is argued to be a world leader in betting-motivated corruption prevention. For instance, the Australian Government developed national policies specifically to combat betting-motivated corruption along with the inception of the National Integrity of Sport Unit (NISU) (which is now part of Sport Integrity Australia, formed in 2020) and enhanced gambling regulations (Hume, 2017; ICSS, 2014; Sport Integrity Australia, n.d.). In 2013, cases of betting-motivated corruption in Australian sport and a report of the involvement of organised crime posing a threat to the integrity of Australian sport were the catalysts for the Australian Government to commit to acting against the issue by developing the National Policy on Match-Fixing in Sport (ACIC, 2013; Sport Integrity Australia, n.d.).

The policy imposed on states and territories the need to implement betting-motivated corruption-specific legislation to ensure consistency across the country. The policy provides a strategic framework for a comprehensive approach to tackling the issue and involves a range of stakeholders, such as sporting organisations/governing bodies, government agencies (e.g., gambling regulators, law enforcement, and intelligence agencies), and the betting industry. Internationally, similar policies against betting-motivated corruption have been implemented. For example, Great Britain has the Sports Betting Integrity Action Plan (Sports Betting

Integrity Forum, 2017), and the Member States of the Council of Europe have developed the Convention on the Manipulation of Sports Competitions (Council of Europe, 2014). Each of these policies has a common agenda, which is to coordinate a comprehensive approach to addressing the issue.

Along with governments, sport organisations have shown commitment to self-regulating betting-motivated corruption by setting up integrity units and developing their own policies and codes of conduct. Several sport governing bodies and clubs around the world have set up integrity units in recent years and developed policies specifically addressing betting-motivated corruption (Hume, 2017). Internationally, FIFA has its own integrity unit, which educates athletes and support staff, monitors betting markets for irregularities through its Early Warning System, and investigates corrupt activity (Hume, 2017). Within Australia, integrity units have also been designed by sport governing bodies such as Cricket Australia, Australian Football League (AFL), Tennis Australia, and the NRL to address betting-motivated corruption (Hume, 2017). By establishing these units and developing policies, sport organisations have shown their commitment to addressing the issue in line with national policies and standards set by the Australian Government (Sport Integrity Australia, 2011).

An issue commonly discussed within existing literature is the absence of a central agency that deals with sport integrity issues such as betting-motivated corruption. To address the issue of doping in sport, the World Anti-Doping Agency (WADA) was formed in 1999 and takes a centralised approach to investigation, research, and monitoring across the world (WADA, n.d.). WADA has various affiliate agencies around the world that enforce its prohibited drug code within their national borders. For example, Australia has the Australian Sports Anti-Doping Agency (ASADA). WADA's former Director-General, David Howman, proposed that sport needs a centralised agency like WADA, both internationally and within Australia (with more powers than the previously established NISU), in order to effectively keep up with the increasing threat of betting-motivated corruption (Howman, 2011). Following a review of Australia's sport integrity arrangements in 2019, a central agency called Sport Integrity Australia (SIA) was formed and commenced in July 2020 (SIA, 2020; Wood, 2018). SIA is an amalgamation of ASADA and NISU and addresses both doping and betting-motivated corruption, as well as other types of sport corruption (SIA, 2020).

Overall, level two of the enforcement pyramid involves showing commitment to managing betting-motivated corruption. This includes setting expectations, policy frameworks, and codes of conduct. In the Australian sport context, commitment to managing the issue was represented by the government's introduction of the national match-fixing policy, which set out expectations for sport governing bodies. Additionally, sport governing bodies have demonstrated their commitment to preventing betting-motivated corruption by developing their own anti-corruption policies and establishing integrity units.

#### *3.1.2.3 Level 3: monitor/check*

This level consists of the monitoring and checking of stakeholders by applying controls such as audits and evaluations. The purpose of these strategies is to provide a supervisory function where stakeholders are checked to ensure they comply with regulations (Mills, 2008). This level aligns with the risk management approach within anti-corruption frameworks, which involves identifying weaknesses in an organisation that increase the likelihood of corruption occurring (Independent Commission Against Corruption, n.d.). This proactive approach requires organisations to develop appropriate strategies or 'controls' that can address the identified risks.

For example, to minimise the risk of police corruption, New York Police applicants were screened, background-checked, and their risk of corruption was assessed (Quah, 2006a). A study found that police applicants who scored well in the screening process had the lowest incidence of misconduct, as opposed to those who scored poorly during background checks (Cohen & Chaiken, 1972). The benefits of applying risk management strategies that have worked within the police context could be relevant to the sporting context. For example, adaptation of screening processes (but not as stringent as law enforcement) during the recruitment stage of internal stakeholders could assist sport organisations in identifying individuals who may be at risk of corrupt conduct and be a proactive measure against any potential issues in the future. However, knowledge surrounding the application of risk management strategies within the sport context to manage betting-motivated corruption is limited.

An important element of an anti-corruption framework is monitoring the implementation of strategies and measures followed by evaluating the program's outcomes (Hoppe, 2015). 'Monitoring' is defined as:

> … a continuous function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. (OECD, 2002, p. 27)

Additionally, 'evaluation' means:

> … the systematic and objective assessment of an ongoing or completed project, program, or policy, including its design, implementation, and results. The aim is to determine the relevance and fulfilment of objectives, impact, and sustainability. An evaluation should

> provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors. (OECD, 2002, p. 21)

Webb (2005) suggests that anti-corruption frameworks that do not incorporate a monitoring function are usually ineffective—something that was missing from the United Nations Convention Against Corruption. To further support the importance of monitoring, Meagher (2005) states that the role of monitoring the implementation of the overall anti-corruption framework is a key element to its success.

In relation to the prevention of sports betting-motivated corruption context, monitoring is evident in a range of ways, including the monitoring of betting markets and audits of athlete and support staff betting accounts (Anderson et al., 2014). Furthermore, the current research provides a monitoring and evaluation exercise as it aims to develop insight into the perceptions of athletes and support staff who are affected by betting-motivated corruption regulations.

To detect potential cases of betting-motivated corruption, sport governing bodies internationally and within Australia have information-sharing partnerships with betting agencies (Hume, 2017). In Australia, there is a coalition of major professional and participation sports comprising seven sports: Aussie rules, rugby union, cricket, soccer (football), rugby league, tennis, and netball (Coalition of Major Professional and Participation Sports [COMPPS], 2023). Each of these sports, as well as many other sports in Australia (e.g., basketball), have information-sharing agreements with betting agencies that allow them to receive alerts and information about bets placed on their sports and provide processes to audit betting accounts of their athletes and support staff (Podesta & Thomas, 2017). Alerts are sent to sports regarding irregular bets—which have the potential to be corruption-related—while audits are conducted to ensure athletes and support staff comply with their contractual obligations of not placing bets on their sport (COMPPS, 2017). In instances where irregular betting occurs or when an audit identifies an athlete/support staff member betting on their own sport, sport governing bodies can then proceed to the next level (Level 4 – Investigate/report) if required.

Evaluation is another important function, involving reviewing and monitoring the efficacy of anti-corruption efforts (OECD, 2002, p. 21). A review of the current research evidence highlights a need for further work that explores anti-betting-motivated corruption in Australian sport through the lens of sport actors, such as athletes and support staff. Australian-based literature has predominately explored the issue through legal analysis and case studies (e.g., Bricknell, 2015; Murnane & Moller, 2017; Opie & Lim, 2017; Ordway, 2017). Research conducted by Lastra et al. (2018) is one example out of the limited number of studies that have provided insight into Australian sport's anti-betting-motivated corruption approach from the perspective of athletes and support staff belonging to a range of sports. Therefore, the current study presents an opportunity to expand the knowledge base regarding betting-motivated corruption prevention.

#### *3.1.2.4 Level 4: investigate/report*

At the centre of the enforcement pyramid are mechanisms related to the investigation and reporting of corruption (Mills, 2008). Poerting and Vahlenkamp (1998) state that for the fight against corruption to be effective, corrupt activity needs to be detected in a timely manner, investigated, and offenders punished. However, an issue with corruption is that most cases go undetected and unreported (Larmour & Wolanin, 2013).

The detection of corruption is difficult in comparison to traditional crimes, such as assault, as there is not always an obvious victim (Gottschalk & Smith, 2016). This means it is important for organisations to identify risk areas for betting-motivated corruption. Once the risks are defined, corrupt activity can be detected through a range of measures that are either proactive or reactive in nature. Proactive detection measures can take many forms, such as integrity testing and intelligence-based methods, like undercover operations after receiving intelligence from a source (UNODC, 2004). Conversely, reactive detection measures are complaint-based, where law enforcement starts an investigation after receiving a formal complaint or where information is given through disclosure and reporting requirements, audits, and inspections (UNODC, 2004). UNODC (2004) states that most detection measures are reactive as most corruption investigations are complaint-based.

While reactive and proactive detection strategies within the sport context are unlikely to be extensive, such as the case in law enforcement, a range of sport-specific approaches exists to identify betting-motivated corruption and subsequently trigger an investigation if the reported/detected illicit activity is deemed suspicious (Ellens, 2019; Wolfers, 2006). As previously mentioned, a proactive detection measure involves monitoring betting markets for irregularities (ICSS, 2014). When an irregularity is detected, the relevant sport organisation is notified and an investigation ensues, with law enforcement agencies notified if the sport governing body deems it necessary for further investigation. Reactive detection measures also exist by providing individuals within a sport, such as athletes and support staff, the ability to report corruption confidentially through whistleblowing hotlines (ICSS, 2014). However, while it is known that these detection measures exist, there is limited empirical research surrounding the reporting of betting-motivated corruption by athletes and support staff within Australian sport.

The Wood (2018) review identified detection as an element of Australian sport's anti-corruption approach that requires further enhancement. While detection through the identification of irregular betting trends is well established, it is not the only avenue available for detecting betting-motivated corruption, as athletes, support staff, and other internal stakeholders also play an important role through whistleblowing avenues (Wood, 2018). Therefore, greater insight is needed in relation to reporting athlete and support staff attitudes. It is particularly important to explore the impact of culture on reporting attitudes as it is likely to limit individuals' openness towards disclosing illicit behaviour. Furthermore, a greater understanding of this issue supports the argument posed in the Wood (2018) review calling for greater whistleblower protection (as reporting corruption can lead to being ostracised by colleagues), which is critical for a more robust integrity system. Therefore, identifying irregularities in the betting market, together with the exploration of reporting behaviour of athletes and support staff, would likely contribute to enhancing the detection of betting-motivated corruption.

#### *3.1.2.5 Levels 5 and 6: discipline and/or dismissal*

The final two levels of the enforcement pyramid comprise disciplinary action and dismissal. Being the apex of the enforcement pyramid, punitive measures are put in place to deter potential offenders (Kennedy, 2009). As previously discussed, punitive measures should not be applied in isolation and should involve a multi-pronged approach where preventative strategies are prioritised, and punitive measures are only implemented if the preceding strategies fail (Poerting & Vahlenkamp, 1998).

Sport governing bodies have the ability to sanction (e.g., fines, suspension, or dismissal) athletes, support staff, and the like for violating their anti-betting-motivated corruption rules and regulations (SIA, 2011). In addition, Australia is one of the few countries internationally that has specific legislation to deal with betting-motivated corruption in sport. Between 2011 and 2015, all Australian states and territories introduced new legislation to signify each government's firm stance on the issue. Throughout Australia, betting-motivated corruption is a criminal offence that carries a maximum penalty of 10 years imprisonment for match-fixing and two years for misuse of inside information, demonstrating the seriousness of the crime (Bricknell, 2015). Therefore, sport governing bodies have the ability to apply their own sanctions, and if cases of betting-motivated corruption reach the criminal threshold, they can also refer them to law enforcement agencies for investigation and potentially further sanctions through criminal legislation.

## 3.2 Organisational justice

In the previous section, it was established that the responsive regulation's enforcement pyramid provides a framework for understanding the importance of a holistic approach to preventing betting-motivated corruption through a tiered system of preventative and punitive measures. A concept commonly explored in the regulatory context is organisational justice and, in particular, procedural justice (a component of organisational justice). Research evidence relating to procedural justice has established a link between the theory and stakeholder compliance with rules and regulations. The following discussion explores how organisational justice, and more specifically procedural justice, supports the enforcement pyramid and the overall prevention of betting-motivated corruption. This is particularly interesting, as organisational and procedural justice have primarily been applied to public sector and policing contexts, and their application to the sport context is likely to differ.

Organisational justice refers to how fairly employees perceive they are treated in their organisation in relation to workplace procedures, interactions, and outcomes (Colquitt et al., 2005). First introduced by Greenberg (1987), organisational justice has consistently been linked to employee attitudes and behaviours and can have a negative or positive impact on employee behaviours and organisational success (Baldwin, 2006). Existing research highlights that fairness perceptions positively influence constructs such as commitment to the organisation, employee behaviour, and job performance, as well as address counterproductive work behaviours, hostility in the workplace, and increased employee turnover (Cohen-Charash & Mueller, 2007; Colquitt, 2012; Colquitt et al., 2005; Rupp, 2011). Research evidence on organisational justice demonstrates that the positive influence it has on employee perceptions of fairness within an organisation has a greater impact on positive behaviour than instrumental incentives such as performance rewards and disciplinary action (Quinton et al., 2015). Overall, the perception of fairness is very important within an organisation as it can greatly influence employee behaviours and performance.

Organisational justice consists of three components: distributive justice, procedural justice, and interactional justice (Yean, 2016) (see Figure 3.2). Distributive justice refers to the fairness associated with the allocation of resources within an organisation (Colquitt et al., 2001). In particular, distributive justice is concerned with the allocation of inputs and rewards across an organisation (Quinton et al., 2015). Inputs could be education, training, experience, and effort, while rewards can take the form of wages, recognition, and job security. If an individual believes there has been a fair distribution of benefits, their perception of fairness is likely to be positively affected. However, Baldwin (2006) states that the allocation of resources may not be so intrinsically important as the preceding decision-making process; that is, procedural justice.


*Figure 3.2. Components of organisational justice*

Procedural justice is about the fairness of the decision-making processes that leads to a particular outcome (Colquitt, 2001). For example, previous research has found that compliance can be sought from individuals if they feel they have been thoroughly informed during the decision-making process (Baldwin, 2006; Mazerolle et al., 2013). A more in-depth discussion on procedural justice is presented in the next section (section 3.2.1).

Closely related to procedural justice is interactional justice, which refers to the quality of interpersonal treatment individuals receive from their colleagues and authorities (i.e., managers) when procedures are applied and outcomes are delivered (Colquitt, 2001). Interactional justice comprises two elements: interpersonal and information justice. Interpersonal justice refers to being treated with respect, while information justice is concerned with whether the individual receives timely and adequate information regarding an outcome.

Across the three components that form organisational justice, research evidence suggests procedural justice is commonly associated with having a positive impact on an individual's behaviour, particularly when compared to distributive justice (Quinton et al., 2015; Murphy & Sargeant, 2022; Tyler & Murphy, 2011). Procedural justice has been explored in relation to its relationships between authorities and members of the public in achieving compliance (i.e., Sergeant et al., 2017; Tyler, 2011). There is growing research that focuses on internal procedural justice, which is about focusing on procedural justice that occurs within organisations between the organisation's authority figures and its employees, and how this influences compliant behaviour (Haas et al., 2015; Sargeant et al., 2017). Therefore, it is important to further explore procedural justice and its implications for preventing betting-motivated corruption in sport.

### *3.2.1 Procedural justice*

Essential to building a culture of integrity within an organisation is the practice of internal procedural justice—one component of organisational justice that is associated with compliant behaviour (Bradford et al., 2014; Fotea & Neagoie, 2016, p. 23). Internal procedural justice stems from procedural justice theory, developed in the work of Thibaut and Walker (1975), who found that litigants' satisfaction during dispute resolution decisions was influenced by their perception of fairness in the dispute resolution process. In other words, it is the fairness and equity of decision-making that underlies any given outcome (Donner et al., 2015).

Procedural justice comprises four components, including voice, neutrality, respect, and trustworthiness (Goodman-Delahunty, 2010) (see Figure 3.3). Murphy et al. (2014) state that the first two components (voice and neutrality) relate to how decisions are made and involve input from others. More specifically, *voice* refers to people feeling like they have had the chance to explain their situation or tell their side of the story during encounters with authorities (Sergeant et al., 2017; Tyler, 1990; Tyler & Murphy, 2011). *Neutrality* is concerned with un-biased decision-making based on facts and not influenced by personal opinions or biases (Sargeant et al., 2017; Tyler, 1990; Tyler & Murphy, 2011). The second two components (respect and trustworthiness) are concerned with the fair treatment of people by authorities (Murphy et al., 2014). *Respect* is concerned with people being treated by authorities with dignity and respect, and *trustworthiness* refers to authorities demonstrating trustworthy motives (i.e., the intentions of the authorities) when making decisions (Tyler & Murphy, 2011).

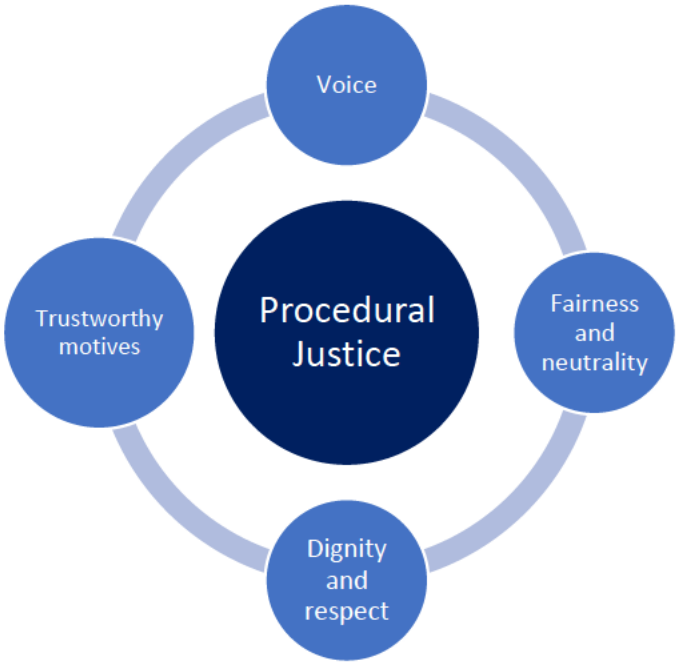


*Figure 3.3. Components of procedural justice*

Since the early work of Thibaut and Walker (1975) on procedural justice, numerous studies have suggested that procedural justice is a means of shaping people's perceptions of an authority's legitimacy, influencing whether they comply with the authority or not (Hinds & Murphy, 2007; Hough et al., 2010; Murphy, 2005; Sunshine & Tyler, 2003; Tyler, 2006). In particular, previous research has explored procedural justice among police–citizen relationships across a range of jurisdictions around the world, finding that public perceptions of police legitimacy are influenced by their perceptions of procedural justice, where police treat people fairly and equally and are transparent in their decision-making (Hough et al., 2010). Overall, research evidence suggests that participants with high levels of perceived procedural justice are more willing to comply with police and the law.

With regard to internal procedural justice, Haas et al. (2015) proposed the term after applying the concept of procedural justice to the organisational context (i.e., a police department). Internal procedural justice reflects the idea that being treated fairly by management will influence police officers to comply with supervisors and organisational regulations (Haas et al., 2015). Consistent with this argument, previous research surrounding police organisational culture and top-down authority suggests that fairness and positive perceptions of the quality of treatment by supervisors/management fosters willingness among officers to comply with instructions (Bradford et al., 2014; Gau & Gaines, 2012; Skogan & Hartnett, 1997). Internal procedural justice influences perceptions of internal legitimacy, which relates to managers treating their employees with the same level of legitimacy (i.e., dignity, respect, and fairness) they expect from them when they deal with the public (Hough et al., 2010; Tyler, 2006). In other words, perceived internal procedural justice may be an important strategy for enhancing individuals' normative compliance with the regulatory environment. However, its application to the sport context is unlikely to be direct due to the different construction of organisational hierarchies compared to the typical top-down structure in policing.

While previous research has examined internal procedural justice within the policing context, its application to sport and compliance with betting-motivated corruption regulation has not been explored. There are several examples of differing expectations of managers and executives within sporting organisations for themselves and their players that suggest that the concept of internal procedural justice could be useful. For example, the Australian Rugby Union governing body bet 300,000 AUD on the Australian team to win the 2015 Rugby World Cup. The bet was placed as ‘insurance’ to cover bonuses each player of the winning team would receive, even though the sporting body prohibits its internal stakeholders from betting on the sport (Pandaram, 2015). This illustrates how organisations can portray conflicting values and expectations that may impact perceived internal procedural justice and the promotion of a culture of integrity.

Furthermore, it is important to note that the construction of organisational hierarchies is different within sport when compared to other contexts in which procedural justice has predominantly been applied (e.g., typical top-down structures) (Hoye et al., 2015). For instance, sport and non-sport organisations both follow the typical staffing pyramid, where senior managers are towards the top, and middle managers and employees fill the middle and bottom portions of the pyramid (see Figure 3.4) (Hoye et al., 2015). However, as shown in Figure 3.4, the key difference between sport and non-sport organisations is that the typical hierarchical structure is reversed, where athletes are typically the ‘centre point’ of the organisation and the highest paid. This is the case for sports at both the elite and sub-elite levels, with the difference being that sub-elite sports typically consist of a large portion of staff being volunteers (Hoye et al., 2015).

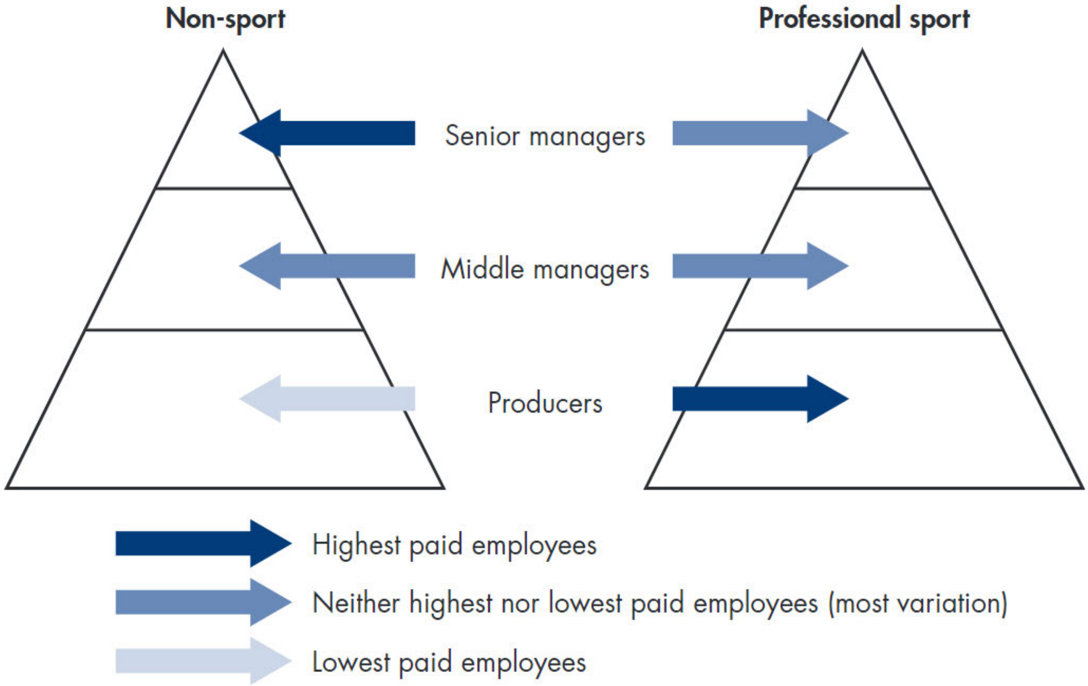


*Figure 3.4. Hierarchy and pay in professional sport versus non-sport organisations*

Sourced from: (Hoye et al., 2015).

Consequently, the application of procedural justice to the sport-based organisational contexts will not be a direct application as the organisational structure is different to the policing context. The different structure and power base within sport organisations, such as athletes having greater influence over management, has the potential to impact elements of procedural justice. Therefore, it is important to explore the impact of procedural justice in the context of preventing betting-motivated corruption in sport and whether it enhances compliance.

Overall, there is limited knowledge surrounding the extent internal procedural justice plays in forming the attitudes of internal stakeholders to comply with regulations surrounding betting-motivated corruption in sport. Internal procedural justice is an important concept that requires greater exploration and is further unpacked within the current research to better understand its effect on compliance within the sport context. Consequently, the review of the literature in relation to regulatory compliance, organisational justice, procedural justice and culture, gives rise to RQ5:

RQ5 How do demographic, attitudinal, and cultural factors influence an individual's willingness to comply with betting-motivated corruption rules?

## 3.3 The present study

A comprehensive review of the literature identified several gaps in the existing research evidence base relevant to betting-motivated corruption. Internationally, there is a dearth of research exploring the perceptions of sport actors (i.e., athletes and support staff) who are regulated by anti-betting-motivated corruption regulations implemented by sport governing bodies and country governments. The majority of research that explores empirical data to understand the perceptions of sport actors in relation to betting-motivated corruption focuses on the European context; similar research is sparse within the Australian context. Exceptions include research by Lastra et al. (2018) and Agnew et al. (2019), studies that have collected primary data from sport actors and explored their perceptions in relation to prevalence, motivational and deterrent factors, and prevention strategies. This is particularly important as the Council of Europe Convention on the Manipulation of Sport Competitions (Macolin Convention; 2014, s5.1), an agreement of which Australia is a part, stipulates the need to identify, analyse, and evaluate risks associated with betting-motivated corruption.

While a handful of studies explore the perceptions of athletes and support staff within Australian sport, there is a significant gap in research surrounding the prevalence of betting-motivated corruption, potential drivers for the behaviour, and reporting behaviour—all of which can assist in better understanding the phenomenon and inform evidence-based prevention strategies. The review also established the importance of exploring all levels of sport, particularly the sub-elite level, which has been identified as being at greater risk of betting-motivated corruption. Furthermore, established concepts and measures from police research relating to corruption, culture, and the code of silence highlight similarities but also differences to sport (e.g., different organisational structures). The literature review identified a number of concepts prominent within policing research, including the integrity scale, procedural justice, and compliance scale, all of which could be adapted to better understand betting-motivated corruption in Australian sport from the viewpoint of sport actors self-reporting their perceptions.

Furthermore, there have been limited studies that have conducted multivariate analyses that control for multiple factors, such as those previously mentioned, for example procedural justice, concepts from the integrity scale, as well as other perceptions. As a result, this calls for a quantitative research approach, which requires a larger sample size compared to previous research surrounding betting-motivated corruption in Australia that has typically involved a small number of participants (e.g., Lastra et al. (2018) had 20 participants). There is, however, one noteworthy study that has been conducted within Australia that used a larger sample size to explore the perceptions of sub-elite athletes from South Australia's Aussie rules football league in relation to sport integrity (Agnew et al., 2019). Agnew and colleagues (2019) surveyed 167 athletes and interviewed six athletes and support staff (i.e., coach and manager); however, betting-motivated corruption covered only a small portion of the study. The remaining research that has explored betting-motivated corruption within Australia has relied on case studies and policy analysis that typically involve smaller sample sizes or limited empirical data (i.e., Bricknell, 2016; Crocker, 2014). Internationally, there are several examples of studies that have utilised large sample sizes. This, therefore, highlights the importance of adopting a research approach that allows for analysing the effect of multiple factors in an individual's perception of betting-motivated corruption, which results in the inclusion of a larger sample size.

In relation to data collection activities, various approaches were identified from international betting-motivated corruption literature and the small number of studies conducted within Australia. A survey approach was identified as most appropriate due to two key reasons: 1) it was most suitable for conducting multivariate analysis, and 2) it provided the ability to assess the perceptions of a larger sample of participants with the most efficiency. Within the overseas context, quantitative research with larger sample sizes (e.g., over 3,000 respondents) has been conducted on betting-motivated corruption within football, such as Harvey and Levi (2014), Frenger et al. (2019), and Trumpyte (2016). However, some studies, such as Frenger et al., who surveyed 425 athletes, still reported their sample size as being a limitation. Nevertheless, such studies with similar sample sizes have not been conducted within the Australian context.

With the focus on perceptions and attitudes of athletes and support staff towards betting-motivated corruption, this study primarily uses a quantitative cross-sectional survey design to conduct a multivariate analysis and control for a range of factors. The literature reviews presented in the previous chapter (Chapter 2) and the current chapter (Chapter 3) identified the following research questions:

- RQ1 How do the perceptions of athletes and support staff in relation to the prevalence of betting-motivated corruption differ between sports?
- RQ2 What is the relationship between demographic factors and individual perceptions of motivational, deterrent, and preventative factors regarding betting-motivated corruption?

RQ3 How do an individual's own perceptions and their organisation's culture impact the attitudes of athletes and support staff towards different vignettes (hypothetical scenarios) of betting-motivated corruption?

RQ4 How do demographic, attitudinal, and cultural factors influence an individual's willingness to report betting-motivated corruption?

RQ5 How do demographic, attitudinal, and cultural factors influence an individual's willingness to comply with betting-motivated corruption rules?

### 3.4 Conclusion

This chapter formed the second section of the literature review and drew on anti-corruption strategies and frameworks relating to contexts within and outside sport. Further, this chapter combined the research questions identified in the previous and current chapter, which this study will address. The next chapter—Methodology—presents the approach that will be taken to address RQ1–RQ5. In particular, it details the process for administering the quantitative cross-sectional survey design and conducting the multivariate analysis to address the research questions.

# Chapter 4: Methodology

This chapter discusses the research design used to address the five RQs identified in the previous chapters:

RQ1 How do the perceptions of athletes and support staff in relation to the prevalence of betting-motivated corruption differ based on demographics?

RQ2 What is the relationship between demographic factors and individual perceptions of motivational, deterrent, and preventative factors regarding betting-motivated corruption?

RQ3 How do an individual's own perceptions and their organisation's culture impact the attitudes of athletes and support staff towards different vignettes (hypothetical scenarios) of betting-motivated corruption?

RQ4 How do demographic, attitudinal, and cultural factors influence willingness to report betting-motivated corruption?

RQ5 How do demographic, attitudinal, and cultural factors influence an individual's willingness to comply with betting-motivated corruption rules?

In addition to describing the research paradigm and cross-sectional research design adopted, this chapter provides a detailed overview of the research context and the rigorous selection process for the two research sites, basketball and rugby league, at the sub-elite levels within Australia. This includes a description of the regulatory context for each sport to explain how betting-motivated corruption is managed at the sub-elite levels. The chapter also outlines the data collection process, particularly the questionnaire that was developed, followed by the processes used to recruit participants and administer the questionnaire. The characteristics of the sample used in the present research are outlined before discussing the analytical techniques applied across the three studies to address the RQs. The chapter also includes a discussion of the steps taken to maintain rigour in terms of reliability and validity, consideration of the ethical implications, and limitations of the current design.

## 4.1 Positivist research paradigm

The current research adopted a positivist research perspective to guide how betting-motivated corruption is investigated. Positivism suggests problems can be observed and explored through statistical analysis to identify causal relationships (Creswell, 2008). A key assumption is viewing the world with scientific objectivity (Guba & Lincoln, 2011). The positivist paradigm relies on the perspective that knowledge is produced through measurable observations of a phenomenon (Guba & Lincoln, 1994; Creswell, 2008). Therefore, this research adopts a positivist perspective in exploring the perceptions of athletes and support staff in relation to betting-motivated corruption.

## 4.2 Cross-sectional research design

The current research utilised a cross-sectional design relying on quantitative questionnaire data to explore stakeholders' perceptions of and attitudes towards betting-motivated corruption. This research approach is a well-established method used in corruption studies, both within and outside sport (e.g., police corruption research) (Agnew et al., 2018; Engelberg et al., 2012; Frenger et al., 2019; Porter et al., 2015; Trumpyte, 2016; Wolfe & Piquero, 2011). Empirical research on betting-motivated corruption in sport is also important in order to develop evidence-based prevention strategies (Vodde, 2013).

The cross-sectional quantitative design enables the researcher to test existing concepts (i.e., concepts from other contexts such as policing) through deductive research, establish relationships, as well as identify patterns from the data (inductive research) (Bryman, 2016;

Gray, 2013). Furthermore, the research design allows the researcher to examine associations and cause-and-effect relationships between variables, an activity that aligns with the current research objectives (Babbie, 2011).

Adopting a quantitative approach for this research was primarily driven by the need to provide a broader empirical foundation around betting-motivated corruption. As noted by Vanwersch and colleagues (2022) in their scoping review, literature-based approaches are common in research on sports integrity (accounting for two-fifths of the studies that they identified). Feasibility was also a factor. the benefits of a qualitative approach (such as interviews) or a mixed methods approach were originally considered. However, there were considerable access and time constraints that reinforced the selection of a quantitative approach. The use of a quantitative approach meant that the study had:

- the ability to use existing measures from criminology and other corruption contexts, particularly scenario/vignette-based questions which have been effective in questioning individuals about corruption/integrity related issues (Klockars et al., 1997).
- the ability to involve larger sample sizes, which in turn enable greater generalisability of findings to the general population (Bryman, 2016).
- enhanced replicability, scalability and objectivity through questionnaires (Bryman, 2016).
- better suited the schedules of time-poor athletes and staff, enabling the researcher to survey as many participants as possible within the given time frame (Jerrim & de Vries, 2015).
- the ability to examine associations and cause and effect between variables (Babbie, 2011).

- Policy makers and key decision makers are drawn to findings derived from quantitative approaches, in comparison to qualitative methods (which is important in presenting the practical implications of the current research) (Jerrim & de Vries, 2015).

Figure 4.1 provides an overview of the research design, including the three studies and their corresponding RQs, data collection method, sample, and data analysis technique. For instance, As seen in Figure 4.1, Study One addresses RQ1 and RQ2 through the administration of a questionnaire to athletes and support staff. The questionnaire data were analysed using the *z*-test and chi-square tests. Furthermore, Study Two addresses RQ3 and Study Three addresses RQ4 and RQ5 through t-test and OLS regression of the questionnaire data. Details about each study's data, sample, and analytic approach are provided later in this chapter.

Overall, the cross-sectional design accommodated certain constraints specific to the sport context, including training and competition commitments of sport teams, seasonal variations, and constantly changing teams, particularly at the sub-elite level. A quantitative design using questionnaires allowed for the efficient capture and generation of insights regarding sport stakeholder perceptions while maintaining anonymity and an adequate response rate (Jones et al., 2013). Further discussion in relation to the selected sports (research sites) and the questionnaire used to collect data is presented in the following sections.

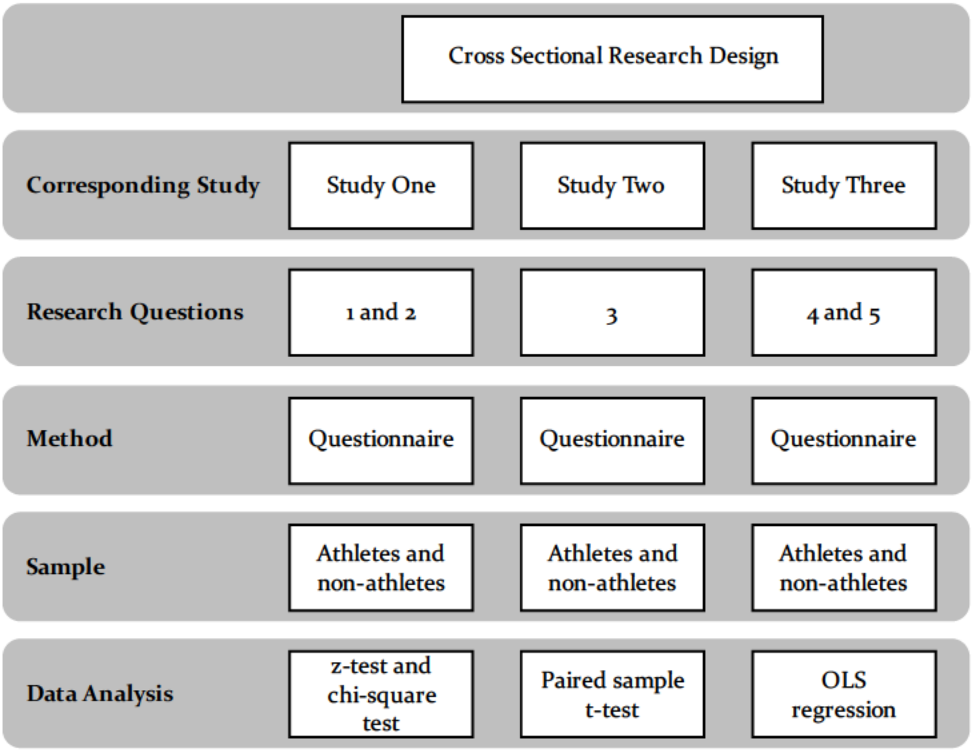


*Figure 4.1. Overview of research design*

## 4.3 Research context

Substantial diversity exists in sport, such as international and domestic profiles (e.g., televised or non-televised or live-streamed, paid or un-paid athletes/support staff), the popularity and commercialisation of elite–level competitions, available gambling markets, and gender composition. The high degree of diversity, variability, and vulnerability of sport in a post-COVID-19 landscape provides an important context for betting-motivated corruption and its prevention (Karg et al., 2021). While the data collected in this research is situated in a pre-COVID-19 context, lessons drawn from the data can inform approaches and responses to betting-motivated corruption in a post-pandemic world. This research explores betting-motivated corruption from the perspective of basketball and rugby league in Australia, adding to the limited body of research exploring betting-motivated corruption in sports outside of football (soccer), the most commonly studied sport (Vanwersch et al., 2022), as well as within

Australia, particularly at the sub-elite level. The purpose of this section is to detail the selection process taken to demonstrate rigour in the selection of the two sports (i.e., research sites).

### *4.3.1 Selection of research sites (sports)*

The current research focuses on sports that pose a high risk or emerging risk of betting-motivated corruption in the Australian context. For instance, although football (soccer) is a high risk internationally, Rugby League—one of the most popular sports in Australia but not internationally—has a higher risk in this context, as evidenced by several betting-motivated corruption scandals (ICSS, 2014; Bricknell, 2015). To control for the differing competition contexts, the pool of sports was restricted to team sports, ensuring comparing similarly structured sports.

To select team sports for the research, purposive sampling—a non-probability sampling technique—used used (Bryman, 2016; Yin, 2017). Non-probability sampling is often used to explore issues that do not permit probability sampling, which is typically expensive and used in large-scale surveys where randomisation is achievable (Babbie, 2015). The sampling technique is best suited to the conditions of the current research, including the exploration of an issue that is hidden, not widespread, involves a difficult-to-reach population, and is exploratory (Babbie, 2015). Punch (2005) defines purposive sampling as the deliberate and justifiable selection of research sites that will address the research questions. Purposive sampling was operationalised as a two-stage process: (1) shortlisting sports based on set criteria; and (2) selecting sports to be explored for the current research.

Stage one involved assessing various organised sports played in Australia against predetermined criteria. Drawn from a review of the literature, the criteria, consisted of the level of risk of corruption; the presence of established betting markets; and characteristics of the sport, including its popularity within Australia, and if their competitions are televised. The key aim was to identify team sports that had a significant or established risk of betting-motivated corruption and an available betting market in the Australian context. The criteria are set out in Table 4.1.

Table 4.1. Criteria for shortlisting sports.
Adapted from (ICSS, 2014, p. 76).

<table>
<tr><th>Criteria</th><th>Details</th></tr>
<tr><td>Risk of corruption</td><td>Level of risk—based on the Protecting the Integrity of Sport Competition report's classification of sports' risks of manipulation, which defines three levels of risk (ICSS, 2014):<br>- Group One (significant or established risk)<br>- Group Two (low risk of manipulation)<br>- Group Three (very low risk)<br>For the purpose of the research, sports of significant or established risk were preferred (Group One).</td></tr>
<tr><td>Betting market availability</td><td>Emerging or established betting market—related to the potential sport having an established betting market where punters can place bets on matches played. We evaluated the availability of a betting market by assessing what is available at the sub-elite and elite levels of competitions of potential sports in Australia using Sportsbet, a popular online sports betting website. Sports were classified as either having an emerging or established betting market based on the Protecting the Integrity of Sport Competition report's classification (ICSS, 2014, p. 76).</td></tr>
<tr><td>Characteristics of the sport</td><td>The fourth criterion encompassed the characteristics of potential sports and was key in determining variations between sports. Under this criterion, sports were assessed in terms of:<br>o Popularity—is the sport popular mainly within Australia (domestic) or internationally based on participation rates?<br>o Gender make-up—is the sport male- or female-dominated, or mixed? This criterion was included due to the increasing professionalisation of women's sports and whether gender played a role in individual perceptions.<br>o Competition is televised or live-streamed over the internet.</td></tr>
</table>

In completing stage one, various sports met the predetermined criteria and were short-listed, including Australian rules football (Aussie rules), basketball, cricket, football (soccer), netball, rugby league and rugby union (see Table 4.2).

*Table 4.2. Analysis of sports using criteria.*

| Criteria | Rugby League | Rugby Union | Aussie Rules | Cricket | Netball | Football | Basketball |
|---|---|---|---|---|---|---|---|
| Betting/corruption criterion | | | | | | | |
| An at-risk sport (significant or established risk) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Competition with available betting market (emerging or established) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sport characteristics | | | | | | | |
| Popularity – *internationally (int.)* or *domestically* | Domestic | Int. | Domestic | Int. | Domestic | Int. | Int. |
| *Televised and/or live streamed* | Both | Both | Both | Both | Both | Both | Both |
| *Male-* or *female-dominated* | Male | Male | Male | Male | Female | Male | Male |
| *Team-based* or *individual sport* | Team | Team | Team | Team | Team | Team | Team |
| *Televised or live streamed* | Both | Both | Both | Both | Both | Both | Both |

Stage two focused on access to undertake the research with athletes and support staff. The researcher's previous experience and anecdotal accounts suggested gaining access to sports can be difficult without the use of existing sport contacts (Lastra et al., 2018). To assist with gaining access, the researcher relied on assistance from the Queensland Academy of Sport (QAS), a government-funded elite sporting body which provides leading high-performance sport environment for Queensland[4] (QAS, 2023). This allowed the research to leverage QAS' networks within the Australian sport industry. In particular, QAS assisted in contacting key personnel in the sports shortlisted in stage one and sent invitations to recruit athletes and support staff. In other words, the selection of the sports to be included in this research was dependent on the relevant sport governing body supporting the research and allowing access to their athletes and support staff.

The recruitment of sports for the current research followed approved ethical procedures and was a lengthy six-month process. The recruitment process included:

1. Correspondence sent by the QAS on behalf of the researcher to state and national sport governing bodies for the shortlisted sports (e.g., Basketball Australia (BA) and NRL).
2. Interested sports replied directly to the researcher via email, acknowledging their willingness to participate.
3. The researcher followed up with each sport that acknowledged its willingness to participate in the research.
4. The researcher sought confirmation of the sport's participation and provided details about the questionnaire for data collection through in-person meetings with key stakeholders.

The recruitment of sports occurred over multiple months as step four was a key relationship-building phase between the researcher and management of the interested sport governing bodies. The researcher presented research proposals to gain the interest of sport governing

[4] The organisation supports Queensland's current and emerging elite athletes through expert knowledge, high-performance coaching, specialist services, and world-class facilities (QAS, 2023).

bodies, as well as devising plans of when data collection would be most suitable for athletes and support staff. For instance, during initial discussions, many of the sports were approaching the final rounds of their competition season, and sport governing bodies preferred to wait until the off-season for enhanced receptiveness to the research project from teams and to ensure minimal disruption. Overall, the various sports shortlisted did show interest in the research and considered integrity as a key priority for their competitions. Despite several sports showing an interest in the research, time constraints precluded the inclusion of all sports. Consequently, two sports—basketball and rugby league—were selected based on their ability to provide timely support and access to research participants; that is, their athletes and support staff.

Rugby league was the first sport to respond and be included in the research (see section 4.3.2 for an introduction to rugby league in Australia). In particular, the NRL and Queensland Rugby League (QRL) governing bodies assisted in accessing athletes and support staff within the national elite-level competition (managed by NRL) and the Queensland state-based sub-elite competition (managed by QRL). These competitions were selected due to being conveniently accessible to the researcher while meeting the predetermined criteria for shortlisting sports.

While data collection was underway within rugby league, BA agreed to provide access to athletes and support staff from their sub-elite Queensland Basketball League (QBL) and South East Australia Basketball League (SEABL) competitions (now amalgamated into NBL1 competitions in 2019; see section 4.3.2 for an introduction to Australian basketball). Similar to rugby league, these competitions were selected due to being conveniently accessible to the researcher while also meeting a set of predetermined criteria for shortlisting sports (see Table 4.3).

*Table 4.3. Case study site selection criteria.*

| Criteria | Rugby league | Basketball |
|---|---|---|
| Betting/corruption criterion | | |
| An at-risk sport (significant or established risk) | ✓[1] | ✓[1] |
| Competition with available betting market (emerging or established) | ✓[2] | ✓[2] |
| Support by sport governing body | | |
| Sport governing body supports research and will assist in accessing athletes and support staff | ✓ | ✓ |
| Sport characteristics | | |
| Popularity – *international* or *domestic* | Domestic | International |
| *Male-* or *female-dominated* | Male | Male |
| *Team-based* or *individual sport* | Team | Team |

[1] Significant risk (ICSS, 2014, p.76); [2] Established risk (ICSS, 2014, p.76)

Thus, the research focused on the sports of Rugby League, a very popular, highly commercialised national sport with documented betting-motivated corruption scandals (Bricknell, 2015), and Basketball, a sport with growing popularity and commercialisation nationally which has been identified as having the next biggest risk in Australian sport (ICSS, 2014; Ward, 2017). These sports are described in more detail below.

### 4.3.2 Research site: rugby league

Rugby league is a popular team sport in Australia, comprised of grassroots (junior) competitions to sub-elite state competitions, such as Queensland and New South Wales HostPlus Cups, to the top-level competition, the NRL and National Rugby League Women's (NRLW) (NRL, 2019a). In Australia, the sport is governed by the Australian Rugby League Commission; however, the elite-level competition is governed by the NRL, and the sub-elite competition in the State of Queensland is governed by Queensland Rugby League (NRL, 2019a; QRL, 2019a).

In 2019 (pre-COVID-19), the NRL was one of the most-watched sports in Australia, generating over A$552 million in revenue, with approximately A$103 million generated from sponsorship and the betting market alone (NRL, 2019c). Of note, the NRL competition experienced reductions in revenue during COVID-19 (2020) as a result of lockdowns around Australia and temporary disruption to season fixtures (NRL, 2019c). Both the elite-level NRL and NRLW and sub-elite QRL competitions are televised and live-streamed online, suggesting rugby league's greater profile at the professional level compared to basketball within Australia (Samios & Chammas, 2021). This is also indicated by rugby league being one of seven sports on Australian Sport's Coalition of Major Professional and Participation Sports (2023),[5] of which basketball is not part. Rugby league at the sub-elite level has previously undergone a growth period, with a larger investment in and recognition of the state sub-elite-level competitions as a direct pathway to the elite competition (Foxsports, 2016).

To address occurrences relating to betting-motivated corruption, the NRL has its own dedicated integrity unit, which was established in 2013. This unit conducts investigations into suspected cases of corruption and misconduct among players and staff who have signed an NRL contract (NRL, 2013). Being the top-level competition, the NRL sets the rules around betting-motivated corruption, which are also adopted by the sub-elite competitions (e.g., HostPlus Cup in Queensland) (QRL, 2019b). The NRL contract stipulates that players or staff members involved in sub-elite- or elite-level competition cannot bet on rugby league played anywhere in the world or engage in activity that has the potential to affect the game's integrity (e.g., match-fix, spot-fix, or misuse inside information) (NRL, 2019b).

[5] COMPPS consists of the national organisations that are the custodians of Australia's most prominent professional sports: tennis, football, cricket, rugby union, netball, rugby league and Aussie rules.

In rugby league's NRL competition, there have been a number of high-profile cases of spot-fixing and match-fixing. For example, Canterbury Bulldogs player Ryan Tandy was convicted of spot-fixing that was allegedly linked to organised crime (Davies, 2011; Welch, 2014), and Wests Tigers player Tim Simona was banned for betting on matches for personal gain (Chammas, 2017). Further, allegations of match-fixing in multiple games in the 2015 NRL competition were reported, also with potential links to organised crime (McClymont, 2016). With the popularity of rugby league in Australia and its history of suspected betting-motivated corruption, it is apparent that the sport is a fitting research site for the present study.

### 4.3.3 Research site: basketball

Basketball is a team sport that is regarded as one of the most popular sports in the world in terms of participants and spectators (State of Victoria, 2019). Compared to rugby league, which is popular at the domestic level in Australia, international basketball is far more common in terms of participants and followers (Sports Show, 2021). This is highlighted by almost four times more countries in the men's world rankings for basketball (161) compared to rugby league (51) (FIBA, 2023; International Rugby League, 2023).

In Australia, basketball comprises male and female grassroots (junior) competitions, state sub-elite competitions (e.g., QBL, former South East Basketball League (now NBL1)) and the elite-level National Basketball League (NBL) and Women's National Basketball League (WNBL) competitions (Basketball Australia, 2019a). The elite men's competition (NBL) is televised and live-streamed; however, the remaining competitions, including the elite women's WNBL and sub-elite competitions, are live-streamed only (one game each per week) (QBL, 2019; SBS, 2019). In Australia, the sport is governed by BA. In terms of participation, basketball is ranked

7th in Australia's top 10 sports, with 779,635 adult participants (15 years and older) annually (Sport Australia, 2020). Conversely, rugby league has 171,300 adult participants annually (Sport Australia, 2020). Prior to COVID-19, BA (2020) reported an annual revenue of over A$21 million during their 2019 season (wagering revenue unavailable). While it is unknown how much revenue was generated from the betting market, in 2018, BA (2018) reported approximately A$16 million in revenue, with approximately 582,000 AUD generated from wagering. This highlights that despite basketball's popularity in terms of participation, rugby league is more commercialised based on both overall revenue and wagering income (i.e., rugby league generated over 80 million AUD in revenue from wagering and sponsorship in 2019) (NRL, 2019). Basketball, however, is in its own growth period, where the sport's elite competition is becoming increasingly popular, and gambling is increasingly being offered on sub-elite matches, therefore increasing the risk of betting-motivated corruption (Ward, 2017).

Historically, basketball in Australia has received limited attention in terms of cases of betting-motivated corruption; however, several international cases have occurred over the years, prompting Australian authorities to label the sport in Australia as being at risk of corruption (Ward, 2017). The increasing risk of betting-motivated corruption saw the BA implement a national integrity framework (Ward 2017; BA, 2019b). Overall, the inclusion of Australian basketball in this present research provides an interesting comparison of a sport that is more popular internationally and is still growing within Australia, to a sport that has a well-established elite competition within Australia (i.e., rugby league).

### *4.3.4 Regulatory context of sport*

In Australia, the National Policy on Match-Fixing in Sport (National Policy) provides the framework for Australian sports and their governing bodies for regulating behaviour related to betting-motivated corruption (SIA, 2011). Introduced by the Australian Government in 2011, the National Policy aims to demonstrate the government's commitment to addressing issues of betting-motivated corruption and protecting the integrity of Australian sport (SIA, 2011). The National Policy sets integrity benchmarks sports must meet to receive government funding. It is for this reason that most Australian sports have policies in place to address betting-motivated corruption that meet or exceed the standards set by the National Policy. Both sports explored in this research receive government funding and therefore have implemented policies to meet the integrity standards set out in the National Policy.

Given the presence of a national framework, it is not surprising that similar themes exist in the policies and regulations adopted by the basketball and rugby league governing bodies. In both sports, athletes and support staff are prohibited from betting on their own sport, manipulating matches and misusing inside information for financial or personal gain (BA, 2019b; NRL, 2019b). Both sports also have integrity units dedicated to enforcing anti-betting-motivated corruption policies, but they differ in their capacity. Rugby league, being a higher-profile sport within Australia, established a dedicated integrity unit as well as their own policies against betting-motivated corruption much earlier than basketball in 2013 (NRL, 2013; Ward, 2017). Further, its integrity unit has a greater capacity to enforce its policies and conduct its own investigations. Basketball, on the other hand, introduced its own anti-betting-motivated corruption policies and established a smaller integrity unit in 2017 (Ward, 2017). Both sports, however, have the capacity to monitor betting markets to detect suspicious bets being made on matches, which are then investigated internally or referred to relevant law enforcement agencies (Basketball Australia, 2019b; NRL, 2019b).

When the National Policy was introduced in 2011, the Australian Government directed that all states and territories introduce laws that criminalised betting-motivated corruption (Thorpe, 2014). While there are minor variations across the states and territories regarding their maximum penalties, the laws in the State of Queensland illustrate the level of severity of the behaviour, which is reflected in the legislation. For instance, individuals who are proven to match-fix or spot-fix (manipulation of the end result or aspects of a match) can receive a maximum of 10 years imprisonment, while the intentional misuse of inside information for personal gain has a maximum of two years imprisonment (*Criminal Code Act 1899* (Qld) s443.). Overall, the key theme is that betting-motivated corruption is prohibited in both sports in accordance with Australia's National Policy, as well as in adherence to criminal legislation in Australia.

## 4.4 Data collection

This section provides a detailed overview of the questionnaire and participant recruitment, followed by an explanation of the questionnaire administration methods. The research sample, data-screening process, and characteristics of the sample are also outlined.

### *4.4.1 Questionnaire*

Questionnaire data were collected from athletes and support staff using an anonymous multiple-choice questionnaire developed by the researcher. Anonymising the questionnaire was important for a number of reasons, including the sensitive nature of the topic, the code of silence likely to exist within sport, and the fact that being able to link back to respondents would greatly reduce response rates (UNODC, 2018). Furthermore, assuring participants that their responses cannot be identified has been recommended by corruption researchers as a technique to enhance both response rates and data quality (Gorta, 2013). Anonymity was also important in protecting respondents in accordance with Griffith University Research Ethics guidelines. These details were outlined by the questionnaire information sheet, which was attached to the front of each questionnaire (see Appendix A).

The choice to present multiple-choice answer questions ensured that the questionnaire was easy to follow and took minimal time for respondents to complete. The questionnaire comprised five sections: demographics, views towards betting-motivated corruption, responses to hypothetical scenarios, perceptions of procedural justice and compliance, and social desirability. Each of these sections was informed by the review of previous literature on sports. Further, questions and measures were drawn from corruption and integrity research within the policing context, including the integrity scale (Klockars et al., 1997) and procedural justice and compliance measures (Sargeant et al., 2017). Adapting existing questionnaires and measures for use in the current research ensured that tried and tested instruments were used and validity and reliability were maintained—an important criterion that judges the trustworthiness of quantitative research findings (refer to section 4.6 for more detail). Further discussion of the questionnaire is presented in the following sub-sections. Overall, respondents were presented with 71 questions, which took 10 to 15 minutes to complete.

#### *4.4.1.1 Section 1: demographics*

Section one of the questionnaire consisted of six demographic questions relating to age, gender, athlete or support staff status, sport, sport level (e.g., elite or sub-elite), and length of time spent in current role. The demographic questions allowed for analysis of responses in relation to specific characteristics and attributes (e.g., male or female, what sport they were involved in and at what sporting level).

#### *4.4.1.2 Section 2: perceptions of betting-motivated corruption*

Section two of the questionnaire adapted the FIFPro Questionnaire, which was previously distributed to over 3,000 soccer athletes throughout Europe (Harvey & Levi, 2014). The FIFPro Questionnaire asked athletes in European soccer a number of questions about their perceptions regarding the occurrence of betting-motivated corruption within their competition, views towards education, motivational and deterrent factors, reporting, and gambling (Harvey & Levi, 2014). To meet the current study's research objectives, the FIFPro Questionnaire was modified to include support staff and each of the different aspects of betting-motivated corruption, specifically match-fixing, spot-fixing, misuse of inside information, and individual betting activity on their own and other sports. Examples of questions that were presented include, 'In the last 12 months, have you suspected match-fixing within your sport?' and 'Would you ever confidentially report a suspicion of betting-motivated corruption?' (Harvey & Levi, 2014, p. 11). These questions were important in understanding individual perceptions of betting-motivated corruption within both sports. For further details on the FIFPro Questionnaire that was adapted for this research, see the relevant results chapter (Chapter 5), as well as Appendices B and C for the complete set of questions.

#### *4.4.1.3 Section 3: hypothetical scenarios*

In section three of the questionnaire, respondents were presented with four scenarios of betting-motivated corruption of varying seriousness, with 1 being lower in seriousness to 4 being the most serious: (1) betting on your own sport, (2) misusing inside information, (3) spot-fixing, and (4) match-fixing. For instance, the low-level scenario involved an athlete or support staff members betting on their own games, while the high-level case of betting-motivated corruption involved premeditated match-fixing. For each scenario, respondents self-reported their own perceptions as well as what they thought the majority of their colleagues would think in relation to the following constructs, which are adapted from the integrity scale (Klockars et al., 1997):

seriousness, reporting, disciplinary action, and whether the scenario is a violation of official policy. Essentially, for each scenario, respondents gave their own view, as well as insight into their sport's culture in relation to the aforementioned constructs. For instance, in each scenario, respondents were asked how serious they thought the situation was and then asked how serious they thought their organisation or club would view the scenario. For further details on the scenarios and integrity scale adapted, see the relevant results chapter (Chapter 6), as well as Appendices B and C for the complete set of questions.

#### *4.4.1.4 Section 4: procedural justice and compliance*

The fourth section of the questionnaire comprised the procedural justice and compliance scales adopted from previous research within the policing context conducted by Sargeant et al. (2017). Respondents reported their views of procedural justice by their sport's governing body, as well as their compliance with policies set out by their sport governing body and their own organisation/club. Procedural justice was tested through five questions and Likert-scale responses (1 = *strongly disagree* to 5 = *strongly agree*). For example, respondents were asked to rate how strongly they agreed with the statement 'My governing body treats people with respect' or 'My sport governing body listens to people before making decisions.' Similarly, compliance was also tested through four questions and Likert-scale responses (1 = *strongly disagree* to 5 = *strongly agree*). Two of the four items measured 'hard compliance', such as 'I comply with my sport's policies even if I think they are wrong,' and two items measured 'soft compliance', such as 'I do what my sport governing body ask me to do.' The four compliance items were posed in two different ways: compliance with the respondent's sport governing body and compliance with their own organisation/club policies.

#### *4.4.1.5 Section 5: social desirability*

The final section of the questionnaire comprised the Brief Social Desirability Scale (BSDS; Haghighat, 2007). This was included due to the limitation of self-report surveys where respondents can potentially provide responses that are considered socially desirable. Therefore, the BSDS was used to assess whether respondents provided socially desirable answers within the questionnaire. The BSDS comprises four questions to which respondents answer 'Yes' or 'No': 'Would you smile at people every time you meet them?'; 'Do you always practice what you preach to people?'; 'If you say to people that you will do something, do you always keep your promise no matter how inconvenient it might be?'; 'Would you ever lie to people?' Combing the questions gives respondents a score from 0 to 4, with higher scores indicating a greater chance that the respondent provided socially desirable responses.

### *4.4.2 Recruitment process*

The target population was sub-elite athletes and support staff (namely, support personnel, coaches, administrators) involved in Australian basketball and rugby league. A purposive sampling technique was used to recruit athlete and support staff respondents, where the sport governing bodies for sub-elite levels of each sport facilitated the recruitment process. Considering the research was related to a sensitive topic, support from the governing bodies of each sport was beneficial as teams were more receptive to the concept of participating in the research and contributing to maintaining their sport's integrity.

### *4.4.3 Administration of the questionnaire*

Questionnaires were disseminated to athletes and support staff during the pre-season period for both sports between December 2017 and April 2018. Dissemination during pre-season was advantageous as teams had fewer time constraints compared to during the season and therefore were more willing to participate. Participant recruitment involved two stages. The first stage involved sport governing bodies emailing a link to an online format of the questionnaire to all teams. Unfortunately, stage one resulted in a small number of responses (less than 1% response rate for both sports), comprising one respondent from rugby league and 54 from basketball.

Greater response rates were evident in the second stage when the governing bodies contacted teams individually to allow the researcher to administer the questionnaire in-person at team training locations 30 minutes before a training session. In particular, BA invited sport teams from the Queensland (QBL) and Victorian (formerly SEABL, now NBL1) sub-elite competitions, while QRL invited teams from their sub-elite competition (Intrust Super Cup). The researcher sent follow-up emails to the sport teams if responses were not received after the initial email invitation.

The researcher attended training locations for both sports across the Brisbane and Gold Coast regions of Queensland, Australia. On a few occasions, a suitable time during training could not be scheduled. In these cases, the unavailable team was reminded of the online questionnaire to complete at their leisure. The researcher also attended a weekend pre-season basketball tournament in Geelong (Victoria, Australia) to administer the questionnaire to the team during a 15-minute block break-out session during the tournament.

The in-person administration of the questionnaire involved a questionnaire pack being provided to each respondent. Each pack contained an information sheet detailing key aspects of the study, the risks and the steps taken to manage anonymity, the questionnaire itself, and a separate envelope if they wished to enter the prize draw to win one of five $100 shopping vouchers. The separate envelope ensured anonymity by separating prize draw entries from the questionnaire responses and was in accordance with the Griffith University Research Ethics Manual. The online version of the questionnaire provided respondents with the same material as the in-person pack, with the difference being its interactive electronic form. For the prize draw entry, respondents were redirected to a separate electronic form to maintain anonymity.

The prize draw was drawn at the conclusion of the data collection period by assigning each entrant a number and picking out five numbers using a random number generator. Winners were notified through the email contact information they provided when completing the questionnaire. The prize draw incentive was approved by Griffith University's research ethics committee (see section 4.7), including the procedures implemented to ensure questionnaire responses remained anonymous and prize draw entries remained separate. In accordance with the Griffith University Research Ethics Manual and ethics approval conditions, after completing the questionnaire, participants were presented with a separate form to register for the prize draw (refer to section 4.7 for further details).

Accordingly, stage two resulted in an increased number of responses than stage one, with 254 questionnaires completed, at a response rate of 96%.[6] Overall, 309 questionnaires were completed, with more than 80% of respondents included in this research completing the questionnaire in-person. The main reasons for the non-completion of the paper-based questionnaire include potential respondents being under 18 years of age and not eligible to complete the study or they had already completed the questionnaire online.

[6] The 96% response rate is based on the dissemination of 265 questionnaires in-person and having 11 questionnaires returned due to the respondents being underaged or already completing the online version.

Participation rates[7] were estimated based on sport participation numbers in sport competitions and derived based upon the average number of players in a squad multiplied by the number of teams listed in annual reports and websites for the relevant sub-elite competitions played in 2018 (QRL, 2018; SEABL, 2018). The following paragraphs detail the participation rates for each sport. While the participation rates presented below are low, the current research provides an important contribution to the evidence base regarding perceptions relating to betting-motivated corruption.

From a basketball perspective, there are 30 teams in Queensland (15 men's, 15 women's) and 32 teams in South East Australia sub-elite competitions (16 men's, 16 women's). In each team, a conservative estimate of 15 players per squad and five support staff (20 in total) was made. This equates to a potential basketball population of 1,160 participants. Therefore, the participation rate for basketball in the current study is 18% (based on 205 participants).

In relation to rugby league, during the data collection period there were 14 teams within the Queensland sub-elite competition, with squads of approximately 30 players and ten support staff (conservative estimates). This suggests that the sub-elite competition population that was included in this study comprised 560 individuals, which indicates the rugby league participation rate for this study is 18% (based on 104 participants).

### 4.4.4 Research sample

Initial screening of the 309 completed questionnaires revealed a small number of respondents (*n*=11) who had completed less than 50% of the questionnaire. These respondents were

[7] The percentage of people eligible from the sport population who participated in the research.

excluded from the analysis. Consequently, there were 298 questionnaire respondents included in the final sample. Figure 4.2 presents the key characteristics of the sample. Of note, the majority of respondents were male, involved in basketball at the sub-elite level, an athlete and under 25 (18–24) years of age. Furthermore, there were more respondents who reported having over 3 years of experience in their current role. It is important to note that basketball respondents were associated with sub-elite competitions based in Queensland (i.e., QBL) and Victoria (i.e., SEABL), now known as NBL1 competitions. Meanwhile, rugby league respondents were associated with the Queensland sub-elite competition (i.e., HostPlus Cup). Of note, some participants included in the research are from the elite level; however, they make up only 16% (*n*=49) of the total sample. The inclusion of elite-level athletes and support staff was unavoidable as they can also be involved in the sub-elite level if they are not in the starting team for the elite-level competition.[8]

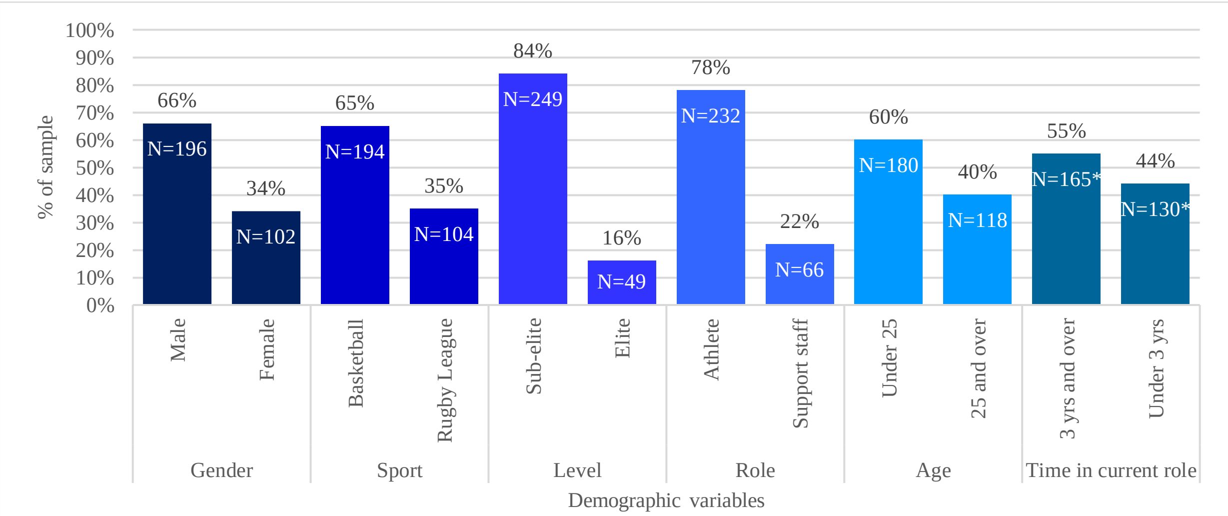


*Figure 4.2. Sample Characteristics*

*N* = 298

*****There were responses missing for length in role.

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[8] *For example, a player within an elite-level NRL team trains with the team but is not in the starting side. Therefore, they play for the sub-elite feeder team (in the sub-elite competition) on weekends instead of the NRL team.*

## 4.5 Data analysis

To address RQ1–RQ5, various quantitative analytical techniques were implemented across the three interconnected studies. The purpose of this section is to outline the analytical techniques that were employed in each study and the RQs being addressed. Figure 4.3 is an abridged presentation of the overview presented earlier in this chapter (Figure 4.1), comprising the data analytic techniques that were applied to each study, as well as the corresponding RQs. Of note, the results chapters presented later in this thesis describe the variables and analytical techniques utilised in each of the three studies.

| | | | |
|---|---|---|---|
| **Corresponding Study** | Study One | Study Two | Study Three |
| **Research Questions** | 1 and 2 | 3 | 4 and 5 |
| **Data Analysis** | z-test and chi-square test | Paired sample t-test | OLS regression |

*Figure 4.3. Overview of data analytical techniques implemented in the current research*

## 4.6 Reliability and validity of the research

Reliability and validity are two important criteria for assessing the quality of a quantitative research study. To ensure the findings of the current research are both accurate and credible, it was important to implement various strategies to ensure each criterion was addressed. This section introduces reliability and validity as it relates to the research and explains the procedures used to establish and meet both criteria.

Reliability is concerned with the consistency of the measures used in the research and whether the study's results are repeatable (Bryman, 2016). In other words, if a person was to answer a set of questions that are aggregated to form an overall score (multiple-item measure), the aim is that they receive the same score each time. This means that if an individual was to receive a different score every time they completed a particular measure, then the reliability or consistency of the measure would be of concern. To determine the reliability of the measures used within the questionnaire that was administered to athletes and support staff, internal reliability was assessed by conducting the Cronbach's alpha test on all the multiple-item measures used in the questionnaire, such as the compliance and procedural justice scales. A Cronbach's alpha score ranges from 0 (denoting no internal reliability) to 1 (denoting perfect internal reliability). In terms of what is a recommended cut-off value for internal reliability, Berthoud (2000, p. 169) states that a minimum Cronbach's alpha score of 0.60 is sufficient. The Cronbach's alpha tests carried out on the measures used in the questionnaire for this research established internal reliability as the alpha scores were above the minimum and ranged from 0.68 to 0.90. For further details on the Cronbach alpha test results, see the results chapters (Chapters 5–7).

Validity is used to assess the quality of research and is concerned with assessing whether a concept is accurately measured (Heale & Twycross, 2015). Punch (2005) states that there are three forms of validity to consider: content validity, criterion-related validity, and construct validity. Content validity is concerned with whether the items accurately measure the content as intended (Creswell, 2009). This is important as it ensures that the questions that are presented in the questionnaire are representative of the range of questions that could be asked about the concept being explored. Bryman (2016) states that face validity, a sub-set of content validity, involves assessing whether a set of items appear to measure what it is supposed to measure. To do this, Heale and Twycross (2015) suggest asking people with experience in the field under exploration to provide feedback on whether the instruments in the questionnaire measure the concept in focus. For the purpose of establishing face validity in this research, a pilot version of the questionnaire was disseminated to stakeholders within the Australian sport industry (Litwin, 1995). This included athletes, support staff, coaches, and administrators to assess the questionnaire. Feedback from the pilot established that, at face value, the measures reflected the concept of concern. For instance, the adapted integrity scales from the policing context were judged to measure constructs such as seriousness and willingness to report, while procedural justice and compliance measures also appeared to reflect what was supposed to be tested.

Criterion-related validity is concerned with using an established criterion (i.e., an established measure) to create a new measure in order to test what the researcher aims to examine (Punch, 2005; Roberts et al., 2006). Establishing criterion-related validity is particularly important when taking an established measure and altering it to suit a new context—a process that was undertaken in developing this study's questionnaire (Eby, 1994). Construct validity is concerned with the extent to which the measurements used in the questionnaire actually test the hypothesis or theory they are intended to measure (Roberts et al., 2006). Two sub-sets of construct validity exist: convergent construct validity and discriminant construct validity (Swank & Mullen, 2017). Convergent construct validity is concerned with the relationship between constructs. In particular, it is concerned with ensuring that constructs that are supposed to be related are indeed related (Westen & Rosenthal, 2003). To address this, factor analysis, in particular principal component analysis (PCA), was conducted on specific measures to ensure that constructs that were supposed to be related were related (Raskin & Terry, 1988). Conversely, discriminant construct validity focuses on ensuring that measures that are not supposed to be related remain distinct (Westen & Rosenthal, 2003). Again, PCA was conducted to test for discriminant construct validity on particular measures used in the questionnaire. Overall, good construct validity was established during the analysis as related constructs were correlated, and unrelated measures were confirmed as being distinct from each other. For further details regarding factor analysis results, refer to Chapter 6.

## 4.7 Ethical considerations

In accordance with the National Statement on Ethical Conduct in Human Research (2018), ethical clearance was sought prior to disseminating the questionnaires. An Expedited Review protocol was approved by the Griffith University Human Research Ethics Committee (HREC) in March 2017 (Protocol no. 2017/171) (a copy of the project information sheet and consent form can be found in Appendix A).

In relation to attaining consent from participants, completing and submitting the questionnaire signified informed consent for both electronic and paper-based forms. To protect respondent anonymity, information that could identify respondents was not collected, except for the contact details of those who entered the prize draw. The information provided by respondents for the prize draw was collected separately from the questionnaire data. The questionnaire responses from both paper and electronic forms were saved on a password-protected server, only accessible by the researcher. The paper-based questionnaires were also stored in a key-locked metal filing cabinet accessible only by the researcher. All data will remain in storage for the mandated 5-year retention period and will then be destroyed in accordance with the Griffith University Research Ethics Manual.

## 4.8 Conclusion

This chapter has outlined the application of a quantitative research design to address a range of RQs within the context of two Australian sports—basketball and rugby league —at the sub-elite level. Of note, some participants included in the research are from the elite level due to their dual participation in sub-elite and elite-level teams. The methodological approach outlined enabled the collection of perceptions and attitudes of athletes and support staff in each of the sports. The main data source used in the current research was a questionnaire disseminated online and in-person at sport team training sessions. The next chapters present the results of the various studies conducted to address the research questions.

# Chapter 5: Study One – Prevalence and Beliefs Results

This chapter explores athletes' and support staff's knowledge and beliefs regarding the prevalence of betting-motivated corruption within their sport, their reasons for engaging in corruption, what would deter them, and what they believe would best prevent athletes and support staff from engaging in betting-motivated corruption. This chapter has two objectives: (1) present trends related to respondent perceptions of betting-motivated corruption in each sport; and (2) outline trends from comparisons between respondents' beliefs and their demographic factors. In particular, the objective is to identify whether there are differences in responses between sports (rugby league or basketball), role (athlete or support staff), age (under 25 and over 25), and gender (male or female). This chapter details the sample analysed, the measures, the analytic techniques conducted (i.e., *z*-tests and chi-square tests), and key findings.

## 5.1 Measures

### *5.1.1 Prevalence*

To measure the prevalence of betting-motivated corruption within the two sports, athletes and support staff were presented with a series of questions. In answering each question, participants were asked to draw from their experiences within the last 12 months of completing the questionnaire. The questions included whether they have played or been involved in a match that has been identified as fixed; if they have been approached to match-fix, spot-fix, or share inside information; if they have suspected a match in their league to be fixed; and whether they had seen or heard inside information being shared with an external party. For most questions, participants had the option of selecting one of three response categories: 'Yes', 'No', or 'Don't know'.

### 5.1.2 Beliefs

#### 5.1.2.1 Demographic factors

There were four key demographic factors included in the analyses, including sport, role, age, and gender. Sport (0 = basketball, 1 = rugby league) and role (0 = athlete, 1 = support staff) were measured as dichotomous variables. Participants were given the option to select their age range, such as 18–24 and 25–30, which was then grouped into a dichotomous variable (0 = under 25, 1 = over 25). Gender was also recorded through a dichotomous variable (0 = female, 1 = male).

#### 5.1.2.2 Reasons for engaging

Participants were asked to select from a list of options regarding key reasons they think someone would engage in betting-motivated corruption. Participants had the option to select up to three response categories they thought were most important from a collection of 14. These included categories such as financial difficulties, thrill-seeking, the threat of violence towards you, and lack of awareness of behaviour. During analysis, the $14^{th}$ response category, ‘other’, was excluded due to a low number of responses. The remaining 13 response categories were grouped into seven separate variables based on their similarities. For instance, the response categories of ‘lack of awareness of behaviour’ and ‘lack of awareness of the consequences if caught’ were put into the ‘lack of awareness’ variable. Furthermore, response relating to pressure (e.g. by family, other players or outside persons) were grouped into two overarching groups, micro and meso-level pressure. Micro-level factors relate to pressure closest to the individual that impacts upon their role and identity, such as pressure by their family (Serpa & Ferreira, 2019). Meanwhile, meso-level factors relate to interactions with groups outside the micro-level, such as pressure from other players, team officials or an outside person (Serpa & Ferreira, 2019). Table 5.1 provides further details of the variables that each of the 13 response categories were grouped into.

*Table 5.1. Engagement variables and their corresponding response category.*

| Group Variable | Response Category |
|---|---|
| Acceptance of fixing | • Acceptance of match and spot-fixing |
| Threats | • Threat of violence towards you<br>• Threat of violence towards your family |
| Financial | • Financial difficulties<br>• Easy money with little chance of detection<br>• No fall-back career (after sport) |
| Pressure (micro level) | • Pressure by family |
| Pressure (meso level) | • Pressure by other players/game officials at the match<br>• Pressure by team officials<br>• Pressure by an outside person |
| Thrill | • Thrill-seeking |
| Lack of awareness | • Lack of awareness of behaviour<br>• Lack of awareness of consequences if caught |

Excluded response category: 'Other'

#### *5.1.2.3 Deterrent factors*

To explore participants' views in relation to what factors they thought would stop them from engaging in betting-motivated corruption, participants were asked to select up to three out of 12 response categories. An example of the response categories includes: 'I don't need the money', 'letting down teammates', and 'my personal honesty and integrity'. During analysis, the 12$^{th}$ response category, 'other', was excluded due to a low number of responses. The remaining 11 response categories were clustered into seven separate variables that they shared similarities with. For instance, the response categories of 'threat to future career in sport' and 'threat to future career outside sport' were put into the 'threat to future' group variable. Similar to the previous section, some response categories were grouped into micro-, meso-levels for response categories related to 'letting down'. The macro-level is an inclusion within the deterrence variables and it encompasses factors that go beyond that meso-level, such as systemic issues or in this case, 'letting down the 'game/sport' as a whole (Serpa & Ferreira, 2019). Table 5.2 details which variables each of the 11 response categories were grouped into.

*Table 5.2. Deterrence variables and their corresponding response category.*

| Group Variable | Response Category |
| --- | --- |
| Let down (macro level) | • Letting down the 'game' |
| Let down (meso level) | • Letting down fans<br>• Letting down teammates<br>• Letting down club/organisation |
| Let down (micro level) | • Letting down family |
| Personal integrity | • Personal honesty and integrity |
| Financial security | • Don't need the money |
| Threat to future | • Threat to future career in sport<br>• Threat to future career outside of sport |
| Discipline | • Threat of arrests by police<br>• Threat of suspension/ban by sport |

Excluded response category: other

#### *5.1.2.4 Prevention strategies*

Participants were asked about their perspectives regarding strategies they thought would be effective in preventing betting-motivated corruption by athletes and support staff. Participants had the option to select up to three response categories that they thought were most important. Participants were presented with nine response categories, including: 'higher wages', 'more education on how betting-motivated corruption works', and 'harsher penalties'. The 9$^{th}$ response category, 'other', was excluded due to a low number of responses. The remaining eight response categories were clustered into five separate variables based on their similarities. For instance, the response categories of 'more education on how betting-motivated corruption works' and 'more education on the dangers of betting-motivated corruption' were grouped into the 'education' group variable. Table 5.3 details which variables each of the eight response categories were grouped into.

*Table 5.3. Prevention variables and their corresponding response category.*

| Group Variable | Response Category |
|---|---|
| Wages | • Higher wages<br>• Wages paid on time<br>• Wages and bonuses should not be handed in cash |
| Better work conditions | • Better work conditions and respect is shown in the workplace |
| Education | • More education on how betting-motivated corruption works<br>• More education on the dangers of betting-motivated corruption |
| Penalties | • Harsher penalties |
| Union support | • More powerful union able to support players and staff |

Excluded response category: 'Other'

## 5.2 Sample and analytic technique

The sample consisted of 299 participants, comprising athletes and support staff from each sport. A detailed description of the administration of the questionnaire and how missing data were dealt with are discussed in Chapter 4. The sample's characteristics are presented in Figure 5.1, which summarises the percentage and number of participants based on gender, sport level, sport, role, age range, and time in their current role. Descriptive analysis was conducted to establish the proportion of participants who selected either 'Yes', 'No', or 'Don't Know' response categories relating to their knowledge of the prevalence of betting-motivated corruption within their sport. To assess whether there were significant differences between sports in terms of the prevalence of match-fixing, spot-fixing, and the misuse of inside information, $z$-tests were conducted. In particular, the $z$-tests were useful in establishing whether there was a statistically significant difference in the proportion of 'Yes' responses between sports for each of the questions asked.

The Pearson's chi-square test of contingencies (hereafter: chi-square test) was conducted to evaluate whether the demographic factors were related to the different beliefs participants self-reported in relation to reasons for engaging in corruption, deterrent factors, and prevention strategies. The chi-square test analyses how frequently a particular response has been selected by each category of a demographic variable. For instance, the number of times a particular response is selected for each gender is compared to assess for significant associations between gender and beliefs.

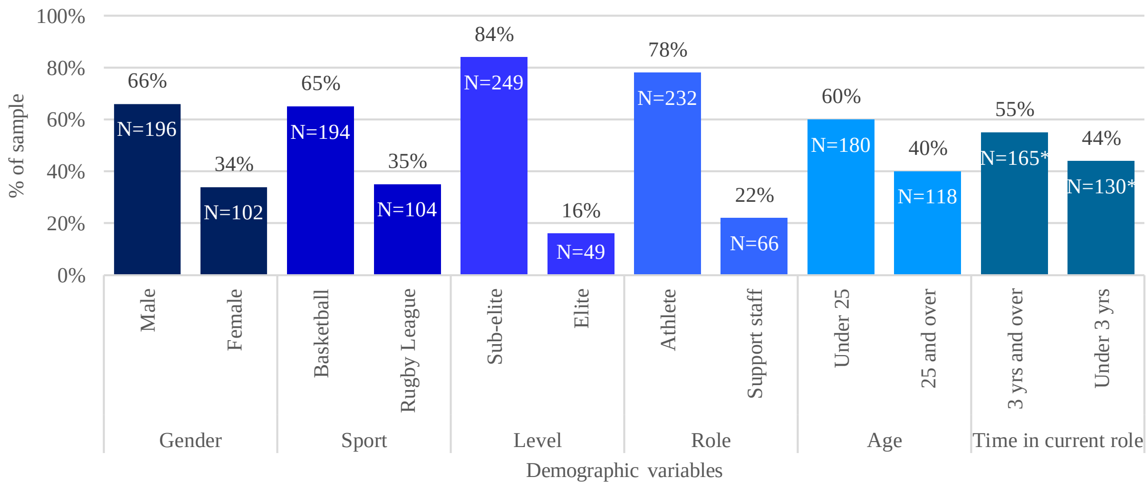


*Figure 5.1. Sample Characteristics*

*N*=298

*****Three responses were missing for length in role

## 5.3 Results

### *5.3.1 Prevalence of betting-motivated corruption*

Table 5.4 indicates most respondents from the two sports self-reported having no knowledge of playing or being involved in a match identified as being fixed in the past 12 months (92.6%). Interestingly, there were four participants from basketball who indicated that they had played or were involved in a match identified as fixed. To identify if there were any significant differences between the proportion of 'Yes' responses between the two sports, *z*-tests were conducted. Table 5.4 indicates that despite the four 'Yes' responses from basketball participants, the *z*-test found no significant difference in proportions between the two sports regarding knowledge or involvement in a match identified as fixed in the past 12 months of completing the questionnaire. This suggests that although basketball had more participants answering 'Yes' to playing or being involved in a fixed match, it does not mean match-fixing is more prevalent within the sport. In other words, there is no difference between the sports in terms of participants' knowledge of fixed matches. Additionally, four participants from basketball did not select a response for the question and were therefore not included in the analysis.

*Table 5.4. Proportion of responses for each prevalence question.*

| | Total all sports % (n) | rugby league % (n) | basketball % (n) | rugby league % (n) | Basketball % (n) | rugby league % (n) | basketball % (n) |
|---|---|---|---|---|---|---|---|
| | No | Yes | Yes | Don't know | Don't know | Didn't answer | Didn't answer |
| Played or involved in a match identified as fixed in past 12 months | 92.6% (276) | 0% (0) | 2.1% (4) | 1.9% (2) | 6.2% (12) | 0 (0%) | 2.1% (4) |
| Asked to match-fix in past 12 months | 97.3% (290) | 0% (0) | 0% (0) | 1.0% (1) | 0.3% (1) | 1.0% (1) | 2.6% (5) |
| Asked to spot-fix in past 12 months | 98% (292) | 0% (0) | 0% (0) | 0% (0) | 0% (0) | 1.0% (1) | 2.6% (5) |
| Asked to share information in past 12 months | 91.0% (271) | 12.5%* (13) | 5.7% (11) | 0% (0) | 0.5% (1) | 0% (0) | 1.0% (2) |
| Suspected a match in the league to be fixed past 12 months | 96.3% (287) | 1.9% (2) | 4.1% (8) | 0% (0) | 0% (0) | 0% (0) | 0.5% (1) |
| Seen or heard information being shared externally in past 12 months | 89.9% (268) | 12.5% (13) | 7.2% (14) | 0% (0) | 0% (0) | 0% (0) | 1.0% (2) |
| Placed a bet on own sport in the past 12 months | 91.6% (273) | 8.7% (9) | 8.2% (16) | 0% (0) | 0% (0) | 0% (0) | 0% (0) |

*z*-test comparison of response category significance: # $p< 0.10$ *$p< 0.05$ ** $p<0.01$ ***$p<0.001$.

Total $N$=298, rugby league $n$= 104, basketball $n$= 194

Another notable finding is that a small proportion of participants (5% of the total responses) selected ‘don’t know’. This suggests that the participant suspected that they could have been involved or played in a match that was supposedly fixed but was never officially confirmed as fixed. Alternatively, participants indicating that they ‘don’t know’ could also mean that they do not have a clear understanding of what a fixed match is. Regardless, this highlights two potential issues: reluctance to report their knowledge or lack of understanding of what match-fixing is.

When participants were asked whether they had been approached to match-fix and spot-fix within their sport, no participants selected ‘Yes’. Therefore, it is apparent that based on this result, athletes and support staff from both sports supposedly have not been approached to either match-fix or spot-fix. One participant from each sport selected ‘don’t know’, thus indicating a possible lack of understanding of what spot-fixing and match-fixing are or a lack of awareness of how to identify an ‘approach’. There were also five participants from basketball and one from rugby league who did not select a response for this question.

In relation to suspecting a match in their league being fixed in the past 12 months of completing the questionnaire, 96.3% of participants selected ‘No’. Furthermore, only one participant from basketball did not select a response. Of the small number who selected ‘Yes’ (3.3% of the total), this made up 1.9% ($n$=2) of the total number of rugby league participants and 4.1% ($n$=8) of basketball participants. The $z$-test of these proportions found no significant differences between the two sports, indicating that based on the data, the level of matches suspected of being fixed is similar across the two sports.

The most interesting aspect of the data in Table 5.4 is that when asked about being approached to share inside information, a small number of participants selected 'Yes' (8% of the total number of participants). Although most athletes and support staff self-reported not having been approached, the proportion of participants in each sport who self-reported having been approached to share inside information was made up of 13 participants from rugby league (12.5% of the rugby league sample) and 11 from basketball (5.9% of basketball sample). The *z*-test between these two proportions was statistically significant, indicating that there is a difference between the number of individuals who have been approached to share inside information in each sport ($p < .05$). This suggests that athletes and support staff within rugby league are more likely to be approached to share inside information compared to their counterparts in basketball.

Additionally, the analysis of the question related to seeing or hearing information being shared externally in the past 12 months indicates that 89.9% ($n$=268) of the total number athletes and support staff who completed the questionnaire self-reported 'No'. Two participants from basketball did not select an answer. Of the small proportion of 'Yes' responses (9% of the total), 12.5% ($n$=13) and 7.2% ($n$=14) of rugby league and basketball participants respectively self-reported seeing or hearing inside information being shared. Interestingly, while the *z*-test comparing the difference between the 'Yes' responses in the two sports found no significant differences, the difference was close to the significance level cut-off, $p = .05$. This suggests that with a larger sample size, and therefore greater statistical power, there is the possibility of a statistically significant difference. This could suggest that rugby league athletes and support staff are more likely to witness the sharing of inside information with external parties compared to their basketball counterparts. This finding, together with the results immediately prior to this section on being approached to share inside information, demonstrates that based on self-reported data, the misuse of inside information is potentially a greater issue in rugby league compared to basketball.

In relation to placing bets on their own sport in the past 12 months, 91.6% of participants selected ‘No’. Of the small number of participants who selected ‘Yes’ (8.4% of the total), 8.7% ($n$=9) and 8.2% ($n$=16) of rugby league and basketball participants respectively self-reported betting on their own sport in the past 12 months of completing the questionnaire. A $z$-test of these two proportions, however, indicates no statistically significant differences between the sports. This suggests that the number of athletes and support staff betting on their own sport within rugby league and basketball is comparable.

### *5.3.2 Assessing the beliefs of athletes and support staff*

Using the number of participants as the unit of analysis, 2x2 chi-square tests were conducted to assess the number of times each response category was selected based on demographic factors. Assessing each response category separately against each demographic variable was required as participants could select up to three response categories for each group variable (i.e., reasons for engaging, deterrence factors, and prevention strategies). The chi-square test results for each group variable are presented in the subsequent sections.

### *5.3.3 Reasons for engaging*

Table 5.5 (see page 120) highlights the top three response categories participants selected from the seven response categories that form the ‘reason for engaging’ variable. The top three responses included: (1) financial issues (87.6% of participants), (2) pressure at the meso level (44.3% of participants) and (3) a lack of awareness of betting-motivated corruption (36.9% of participants).

Between the various demographic variables and 'reasons for engaging' categories, no statistically significant relationships were found except for age and gender. There are no noticeable differences in the likelihood of selecting a particular 'reason for engaging in betting-motivated corruption' between sport and role. A significant but small relationship was found between age and selecting pressure at the meso level ($p < .05$, $\phi = .12$), and thrill-seeking ($p < .05$, $\phi = .12$). This suggests that athletes and support staff under 25 are more likely to select pressure from the meso level as a reason for engaging in betting-motivated corruption. While only a small number of participants selected this category, the chi-square test suggests that the under-25s are likely to select 'thrill-seeking' ($n$=24) compared to the over-25s ($n$=7). A limitation to this finding, however, is that a low number of participants selected this response category making it difficult to generalise findings, but it could be a possible trend to investigate further in future research. A significant but small relationship was also observed between gender and financial issues ($p < .05$, $\phi = .14$). This result suggests a smaller proportion of females than males are likely to select financial issues as a reason for engaging in betting-motivated corruption.

Furthermore, Table 5.5 highlights a number of response categories with close-to-significant relationships with particular demographics. These include close-to-significant relationships ($p$<.10) between:

- **sport** and pressure at the micro level, acceptance of fixing, and financial issues;
- **role** and financial issues;
- **age** and financial issues; and
- **gender** and acceptance of fixing, and lack of awareness.

The main close-to-significant relationships identified in Table 5.5 highlight that greater statistical power could infer significant results where a greater proportion of rugby league, support staff, and over-25 participants select financial issues, and females select lack of awareness as a motivational factor. The remaining close-to-significant relationships were excluded (e.g., gender and acceptance of fixing) due to reporting very small response counts. Overall, despite not being statistically significant, these results highlight potential areas of exploration, such as females are likely to report a lack of awareness, which is consistent with the lack of attention female sport has received in terms of betting-motivated corruption.

*Table 5.5. Chi-square test matrix of the total number of participants who selected each category of reasons for engaging, deterrence, and prevention for rugby league and basketball with unit of analysis by participants.*

| | | Demographics | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sport | | | Role | | | Age | | | Gender | | |
| **Reason for Engaging** | **Total selected** | **rugby league** | **basketball** | **Phi** | **Athlete** | **Support staff** | **Phi** | **Under 25** | **Over 25** | **Phi** | **Male** | **Female** | **Phi** |
| Acceptance of Fixing | 19 (6.4%) | 3 (2.9%) | 16 (8.2%) | .10 # | 17 (7.3%) | 2 (3.0%) | -.07 | 11 (6.1%) | 8 (6.8%) | .01 | 16 (8.1%) | 3 (2.9%) | -.10# |
| Threats | 69 (23.2%) | 27 (26%) | 42 (21.6%) | -.05 | 57 (24.6%) | 12 (18.2%) | -.06 | 43 (23.9%) | 26 (22%) | -.02 | 48 (24.5%) | 21 (20.6%) | -.04 |
| Financial | 261 (87.6%) | 96 (92.3%) | 165 (85.1%) | -.11# | 199 (85.8%) | 62 (93.9%) | .10# | 153 (85%) | 108(91.5%) | .10# | 178 (90.8%) | 83 (81.4%) | -.14* |
| Pressure (micro) | 18 (6%) | 10 (9.6%) | 8 (4.1%) | -.11 # | 13 (5.6%) | 5 (7.6%) | .03 | 13 (7.2%) | 5 (4.2%) | -.06 | 14 (6.6%) | 5 (4.9%) | -.04 |
| Pressure (meso) | 132 (44.3%) | 46 (44.2%) | 86 (44.3%) | .001 | 106 (45.7%) | 26 (39.4%) | -.05 | 88 (48.9%) | 44 (37.3%) | -.12* | 82 (41.8%) | 50 (49%) | .07 |
| Thrill | 31 (10.4%) | 9 (8.7%) | 22 (11.3%) | .04 | 24 (10.3%) | 7 (10.6%) | .004 | 24 (13.3%) | 7 (5.9%) | -.12* | 17 (8.7%) | 14 (13.7%) | .08 |
| Lack of Awareness | 110 (36.9%) | 35 (33.7%) | 75 (38.7%) | .05 | 81 (34.9%) | 29 (43.9%) | .08 | 66 (36.7%) | 44 (37.3%) | .01 | 65 (33.2%) | 45 (44.1%) | .11# |
| **Reason for Deterrence** | | | | | | | | | | | | | |
| Let Down (macro) | 83 (27.9%) | 20 (19.2%) | 63 (32.5%) | .14* | 60 (25.9%) | 23 (34.8%) | .08 | 52 (28.9%) | 31 (26.3%) | -.03 | 47 (24%) | 36 (35.3%) | .12* |
| Let Down (meso) | 175 (58.7%) | 62 (59.6%) | 113 (58.2%) | .01 | 134 (57.8%) | 41 (62.1%) | .04 | 100 (55.6%) | 75 (63.6%) | .08 | 121 (61.7%) | 54 (52.9%) | -.09 |
| Let down (micro) | 83 (27.9%) | 46 (44.2%) | 37 (19.1%) | -.27*** | 65 (28%) | 18 (27.3%) | -.01 | 43 (23.9%) | 40 (33.9%) | .11 # | 67 (34.2%) | 16 (15.7%) | .19*** |
| Personal Integrity | 206 (69.1%) | 65 (62.5%) | 141 (72.7%) | .11# | 151 (65.1%) | 55 (83.3%) | .16** | 114 (63.3%) | 92 (78%) | .16** | 127 (64.8%) | 79 (77.5%) | -.13* |
| Financial Security | 31 (10.4%) | 10 (9.6%) | 21 (10.8%) | .02 | 25 (10.8%) | 6 (9.1%) | -.02 | 21 (11.7%) | 10 (8.5%) | -.05 | 21 (10.7%) | 10 (9.8%) | -.01 |
| Threat to Future | 120 (40.3%) | 48 (46.2%) | 72 (37.1%) | -.09 | 99 (42.7%) | 21 (31.8%) | -.09 | 83 (46.1%) | 37 (31.4%) | -.15** | 80 (40.6%) | 40 (39.2%) | -.02 |
| Discipline | 66 (22.1%) | 25 (24.0%) | 41 (21.1%) | -.03 | 55 (23.7%) | 11 (16.7%) | -.07 | 43 (23.9%) | 23 (19.5%) | -.05 | 49 (25%) | 17 (16.7%) | -.10 |
| **Effective prevention strategies** | | | | | | | | | | | | | |
| Wages | 141 (47.3%) | 50 (48.1%) | 91 (46.9%) | -.01 | 126 (54.3%) | 15 (22.7%) | -.26*** | 96 (55.5%) | 43 (36.4%) | -.18** | 103 (52.6%) | 38 (37.3%) | -.15* |
| Better Work Conditions | 66 (22.1%) | 17 (16.3%) | 49 (25.3%) | .11# | 57 (24.6%) | 9 (13.6%) | -.11# | 45 (25.0%) | 21 (17.8%) | -.09# | 41 (20.9%) | 25 (24.5%) | .04 |
| Education | 229 (76.8%) | 85 (81.7%) | 144 (74.2%) | -.09 | 171 (73.7%) | 58 (87.9%) | .14* | 133 (74%) | 96 (81.4%) | .09 | 146 (74.5%) | 83 (81.4%) | .08 |
| Penalties | 134 (45.0%) | 47 (45.2%) | 87 (44.8%) | -.003 | 98 (42.2%) | 36 (54.5%) | .10# | 76 (42.2%) | 58 (49.2%) | .07 | 87 (44.4%) | 47 (46.1%) | .02 |
| Union Support | 90 (30.2%) | 29 (27.9%) | 61 (31.4%) | .04 | 79 (34.1%) | 11 (16.7%) | -.16** | 63 (35%) | 27 (22.9%) | -.13* | 55 (28.1%) | 35 (34.3%) | .07 |

# $p < 0.10$ *$p < 0.05$ ** $p<0.01$ ***$p<0.001$; $N$=298

### 5.3.4 Reasons to deter

An examination of the seven response categories that comprise 'reasons to deter' shows that the top three response categories selected by participants were (1) personal integrity (69.1% of participants), (2) letting down the meso level[9] such as groups the individual interacts with such as teammates, team officials, colleagues, or external person (58.7%), and (3) threat to future career prospects (40.1%). Interestingly, when combining the three levels of 'letting down' response categories into a single category, 78.1% of participants believe 'letting down other individuals or systems' is a key reason for deterrence. This demonstrates that being accountable to an external group/system is a key deterrent factor.

Table 5.5 indicates a significant small to medium relationship between sport and letting down the micro level[10] ($p$ < .001, $\phi$ = .27), such as pressure by those closest to the individual, particularly family. The difference in proportions illustrates that rugby league participants were more likely to select letting down the micro level than the basketball participants. A significant but small relationship was also found between sport and letting down the macro level[11] (i.e. their sport as a whole) ($p$ < .05, $\phi$ = .14), which suggests that basketball participants are likely to select this response category compared to their rugby league counterparts. Interestingly, there was a close-to-significant relationship between sport and personal integrity ($p$<.10). This suggests that a larger sample could result in a small statistically significant relationship being established between sport and personal integrity, highlighting basketball participants were

[9] Meso-level factors relate to interactions with groups outside the micro-level, such as pressure from other players, team officials or an outside person (Serpa & Ferreira, 2019).
[10] Micro-level factors relate to pressure closest to the individual that impacts upon their role and identity, such as pressure by their family (Serpa & Ferreira, 2019).
[11] The macro-level is an inclusion within the deterrence variables and it encompasses factors that go beyond that meso-level, such as systemic issues or in this case, 'letting down the 'game/sport' as a whole (Serpa & Ferreira, 2019).

more likely to select personal integrity as a deterrent factor. Overall, these findings indicate differences in what participants in each sport viewed as deterrent factors. In particular, basketball participants were likely to view letting down the macro level as a deterrence, while rugby league participants were more likely to view letting down the micro level as a deterrence. What this means is that it reflects the motivations of athletes and support staff in each sport, where basketball players view protecting their 'game' as more important, while rugby league participants are deterred by more personal circumstances, such as not letting down their family.

When evaluating associations with the participant's role, a statistically significant but small relationship was found with the personal integrity category ($p < .01$, $\phi = .16$). The proportions between roles suggest that support staff are more likely to select personal integrity than athletes. These results indicate that support staff are more likely to view personal integrity as a key deterrent factor than athletes.

When evaluating the relationship between age and the deterrence response categories, significant relationships were found with personal integrity ($p < .05$, $\phi = .16$) and threat to future career prospects ($p < .05$, $\phi = .15$). Over-25s were found to be significantly more likely to select 'personal integrity' than under-25s, whereas under-25s were significantly more likely to view 'threat to future career prospects' as a deterrence compared to over-25s. This suggests that younger athletes and support staff think more about how their actions would affect their future career outcomes; however, as they get older, personal integrity becomes increasingly important. Furthermore, a close-to-significant relationship ($p < .10$) was found between age and letting down the micro-level response category. This means that with a larger sample, it is possible that a statistically significant relationship could be found, indicating that over-25s are more likely to select this response compared to under-25s.

When evaluating the relationship between gender and the deterrence response categories, significant but small associations were found with letting down the macro level ($p < .05$, $\phi = .12$), letting down the micro level ($p < .001$, $\phi = .19$), and personal integrity ($p < .05$, $\phi = -.13$). What this means is that a higher proportion of females are likely to select letting down the macro level than males, whereas a higher proportion of males are likely to select letting down the micro level than females. Furthermore, the results indicate that female athletes and support staff are more likely to select personal integrity than males. As such, these results suggest that between genders, there are differences in how males and females view deterrent factors, with females concerned with letting down their sport overall, while males are deterred from engaging in corrupt behaviour due to not wanting to let down those close to them, such as their family. In addition, the results also indicate that females are more inclined to consider their own personal integrity to deter them from engaging in betting-motivated corruption than males.

### 5.3.5 Prevention strategies

The questionnaire also asked participants to select three strategies they thought would best prevent athletes and support staff from engaging in betting-motivated corruption. Overall, the top three strategies selected were education (76.8% of participants), followed by wages (47.3% of participants), and increased penalties (45% of participants). The chi-square tests between sport and the various prevention strategies found no significant associations. This means that there is no difference between rugby league and basketball in relation to what participants thought would best prevent athletes and support staff from engaging in corruption. There was, however, a close-to-significant relationship ($p <.10$), where basketball participants were more likely to select better work conditions as a prevention strategy than rugby league athletes and support staff. This indicates that with a larger sample size, this result could become statistically significant. Nevertheless, it does signpost a possible area of exploration within the prevention space in basketball.

When exploring possible associations between role and the prevention strategies, a number of statistically significant relationships were found. Statistically significant relationships were found between athletes and wages and union support, as well as between support staff and education. This means that athletes were more likely to select wages and union support than support staff. Meanwhile, support staff were more likely to select education than athletes. It is important to note, however, that only 24.6% and 34.1% of athletes selected better work conditions ($\phi = .12$) and union support ($\phi = .16$) respectively, hence the small relationships for both. Conversely, a larger proportion (55.6%) of athletes selected wages, which explains the small to medium association between the two variables ($\phi = .27$). These results indicate that athletes may better respond to prevention strategies tailored around better wages and work conditions and enhancing union support.

The significant relationship found between support staff and the selection of education suggests that support staff are more likely to select education than athletes. Despite support staff being more likely to select education, there was still a large proportion of athletes (72.9%) who viewed education as an effective prevention strategy. Regardless, this indicates that support staff believe that education is a key preventative strategy, something that may be missing from their cohort. A very close-to-significant but small relationship ($p < .10$, $\phi = .10$) was also found between role and penalties. This suggests that with a large sample it is possible to conclude that support staff are more likely to select penalties as a prevention strategy compared to athletes. Overall, it is apparent that there are differences in the strategies athletes and support staff think would be most effective in preventing betting-motivated corruption. In particular, a larger proportion of support staff than athletes believe education is an effective prevention strategy, while a larger proportion of athletes viewed other strategies, such as better wages and union support, as effective preventative measures.

In relation to prevention strategies and age, there were no significant relationships found between age and education and increased penalties. In other words, the two strategies have a similar likelihood of being selected by individuals under or over 25 years of age. This means that age does not have an influence on viewing education or increased penalties as effective prevention strategies. A significant but small relationship, however, was found between age and wages ($\phi = .18$), suggesting that participants under 25 were more likely to view strategies related to wages to be effective at prevention compared to participants over 25. Furthermore, a significant but small relationship was found between age and selecting union support as an effective prevention strategy ($\phi = .13$). A close-to-significant but small relationship was found between age and better working conditions ($p < .10$, $\phi = .10$), suggesting that with greater statistical power, under-25s are likely to select this strategy as an effective prevention method. Overall, these results suggest that participants under 25 were more likely than those over 25 to select better wages and union support as one of the three prevention strategies they thought would be effective.

Between the various prevention strategies and gender, no significant relationships were found for any response categories except for wages. The statistically significant relationship between gender and wages indicates males are more likely to select wages as one of the three prevention strategies they thought would be effective compared to females. This, however, was quite a small association ($\phi = .14$). What these results indicate is that between genders, perceptions of what is an effective prevention strategy are comparable; however, males are more likely to consider better wage conditions as a measure to prevent betting-motivated corruption from occurring.

### 5.4 Conclusion

The purpose of this chapter was to present the results from two analyses: (1) examination of the perceptions of athletes and support staff in relation to the prevalence of betting-motivated corruption, and (2) explore the beliefs of athletes and support staff and determine whether there were any differences based on demographic factors. The findings of the prevalence analysis highlight that betting-motivated corruption has a low prevalence within the two sports. The results indicate that the prevalence of playing or being involved in a match identified as fixed or being approached to match-fix or spot-fix is very low in both sports, with ‘Yes’ responses ranging from 0% to 2.1%. Furthermore, suspicions of match- and spot-fixing were very low, with ‘Yes’ responses ranging from 1.9% to 4.1%. The results demonstrate that there is no difference between the two sports in terms of playing or being involved in, being approached, and suspecting match- and spot-fixing. What stands out, however, is that the activity of sharing inside information, while still low, had greater prevalence compared to match- and spot-fixing. Over 10% of rugby league athletes and support staff self-reported in separate instances being approached to share inside information and witnessing inside information being shared with an external party. This suggests that rugby league participants are more likely to be approached to share inside information compared to their basketball counterparts. Further, with a larger sample size, it is possible that rugby league athletes and support staff are also more likely to witness the sharing of inside information with external parties. In terms of athletes and support staff betting on their own sport, less than 9% of participants in each sport reported engaging in such activity, suggesting low prevalence. Overall, these results indicate that the prevalence of betting-motivated corruption in the two sports is low and exists more in the form of misusing inside information and betting on their sport than match- and spot-fixing.

In terms of the chi-square tests conducted to examine for associations between various demographic variables and individual perceptions regarding reasons to engage in betting-motivated corruption, deterrent factors, and effective prevention methods, several key findings were identified. In relation to reasons to engage, no statistically significant relationships were identified with any of the demographic variables except for age and gender. This means that no difference was identified between sports or role in terms of reasons for engaging in betting-motivated corruption. It was found that under-25s were more likely to self-report pressure from the meso level and thrill-seeking as one of their three motives for engaging in betting-motivated corruption than over-25s. Furthermore, a greater proportion of males were likely to select financial issues as a motivating factor. This suggests that the only differences in beliefs when it comes to motives for engaging are related to the age and gender of athletes or support staff.

In relation to deterrent factors, statistically significant associations were found within each demographic group. It was found that rugby league participants were more likely to select letting down the micro level than their basketball counterparts, while athletes and support staff from basketball were more likely to view letting down the macro level as a deterrence. In terms of the participant's role, support staff were found to be associated with an increased likelihood of viewing personal integrity than athletes, while there were no differences between roles for the remaining deterrence categories. Statistically significant relationships were also identified between participants who were under 25 and who viewed a threat to their future career as a key deterrence, while those over 25 were found to be more inclined to select personal integrity as a deterrent factor. In relation to gender, females were more likely to view letting down the macro level and personal integrity as key deterrent factors, while males were more likely than females to select letting down the micro level.

Chi-square tests were also conducted to assess whether any demographic factors were associated with the select number of prevention strategies that participants were presented with. In relation to sport, no associations were identified, suggesting that there is no difference between sports in terms of what individuals think are effective prevention strategies. Relationships, however, were identified between role and prevention methods. The results indicate that athletes were more likely to select better wages and union support as effective prevention strategies compared to support staff. Additionally, the analysis found support staff as being more likely to view education as an effective prevention strategy. Meanwhile, no significant relationships were found between gender and prevention methods, except for better wages. This suggests that males are more likely to select better wages as a preventative strategy.

# Chapter 6: Study Two – Attitudes Towards Betting-Motivated Corruption Results

This chapter explores the self-reported attitudes of athletes and support staff towards four different betting-motivated corruption scenarios that could occur within their sport and their perception of the culture around these unethical behaviours. For each scenario, participants self-reported their attitudes in relation to four constructs: seriousness, violation of policy, willingness to report, and discipline. This chapter details the scenarios presented to participants, the measures, sample and analytic techniques conducted (i.e., paired sample *t*-tests and Wilcoxon tests), and presents the results.

## 6.1 Scenarios

The questionnaire used in this study was adapted from the police integrity scale developed by Klockars et al. (1997), which focused on measuring integrity and the code of silence within the US police context. The original questionnaire by Klockars et al. contained 11 scenarios to cover the broad range of police corruption and misconduct that can occur. Modifications were made to suit this study by developing four scenarios that focus on various types of betting-motivated corruption. Scenarios were developed to incorporate likely instances of high and low corruption based on previous cases (Bricknell, 2015; Lastra, 2018). The four scenarios presented include match-fixing and spot-fixing, representing high-level corruption, and scenarios relating to betting on your own sport and the misuse of inside information, signifying low-level corruption. For instance, to capture the misuse of inside information, participants were presented with the following vignette: ‘A player or staff member discusses private team information to family and/or friends. This information is later used by a friend/family member to place a bet.’ To capture high-level corruption such as match-fixing, participants were presented with the following scenario: ‘A group of players, coach, and manager get together to lose a match intentionally to support a bet placed with a bookmaker.’

Each scenario within the integrity scale (Klockars et al., 1997) consists of seven items which measure constructs relating to the participant’s own perception (own view) and that of their colleagues (colleague) in relation to seriousness, likelihood to report (code of silence), rules (items 1–5) and discipline (items 6–7). Items 1–5 are rated using various answer categories on a 5-point scale, while items 6 and 7 consist of multiple-choice answers (further details of items are presented below). The same seven items from the integrity scale (Klockars et al., 1997) were adapted to the current study by making minor modifications to suit the sport context and types of discipline that could occur. Overall, the questionnaire included four scenarios, and participants were presented with the same set of items to measure various aspects of the participant’s perception relating to seriousness, likelihood to report (code of silence), rules, and discipline.

## 6.2 Measures

### *6.2.1 Seriousness*

Athlete and support staff perceptions of the seriousness of each scenario were measured using a single item on a 5-point Likert scale from (1) *not at all serious* to (5) *very serious*. Using the same scale, participants were also asked to rate how they believe most colleagues (athletes and support staff) would view the scenario. Having athletes and support staff self-report how seriously they viewed each scenario (colleague view) provides insight into their own integrity attitudes, while their perception of ‘most colleagues’ shows the integrity attitudes belonging to the culture within the participant’s sport.

### 6.2.2 Violation

To establish whether athletes and support staff understood if the scenario they were presented was a violation of their sport's policy, the following item was presented to participants: 'Would this behaviour be regarded as a violation of official policy in your sport?' The participant's understanding was measured on a 5-point Likert scale from (1) *definitely not to* (5) *definitely yes.*

### 6.2.3 Willingness to report

Gaining an understanding of how willing athletes and support staff were towards reporting situations similar to the scenario they were presented was important in measuring the 'code of silence' within the two sports. To understand the willingness of athletes and support staff to report the behaviour described in the scenarios, the following single item was presented to participants: 'Do you think you would report a fellow colleague who engaged in this behaviour?' This item was measured on a 5-point Likert scale, from (1) *definitely not* to (2) *definitely yes*. Using the same scale, participants were also asked to self-report their views on whether they thought most athletes and support staff would report a colleague engaging in the behaviour presented in the scenario. Overall, the first item participants were presented with helped to establish the athlete's or support person's own disposition towards reporting, while the second item indicated the participant's perspective of the culture regarding reporting in their sport.

### 6.2.4 Discipline

Athlete and support staff views towards discipline were measured through two items. In each item, participants were asked to select all options which they thought were applicable out of the following discipline options: 1 = none, 2 = verbal warning, 3 = written warning, 4 = fine, 5

= suspension, 6 = ban. For each scenario, participants self-reported the level of discipline they think ‘should’ occur, as well as what they think ‘would’ occur within their sport. It is important to note that for the analyses, the most severe option that participants selected was included due to the inability to conduct the prescribed analysis on multiple responses. For example, if a participant selected the following three discipline options of ‘fine’, ‘written warning’ and ‘suspension’, then the participant’s response for discipline would be recorded as ‘suspension’ as it is the most severe. Exploring what participants think ‘should’ occur regarding discipline in each scenario provides an indication of their own integrity perceptions, while their perception of what ‘would’ occur provides an indication of what participants expect in terms of how their sport would respond.

## 6.3 Sample and analytic technique

A total of 298 participants were included in the sample. The participants were made up of athletes and support staff from each sport. A detailed description of the administration of the questionnaire and how missing data were dealt with is discussed in section 4.4. Further, the sample’s characteristics are presented in Figure 6.1, which summarises the percentage of participants in terms of gender, sport level, sport, role, age range, and length in their current role. To determine whether there were significant differences between the athletes’ and support staff’s own views versus what they think their colleagues would do in each scenario, paired *t*-tests were conducted for the seriousness and willingness-to-report constructs. To test whether there were differences in what athletes and support staff think in terms of what level of discipline ‘should’ and ‘would’ occur for each scenario, paired sample *t*-tests were also conducted.[12]

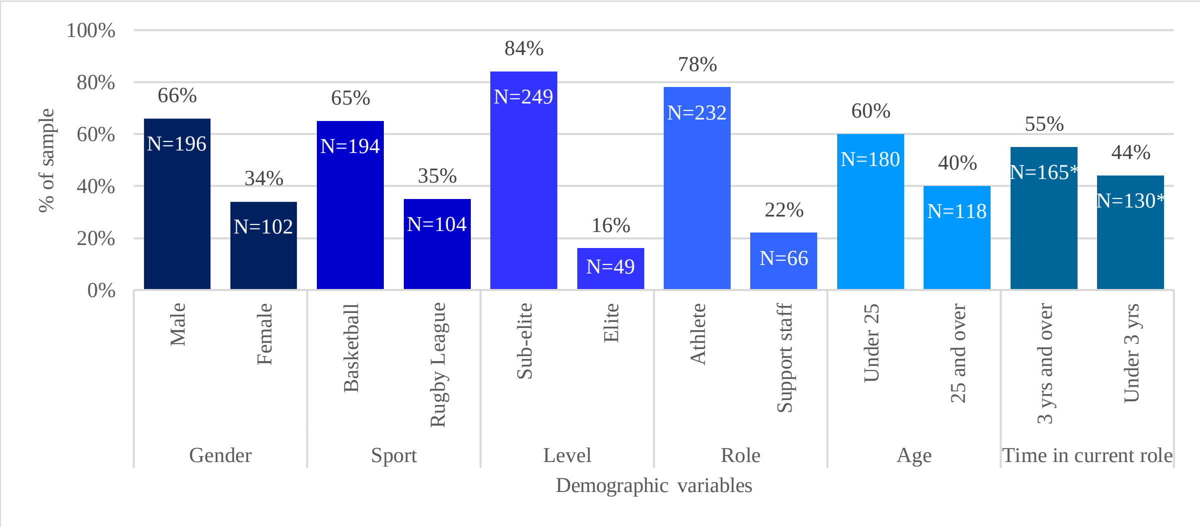


*Figure 6.1. Sample characteristics*

*N* = 298

*****Three responses were missing for length in role

## 6.4 Results

Table 6.1 summarises the scores participants recorded for the four scenarios in relation to the four constructs: seriousness, violation of policy, willingness to report, and discipline. The scenarios were ranked from (1) lowest to (4) highest by analysing the mean scores for each scenario within the four constructs. For instance, Scenario 3, which related to the misuse of inside information, was ranked the lowest due to the seriousness (own view) mean score of 3.71. Conversely, Scenario 2, match-fixing, was ranked the highest (4) due to having a seriousness (own view) mean score of 4.78. Table 6.1 shows that across the four constructs,

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[12] The paired *t*-test of the constructs had similar results when conducting a Wilcoxon signed-rank test. This means that despite discipline being an ordinal variable, it was interpreted as an interval variable in this study as the *t*-test technique yielded similar results.

the majority of rankings were consistent. In other words, the rank orders for the scenarios within the seriousness construct were similar to the rank orders for most constructs, including violation of policy knowledge, willingness to report, and discipline. This consistency across the constructs suggests that they are highly related and together form a general construct of integrity, an idea that is supported by previous research conducted within the policing context by Klockars et al. (1997) and Porter et al. (2015). A more detailed analysis of each construct is discussed in the subsequent sections, including an examination of the paired *t*-tests, which were carried out to determine if there were any significant differences between athletes' and support staff's own views and what they think most of their club/organisation believes in regard to seriousness, willingness to report, and discipline.

*Table 6.1. Athletes' and support staff's views about the seriousness of various betting-motivated corruption scenarios, whether it is a violation, willingness to report, and discipline it should and would receive.*

| Scenario Number and Description | Seriousness | | | | Violation | | Willingness to report | | | | Discipline | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Own View | | Most of club/org | | | | Own view | | Most of club/org | | Should receive | | | Would receive | | |
| | Mean | Rank | Mean | Rank | Mean | Rank | Mean | Rank | Mean | Rank | Mode | Mean | Rank | Mode | Mean | Rank |
| Sc 1. Bet own sport | 4.22 | 2 | 4.33 | 2 | 4.53 | 3 | 3.40 | 2 | 3.49 | 2 | Suspension | 4.99 | 3 | Suspension | 4.86 | 3 |
| Sc 2. Match-Fix | 4.78 | 4 | 4.74 | 4 | 4.78 | 4 | 4.23 | 4 | 4.32 | 4 | Ban | 5.50 | 4 | Ban | 5.43 | 4 |
| Sc 3. Inside Info | 3.71 | 1 | 3.82 | 1 | 3.97 | 1 | 3.13 | 1 | 3.35 | 1 | Suspension | 3.99 | 1 | Suspension | 3.90 | 1 |
| Sc 4. Spot-Fix | 4.33 | 3 | 4.35 | 3 | 4.40 | 2 | 3.76 | 3 | 3.86 | 3 | Suspension | 4.78 | 2 | Suspension | 4.67 | 2 |

*N*=298

### 6.4.1 Seriousness

Table 6.2 shows the mean scores for two questions related to the seriousness that participants were presented in each of the four scenarios, including how serious participants consider the behaviour (own view) and how serious participants think most athletes and support staff in their club would consider the behaviour (colleague view). Generally, participants viewed each scenario with varying seriousness. In particular, the mean score based on each participant's own view of each scenario was above the mid-point of 3, indicating that athletes and support staff viewed each scenario at a minimum 'somewhat serious'. The different levels of seriousness reported by participants demonstrate that Scenario 3 (misusing inside information) is viewed as low-level betting-motivated corruption compared to the other scenarios presented. The mean scores (own view) for Scenario 1 (betting on own sport) and Scenario 4 (spot-fixing) represent more serious betting-motivated corruption, with mean values of 4.22 and 4.33 respectively. The own view mean score for Scenario 2 (match-fixing) was 4.78, indicating it is the most serious and highest level of betting-motivated corruption reported by participants. This suggests that match-fixing is regarded as the most serious, followed by spot-fixing and betting on one's own sport, while the misuse of inside information is the lowest level of betting-motivated corruption.

Table 6.2 also shows the results of *t*-tests comparing mean scores for how serious participants consider each scenario (own view) and how serious participants think most athletes and support staff in their club would consider each scenario (colleague view). The rank order of the scenarios between the participant's own view and their colleague view was consistent, therefore suggesting the views of athletes and support staff and what they believe their colleagues' views to be are similar. The *t*-test between participants' own view and colleague view indicate significant differences in Scenario 1 and 3. A significant difference was found between the mean scores for participants' own view of Scenario 1 (betting on own sport) and their colleague view ($p$ = .005), with a small difference ($d$ = .13). This means that participants believe that their colleagues would consider betting on their own sport more serious than their personal view of the behaviour. In relation to Scenario 3 (misusing inside information), a significant difference was found between the mean score for participants' own views and their colleague view ($p$ = .004), with a small difference ($d$ = .09). What this suggests is that participants believe that their colleagues would consider the misuse of inside information more serious than their personal view of the behaviour. The comparison of mean scores for participants' own view and colleague view in scenarios 2 and 4 were non-significant ( $p > .05$). This indicates that there is no difference between participants' own view and their colleague view for the two scenarios. In other words, participants believe that how seriously they view each scenario is the same as what they believe most athletes and support staff would think. Overall, these results demonstrate that how serious individuals believe betting-motivated corruption to be is influenced by their perception of what other athletes and support staff think. Alternatively, it means that culture is a key driver of how seriously an individual views betting-motivated corruption.

*Table 6.2. Seriousness – to see if there is a significant difference between the group means.*

| Scenario Number and Description | Own View | | | | Colleague view (Most of Club/Organisation) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Range | SD | Mean | Rank | Range | SD | Mean | Rank | t | df | p | Effect size |
| Sc 3. Inside Info | 1-5 | .92 | 3.71 | 1 | 1-5 | .85 | 3.82 | 1 | -2.89 | 297 | .004 | |
| Sc 1. Bet own sport | 1-5 | .88 | 4.22 | 2 | 1-5 | .79 | 4.33 | 2 | -2.84 | 297 | .005 | |
| Sc 4. Spot-Fix | 1-5 | .86 | 4.33 | 3 | 1-5 | .85 | 4.35 | 3 | -.73 | 297 | .47 | |
| Sc 2. Match-Fix | 1-5 | .53 | 4.78 | 4 | 1-5 | .62 | 4.74 | 4 | 1.33 | 297 | .18 | |

$N$=298

### 6.4.2 Willingness to report

Table 6.3 shows the mean scores for two questions participants were presented in each of the four scenarios: how likely the participant would report a colleague engaged in the behaviour (own view) and how likely they think that most athletes and support staff in their club would report colleagues engaged in the behaviour (colleague view). Overall, variances were identified across the scenarios regarding how willing participants were to report the specified behaviour. In particular, the mean score for participants' own view of each scenario was above the mid-point of 3, indicating that athletes and support staff would, at a minimum, consider reporting the behaviour they were presented with. The varying levels of willingness to report matched the rank order of how serious participants viewed the scenarios. In other words, scenarios that were viewed with less seriousness were also viewed with a decreased willingness to report. For instance, Scenario 3, which received the lowest seriousness mean score, also had the lowest mean score for willingness to report. Conversely, Scenario 2 had the highest mean score for seriousness and was matched with the highest mean score for willingness to report. What this means is that the more serious a corrupt act is, the greater the likelihood of it being reported. In other words, the willingness of an athlete or support person to report a corrupt activity is related to how serious they believe the act is.

Table 6.3 presents results from the *t*-tests comparing mean scores of how willing participants were in reporting each scenario (own view) and how willing their colleagues would be in reporting the specified behaviour (colleague view). The rank order of the scenarios between the participant's own view and their colleague view was consistent, suggesting that athletes' and support staff's own view and their colleague view follow a similar pattern; that is, the more serious the scenario, the greater the willingness to report. The *t*-test between participants' own view and colleague view indicates statistically significant differences within scenarios 2 *($p$ = .04)*, 3 ($p$ < .001) and 4 ($p$ = .02). A significant but small difference ($d$ = .10) was found between participants' own view of Scenario 2 (match-fixing) and their colleague view. In particular, the mean score for the own view measure was lower than the colleague view measure, indicating that athletes and support staff believed are less willing to report compared to what they thought their colleagues would do.

A significant but small difference ($d$ = .20) was also found between the mean scores for participants' own view of Scenario 3 (misuse of inside information) and their colleague view. This had a similar pattern as Scenario 2, where the participants believe they are less likely to report a colleague misusing inside information compared to most athletes and support staff in their club/organisation. In relation to Scenario 4 (spot-fixing), a significant but small difference ($d$ = .09) was found between the mean score for the own view and colleague view measures. The lower mean score in the own view measure for Scenario 4 suggests that participants believe they are less likely to report a fellow colleague engaging in spot-fixing than most athletes and support staff in their organisation/club. The comparison of mean scores for own view and colleague view measures in Scenario 1 was non-significant ($p$ = .06), indicating that there is no difference in willingness to report between participants' own view and their colleague view for reporting an athlete or support staff betting on their own sport. This, however, was very close to meeting the significance cut-off, suggesting that with a larger sample size it is possible that a significant difference could be found. A significant result would mean a similar pattern as the other scenarios, where the participant's own view is less than their colleague view; however, this would be a small difference ($d$ = .09).

Overall, the *t*-test results demonstrate that the reporting culture within each sport influences the reporting behaviour of individual athletes and support staff. The results show that culture plays a key role in shaping reporting behaviour and reporting fellow colleagues engaging in corrupt activities in each sport. Further, it demonstrates that the culture sets the level of willingness to report, and individuals' own willingness to report falls below this level. By reducing the 'code of silence' culture within sport, we may see an increase in the willingness of individual athletes and support staff to report both high- and low-level corruption.

*Table 6.3. Willingness to report – to see if there is a significant difference between the two group means.*

| Scenario Number and Description | Own View | | | | Most of Club/Organisation | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Range | SD | Mean | Rank | Range | SD | Mean | Rank | t | df | p | Effect size |
| Sc 3. Inside Info | 1-5 | 1.15 | 3.13 | 1 | 1-5 | 1.05 | 3.35 | 1 | -4.89 | 297 | .000 | .20 |
| Sc 1. Bet own sport | 1-5 | 1.07 | 3.40 | 2 | 1-5 | .99 | 3.49 | 2 | -1.88 | 297 | .06 | .09 |
| Sc 4. Spot-Fix | 1-5 | 1.14 | 3.76 | 3 | 1-5 | 1.07 | 3.86 | 3 | -2.44 | 297 | .02 | .09 |
| Sc 2. Match-Fix | 1-5 | .96 | 4.23 | 4 | 1-5 | .84 | 4.32 | 4 | -2.04 | 297 | .04 | .10 |

*N*=298

### 6.4.3 Level of discipline

Table 6.4 presents participants' self-reported views in relation to what discipline they think 'would' occur and 'should' occur for each of the four scenarios. Across the scenarios, there was consistency in relation to what level of discipline participants thought 'would' and 'should' occur, meaning that the mean and rank order for both response categories are comparable. The rank order, however, does not match the rank order for the seriousness results presented in Table 6.2, with Scenario 4 (spot-fixing) being viewed as being lower than Scenario 1 (betting on own sport) in terms of discipline. This could suggest that spot-fixing is not well understood or how it is dealt with is unknown, possibly due to a limited number of example cases. In other words, there may be limited understanding of what sort of discipline should apply to spot-fixing, and there may also be a lack of awareness of what it is. While the level of discipline between 'should' and 'would' was almost similar, the *t*-test results suggest statistically significant differences between what participants thought 'should' and 'would' occur in each scenario. The common pattern across the scenarios is that the perception of athletes and support staff in relation to what discipline 'should' occur is greater than what they think 'would' occur; however, these differences are small. For instance, when presented with the match-fixing scenario, participants believed the level of discipline should be stricter compared to what their sport would do. These results demonstrate two key points: (1) discipline should match the seriousness of the behaviour, and (2) sport needs to increase their discipline level to avoid being seen as lenient. Alternatively, this also means that there is an established expectation between athletes and support staff and their sport regarding the level of discipline for betting-motivated corruption. What is interesting, however, is that spot-fixing is viewed with a higher discipline level to match its seriousness. For instance, spot-fixing is regarded as the second most serious act of betting-motivated corruption in Table 6.2; however, it is ranked below betting on own sport in Table 6.4.

*Table 6.4. Athlete and support staff views on discipline.*

| Scenario Number and Description | Should | | | | Would | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Range | SD | Mean | Rank | Range | SD | Mean | Rank | t | df | p | Effect size |
| Sc 3. Inside Info | 1-6 | 1.52 | 3.99 | 1 | 1-6 | 1.55 | 3.90 | 1 | 2.15 | 297 | .03 | .05 |
| Sc 1. Bet own sport | 1-6 | 1.18 | 4.98 | 3 | 1-6 | 1.28 | 4.86 | 3 | 2.30 | 297 | .02 | .02 |
| Sc 4. Spot-Fix | 1-6 | 1.37 | 4.78 | 2 | 1-6 | 1.44 | 4.66 | 2 | 2.76 | 297 | .006 | .09 |
| Sc 2. Match-Fix | 1-6 | .91 | 5.50 | 4 | 1-6 | .95 | 5.43 | 4 | 2.09 | 297 | .04 | .02 |

*N*=298

## 6.5 Conclusion

This chapter explored the attitudes of athletes and support staff towards betting-motivated corruption. Participants self-reported their views towards four scenarios in relation to four constructs: seriousness, violation of policy, willingness to report, and discipline. In particular, paired *t*-tests were conducted to determine if there was a difference between participants' own view and what they thought most colleagues would think (colleague view) in relation to seriousness and willingness to report in each scenario. *t*-tests were also conducted to establish any differences between the level of discipline participants think 'should' occur and 'would' occur for each of the four scenarios. Overall, athletes and support staff established that both inside information and betting on own sport are classed as betting-motivated corruption of lower seriousness compared to spot-fixing and match-fixing, which are viewed as the most serious examples of betting-motivated corruption. When exploring the differences in their own view and colleague view, small differences were found for the two low-level scenarios (i.e., misuse of inside information and betting on own sport). No differences were found between participants' own view and their colleague view for the high-level corruption scenarios (i.e., spot- and match-fixing). Overall, these results suggest that participants personally view the low-level scenarios as slightly less serious than they believe their colleagues would view them.

In relation to willingness to report, the results indicate that the more seriously participants viewed a particular scenario, the more willing they were to report it. The paired *t*-tests conducted to compare the own view and colleague view measures demonstrate that culture plays an important part in shaping an athlete's or support person's own reporting behaviour. Across the four scenarios, small differences were found between participants' own view and their colleague view. In each scenario, the own view was slightly less than the colleague view, suggesting that culture plays a key role in setting the accepted level. A key pattern identified is that as the colleague view increased, so did participants' willingness to report. (i.e., their own view).

When exploring the attitudes of athletes and support staff towards discipline, a key pattern identified was that for the majority of scenarios, the level of discipline matched how serious participants viewed the scenario. There was an exception to this, however, where the level of discipline for spot-fixing did not match its seriousness; that is, lower levels of discipline were viewed by participants for spot-fixing, even though it was viewed as the second most serious type of betting-motivated corruption. This indicates a possible lack of understanding of the particular behaviour. In terms of the paired *t*-tests conducted, statistically significant differences were found between what participants thought 'should' and 'would' occur in each scenario. What this means is that participants' perceptions of what discipline 'should' occur is greater than what they think 'would' occur, suggesting that the level of discipline that participants think should occur is similar to what they think would occur; however, what athletes and support staff appear to believe is that their sport is more lenient.

The next chapter presents results of regression analyses conducted to determine whether different factors explored across studies One and Two and introduced in Study Three predict specified outcomes. These outcomes include: athlete and support staff willingness to report betting-motivated corruption, and compliance with governing body anti-betting motivated corruption policies.

# Chapter 7: Study Three – Predicting Reporting and Compliance Results

The term 'code of silence' or 'code of omerta' refers to the behaviour in which individuals have an informal norm that prohibits the reporting of corrupt acts carried out by fellow colleagues (Westmarland, 2005). Code of silence is predominately explored within the police integrity context, where a sub-culture and unwritten rules exist where 'Cops don't tell on Cops' (Mollen Commission, 1994, p. 53). Despite police jurisdictions worldwide pushing for police officers to speak up against corruption and be accountable and transparent, police corruption still exists today and it is the code of silence that has been identified as a key obstacle in controlling police corruption and misconduct. This code of silence that exists within the police context has previously been identified within sport; however, it has been mostly explored regarding doping issues, with very little research within the betting-motivated corruption context (Moriconi & Cima, 2020). The purpose of this study, therefore, is to explore the code of silence notion within the betting-motivated corruption context and identify key correlates of athlete and support staff reluctance to report. To do this, participants were asked various questions to measure their perceptions in relation to reporting, seriousness, procedural justice, and compliance for four betting-motivated corruption scenarios. This chapter presents the results of regression analyses conducted to determine which factors predict athlete and support staff willingness to report betting-motivated corruption. Furthermore, this study will explore whether any factors predict athlete and support staff compliance with betting-motivated corruption policies.

## 7.1 Sample

A total of 252 participants were included in the sample. A detailed description of the administration of the questionnaire and how missing data were dealt with is discussed in section

4.4. Further, the sample's characteristics are presented in Table 7.1, which summarises the percentage of participants in terms of gender, sport level, sport, role, age range, and length in their current role.

*Table 7.1. Sample characteristics.*

| Demographic variable | Total |
|---|---|
| % Male | 64.8 |
| % Elite-level status | 10.2 |
| % Rugby league | 24.2 |
| % Athlete | 82.8 |
| % Over 25 years old | 38.5 |
| % Length in role – 3 or more years | 55.7 |

$N = 252$

## 7.2 Scenarios

The questionnaire used in this study was adapted from the integrity scale developed by Klockars et al. (1997), which focuses on measuring the code of silence within the US police context. The original questionnaire by Klockars et al. (1997) contained 11 scenarios to cover the broad range of police corruption and misconduct that can occur. As noted in Chapter 6, modifications were made to suit this study by developing four scenarios that focus on various types of betting-motivated corruption. Scenarios were developed to incorporate high- and low-level corruption that is most likely to occur based on previous cases (Bricknell, 2015; Lastra, 2018). The four scenarios presented include match-fixing and spot-fixing, which represented high-level corruption, and scenarios relating to betting on own sport and the misuse of inside information were included, which represented low-level corruption. For instance, to capture the misuse of inside information, participants were presented with the following vignette: 'A player or staff member discusses private team information with family and/or friends. This information is later used by a friend/family member to place a bet.’ To capture high-level corruption such as match-fixing, participants were presented with the following scenario: ‘A group of players, coach, and manager get together to lose a match intentionally to support a bet placed with a bookmaker.’

Each scenario within the integrity scale (Klockars et al., 1997) consists of seven items which measure constructs relating to the participant’s own perception and that of their colleagues in relation to seriousness, likelihood to report (code of silence), rules (items 1–5), and discipline (items 6–7). Items 1–5 are rated using various answer categories on a five-point scale, while items 6 and 7 consist of multiple-choice answers (further details on the items are presented below). The same seven items from the s integrity scale were adapted to the current study by making minor modifications to suit the sport context and types of discipline that could occur. Overall, the questionnaire included four scenarios, and participants were presented with the same set of items to measure various aspects of the participant’s perception relating to seriousness, likelihood to report (code of silence), rules, and discipline.

## 7.3 Measures

### *7.3.1 Dependent variables*

#### *7.3.1.1 Willingness to report*

Participants’ perception of reporting a fellow colleague engaging in the presented scenario was measured using one of the six items adapted from the integrity scale (Klockars et al., 1997). Participants were presented with a five-point Likert scale to rate their likelihood of reporting a fellow colleague (own view), as well as if they thought others would report (colleague view). The same item was presented for each of the four scenarios, and participants rated their likelihood of reporting on a scale of (1) *very unlikely* to (5) *very likely*. Higher scores reflected a view that the participant was more likely to report a colleague engaging in behaviour similar to the scenario presented in the questionnaire. The descriptive statistics for the dependent variable are presented in Table 7.2. For the regression analysis related to willingness to report, the dependent variable is the participant's 'own view'. For the regression analysis to predict compliance, this variable is used as an independent variable where participants' own view and their colleague view for each scenario were transformed into two separate composite scores.

*Table 7.2. Descriptive statistics of independent and dependent variables.*

| Variables | Total | Match-fixing | Spot-fixing | Betting on own sport | Misuse insider info. |
|---|---|---|---|---|---|
| Independent variables | | | | | |
| Mean perception of PJ | 18.59 (3.19) | | | | |
| Mean compliance (Gov Body) | 16.39 (2.46) | | | | |
| Mean seriousness score (own) | | 4.80 (.46) | 4.30 (.86) | 4.29 (.78) | 3.72 (.88) |
| Mean seriousness score (most) | | 4.78 (.50) | 4.30 (.85) | 4.37 (.71) | 3.80 (.80) |
| Mean Discipline score (should occur) | | 5.52 (.86) | 4.70 (1.40) | 5.05 (1.10) | 3.98 (1.52) |
| Mean willingness to report (most) | | 4.35 (.77) | 3.81 (1.05) | 3.52 (.94) | 3.36 (1.03) |
| % Male | 64.8 (n=158) | | | | |
| % Over 25 years of age | 38.5 (n=94) | | | | |
| % Athlete | 82.8 (n=202) | | | | |
| % 3 or more years experience | 55.7 (n=136) | | | | |
| % Elite level status | 10.2 (n=25) | | | | |
| % Rugby League | 24.2 (n=59) | | | | |
| % Received anti-corruption training | 52.9 (n=129) | | | | |
| % Gambles on other sports | 39.3 (n=96) | | | | |
| % Gambles on own sport | 7.0 (n=17) | | | | |
| Dependent variable | | | | | |
| Mean willingness to report (own) | | 4.28 (.89) | 3.73 (1.13) | 3.45 (1.03) | 3.16 (1.14) |

*N* = 252; PJ = procedural justice.

### 7.3.2 Independent variables

The study's exploratory nature saw a number of independent variables being tested for their impact on the dependent variable across the four scenarios. As a starting point, previous research on reporting within the policing context was examined. Key independent variables identified to predict reporting behaviour included perceptions of seriousness, procedural justice, and attitude towards compliance. The analyses also included measures categorised as individual characteristics, such as age, gender, and anti-corruption training experience.

### 7.3.3 Attitudes towards betting-motivated corruption

#### 7.3.3.1 Perceptions of seriousness

Participants were presented with two questions relating to perceptions of seriousness for each of the scenarios they were presented. The first question was, 'How serious do you consider this behaviour to be?' which focused on measuring the participant's perception of how serious they thought the scenario they were presented was (own view). Following that, participants were asked to rate how seriously they thought most people in their club/organisation would rate the behaviour being presented (colleague view). In other words, the first question measured the participant's own perception of seriousness and the second question explored how seriously they thought others would perceive the scenario. Both questions were measured on a five-point Likert scale, from (1) *not at all serious t*o (5) *very serious.* Table 7.2 presents the mean (*M*) and standard deviation (*SD*) of the variable for each scenario. For the regression analysis to predict compliance, this variable is used as an independent variable where the own view seriousness scores for each scenario were transformed into a composite score. The same process was also conducted for colleague view.

#### 7.3.3.2 Perception of discipline

Athletes' and support staff's perceptions of discipline were measured by asking which discipline they think 'should' occur within each of the four scenarios they were presented. Participants were presented with six disciplinary action options: (1) none, (2) verbal warning,

(3) written warning, (4) fine, (5) suspension, and (6) ban. This means that discipline was measured on a six-point ordinal scale, ranging from (1) *no disciplinary action* to (6) *ban*. In each scenario, participants were asked to select all disciplinary options they thought were applicable in terms of discipline that 'should' occur. For the regression analyses, the most severe option that participants selected was included due to the impracticality of conducting the prescribed analytic technique on multiple responses. For example, if a participant selected the following three discipline options of 'fine', 'written warning', and suspension, then the participant's response for discipline would be recorded as (5) *suspension*, as it is the most severe option selected. Table 7.2 details the descriptive statistics for this variable. For the regression analysis to predict compliance, this variable was used as an independent variable where the 'should' discipline scores for each scenario were transformed into a composite score.

#### *7.3.3.3 Perception of whether others would report*

Participants were asked to rate how likely they thought their colleagues would report a fellow athlete or support staff for engaging in the scenario they were presented with. Similar to the dependent variable related to willingness to report, participants were presented with a five-point Likert scale where they rated their perception of whether others would report the particular scenario on a scale of (1) *very unlikely* to (5) *very likely*, with higher scores reflecting a view that colleagues were more likely to report an individual engaging in corruption similar to the scenario presented. Table 7.2 details the descriptive statistics for this variable. As mentioned earlier, this variable was transformed into a composite score (i.e., willingness to report colleague view) for the regression analysis to predict compliance.

### *7.3.4 Procedural justice and compliance*

#### *7.3.4.1 Procedural justice*

Procedural justice used by governing bodies was measured using an adaptation of the procedural justice scale employed by Sargeant et al. (2017) and Bradford et al. (2014). The procedural justice scale consists of five items, which together measure whether athletes and support staff perceive their sport's governing body as using procedural justice-related approaches during their interactions. For instance, procedural justice is explored by presenting questions like, 'My sport governing body listens to people before making decisions.' This question was measured on a response set scale of (1) *strongly disagree* to (5) *strongly agree.* Furthermore, higher scores indicate increased agreement with procedural justice use by the governing body in its interactions with athletes and support staff (Cronbach's $\alpha = .89$, $M = 18.42$, $SD = 3.39$). The combination of the five items to create an index has previously displayed acceptable Cronbach alphas of .5 and above across a range of populations (Bradford et al., 2014; Kyprianides et al., 2022; Sargeant et al., 2017). To ensure each of the five items is correlated and measures procedural justice, a PCA of the items was conducted and is presented in Table 7.3.

*Table 7.3. Principal component analysis of procedural justice and general compliance items.*

| Items | Procedural Justice | General Compliance |
|---|---|---|
| My sport governing body's decisions are consistent | .874 | |
| My sport governing body listens to people before making decisions | .873 | |
| My sport governing body gives people the opportunity to express their views before decisions are made | .865 | |
| My sport governing body's decisions are based on fact, not personal opinion | .785 | |
| My sport governing body treats people with respect | .720 | |
| I follow the instructions given to me by my sport governing body, even when I think they are wrong | | .853 |
| I comply with my sport's policies, even if I think they are wrong | | .847 |
| I do what my sport governing body ask me to do | | .743 |
| I ignore my supervisor's instructions (reversed) | | .518 |
| % variance | 42.911 | 23.146 |
| Eigenvalues | 3.862 | 2.083 |
| Cronbach's alpha | .89 | .72 |

$N = 252$

#### 7.3.4.2 General compliance

Athlete and support staff attitudes towards compliance with rules and regulations set by their sport governing body and sport organisation/club were measured using a four-item mean index adapted from the five-item mean index employed by Sargeant et al. (2017). The original five-item index has been used previously to explore the compliance of police officers with their agency's standards (Bradford et al., 2014). Of the five items, item 3 was removed and a four-item version was therefore employed for this study. Item 3, 'I do what I am told by my supervisor without question', was omitted as it was decided that it was similar to items 1 and 2 and that reducing the length of the questionnaire was important to consider due to time constraints of sport teams. The four-item version employed in this study canvased both hard and soft compliance through questions like, 'I comply with my sport's policies, even if I think they are wrong' and 'I do what my sport governing body ask me to do.' Each item was measured on a scale of (1) *strongly disagree* to (5) *strongly agree*. When combining the four items to create an index, the higher scores indicate greater general compliance with policies set by the athletes' and support staff's sport governing body (Cronbach's $\alpha = .71$, $M = 16.40$, $SD = 2.45$).

### 7.3.5 Demographic factors

#### 7.3.5.1 Athlete and support staff characteristics

Participant characteristics, including their age range (1 = over 25 years of age), gender (1 = male) and role (athlete or support staff), were controlled for in the analyses. Also included was the sport they were involved in (1 = rugby league), years of experience in their current role (1 = 3 or more years), if they were involved at the elite or sub-elite level (1= elite), and whether they had received anti-corruption training (1 = received training). Age range was measured as over or under 25 years of age (1 = over 25). Furthermore, participants self-reported their gambling habits in the last 12 months, including gambling on their own sport and other sports. Descriptive statistics for the demographic factors are presented in Table 7.4.

*Table 7.4. Descriptive statistics of demographic factors.*

| Variables | Total |
|---|---|
| % Male | 64.8 (n=158) |
| % Over 25 years of age | 38.5 (n=94) |
| % Athlete | 82.8 (n=202) |
| % 3 or more years experience | 55.7 (n=136) |
| % Elite level status | 10.2 (n=25) |
| % Rugby League | 24.2 (n=59) |
| % Received anti-corruption training | 52.9 (n=129) |
| % Gambles on other sports | 39.3 (n=96) |
| % Gambles on own sport | 7.0 (n=17) |

$N = 244$

## 7.4 Analytic approach

In order to explore athlete and support staff views on reporting betting-motivated corruption for the various scenarios, OLS models of the independent variables on the dependent variable (i.e., the likelihood of reporting a colleague engaging in presented behaviour). In particular, hierarchical multiple regression analysis was conducted. Separate analyses were run to determine the predictors for willingness for each of the four scenarios of match-fixing, spot-fixing, misuse of inside information and betting on own sport. Predictor variables were entered in three steps to determine the amount of variance in the dependent variable (i.e., willingness to report or compliance) while controlling for the other variables. The first step comprised predictor variables related to the participant's personal views (e.g., how serious they believe the scenario is), the second step comprised predictor variables on what they think their colleagues believe (e.g., how likely do you believe that your colleagues would report the behaviour), while the third step comprised demographic factors (e.g., gender and age), their own gambling habits, and anti-corruption training experience.

Prior to interpreting the results of the regression analyses, assumptions were tested. There was linearity in all four models as assessed by partial regression plots and a plot of studentised residuals against the predicted values. Independence of residuals was confirmed, as assessed by Durbin-Watson statistic ranges from 1.58–1.90 across the four models. There was homoscedasticity in all models, verified by a visual inspection of a plot of studentised residuals versus unstandardised predicted values. In each model, there was no evidence of multicollinearity, as tolerance values were greater than 0.1. Further, assumptions of normality were met in all models as assessed by Q-Q Plots. There were, however, a number of outliers detected in all four models. The outliers were assessed and retained for analyses as they were not data entry errors and were assumed to be participants' true perceptions. Overall, there were nine outliers for match-fixing, three for spot-fixing, five for betting on own sport, and eight for misuse of inside information. Models with and without outliers included are presented in Tables 7.5 and 7.6 for comparison. The key pattern identified is that the analyses with the outliers excluded caused selected variables to turn from non-significant to statistically significant.

Furthermore, a PCA with oblique rotation was conducted to test for discriminant validity; that is, to confirm that the measures for procedural justice and general compliance are not related. The PCA revealed two distinct factors (with eigenvalues exceeding 1), with all items loading on their expected factor; that is, all five items testing for procedural justice loaded on one factor, while all four items measuring general compliance loaded onto a separate factor. This confirms that procedural justice and general compliance are separate variables.

## 7.5 Results

### *7.5.1 Predicting willingness to report*

To explore athlete and support staff views on reporting betting-motivated corruption, a standard multiple regression analysis was performed. The analysis involved estimating OLS models of the attitudinal, procedural justice, compliance, and demographic variables on the dependent variable for each of the four scenarios athletes and support staff were presented (i.e., the likelihood of reporting a colleague engaged in the presented behaviour).

Table 7.5 indicates that the full model of own view, cultural views, and demographic factors to predict willingness to report match-fixing (Analysis 1 – Step 3) was statistically significant, $R^2 = .60$, $F(15, 236) = 23.82$, $p < .001$; adjusted $R^2 = .58$. This suggests that the combination of independent variables accounted for a statistically significant 60% of the variability in the likelihood of an athlete and support staff reporting an instance of match-fixing. The addition of cultural views to the prediction of willingness to report match-fixing (Step 2) led to a statistically significant increase in $R^2$ of .35, $F(2, 245) = 100.99$, $p < .001$. The addition of demographic factors to the prediction of willingness to report match-fixing (Step 3) led to a statistically non-significant increase in $R^2$ of .03, $F(9, 236) = 1.77$, $p = .075$. The results of the analysis without outliers (Table 7.6) produced similar results; however, the variability it accounted for was greater.

In relation to Analysis 2, the full model of own view, cultural views, and demographic factors to predict willingness to report spot-fixing (Analysis 2 – Step 3) was statistically significant, $R^2 = .83$, $F(15, 236) = 35.79$, $p < .001$; adjusted $R^2 = .68$. This suggests that the combination of independent variables accounted for a statistically significant 83% of the variability in the likelihood of an athlete and support staff reporting an instance of spot-fixing. The addition of cultural views to the prediction of willingness to report match-fixing (Step 2) led to a statistically significant increase in $R^2$ of .21, $F(2, 245) = 80.86$, $p < .001$. The addition of demographic factors to the prediction of willingness to report spot-fixing (Step 3) led to a statistically non-significant increase in $R^2$ of .02, $F(9, 236) = 1.87$, $p = .057$. The results of the analysis without outliers (Table 7.6) produced similar results; however, the variability it accounted for was greater.

The full model of own view, cultural views, and demographic factors to predict willingness to report an individual betting on their own sport (Analysis 3 – Step 3) was statistically significant, $R^2 = .55$, $F(15, 236) = 19.32$, $p < .001$; adjusted $R^2 = .52$. This suggests that the combination of independent variables accounted for a statistically significant 55% of the variability in the likelihood of an athlete and support staff reporting an instance where an individual is betting on their own sport. The addition of cultural views to the prediction of willingness to report betting on own sport (Step 2) led to a statistically significant increase in $R^2$ of .25, $F(2, 245) = 59.99$, $p < .001$. The addition of demographic factors to the regression (Step 3) led to a statistically significant increase in $R^2$ of .06, $F(9, 236) = 3.74$, $p < .001$. The results of the analysis without outliers (Table 7.6) produced similar results; however, the variability it accounted for was greater.

Results for Analysis 4 indicate that the full model (Step 3) of own views, cultural views, and demographic factors to predict willingness to report the misuse of inside information (Analysis 4 – Step 3) was statistically significant, $R^2 = .71$, $F(15, 236) = 38.68$, $p < .001$; adjusted $R^2 = .69$. This suggests that the combination of independent variables accounted for a statistically significant 71% of the variability in the likelihood of an athlete and support staff reporting the misuse of inside information. The addition of cultural views to the prediction of willingness to report misuse of inside information (Step 2) led to a statistically significant increase in $R^2$ of .26, $F(2, 245) = 103.45$, $p < .001$. The addition of demographic factors to the regression (Step 3) led to a non-significant increase in $R^2$ of .02, $F(9, 236) = 1.49$, $p = .15$. The results of the analysis without outliers (Table 7.6) produced similar results; however, the variability it accounted for was greater.

Regression coefficients for each predictor in Analysis 1–4 are reported in Table 7.5 (with outliers) and Table 7.6 (without outliers). The analyses revealed a number of findings that are particularly noteworthy. With or without the outliers included, participants' own perception of seriousness, their perception that others would report, and whether they were an athlete or support staff were statistically significant in the full model (Step 3) for all scenarios (except for the athlete variable in the misuse of inside information scenario with outliers excluded) when considering all other variables. These findings suggest that a code of silence culture exists, considering the greater effect that the view that others would report has compared to any other variable, accounting for 29% of the variance in willingness to report match-fixing, 19% for spot-fixing, 22% for betting on own sport, and 23% for the misuse of inside information (with outliers included in the analysis). The results also suggest that the more serious a behaviour is, the greater the willingness to report and that athletes are less willing to report than support staff.

Furthermore, how serious others would think the behaviour is, attained statistical significance in the low-level scenarios (betting on own sport and misuse of inside information) with outliers included; however, when outliers were excluded, the variable was statistically significant in all scenarios. The results, however, indicate that when an individual believes that others would view the behaviour as serious, their willingness to report decreases. This supports the code of silence culture, as athletes and support staff do not want to be known as the one who reports.

Interestingly, other than the previously mentioned variables that were statistically significant, the remaining variables included in the analyses were statistically non-significant for most scenarios. This suggests that own views of discipline, procedural justice, and general compliance do not influence reporting behaviour for most scenarios. Further to this, demographic factors such as gender, age, elite status, and years of experience, as well as gambling habits and previous anti-corruption training, do not influence an individual's willingness to report when considering all other variables.

*Table 7.5. Unstandardised (B) and standard error for each predictor variable on each step of a hierarchical multiple regression predicting willingness to report for four separate scenarios (with outliers included).*

| Variable | Match-fixing (Analysis 1) *B* (std.Error) | Spot-fixing (Analysis 2) *B* (std.Error) | Betting on own sport (Analysis 3) *B* (std.Error) | Misuse inside information (Analysis 4) *B* (std.Error) |
|---|---|---|---|---|
| **Step 1** | | | | |
| Seriousness (you) | .32 (.11)*** | .54 (.08)*** | .31 (.08)*** | .45 (.08)*** |
| Discipline (should) | .18 (.07)** | .15 (05)** | .17 (.06)** | .23 (.04)*** |
| Procedural Justice | .07 (.02) | .13 (.02)** | .18 (.02)** | .11 (.02)* |
| General Compliance | .10 (.02)# | .06 (.02) | .06 (.03) | .07 (.02) |
| | Adj $r^2$ = .21 | Adj $r^2$ = .45 | Adj $r^2$ = .22 | Adj $r^2$ = .43 |
| **Step 2** | | | | |
| Seriousness (you) | .20 (.10)*** | .38 (.10)*** | .21 (.08)** | .45 (.08)*** |
| Discipline (should) | .02 (.05) | -.007 (.04) | .10 (.05) # | .04 (.04) |
| Procedural Justice | .01 (.01) | .04 (.01) | .03 (.02) | .06 (.01) |
| General Compliance | .05 (.02) | .06 (.02) | .04 (.02) | .07 (.02)# |
| Seriousness (most) | -.08 (.08) | -.17 (.11)* | -.16 (.09)* | -.44 (.09)*** |
| Report (most) | .68 (.06)*** | .65 (.06)*** | .60 (.06)*** | .76 (.06)*** |
| | Adj $r^2$ = .57 | Adj $r^2$ = .67 | Adj $r^2$ = .48 | Adj $r^2$ = .687 |
| **Step 3** | | | | |
| Seriousness (you) | .20 (.10)*** | .33 (.10)*** | .16 (.08)* | .42 (.08)*** |
| Discipline (should) | .02 (.05) | .01 (.04) | .14 (.05)** | .06 (.04) |
| Procedural Justice | .05 (.01) | .08 (.01)* | .07 (.02) | .09 (.01)* |
| General Compliance | .04 (.02) | .07 (.02) | .05 (.02) | .05 (.02) |
| Seriousness (most) | -.08 (.08) | -.14 (.11)# | -.12 (.09)* | -.42 (.10)*** |
| Report (most) | .65 (.06)*** | .64 (.06)*** | .58 (.06)*** | .74 (.06)*** |
| Male | -.08 (.10) | -.02 (.11) | .01 (.12) | -.04 (.11) |
| Over 25 | .01 (.10) | .02 (.11) | .006 (.12) | -.02 (.11) |
| 3+ years' experience | .01 (.09) | -.02 (.10) | .05 (.10) | .06 (.09) |
| Elite level | .02 (.15) | .05 (.16) | -.11 (.17)* | .05 (.15) |
| Rugby League | -.01 (.12) | -.06 (.13) | .05 (.14) | -.09 (.12)* |
| Anti-corruption training | -.05 (.08) | -.06 (.09) | -.05 (.09) | -.02 (.09) |
| Athlete | -.15 (.13)** | -.13 (.14)** | -.22 (.15)*** | -.09 (.13)* |
| Gambles (on other sports) | .06 (.08) | .01 (.10) | -.02 (11) | .07 (.10)# |
| Gambles (on own sport) | -.05 (.16) | .003 (.16) | -.05 (.18) | -.03 (.16) |
| | Adj $r^2$ = .58 | Adj $r^2$ = .68 | Adj $r^2$ = .52 | Adj $r^2$ = .69 |

# $p< 0.10$ * $p< 0.05$ ** $p<0.01$ *** $p<0.001$

$N$= 252

*Table 7.6. Unstandardised (B) and standard error for each predictor variable on each step of a hierarchical multiple regression predicting willingness to report for four separate scenarios (with outliers excluded).*

| Variable | Match-fixing (Analysis 1) N=243 *B* (std.Error) | Spot-fixing (Analysis 2) N=249 *B* (std.Error) | Betting on own sport Analysis 3) N = 247 *B* (std.Error) | Misuse inside information (Analysis 4) N = 244 *B* (std.Error) |
|---|---|---|---|---|
| **Step 1** | | | | |
| Seriousness (you) | .35 (.11)*** | .59 (.08)*** | .35 (.08)*** | .49 (.07)*** |
| Discipline (should) | .21 (.06)** | .14 (04)** | .18 (.06)** | .27 (.04)*** |
| Procedural Justice | .08 (.02) | .13 (.02)# | .19 (.02)*** | .08 (.02)# |
| General Compliance | .07 (.02) | .01 (.02) | .01 (.03) | .06 (.02) |
| | Adj $r^2$ = .24 | Adj $r^2$ = .48 | Adj $r^2$ = .25 | Adj $r^2$ = .49 |
| **Step 2** | | | | |
| Seriousness (you) | .21 (.08)** | .46 (.09)*** | .27 (.07)** | .44 (.06)*** |
| Discipline (should) | .01 (.04) | -.01 (.03) | .10 (.04)* | .07 (.03)# |
| Procedural Justice | .00 (.01) | .04 (.01) | .01 (.01) | .01 (.01) |
| General Compliance | .03 (.01) | .01 (.02) | -.03 (.02) | .04 (.01) |
| Seriousness (most) | -.17 (.07)* | -.22 (.10)** | -.21 (.08)*** | -.41 (.07)*** |
| Report (most) | .80 (.04)*** | .68 (.05)*** | .70 (.05)*** | .82 (.05)*** |
| | Adj $r^2$ = .72 | Adj $r^2$ = .72 | Adj $r^2$ = .58 | Adj $r^2$ = .80 |
| **Step 3** | | | | |
| Seriousness (you) | .21 (.08)*** | .42 (.09)*** | .22 (.07)*** | .44 (.06)*** |
| Discipline (should) | .003 (.04) | .01 (.04) | .13 (.04)** | .07 (.03)# |
| Procedural Justice | .02 (.01) | .07 (.01)# | .05 (.01) | .02 (.01) |
| General Compliance | .03 (.01) | .01 (.02) | -.04 (.02) | .04 (.01) |
| Seriousness (most) | -.10 (.07)* | -.21 (.10)** | -.18 (.08)** | -.39 (.08)*** |
| Report (most) | .77 (.05)*** | .68 (.05)*** | .67 (.05)*** | .80 (.05)*** |
| Male | -.006 (.08) | .01 (.10) | .00 (.11) | -.04 (.09) |
| Over 25 | .03 (.08) | .01 (.10) | .03 (.11) | .02 (.09) |
| 3+ years' experience | -.02 (.07) | -.004 (.09) | .07 (.09) | -.01 (.07) |
| Elite level | -.03 (.12) | .02 (.14) | -.11 (.15)* | -.03 (.12) |
| Rugby League | .01 (.09) | -.03 (.12) | .09 (.12)# | -01 (.10) |
| Anti-corruption training | -.05 (.07) | -.03 (.08) | .002 (.09) | -.01 (.07) |
| Athlete | -.08 (.10)** | -.11 (.13)* | -.17 (.13)*** | -.04 (.12) |
| Gambles (on other sports) | -.02 (.07) | -.02 (.10) | -.02 (10) | .05 (.08) |
| Gambles (on own sport) | -.05 (.12) | -.01 (.15) | -.05 (.16) | -.01 (.13) |
| | Adj $r^2$ = .72 | Adj $r^2$ = .72 | Adj $r^2$ = .63 | Adj $r^2$ = .80 |

# $p < 0.10$ *$p < 0.05$ ** $p < 0.01$ ***$p < 0.001$

### 7.5.2 Predicting compliance with sport's policies

Table 7.7 indicates that the full model of own view, cultural views, and demographic factors to predict compliance with rules set by sport governing bodies (Step 3) was statistically significant, $R^2 = .20$, $F(16, 234) = 3.52$, $p < .001$; adjusted $R^2 = .15$. This suggests that the combination of independent variables accounted for a statistically significant 20% of the variability in compliance level. The addition of cultural views to the prediction of compliance (Step 2) led to a statistically non-significant increase in $R^2$ of .008, $F(3, 243) = .79$, $p = .50$. The addition of demographic factors to the model (Step 3) led to a statistically non-significant increase in $R^2$ of .014, $F(9, 234) = .450$, $p = .91$.

Regression coefficients for each predictor are reported in Table 7.7. The analyses revealed a number of findings that are particularly noteworthy. Overall, there were only two predictors that were statistically significant in the full model (Step 3) when controlling for all other variables: participant's own perception of procedural justice and their own willingness to report. This suggests that compliance increases when an athlete or support staff views their sport as treating them procedurally just, and they are willing to report betting-motivated corruption. In other words, the stronger their views are on the two variables, the greater their compliance. Meanwhile, how seriously an athlete or support staff views betting-motivated corruption was close to being statistically significant ($p < .10$).

Interestingly, the remaining variables included in the analyses were statistically non-significant. This suggests that own views of discipline (both 'should' and 'would' occur) and seriousness ('own' and 'most') do not influence compliance in our sample. Further to this, demographic factors, such as gender, age, role, elite status, sport, years of experience, gambling habits, and previous anti-corruption training, do not influence an individual's compliance with their sport governing body's rules when considering all other variables.

*Table 7.7. Unstandardised (B) and standard error for each predictor variable on each step of an OLS regression predicting compliance.*

| Variable | *B* (Std. error) | Sig. |
|---|---|---|
| **Step 1** | | |
| Seriousness (you) | .18 (.06) | .000 |
| Discipline (should) | -.07 (.04) | .049 |
| Procedural Justice | .18 (.04) | .000 |
| Report (own) | .09 (.04) | .046 |
| | Adj $r^2$ = .17 | |
| **Step 2** | | |
| Seriousness (you) | .16 (.09) | .07 |
| Discipline (should) | -.07 (.06) | .287 |
| Procedural Justice | .19 (.04) | .000 |
| Report (own) | .15 (.06) | .013 |
| Seriousness (most) | .05 (.10) | .613 |
| Report (most) | -.11 (.07) | .133 |
| Discipline (would) | .005 (.06) | .932 |
| | Adj $r^2$ = .17 | |
| **Step 3** | | |
| Seriousness (you) | .16 (.09) | .075 |
| Discipline (should) | -.06 (.07) | .355 |
| Procedural Justice | .19 (.04) | .000 |
| Report (own) | .15 (.06) | .014 |
| Seriousness (most) | .04 (.11) | .745 |
| Report (most) | -.11 (.08) | .138 |
| Discipline (would) | .004 (.06) | .947 |
| Male | -.15 (.33) | .65 |
| Over 25 | -.02 (.31) | .95 |
| 3+ years' experience | .12 (.27) | .67 |
| Elite level | .09 (.45) | .84 |
| Rugby league | -.13 (.36) | .73 |
| Anti-corruption training | .09 (.26) | .728 |
| Athlete | .12 (.41) | .78 |
| Gambles (on other sports) | .06 (.29) | .84 |
| Gambles (on own sport) | .76 (.48) | .114 |
| | Adj $r^2$ = .15 | |

# $p< 0.10$ * $p< 0.05$ ** $p<0.01$ *** $p<0.001$
$N= 252$

## 7.6 Conclusion

This chapter identified factors which influenced the perceptions of athletes and support staff in relation to: their willingness to report different types of betting-motivated corruption; as well as their overall compliance with associated policies enforced by their sport governing body. This involved conducting regression analyses to determine whether variables such a demographics and self-reported perceptions presented in studies one, two and three predicted reporting behaviour and compliance.

In exploring predictors of athlete and support staff willingness to report, the results established a code of silence culture exists in the two sports this research focused on. In particular, the results indicate participants' own perception of seriousness, their perception that others would report, and whether they were an athlete or support staff were statistically significant across each of betting-motivated corruption scenario (with exception of misuse of inside information with outliers excluded). Of note, the results indicate when an individual believes that others would view the behaviour as serious, their willingness to report decreases. Therefore supporting the code of silence culture, as athletes and support staff do not want to be known as the one who reports.

When exploring which factors predict compliance with anti-betting-motivated corruption policies among athletes and support staff, two factors were identified as statistically significant. The results indicate participant's own perception of procedural justice and their own willingness to report are two factors which influence compliance. This means athletes and support staff are more likely to comply with their sport's anti-betting-motivated corruption policies if they view their sport as treating them procedurally just, and they are willing to report betting-motivated corruption. The greater they perceive procedural justice and are more willing to report, the increased likelihood of compliant behaviour.

The next chapter discusses the key findings for each of the three studies conducted and presents their contribution in response to the thesis RQs. Furthermore, the chapter discusses the theoretical and practical implications of the research and how they align with existing literature presented in Chapters 2 and 3, as well outline research limitations and suggestions for future research.

# Chapter 8: Discussion

The purpose of the current research was to empirically explore the perceptions of athletes and support staff in relation to betting-motivated corruption in sport. Research evidence on betting-motivated corruption is limited in Australia, and the issue remains a key threat to the integrity of sport domestically and internationally. Exploring betting-motivated corruption at the sub-elite level is particularly important as it presents greater risks of corruption due to the perceived reduced levels of scrutiny and oversight at this level of performance compared to elite-level competitions (Wood, 2018). The sub-elite level comprises a greater proportion of sport participants (compared to elite levels) and provides an opportunity for early prevention before individuals progress to elite levels of competition. This research has addressed the need to enhance our understanding of betting-motivated corruption with sub-elite Australian sport, uncovering opportunities to enhance prevention efforts.

The research explored sub-elite rugby league and basketball within Australia in relation to four key objectives:

1. Gain insight into the prevalence of betting-motivated corruption in both sports;
2. Explore differences between demographic factors and individual perceptions regarding motivational, deterrent, and preventative factors;
3. Explore associations between demographic factors and individual attitudes towards betting-motivated corruption of varying seriousness; and
4. Understand the impact of individual perceptions and organisational culture on *compliance with rules* and *willingness to report* betting-motivated corruption.

To advance the current understanding of betting-motivated corruption and contribute to existing research, this final chapter discusses the key findings relevant to the three studies conducted and articulates their contribution in response to the thesis RQs. Further, this chapter discusses the theoretical and practical implications of the research and how they align with existing literature presented in Chapters 2 and 3. To conclude, the limitations of the research are detailed, and suggestions for future research are articulated.

## 8.1 Key findings

This section summarises the key findings for each research question. A more in-depth discussion of the implications of and contribution to advancing the existing knowledge base surrounding betting-motivated corruption is discussed later in this chapter.

### *8.1.1 Study One*

This study focused on athlete and support staff perceptions of the prevalence of betting-motivated corruption in both sub-elite rugby league and basketball within Australia, as well as the differences between demographic factors and individual perceptions regarding motivational, deterrent, and preventative factors.

The main finding of Study One is that the sample of athletes and support staff perceived an exceptionally low prevalence of betting-motivated corruption within their sport, consistent with international research (Harvey & Levi, 2014; Van Der Hoeven et al., 2023). Key indicators of prevalence were the low proportion of athletes and support staff reporting knowledge of or involvement in cases of match-fixing, spot-fixing, misuse of inside information, and betting on their own sport. Potential explanations for this reported low prevalence include Australia's low societal corruption, as highlighted in its positive ranking in the Transparency International corruption perceptions index, as well as the Australian Government's efforts to protect sport integrity. In 2022, Australia ranked 13th in the world in terms of the corruption perception index out of 180 countries, highlighting the high levels of perceived integrity across the country in comparison to the rest of the world (Transparency International, 2022).

Furthermore, Australia has a rich sporting culture, recognised as a high-performing and passionate sports nation, which consequently acts as a protective factor for sport corruption (Australian Government, 2019). Because of this, Australia is one of the leading nations in terms of anti-corruption in sport, being the first country outside Europe to sign the United Nations Convention on the Manipulation of Sports Competitions, as well as one of the first countries in the world to establish the nation's own sport anti-corruption agency, the SIA (Council of Europe, 2019; SIA, 2022b).

Interestingly, athletes and support staff perceived less-serious betting-motivated corruption (while still low in prevalence) to be a greater concern than more serious types of corruption, including match-fixing and spot-fixing. For instance, misuse of inside information and athletes and support staff betting on their own sport was perceived as more prevalent in both rugby league and basketball. Further analysis between the sports identified athletes and support staff within rugby league are statistically more likely to report being approached to share or having witnessed others sharing inside information, compared to their basketball counterparts. These findings are similar to previous research by Barkoukis et al. (2020) who found differences in 'perceived prevalence' between football, basketball and volleyball players. Furthermore, the finding of the current research—that misuse of inside information was more prevalent than match-fixing/spot-fixing—is similar to other research. However, national context may make a difference. For example, Harvey & Levi (2014) in a study of soccer in Greece, found a larger proportion of respondents reported suspicions of misuse of inside information than match-fixing. In contrast, research exploring soccer in other countries has found athletes report a greater prevalence of match-fixing than misuse of inside information, despite being from the same sport (FIFPro, 2012; Barkoukis et al., 2020).

Overall, Study One highlights the importance of context, where sports can experience varying levels of corruption. However, in the case of this study, both sports have similar experiences in terms of betting-motivated corruption prevalence. Other research exploring the prevalence of betting-motivated corruption has identified instances where there are similarities and differences between countries, even within the same sport (Harvey & Levi, 2014). Furthermore, the results from the current research highlight a low prevalence of betting-motivated corruption (less than 10%), compared to larger scale international studies (that have also found low prevalence). For instance, Van Der Hoeven et al. (2023) explored betting and non-betting related match-fixing across semi-professional and amateur European soccer, tennis, basketball, field hockey and badminton. They reported that around 17.5% of respondents knew one or more persons who had already been approached for match-fixing. Meanwhile, FIFPro (2012), in their study of European soccer competitions found prevalence levels of match-fixing more similar to Van Der Hoeven et al. (2023) than findings of the current research. This comparison with existing research highlights the lower prevalence of betting-motivated corruption within the two Australian sports, in contrast to overseas contexts. However, this difference may be due to differences in questions; for example, the current study used a recall period of the last 12 months, while Van Der Hoeven et al. (2023) had no recall period limitation.

In terms of the influence of demographic factors on individual perceptions of motivating, deterrent, and preventative factors, the research highlighted four key findings. The first key finding was that age was a determinant of differences in perceptions about the factors that motivate and deter individuals from engaging in betting-motivated corruption. In particular, younger athletes and support staff (i.e., under 25) may be more extrinsically motivated to commit corruption through pressure by the meso level and due to thrill-seeking. At the same time, threatening their future career is a key deterrent. However, these perceptions can potentially change focus with older age (i.e., over 25) and individuals being more established in their career and personal life (e.g., family or other commitments outside sport). This is highlighted by our finding that a key deterrent factor is upholding personal integrity, which could translate to athletes and support staff maintaining their careers until retirement.

This shift in motivation/deterrence factors can be explained by the emerging adulthood theory. The age range of 18–25 is argued to be a period of 'emerging adulthood' (Arnett, 2000), while other literature defines 15–24 years as 'youth' (United Nations, n.d.). Arnett (2000) argues emerging adulthood is a period of exploration and growth where individuals explore a variety of personal and professional life experiences. Research highlights that emerging adulthood is a period between adolescence and full adulthood where risk-taking is at its peak and where learning and maturing occur (Hochberg & Konner, 2020; Schwartz & Petrova, 2019). The age group is argued as an at-risk demographic category, requiring direct intervention (United Nations, n.d.). Therefore, existing research supports the importance of setting the foundation in relation to integrity for athletes and support staff who are younger because, as identified in our findings, the younger age group reported external pressures and thrill-seeking as motivators of corruption.

Another key finding is the discovery of statistically significant relationships between respondents' gender and their perceptions in relation to motivational, deterrent, and preventative factors. Males were more likely to report financial issues as a motivating factor for engaging in betting-motivated corruption compared to females. A significant relationship was also identified between gender and the deterrent factor of letting down the micro level. This indicates that males are more likely than females to report letting down the micro level as a key deterrent factor. Furthermore, males were identified as being more likely to view 'better wages' to be an effective preventative strategy than females. Overall, these findings suggest there is less opportunity for females (compared to males) in sport in terms of 'salary', and therefore they are less extrinsically motivated.

Discrimination based on gender and/or sexual identity (gender inequality) is a potential explanation for the differing motivational, deterrent, and preventative factors identified between male and female athletes and support staff. Traditionally, sport has been considered a masculine domain and largely male-dominated (and still is) (English, 2017). Research within Australia and internationally highlights disparities in sport participation rates, where boys and men participate at much higher rates than girls and women (Casey et al., 2019; Eime et al., 2022). Lagaert and Roose (2016) explain the gender gap to be a result of 'masculine' connotations ingrained in sport, which are based on traditional societal gender roles. This includes gender roles where women are restricted to domestic duties, as opposed to men who can lead a public life and are stereotyped to be the financial support to the family (Haines et al., 2016).

Therefore, the extrinsic motivations identified among male support staff and athletes could potentially be explained by the social constructs of gender. This is also reflected in the disparities in sporting opportunities between males and females, particularly in terms of salary and the breadth of competitions. However, there have been advancements towards gender neutrality, where greater opportunities and investment exists for women's and girls' sport (Katsarova, 2019). Key indicators of this are enhanced media coverage and expanding professional competitions for women and girls (Eime et al., 2022). Therefore, the opportunity exists for future research to consider furthering the evidence base for gender differences within betting-motivated corruption through an intersectionality lens (which was outside the scope of the current thesis) (Lim et al., 2021).

Relationships between the type of sport and particular deterrent factors were also identified. Specifically, participants from rugby league were more likely to select letting down the micro level—that is, those relationships closest to the athlete/support staff—compared to those from basketball. Meanwhile, participants from basketball were more likely to report letting down the macro level as a deterrence, including considering implications on the sport as a whole, than their rugby league counterparts. This difference could be explained by the varying degree of commercialisation and opportunities in each sport, where the financial incentive in Australia is greater in rugby league than in basketball (NRL, 2022; Uluc, 2022). Due to the greater financial incentives available in rugby league, letting down the micro level, such as family, could potentially link to the participant's role as a financial provider. Using the salary caps for both sports' elite-level competitions as an indicator, the NRL competition's 2022 salary cap was approximately A$9.1 million (or an average of about A$300,000 per player in a 30-player squad) (NRL, 2022), while the 2022/23 NBL's cap was approximately A$1.7 million (or an average of about A$141,000 per player in a squad of 12) (Uluc, 2022). Of note, these are the potential salaries at the elite level, and it is highly likely financial incentives at the sub-elite level are less, which would be reflected in the perceptions provided by athletes and support staff in the current research.

Lastly, associations were identified between respondent roles and their perceptions of deterrent factors and effective prevention strategies. A significant relationship was identified, indicating support staff are more likely to report personal integrity as a deterrent factor than athletes. Meanwhile, in relation to perceptions of effective prevention strategies, the results showed that athletes were more likely to report better wages and union support but less likely to identify education as an effective prevention measure compared to support staff. The greater likelihood of athletes reporting better wages and union support as a preventative strategy could be explained by nuances in the hierarchy of sport, where athletes are usually the highest paid and receive financial incentives based on their performance (Hoye et al., 2015).

### *8.1.2 Study Two*

Study Two explored associations between individual attitudes and perceptions of what colleagues would think (colleague view) for a range of betting-motivated corruption vignettes (scenarios). Each vignette represented different types of betting-motivated corruption. Overall, culture was identified as a key influencer in athletes' and support staff's perceptions of seriousness, willingness to report, and disciplinary actions for betting-motivate corruption scenarios.

Culture was identified as a factor that influenced individual perceptions regarding less serious forms of corruption, such as misuse of inside information and individuals betting on their own sport. Distinct rankings were identified between the four types of betting-motivated corruption based on perceptions of seriousness. Misuse of inside information, individuals betting on their own sport, spot-fixing, and match-fixing (respectively) were ranked as the most serious. For context, individual willingness to report ranged between 'Maybe' to 'Likely 'depending on the type of betting-motivated corruption; however, a pattern was identified where willingness to report was likely to increase for more serious corruption (e.g., match-fixing). These findings are comparable to existing research which suggests spot-fixing and match-fixing as more serious as opposed to other types of betting-motivated corruption, reinforcing the fact these illicit activities are the most serious forms of betting-motivated corruption (e.g., Lastra et al., 2018; Bricknell, 2015). Interestingly, vignettes relating to betting on your own sport and misuse of inside information indicated statistically significant differences where respondents' own view of seriousness was less than their colleague view. This highlights that addressing cultural issues may result in increasing the level of seriousness with which athletes and support staff view lower-level corruption. This is consistent with previous research which suggests that addressing team and broader societal culture about match-fixing, and reducing its acceptability, the less likely athletes were to engage in the corrupt activity (Barkoukis et al., 2020).

The second key finding is athletes' and support staff's willingness to report increased or decreased in line with their colleague view (which is an indicator of culture). Across each scenario, there were small but statistically significant differences between the respondent's own willingness to report and their perception of how willing their colleagues would be to report. This highlights the potential for aspects of a code-of-silence culture to exist within the betting-motivated corruption context, where willingness to report is reduced or increased by what the accepted 'culture' or 'practice' is within the organisation/sport. This finding aligns with Moriconi's (2024) recent study, where they found the code of silence exists in the betting-motivated corruption context. In particular, Moriconi identified that the code of silence is an obligation among sport actors, as reporting is dangerous (often leading to retaliations), with negative consequences for their career and personal integrity. Similarities are also evident in existing research on other types of sport corruption that have identified code-of-silence cultures, such as doping (Bell et al., 2016; Moston & Engelberg, 2016) and management corruption (Geeraert, 2017).

Lastly, Study Two identified that the more serious a respondent viewed the corruption scenario they were presented with, the more serious they perceived the disciplinary action should be. A pattern was also observed in relation to athlete and support staff attitudes towards discipline for each of the betting-motivated corruption scenarios. Interestingly, there were statistically significant differences between what level of discipline respondents think their sport 'should' apply and what they 'would' apply. In other words, athletes and support staff were found to believe their sport would be slightly more lenient in their disciplinary action.

### *8.1.3 Study Three*

Study Three brought together a range of demographic, attitude, and cultural factors and explored whether they predicted athletes' and support staff's perceptions in relation to reporting betting-motivated corruption and complying with sport policies. The factors tested were previously explored in studies One and Two and highlighted within the literature review (e.g., procedural justice). This study provided key insights regarding reporting and compliance—outcomes important for detecting and preventing betting-motivated corruption. Overall, four key findings were identified in Study Three, including two relating to reporting behaviour and two associated with compliance behaviour.

The study identified that an individual's willingness to report corruption increases when athletes and support staff perceive the act as serious, believe their colleagues would report, and if they are in a support staff role. Out of these three statistically significant factors, culture of reporting accounted for the most variance in predicting willingness to report betting-motivated corruption, therefore reinforcing the findings of Study Two and prior research (Moriconi, 2018; Moriconi De Cima, 2020a), where culture was found to influence reporting behaviour.

Of note, for less serious forms of corruption (i.e., betting on own sport and misuse of inside information), if an individual thought their colleagues would perceive the act as serious, their willingness to report decreased. However, this finding was expected and highlights the potential influence and existence of a code-of-silence culture, where despite knowing the behaviour is unethical, individuals remain reluctant to report it. This reluctance to report is likely due to fear of retaliation, as highlighted in existing research (Moriconi, 2024).

Another key finding relating to non-significant effects on willingness to report betting-motivated corruption provides noteworthy insights. Unexpectedly, procedural justice, compliance attitudes, and receiving previous anti-corruption training were identified as having no statistically significant influence on an individual's willingness to report betting-motivated corruption. This further reinforces the key influence culture has on athletes' and support staff's reporting behaviour.

Identifying anti-corruption training as having a non-significant effect with willingness to report was unexpected, considering previous research has detailed the importance of education for preventing corruption (Carpenter, 2012; de Speville, 2010). However, with the individual's own perception of seriousness being identified as a significant factor, anti-corruption training is likely to influence individual perceptions of the seriousness of betting-motived corruption and therefore still performs a key part in prevention. Overall, these findings demonstrate the key role culture plays in shaping an individual's willingness to report, supporting the idea that a code of silence exists within the betting-motivated corruption context, in line with previous research (Moriconi, 2018) and findings from sport doping studies (Erickson et al., 2017; Kihl, 2017).

In relation to factors that influence compliance with sport policies, two predictors were identified, including perceptions of procedural justice and own willingness to report. The identification of procedural justice as a key predictor of compliance aligns with existing research in other contexts (Haas et al., 2015; Sargeant et al., 2017). Similar findings were identified across both sports, with most athletes and support staff perceiving to be treated with procedural justice. However, as discussed earlier, this same concept was not found to predict willingness to report due to being an activity influenced by cultural norms. For compliance in general, however, these findings highlight the importance of sport governing bodies in exuding the four principles of procedural justice: being fair in processes, being transparent, providing opportunity for voice, and being impartial in decision-making.

The second key predictor that was identified—athletes' and support staff's own willingness to report—highlights the individual and cultural influence that contributes to an individual's compliant behaviour. In addressing the previous RQ relating to willingness to report, culture and the individual's own perception of seriousness was identified as an influential factor. This explains the present finding by suggesting that, in the backdrop, organisational culture and the individual's own stance on corruption influence their compliance (Barkoukis et al., 2020).

An interesting finding from Study Three was identifying that anti-corruption training, individual gambling habits, or demographic factors have no impact on compliance behaviour. Similar to the willingness to report analysis, this finding contrasts existing research which details the importance of education for preventing corruption (Abbott & Sheehan, 2013; de Speville, 2010), as well as how high-risk gambling habits can impact integrity (Agnew et al., 2019). However, the current findings provide further support regarding the importance of culture for enhancing compliance behaviour among athletes and support staff. This does not de-emphasise the importance of anti-corruption training or positive gambling habits; however, it highlights the value of including these components as part of a holistic approach to building a positive culture of integrity.

## 8.2 Theoretical implications

The following section discusses the theoretical contributions of the current research in advancing the evidence base on betting-motivated corruption in Australian sport. Contributions are made across three key areas: perceptions of the prevalence of betting-motivated corruption; increased understanding of socio-demographic, attitudinal, and cultural influences; and application of theoretical frameworks used in other contexts, namely procedural justice and responsive regulation.

### *8.2.1 Advancing understanding of prevalence within Australian sport*

The current research used an improved design to advance the existing evidence base regarding the prevalence of betting-motivated corruption in Australian sport. It is important to note that a true measure of prevalence is not possible when investigating corruption (Holmes, 2015); however, estimates can be made by collecting athletes' and support staff's perceptions (Ivkovic, 2003).

The current research has established that misuse of inside information and individuals betting on their own sport is a greater issue than match-fixing and spot-fixing in Australian sub-elite rugby league and basketball. The current research provides a unique contribution by identifying differences in the prevalence of the misuse of inside information between the two Australian sports. Rugby league athletes and support staff are more likely than their basketball counterparts to report being approached or witnessing others sharing inside information. In other words, there is a difference in the prevalence of misuse of inside information among the two research sites (sports) being played in Australia at the sub-elite level. This difference could potentially be due to the greater availability of betting opportunities within Australian-based rugby league competitions as opposed to basketball, highlighted by an assessment of the betting market options on two popular betting websites (Ladbrokes, 2022; Sportsbet, 2022), as well as each sport's salary caps (NRL, 2022; Uluc, 2022). As such, the current research aligns with existing betting-motivated corruption research by drawing attention to the importance of context and recognising that corruption is not uniformly experienced (FIFPro, 2012; Harvey & Levi, 2014; Van Der Hoeven et al., 2023).

Furthermore, the current research advances existing knowledge by collecting perceptions around prevalence from a larger sample size. Previous Australian-based research (i.e. Lastra et al, 2018) has involved interviewing a small number of participants across multiple sub-elite sports (i.e., rugby league, swimming, and water polo) ($N$=21), compared to the final sample of 298 participants in the current research. Like previous research by Lastra et al. (2018), the current research identified a low prevalence of betting-motivated corruption and that misuse of inside information is a greater concern than other forms of (more serious) corruption. Exploring betting-motivated corruption among a larger sample size and identifying a low prevalence of corruption in the current research aligns with previous studies conducted overseas in other sub-elite sports (e.g., Chung et al., 2017; Harvey & Levi, 2014; Visschers et al., 2019).

### *8.2.2 Increasing understanding of socio-demographic, attitudinal, and cultural influences through enhanced research design*

An enhanced research design was employed using existing survey questions from previous betting-motivated corruption research in Europe (Harvey & Levi, 2014) and the adaptation of an established integrity measure (Klockars et al., 1997; Porter et al., 2015). The enhanced design enabled a greater understanding of the relationships between betting-motivated-corruption-related perceptions and a range of contextual factors. For instance, the research design enabled the exploration of socio-demographic, attitudinal, and cultural influences on athlete and support staff perceptions.

### *8.2.3 Socio-demographic characteristics*

Nuances in individual perceptions were identified based on individual socio-demographic characteristics. This research enhances the current understanding of the relationship between perceptions and socio-demographic characteristics, such as the individual's age, gender, and role (athlete/support staff). Through this understanding, opportunities for enhancing prevention strategies can be identified, including discovering 'at risk' demographics.

In relation to age, key differences in perceptions were identified between the under-25 and over-25 age groups for motivating and deterrent factors. The analysis highlighted that under-25s are potentially more vulnerable to risk-taking behaviour and are more likely to be influenced by peer pressure by those within the meso level, including their colleagues/teammates. This is further supported by the fact that over-25s were statistically more likely to select personal integrity as a deterrent factor, which reflects the different periods in the athlete's/support staff's career. As mentioned earlier in this chapter, individuals under 25 are in a period of life where they are more likely to take risks, and therefore an opportune group for building integrity foundations.

This thesis advances our understanding of betting-motivated corruption in relation to gender. Males were more likely to report financial issues as a motivating factor and letting down their micro level (such as family) and better wages as being a preventative measure. These findings indicate these responses by males are likely underpinned by a range of factors, including their traditional responsibilities of being providers (e.g., the breadwinner for the family) and the greater opportunities afforded to males in sport (Gacka, 2017). This translates to males being more likely to suggest financial-based factors as being both motivating and preventative factors. Conversely, the key finding for females was their greater likelihood of selecting responses related to their personal integrity, as well as the bigger-picture consequences of letting down their sport. This does not discount males from considering their own personal integrity; however, males were more likely to report being deterred by financial-based factors as opposed to females, likely driven by the clear difference in equality and professionalisation of male and female sports (e.g., the gender pay gap concept discussed earlier in the chapter). Additionally, these findings are supported by existing betting-motivated corruption research which has found that financial factors are a key motivator for engaging in corruption (Bricknell, 2015; Gray & Porreca, 2024).

The type of sport, level of professional opportunities, and status of competition within Australia were identified as being associated with differences in perceptions, particularly in relation to what factors deter athletes and support staff. For instance, in Australia, rugby league has a more prominent professional competition, with greater salaries available to athletes and support staff, compared to basketball (as discussed earlier regarding salary cap differences in elite competitions). A potential explanation for why basketball athletes and support staff were more likely to select letting down their sport is the greater financial motivations available in rugby league when compared to basketball. With less financial motivations, ‘passion for the sport’ is a potential deterrent that influences respondents’ perceptions of not wanting to ‘let down the sport’.

Overall, these findings extend current research on betting-motivated corruption by providing evidence that individual perceptions are associated with demographic factors, such as age, gender and role. This research contributes to existing knowledge by providing evidence on what motivates individuals to engage in corrupt activity, factors that deter, and strategies that will be effective in preventing betting-motivated corruption. These findings highlight areas to consider for enhancing the efficacy of preventing betting-motivated corruption, including tailoring strategies to the type of sport and the age, gender, and role of stakeholders.

### 8.2.4 Culture

The current research provides a greater understanding of the influence of organisational culture on the perceptions of athletes and support staff regarding betting-motivated corruption. Knowledge was increased in relation to culture's impact on willingness to report and compliance with sport policy. Previous research in sport and other contexts (e.g., policing) highlights the significance of culture in both the occurrence and prevention of corruption. For instance, within the law enforcement context, Kish-Gephart et al. (2010) state that organisational culture can influence ethical individuals to engage in corrupt behaviour as it is accepted within their organisation. A code of silence is commonly embedded within police cultures, which increases the likelihood of individuals' reluctance to report misconduct by their colleagues, ultimately undermining the corruption-prevention efforts of organisations (Whitaker et al., 2014).

Within the betting-motivated corruption context, existing research on culture has been limited. One of the only studies focusing on reporting within the betting-motivated corruption context, Moriconi (2024) found that in his sample of sports actors (n=11) in Europe, there was a culture of ‘fear’ of retaliation around reporting betting-motivated corruption, despite reporting being an obligation imposed by their governing body. Relying on a larger sample approach, the current research advances the evidence base by identifying the impact of culture on the perceptions of athletes and support staff regarding betting-motivated corruption in Australian sport. Statistically significant differences were identified between the respondent’s own view and their colleague view (culture indicator), particularly in relation to seriousness, willingness to report, and discipline for various betting-motivated corruption scenarios. It was found that individual perceptions of the seriousness of lower-level corruption are potentially influenced by culture. Meanwhile, athletes and support staff believed that they were slightly less likely to report corruption than their colleagues. Interestingly, this finding differs from police research, where individuals tend to view themselves as more willing to report than their colleagues (Porter et al., 2015; Vito et al., 2011).

Most importantly, the research identified aspects of the code of silence culture within the two sports, highlighted by the statistically significant relationship between respondents’ own willingness to report and perceptions of the willingness of their colleagues to report. What this means is that willingness to report decreased or increased depending on how they perceived the response of other athletes and/or support staff. For example, if an athlete perceives their teammates as unwilling to report a corrupt activity, they are more likely to adopt the same attitude. Regression analysis further confirmed this finding, where the cultural indicator (colleague view) was found to predict willingness to report betting-motivated corruption.

Culture was also identified as indirectly influencing athlete and support staff opinions regarding compliance with their organisation’s policy. Despite also identifying a small statistically significant relationship between compliance and procedural justice (discussed further in the following section), this finding highlights the key influence of culture. The key contribution of this research is that changing compliance attitudes of athletes and support staff can be influenced by addressing their own willingness to report. This suggests that addressing cultural issues around a code of silence can potentially enhance compliance attitudes among athletes and support staff.

In comparison to previous betting-motivated corruption research, the findings of this research provide a unique contribution by establishing the statistical significance of culture in influencing athlete and support staff willingness to report, as well as compliance behaviour within the Australian betting-motivated corruption context. Previous research outside of Australia has explored the impact of culture on betting-motivated corruption behaviour. For instance, Barkoukis et al. (2020) identify that culture plays a key role among sub-elite football, volleyball, and basketball athletes in Greece. They found that culture influences intentions to engage in match-fixing (Barkoukis et al., 2020). Additionally, Moriconi and De Cima (2020a) explored the perspectives of sport stakeholders in Portugal and highlighted that informal institutions (e.g., those with unwritten rules) discourage the reporting of betting-motivated corruption and individuals are fearful of the negative impact it can have on their sporting career. More recently, Moriconi (2024) found the code of silence is viewed as an obligation, due to the negative consequences attached to reporting. Overall, the key difference between the current study and previous research is the establishment of statistically significant relationships between culture and reporting/compliance behaviour.

The current research also contributes to culture-related research within the broader sport corruption context. Previous research has focused on sport doping in comparison to betting-motivated corruption. Research within the doping context has typically explored the issue through case study analysis, establishing cultural influences on previous instances of corruption (Kihl, 2017). In professional cycling, for instance, doping was tolerated within the sport and remained hidden due to the code of silence, leading it to become a systemic issue entrenched in the sport's culture up to the elite level (Bell et al., 2017). Findings from the current research align with existing research that has explored the impact of culture on doping practices, further highlighting the important role culture plays in preventing corruption in sport.

Overall, the current research aligns with the findings of previous research but also provides a unique contribution to the betting-motivated corruption research base. The key contributions of this research include contributing to existing knowledge in relation to the code of silence within the betting-motivated corruption context, emphasised by the influence of culture on athletes' and support staff's willingness to report. It also advances knowledge around the impact of culture on compliance, as well as provides analysis tailored to the Australian context.

### *8.2.5 Expanding theoretical considerations by applying established theoretical frameworks and research methods used in other contexts*

#### *8.2.5.1 Procedural justice framework*

The current research demonstrates the application of procedural justice, a component of organisational justice, to the betting-motivated corruption context. As previously mentioned, the analysis identified athlete and support staff perceptions of procedural justice to be a key predictor of compliance with sport policy. The identification of this variable as a predictor of compliance is the first of its kind within the sport context and aligns with previous procedural justice research in other contexts (Haas et al., 2015; Bradford et al., 2014; Gau & Gaines, 2012; Hough et al., 2010). It is important to consider this factor, as increasing compliance (i.e., officers complying with supervisors and organisational policies) is a key mechanism to changing organisational culture (Gottschalk, 2016).

Current research around police–citizen compliance states that participants with high levels of perceived procedural justice are more willing to comply with police and the law (Hinds & Murphy, 2007; Hough et al., 2010). Branching out from the traditional police-citizen relationship, 'internal procedural justice' explored officer compliance with their supervisors and regulations of the police organisational regulations (Haas et al., 2015). They found similar findings to police–citizen research, where fairness and positive perceptions of the quality of treatment by supervisors/management are associated with willingness among officers to comply with instructions. Extant research has also identified that changing the code of silence within police culture can be addressed through procedurally just approaches (Bradford et al., 2014). This is the closest comparison to the sport context and indicates the potential application of the concept to sport.

A point of difference with the application of procedural justice in sport and other contexts (such as policing) is sport's unique organisational hierarchy. Previous research has focused on traditional top-down hierarchies, such as police–citizen interactions, regulator–citizen relationships, and supervisor-officer interactions (Haas et al., 2015; Tyler & Murphy, 2011). In sport, however, a different structure and power base exists, where athletes have greater influence over management. For instance, a sport organisation's hierarchy can have the athletes at the top, holding greater privileges than the typical 'citizen', including receiving a higher salary than managers/executives (Hoye et al., 2015). Despite this difference from typical organisational hierarchies, the current research identified procedural justice to have an influence in protecting integrity within sport by maintaining positive interactions between sport governing bodies and their athletes, support staff, and other related stakeholders.

Additionally, it is important to consider the 'athlete privilege' notion, where athletes may regard themselves (or are regarded) as a different type of 'citizen' with particular privileges (Osborne et al., 2016). However, by-laws and contractual obligations introduced by ASADA (now SIA) and the Australian Olympic Committee challenge this privilege, where the right to silence and protection from self-incrimination (rights protected under customary international law) are waived (Dryden, 2016). This was put in place as a method to disrupt athletes and other relevant sport stakeholders from hindering doping-related investigations by remaining silent and refusing to provide information (Dryden, 2016).

It is also important to consider limitations to procedural justice, particularly its potential to influence 'unthinking' compliance with supervisors—also referred to as the 'doubled-edged sword' of procedural justice (MacCoun, 2005). Previous research suggests a potential negative effect of taking a procedural justice approach is the potential for encouraging sub-ordinates to comply with their supervisor's directives without considering whether they diminish or support integrity (Bradford et al., 2014; MacCoun, 2005; Sargeant et al., 2017). Bradford et al. (2014) identified that blind loyalty within work teams is a potential risk; however, it does not outweigh the positive benefits procedural justice provides an organisation.

Overall, the findings of this current research establish the applicability of procedural justice within the sport context. In particular, the importance of sport governing bodies exuding the four principles of procedural justice is highlighted, including being fair in processes, transparent, providing opportunity for voice, and being impartial in decision-making (Bradford et al., 2014). Procedurally just approaches are important for organisational change, such as changing the culture around reporting. These findings advance the current research base by establishing the potential for enhancing perceptions of procedural justice to improve compliance behaviour among athletes and support staff.

#### *8.2.5.2 Responsive regulation*

The key findings and theoretical and practical implications identified in the current research can be further articulated through the responsive regulation framework. As identified in the review of existing literature, responsive regulation is about influencing individuals to comply with set rules, recognising that individuals have differing motivations for compliance (Braithwaite et al., 2007; Nielsen & Parker, 2009). Responsive regulation is realised through a tiered enforcement pyramid with well-established research evidence supporting its impact in achieving compliance within a range of contexts (Braithwaite et al., 2007; Parker, 2013). Through the tiered enforcement pyramid (see Figure 8.1), compliance is sought from all types of people, such as those who comply if they think it is for their own good, as well as those who comply with rules due to normative or social reasons (Nielsen & Parker, 2009).

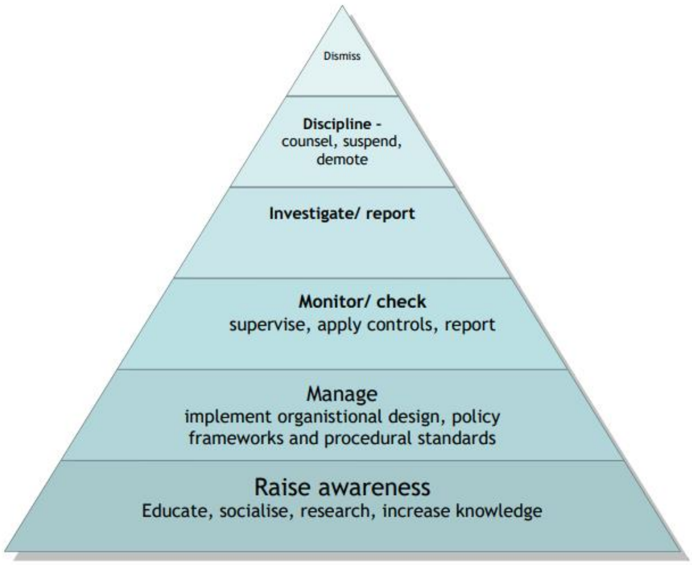


*Figure 8.1. Enforcement pyramid example for an anti-corruption context*

Sourced from Mills (2008).

At the base of the enforcement pyramid is raising awareness, which operationally involves building integrity and culture through education (Ivec & Braithwaite, 2015; Mills, 2008). Escalation up the pyramid represents each additional action/sanction for non-compliance. The implementation of a range of preventive measures to complement the more punitive and deterrence-based measures towards the apex of the pyramid is important for a proactive anti-corruption strategy to be effective (Choi, 2016; Kuris, 2015). This notion is characterised by the current research's findings around the influence of culture on reporting behaviour and compliance, as well as the relevance of procedural justice within the sports betting-motivated corruption context. This perspective aligns with the practical implications discussed later in this chapter, which aim to enhance culture around reporting behaviour, maintain relationships through procedural justice principles, and tailor anti-corruption education based on demographic insights. Overall, this current research adds to the research base by applying the responsive regulation and enforcement pyramid lens towards anti-betting-motivated corruption and identifies both theoretical and practical implications that align with the framework.

## 8.3 Methodological implications

### *8.3.1 Integrity scale*

The current research provided a unique contribution towards advancing research methods used to investigate betting-motivated corruption. This research adapted Klockars et al.'s (1997) integrity scale and established its applicability to the betting-motivated corruption context (Klockars et al., 2000). The integrity scale is a well-established methodology within police corruption/integrity research and has proved beneficial in gaining a deeper understanding of corruption within the policing context, as well as influencing the development of evidence-informed prevention strategies (Ivkovic & Haberfeld, 2015; Porter et al., 2015; Vito et al., 2011).

The application of the integrity scale to explore betting-motivated corruption enabled the researcher to gain a deeper understanding of individual- and organisation-level attitudes, as well as cultural perceptions of different types of betting-motivated corruption. It is an established method of understanding decision-making for specific scenarios and takes advantage of questioning in a 'non-threatening' way to elicit knowledge and opinions. Furthermore, the scale asks factual questions about the respondent's own opinions and perceptions of culture without directly asking them about their own or others' corrupt behaviour. Review of existing betting-motivated corruption research has identified only one other study that used a vignette/scenario-based design (O'Shea et al., 2021). O'Shea et al. presented eight vignettes to athletes across five European countries to explore the role of power, attributions and moral emotions in deciding whether to engage in match-fixing. However, the adoption of the integrity scale, is the first time internationally it has been used to explore perceptions of athletes and support staff in relation to sports betting-motivated corruption. This research contributes to the evidence base by establishing the usefulness and adaptability of the integrity scale in gaining a deeper understanding of perceptions of betting-motivated corruption, as well as allowing for comparisons across different sectors.

The integrity scale mitigated limitations relating to interviews and survey questions and provided a unique approach to exploring betting-motivated corruption. Previous betting-motivated corruption research has explored the perceptions of key stakeholders (e.g., athletes and/or support staff) through interviews and/or multi-choice survey questions. For example, Lastra et al. (2018) interviewed participants about their perceptions of culture and its influence on the occurrence of betting-motivated corruption. However, a limitation of asking questions directly about corruption is the sensitivity of the topic, particularly regarding one's own or others' involvement in corruption (Agerberg, 2020). Through this type of questioning on 'taboo' topics, there is an increased risk of 'sensitivity bias', where respondents may have concerns about the information being known by third parties and, therefore, may be hesitant to answer questions truthfully (Tourangeau & Yan, 2007). However, by focusing on measuring 'integrity' rather than 'corruption', the integrity scale enabled the researcher to investigate athletes' and support staff's perception about topics such as their willingness to report betting-motivated corruption or how serious they perceived the scenarios provided (Ivkovic & Haberfeld, 2015). Furthermore, underpinning the design of the integrity scale is the theoretical perspective that corruption control is an activity to be carried out at the organisational level and links back to the influence of culture on integrity (Vito et al., 2011). The key benefit of this approach is the potential for insights produced from the data collected to directly inform the enhancement of an organisation's integrity measures.

Furthermore, the data collection method enabled the researcher to conduct statistical tests to enhance the rigour of findings, as well as provide a different perspective to qualitative methods which have been applied in previous betting-motivated corruption research (i.e., Lastra et al., 2018). Analysis of these data within the policing context has typically involved identifying (statistically significant) relationships between individuals and their views on culture (Ivkovic & Haberfield, 2015). For instance, analyses have established that frontline and management-level police officers share similar views in terms of seriousness, reporting, and discipline perceptions of the scale (Vito et al., 2011). Meanwhile, Porter et al. (2016) used these data to explore whether perceptions predicted police officer willingness to report corrupt behaviour.

A key limitation, however, is the pre-set questions within the integrity scale and the absence of open-ended questions to probe respondents for further explanation of responses (Vito et al., 2011). The responses provided are limited to hypothetical scenarios, and whether these would change if they were real-life scenarios is another knowledge gap. Despite these limitations, the use of this approach has been well established in exploring police corruption and provides respondents with the opportunity to answer more openly as they do not need to worry about incriminating themselves or others (Kutnjak & Ivkovic, 2005). There is an opportunity for future mixed-methods research, whereby through the integrity scale and qualitative interviews to extrapolate greater insights.

### *8.3.2 Procedural justice and compliance measures*

The current research advances methodology in relation to how athlete and support staff perceptions of betting-motivated corruption are collected by applying procedural justice and compliance measures. Adaption of the procedural justice/compliance scales produced findings consistent with existing police research (Sergeant et al., 2015; Tyler & Murphy, 2011). Through the use of both procedural justice and compliance scales, the current research established that perceptions of procedural justice influence compliant behaviour within the betting-motivated corruption context.

## 8.4 Practical implications

The key findings of this research provide policymakers and sport administrators with evidence-informed insights that can be translated into strategies for preventing betting-motivated corruption and, more broadly, contribute to preserving the integrity of Australian sport. The following practical implications are based on the viewpoint that corruption prevention is an organisational issue and considers nuances that exist between sports. This does not dismiss individuals' personal responsibility but instead reinforces the importance of organisations in proactively building ethical systems and imparting ethical values to their people (e.g., athletes and staff) (Vito et al., 2011). Therefore, it is important to consider the following evidence-based strategies as a framework that can be adapted and applied to the sport context. Practical implications were identified across the following four themes:

1. Enhancing reporting culture;
2. Supporting procedural justice principles;
3. Tailoring training content based on research evidence; and
4. Integrating an evaluation framework within anti-corruption training programs.

### *8.4.1 Enhancing reporting culture through awareness-raising education programs*

A code-of-silence reporting culture is a key risk to sport as it undermines anti-corruption efforts. The current research has established that a code of silence has the potential to exist within sport due to the influence of culture on athletes' and support staff's willingness to report. The findings suggest greater effort should be taken to strengthen reporting culture within sport, particularly around corruption perceived as 'less serious' by athletes and support staff. This includes misuse of inside information and individuals betting on their own sport. Learnings from the police corruption context and previous cases of sport corruption indicate the tolerance of less serious misconduct has the potential to develop into more serious acts, such as match-fixing and spot-fixing (Ashforth & Anand, 2003; Gino & Bazerman, 2009; Bricknell, 2015; Lastra et al., 2018; Tak, Jackson & Sam, 2023). Insights from the current study into willingness to report provide a foundation for developing evidence-informed strategies to increase willingness to report, such as:

1) increasing perceptions surrounding the seriousness of betting-motivate corruption;
2) changing beliefs around the reporting attitudes of colleagues, such as increasing awareness that teammates will report corruption; and

3) developing a bystander intervention program within the sport context.

The implementation of educational programs that are tailored to highlight the seriousness of betting-motivated corruption can work to increase individual willingness to report (UNCAC, 2010). The regression analysis identified seriousness as a significant predictor of reporting behaviour. Based on this finding, an opportunity exists to follow good practice guidelines and target education programs towards influencing individuals' attitudes relating to the seriousness and consequences of betting-motivated corruption (Bricknell, 2015; Cochrane, 2019). This includes using insights gathered around motivational and deterrent factors to influence perceptions of seriousness. For instance, Study One identified 'letting down the micro level' as a key deterrent factor for male athletes and support staff. This suggests that the content of educational programs could draw upon 'letting down the micro level' as a pathway to increase how seriously athletes and support staff perceive betting-motivated corruption. Furthermore, focusing on the consequences and negative impacts of corruption on the integrity of sport is likely to increase awareness of the seriousness. Overall, changing the thoughts of athletes and support staff around the seriousness and consequences of betting-motivated corruption is a key strategy for sport administrators and policymakers to consider.

Greater willingness to report could also be addressed through initiatives aimed at debunking cultural beliefs around colleagues' reporting behaviour. Insights from the current research identified athletes' and support staff's views on reporting are influenced by the cultural view of their colleague's willingness to report. This is an opportunity to raise awareness among athletes and support staff that most respondents, in fact, believe their colleagues would report. Drawing on the insights from the regression analysis conducted, making athletes and support staff more aware that their colleagues would report is likely to influence reporting behaviour positively.

### *8.4.2 Supporting relationships between regulator/sport administrator and athletes/support staff through procedural justice principles*

A key goal for sport administrators and policymakers is to ensure athletes and support staff comply with sport policies, including anti-betting-motivated corruption regulations. The current research established the applicability of the procedural justice concept to the sport context (Hough et al., 2010). The analysis identified procedural justice contributed to athlete and support staff attitudes towards compliance. Previous research has found that procedural justice has the potential to erode the ‘code of silence’ in police organisations, as well as promote integrity by building an environment of fairness and transparency (Wolfe & Piquero, 2011). However, as mentioned previously, the use of procedural justice entails a ‘double-edged sword’ situation, where perceptions of procedural justice can also lead to negative outcomes, particularly unthinking compliance. This would involve athletes and support staff blindly complying with the directions of managers, likely without considering if their actions constitute misconduct. Therefore, a key opportunity exists for sport administrators and other senior staff (e.g., coaches) to enhance compliance by considering the use of procedural justice principles when interacting with athletes and other support staff. But at the same time, however, it is important to balance this with tailored training to mitigate the risk of athletes and support staff blindly following directions.

### *8.4.3 Utilise research evidence to inform anti-corruption training and other prevention strategies*

While the analysis identified that anti-corruption training was not a key predictor for compliance or willingness to report, building organisational culture requires a holistic approach. This includes considering personnel selection and recruitment policies (i.e., hiring individuals with integrity values), as well as implementing training packages and other prevention initiatives (UNCAC, 2010). The insights provided by the current research have identified several opportunities for tailoring training content to enhance betting-motivated corruption prevention overall and influence greater willingness to report illegal behaviour. As a baseline, SIA produces an online training package available for all levels of sport, from amateur- to elite-level competitions. Each sport could also conduct its own awareness training, such as that undertaken within QRL and NRL competitions, for instance. Several touchpoints were identified through this research that could be considered for further awareness training and related prevention strategies for betting-motivated corruption. For instance, the identification of male athletes and support staff being more likely to be deterred by financial-based factors or letting down their family or team highlights an opportunity for training that leverages that understanding.

### *8.4.4 Integrating an evaluation framework within anti-corruption training programs*

There is the opportunity to develop anti-corruption training programs with integrated evaluation frameworks. This would enable sports bodies to determine the effectiveness of training programs in achieving their purpose of increasing sport stakeholders' awareness and enhancing protective factors in relation to betting-motivated corruption. Currently, there are limited evidence-based prevention programs targeted towards betting-motivated corruption.

Tacconi and Williams (2020) state research has identified several anti-corruption initiatives (not specific to sport) that have been promoted to organisations worldwide to be ineffective. Within the broader crime-prevention and evidence-based policing research base, several studies have tested the impact of policing interventions, establishing their effectiveness in preventing crime (Welsh & Farrington, 2007). For instance, Braga et al. (2018) completed a systematic review of 24 evaluations of crime-reduction strategies and identified their positive impact on preventing crime relating to gang violence, drug markets, and repeat offending. The benefit of assessing the impact of interventions through evaluation is an awareness of 'what works' in achieving crime-prevention outcomes. Within the betting-motivated corruption context, this will be beneficial in ensuring finite resources (e.g., funding and personnel) are being allocated to prevention initiatives that work (Sherman et al., 2002). Therefore, it is important for sport administrators and policymakers to consider integrating evaluation processes, particularly when implementing new anti-betting-motivated corruption prevention strategies (e.g., awareness training). These processes will enable sporting organisations to assess a program's impact on changing/enhancing protective factors, perceptions, and sport stakeholders' behaviour.

## 8.5 Limitations

It is important to acknowledge key limitations when interpreting the results and implications of the current research. These limitations outlined relate to the research design and sample used across the three studies, including self-reported perceptions, use of quantitative survey data, sample and sampling technique, and the time when data were collected.

A key limitation of this research is the collection of self-reported perceptions of betting-motivated corruption. The data used in the current research relied on athletes and support staff providing responses to a questionnaire. While self-reported perceptions are a common method used within anti-corruption research, there is the issue of bias, with respondents potentially giving socially desirable responses. Furthermore, asking questions directly about corruption can potentially influence participants' responses due to the sensitivity of the topic (Agerberg, 2020). To address these issues, this research employed two key strategies: making the questionnaire anonymous to reduce any bias in responses and using questions that focus on individual perceptions rather than personal involvement in corruption.

Limitations also exist with the reliance on quantitative survey data. This collection method enabled the researcher to obtain athletes' and support staff's perceptions using multiple-choice, close-ended questions. However, the use of a questionnaire restricted the ability to ask follow-up questions to probe for a more in-depth understanding of the selection of a particular response. Despite this, the ability to explore statistical relationships addressed the research questions. Furthermore, it allowed for testing the applicability of police research concepts to the sports betting-motivated corruption context.

The sampling procedure implemented in the current research also presents limitations. A purposive sampling technique was employed to obtain access to athletes and support staff within Australian sport. This approach was best suited for the current research and will likely benefit future research on this phenomenon. However, there are some key issues to note, including the sampling procedure's limited ability to generalise findings to the broader Australian sport context and the potential for researcher bias and social desirability in participant responses. The purposive sampling technique was most suitable for the current research due to constraints related to accessing athletes and support staff to participate in research, particularly research involving a sensitive topic. Further, the sampling technique allowed for insights to be granted about the data's target group while allowing the researcher to manage the selection of sport stakeholders to achieve the research goals.

Limitations to the current research also exist in relation to the sample of athletes and support staff. Following the limitation relating to the sampling technique, the sample examined in the current research is limited to sub-elite basketball and rugby league players and support staff within the eastern states of Australia (Queensland and Victoria). Furthermore, when answering specific questions, respondents were asked to reflect on the last 12 months from the date of commencing the questionnaire. Further to this, the questionnaires were conducted between December 2017 and April 2018. Although it has been a few years since the data were collected, limited research has progressed within the Australian sport context, particularly in applying the concepts used in this research. Therefore, while there is a limitation around when the data were collected, the data remain a valuable contribution in setting the platform for understanding athletes' and support staff's perceptions of betting-motivated corruption. As such, this research provides a valuable contribution to the international evidence base concerning the perceptions surrounding the various concepts explored (e.g., willingness to report, procedural justice, compliance, and culture), as well as provides insight into perceptions during a pre-COVID-19 environment. In addition, the sample is limited to mostly male athletes' and support staff's perceptions and explored male-dominated sports and did not include any female-dominated sports. However, by including a small portion of female athletes and support staff within the sample, this research provides some insight that can assist future research on corruption in women's sport.

## 8.6 Future research

Following the limitations addressed in the previous section, there are several opportunities for future research. These include opportunities to explore betting-motivated corruption further through the lens of procedural justice and the integrity scale, integrating an evaluation framework within an anti-corruption training package, and examining a broader range of Australian competitions and sport stakeholders, including ex-offenders of betting-motivated corruption.

An opportunity also exists to advance the understanding of athlete and support staff perceptions of internal procedural justice and compliance. This research established the adaptability of procedural justice and compliance measures and formed foundational knowledge of the concepts within the betting-motivated corruption context, particularly in relation to sport organisation and athlete/support staff interactions. Additional research could explore internal procedural justice within a broader range of sport competitions and stakeholders, including its influence on compliance. As established within this chapter and the literature review, procedural justice is a key contributing factor to achieving compliant behaviour (Quinton et al., 2015; Sergeant et al., 2015; Tyler, 2011). Further exploration will assist in expanding the evidence base to establish whether procedural justice within the sport context influences compliance behaviour in the same way as in other contexts (e.g., police organisations).

Future research could also seek to advance understanding of athletes' and support staff's perceptions using the integrity scale. Applying the integrity scale in this research established its applicability and usefulness in collecting perceptions of sport stakeholders in a non-threatening way. Researchers could consider examining a broader range of sport stakeholders using the integrity scale to enhance the validity of the data collection technique within the betting-motivated corruption context. Further, researchers could compare results to the foundational insights identified in the current study.

Consideration should also be given to developing anti-corruption training with an evaluation framework integrated into the program. Anti-betting-motivated-corruption training programs have not been evaluated to assess their effectiveness in achieving intended outcomes. In the case where future training packages are tailored to incorporate insights identified in this study, their effectiveness in changing perceptions of sport stakeholders will remain a knowledge gap unless an integrated evaluation framework is introduced. Therefore, this highlights the opportunity to integrate a pre- and post-training evaluation framework within a training package to assess the effectiveness and grow evidence-informed strategies.

Examining a broader range of sports and sport stakeholders is another opportunity to consider for future research. This opportunity arises due to the current research only focusing on athletes and support staff within two sub-elite Australian sports: basketball and rugby league. As noted above, current research faces sample limitations, with a greater proportion of basketball stakeholders, a lack of female athletes and support staff, and not having female-dominated sports included in the study (e.g., netball). By broadening the scope of sport competitions and stakeholders, including comparing team and individual sports, findings are likely to increase in generalisability and will provide a greater picture of betting-motivated corruption perceptions and experiences across Australia.

Furthermore, a greater diversity of stakeholders can amplify the discovery of unknowns in terms of attitudes, perceptions, and behaviour among athletes, support staff, and other stakeholders who are marginalised in sport (e.g., disability sports, women’s sports). With that goal in mind, future research could also consider exploring the perceptions of former betting-motivated corruption offenders. Hill (2015), for instance, explored the perceptions of match-fixers within the international soccer context. The Queensland Police Service, in collaboration with the Australian Institute of Criminology, conducted an offender debriefing project, which saw ex-outlaw motorcycle gang members being interviewed to understand why they joined and left the gang culture; this could inspire similar research in the betting-motivated corruption context (Dowling et al., 2021). Given a few sport stakeholders have been convicted of betting-motivated corruption-related offences in Australia, such research would be possible. Widening the scope of sport participants is important to ensuring policy and regulatory recommendations derived from research reflect a broad range of perspectives rather than the view of a 'few' mainstream and popular sports.

The current research relied on quantitative survey data to collect perceptions of sport stakeholders. As noted earlier, a key limitation of this approach is the inability to probe further as to why a respondent selected a particular survey response. A mixed-methods approach comprising both surveys and interviews/focus groups would likely facilitate a richer understanding of stakeholder perceptions (DiCicco-Bloom & Crabtree, 2006). For instance, a select group of respondents could partake in an interview comprising open-ended questions to probe for reasons behind their responses. Overall, there is an opportunity to enhance the research design further and incorporate both quantitative and qualitative techniques to corroborate and validate the research findings.

Responsive regulation is a framework that can be applied to regulating and preventing betting-motivated corruption. Responsive regulation can be represented in a pyramid comprised of strategies. Strategies at the top of the pyramid, such as sanctions and termination of contracts, are ‘last resort’ interventions and are typically reactive mechanisms to addressing betting-motivated corruption, while the strategies at the bottom of the pyramid (e.g., education) are prioritised for proactive prevention. Future research could explore betting-motivated corruption in greater depth through the responsive regulation lens to inform practical considerations.

## 8.7 Conclusion

This chapter presented the key findings for the three studies conducted and their related RQs. From the analysis, theoretical, methodological, and practical implications were identified. Specifically, enhancing understanding of betting-motivated corruption within the sport context and the application of theoretical frameworks used in other contexts, particularly the integrity scale, procedural justice, and responsive regulation. A key observation made in the current research was the importance of culture and its key influence on the behaviour of key sport stakeholders. Several practical implications for informing policymakers and sport administrators were presented before outlining key limitations and directions for future research regarding betting-motivated corruption in Australia and internationally.

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# Appendix A – Questionnaire Information Sheet

### Athlete and Non-Athlete Attitudes Towards Betting-Motivated Corruption Anonymous Survey

### SURVEY INFORMATION SHEET

**Who is conducting the research?**

Dr Christine Bond
*Principal Investigator*
Griffith Criminology Institute
Griffith University, Mt Gravatt Campus
[redacted]

Mr Reynald Lastra
*PhD candidate*
Griffith Criminology Institute
Griffith University, Mt Gravatt Campus
[redacted]

Dr Caroline Riot
*Co-investigator*
Dept. Tourism, Sport and Hotel Management
Griffith University, Nathan Campus
[redacted]

Insp Jason Saunders
*Co-investigator*
Queensland Police Service

## Why is the research being conducted?

The rapid growth of online sports betting internationally has increased the risk of betting-motivated corruption in sport, particularly within Australia. This survey is a part of a greater study being conducted by Griffith University (Griffith Criminology Institute) in partnership with the Queensland Academy of Sport (QAS). We want to find out attitudes of athletes and non-athletes (coaches, support staff, administrators) currently involved in sport within Australia towards betting-motivated corruption (i.e. match-fixing, spot-fixing and the misuse of insider information) and compliance.

## What you will be asked to do

Should you agree to participate in the anonymous survey you will be asked questions about your attitudes towards betting-motivated corruption in your sport. The survey will take about 10 minutes.

## The basis by which participants will be selected

Participants selected for this research are current athletes or non-athletes (coaches, support staff, administrators) within a club/sport organisation in Australia. To be eligible to participate in this survey you need to be aged over 18 years.

## The expected benefits of the research

- This research will contribute to understanding the attitudes of athletes and non-athletes of sport organisations towards betting-motivated corruption and compliance.
- Participants can win one of five $100 shopping vouchers.

## Risks to you

There are no risks beyond the participant's normal everyday activities. There will be no identifying information collected to ensure participants remain anonymous.

## Your confidentiality

The confidentiality of participants is important to this research. No information that can identify participants will be collected. Results will be published in a de-identified form, ensuring the anonymity of participants. All data will be stored on a secure server with access restricted to the research team members and retained for the mandated retention period (5 years).

## Your participation is voluntary

Participation in this research is completely voluntary. Participants may withdraw from the study at any time. Participation does not require answering every question of the survey. Participation in this research will in no way impact upon any relationships with the organisation which participants are associated with. Data cannot be withdrawn after you have submitted because responses are anonymous and we cannot trace back your data.

## Mechanism for distribution and return

The survey will be administered online via Qualtrics (survey software) and in-person in paper-based form. The data will be stored securely on the Qualtrics platform before being transferred to a statistical analysis program. Once data is transferred for analysis, the raw data collected and stored on Qualtrics will be erased.

## Questions / further information

If you have any questions or require further information regarding this research, please feel free to contact:

Mr Reynald Lastra
*PhD candidate*
Griffith Criminology Institute
Griffith University, Mt Gravatt Campus
[redacted]

## The ethical conduct of this research

Griffith University conducts its research in accordance with the *National Statement on Ethical Conduct in Human Research* (2007).

If potential participants have any concerns or complaints about the ethical conduct of the research project, they should contact the Manager, Research Ethics on 3735 4375 or research-ethics@griffith.edu.au. Please quote the ethics reference number: 2017/171.

## Feedback to you

Participants are encouraged to contact the research team if they would like to receive a summary of the research findings. The research findings will also be published in the form of a thesis and various journal article publications.

## Privacy Statement – non-disclosure

The conduct of this research involves the collection, access and/or use of your identified personal information in the form of the participant's email address for the prize draw. The information collected is confidential and will not be disclosed to third parties without your consent except to meet government, legal or other regulatory authority requirements. Your anonymity will at all times be safeguarded. For further information consult the University's Privacy Plan at http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan or telephone (07) 3735 4375.

## Expressing consent

By reading the attached consent form and handing back the completed survey to the designated submission point, participants will be deemed to have consented to partake in the research.

## Appendix B – Questionnaire and Consent Form (Rugby League)

# ATHLETE AND NON-ATHLETE ATTITUDES TOWARDS BETTING-MOTIVATED CORRUPTION ANONYMOUS SURVEY

## Griffith University
## Ethics No. 2017/171

**Athlete and Non-Athlete Attitudes Towards Betting-Motivated Corruption Anonymous Survey**

**CONSENT FORM**

**Research Team**

Dr Christine Bond
*Principal Investigator*
Griffith Criminology Institute
Griffith University, Mt Gravatt Campus
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Dr Caroline Riot
*Co-investigator*
Dept. Tourism, Sport and Hotel Management
Griffith University, Nathan Campus
[redacted]

Insp Jason Saunders
*Co-investigator*
Queensland Police Service

I confirm that I have read and understood the information package and, in particular, have noted that:

- I understand that my involvement in this research will involve completing an anonymous survey regarding my attitudes towards betting-motivated corruption within my sport;
- I have had any questions answered to my satisfaction;
- I understand the risks involved;
- I understand that I have the option to enter a draw to win 1 of 5 $100 shopping vouchers for my participation in the survey;
- I understand that my participation in this research is voluntary;
- I understand that if I have any additional questions I can contact the research team;
- I understand that I am free to withdraw at any time, without explanation or penalty;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (07) 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project (GU reference no.: 2017/171);
- **By reading this consent form and returning the completed survey means you consent to participating in this research.**

## SECTION 1: ABOUT YOU

This section asks questions about you. Your answers cannot be used to identify you.

Q1. What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other (please specify) ______________________

Q2. Please select your age range.

| | | |
|---|---|---|
| ☐ 18 – 24 | ☐ 25 - 34 | ☐ 35 - 44 |
| ☐ 45 – 54 | ☐ 55 - 64 | ☐ 65 and over |

Q3. Which best describes your current role?

- ☐ Athlete → (Skip to Question 4)
- ☐ Non-athlete (e.g. coach, support staff, administrator, official)

Q3a. Are you a former semi-pro (sub-elite) or professional (elite) athlete?

- ☐ Yes
- ☐ No

Q4. What level of sport is your current role (athlete/non-athlete)?

- ☐ Professional (elite) (e.g. NRL)
- ☐ Semi-professional (sub-elite) (e.g.. Intrust Super Cup)
- ☐ Amateur

Q4a. How long have you been at that level in your current role (athlete/non-athlete)?

- ☐ Less than 1 year
- ☐ 1 – 2 years
- ☐ 3 – 5 years
- ☐ 6 – 9 years
- ☐ 10 or more years

## SECTION 2: KNOWLEDGE AND BELIEFS

This section of the survey asks about your knowledge and beliefs of betting-motivated corruption. For the purpose of this survey, betting-motivated corruption includes:

- Match-fixing (fixing the end result of a match to support a bet)
- Spot-fixing (fixing a certain event during a match to support a bet, like the first try scorer)
- Misuse of insider information (misusing private insider information to support a bet, such as the injury of a key athlete before it is made public)

Please answer the questions as honestly as you can – **remember your answers are anonymous.**

Q5. Have you ever played or been involved in a match/contest that has since been identified as fixed/manipulated?

☐ Yes

☐ No → (Skip to Question 6)

☐ Don't know → (Skip to Question 6)

Q5a. Did you know anything at the time or did you have any suspicions that the match/contest was fixed?

☐ Yes

☐ No

Q6. In the past 12 months, has anyone asked you to match-fix (i.e. fix the end result)?

☐ Yes

☐ No → (Skip to Question 7)

☐ Don't know → (Skip to Question 7)

Q6a. Did you report this anywhere?

☐ Yes

☐ No

Q7. In the past 12 months, has anyone asked you to spot-fix (i.e. fix a certain event during a game that isn't the end result - like who scores first)?

☐ Yes

☐ No → (Skip to Question 8)

☐ Don't know → (Skip to Question 8)

Q7a. Did you report this anywhere?

☐ Yes

☐ No

Q8. Have you ever been approached in the past 12 months by anyone (e.g. family, friend or stranger) asking you to share sensitive insider information? (e.g. injury of a key player before it is made public)

- ☐ Yes
- ☐ No → (Skip to Question 9)
- ☐ Don't know → (Skip to Question 9)

Q8a. Did you report this anywhere?

- ☐ Yes
- ☐ No

Q9. Have you ever suspected a match in your league to be fixed in the past 12 months?

- ☐ No → (Skip to Question 10)
- ☐ Yes

Q9a. How many times do you think matches were fixed during that period?

- ☐ 1
- ☐ 2 - 5
- ☐ 6 – 10
- ☐ More than 10

Q10. Have you seen or heard sensitive inside information being shared with anyone outside of your club/organisation in the past 12 months?

- ☐ Yes
- ☐ No → (Skip to Question 11)

Q10a. How was this information shared?

- ☐ Verbally
- ☐ Through Social Media (e.g. Facebook, Twitter, Snap Chat etc.)
- ☐ Through Instant Messaging (e.g. Messenger, WhatsApp, Viber, SMS etc.)
- ☐ Other (please specify) ______________________

Q10b. Did you report this anywhere?

- ☐ Yes
- ☐ No

Q11. In your opinion, which of the following is most likely to plan and direct a match-fix/spot-fix – pick **ONE** answer.

- ☐ Club official/s (e.g. club manager, club administrator, owner)
- ☐ Player manager
- ☐ Support staff (e.g. scientist, physio, trainer)
- ☐ Coach/assistant coach
- ☐ Player/s
- ☐ Referee or other game official
- ☐ Someone outside the sport (please specify who below)

  ____________________________________

- ☐ Other (please specify)

  ____________________________________

Q12. In your opinion, which of the following is most likely to share sensitive insider information – pick **ONE** answer.

- ☐ Club official/s (e.g. club manager, club administrator, owner)
- ☐ Player manager
- ☐ Support staff (e.g. scientist, physio, trainer)
- ☐ Coach/assistant coach
- ☐ Player/s
- ☐ Referee or other game official
- ☐ Someone outside the sport (Please specify who below)

  ____________________________________

- ☐ Other (please specify)

  ____________________________________

Q13. What do you think might be the most common reason (s) why someone might engage in betting-motivated corruption (i.e. match-fixing, spot-fixing or misuse of insider information for betting)? Please select the **THREE** most important reasons.

- ☐ Acceptance of match- or spot-fixing in sport
- ☐ Financial difficulties
- ☐ Easy money with little chance of detection
- ☐ Pressure by other players/game officials at the match
- ☐ Pressure by team officials
- ☐ Thrill-seeking
- ☐ No fall back career (career after sport)
- ☐ Pressure by family
- ☐ Pressure by outside person
- ☐ Threat of violence towards you
- ☐ Threats of violence towards your family
- ☐ Lack of awareness of behaviour
- ☐ Lack of awareness of the consequences if caught
- ☐ Other/s (please specify) ______________________________

Q14. What are the most important factors that stop you from engaging in betting-motivated corruption? Please select the **THREE** most important reasons.

- ☐ Don't need the money
- ☐ Letting down fans
- ☐ Letting down teammates
- ☐ Letting down club/organisation
- ☐ Letting down family
- ☐ Letting down the 'game'
- ☐ Personal honesty and integrity
- ☐ Threat of arrest by police
- ☐ Threat of suspension/ban by sport
- ☐ Threat to future career in sport
- ☐ Threat to future career outside sport
- ☐ Other/s (please specify) ______________________________

Q15. How do you think players and staff can best be prevented from engaging in betting-motivated corruption? Please select the **THREE** most important reasons.

- ☐ Higher wages
- ☐ Wages paid on time
- ☐ Wages and bonuses should not be handed in cash
- ☐ Better working conditions and respect shown by workplace
- ☐ Harsher penalties
- ☐ More education on how betting-motivated corruption works
- ☐ More education on the dangers of betting-motivated corruption
- ☐ More powerful union able to support players and staff
- ☐ Other/s (please specify) ______________________________

Q16. Have you previously received education/training on illegal betting and betting-motivated corruption (e.g. match-fixing etc.)?

- ☐ Yes
- ☐ No (Go to Question 17)

Q16a. If yes, how many times a year do you receive this training?

- ☐ Less than once a year (i.e. not consistently each year)
- ☐ Once a year
- ☐ Twice a year
- ☐ 3 or more times a year

Q17. Who do you think should deliver education courses for players and staff on the dangers of betting-motivated corruption? Please select **ONE** answer.

- ☐ Club official (e.g. club manager/administrator)
- ☐ Players Union
- ☐ University/TAFE educator
- ☐ Police
- ☐ Current player
- ☐ Sport Governing Body/Integrity Unit
- ☐ Ex-player
- ☐ Other (please specify) ______________________________

Q18. Who would you trust MOST to report to if you had any suspicions of betting-motivated corruption? Please select **ONE** answer.

- ☐ Own club/sport organisation
- ☐ National Sport Governing Body
- ☐ Independent ombudsman
- ☐ International Sport Governing Body
- ☐ Police
- ☐ Player Union
- ☐ State Sport Governing Body
- ☐ Crime Stoppers
- ☐ Other (please specify) ______________________________

Q19. Would you ever confidentially report being approached to fix or share insider information OR any suspicions you have of match-fixing, spot-fixing or the intentional misuse of insider information?

- ☐ Yes
- ☐ No

Q20. If you were to report, which reporting method do you think would be best to use? Please indicate **ONE** answer.

- ☐ Telephone hotline
- ☐ Mobile app
- ☐ Online reporting form
- ☐ Face-to-face/in-person
- ☐ Other (please specify) ______________________

Q21. What would stop you from reporting an approach or suspicion? Please indicate **ONE** answer.

- ☐ Lack of trust of the confidentiality
- ☐ Lack of support from team
- ☐ Lack of support from authorities (e.g. police)
- ☐ Fear of consequences for self or those involved
- ☐ Violence or intimidation threats
- ☐ Threat to career
- ☐ Other (please specify) ______________________

Q22. Do you know the rules on what an athlete/non-athlete can bet on in Australia?

- ☐ Yes
- ☐ No

Q23. Do you understand the rules on insider information in your sport?

- ☐ Yes
- ☐ No

Q24. Have you ever placed a bet on your own sport while in your current role?

- ☐ Yes
- ☐ No (Go to Question 25)

Q24a. In the past 12 months, how many times have you gambled on your OWN sport?

- ☐ Once a week or more
- ☐ 1 – 3 times per month
- ☐ Less than once per month
- ☐ Not at all

Q25. In the past 12 months, how many times have you gambled on OTHER sports (i.e. sports that are not your own)?

- ☐ Once a week or more
- ☐ 1 – 3 times per month
- ☐ Less than once per month
- ☐ Not at all

## SECTION 3: RESPONDING TO SCENARIOS

Here you are presented **(4) hypothetical scenarios** that could occur in your sport. A series of questions will ask how **YOU** and **YOUR CLUB/ORGANISATION** might respond to each scenario. Please be as honest as possible. Remember, **your answers are anonymous.**

**Q26. Scenario 1: An athlete (player) or staff member places a bet on their own team as well as other fixtures in the competition.**

| | Not at All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

**Q27. Scenario 2: A group of players, coach and manager get together to lose a sporting contest intentionally to support a bet placed with a bookmaker.**

| | Not At All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

**Q28. Scenario 3: A player or staff member discusses private team information to family and/or friends. This information is later used by a friend/family member to place a bet.**

| | Not At All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

**Q29. Scenario 4: A player has a key position in the team and manipulates who will score the first points to win a bet placed with a bookmaker.**

| | Not At All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

## SECTION 4: VIEWS OF GOVERNING BODY'S AUTHORITY AND COMPLIANCE

This section will ask about your previous experiences with your sport's governing body and compliance. Please read the questions and answer how you feel regarding the following statements. Your answers are anonymous.

Q30. Your general views are that….

| | Strongly Disagree | Disagree | Neither | Agree | Strongly Agree |
|---|---|---|---|---|---|
| My sport governing body treats people with respect | 1 | 2 | 3 | 4 | 5 |
| My sport governing body gives people the opportunity to express their views before decisions are made | 1 | 2 | 3 | 4 | 5 |
| My sport governing body listens to people before making decisions | 1 | 2 | 3 | 4 | 5 |
| My sport governing body's decisions are consistent | 1 | 2 | 3 | 4 | 5 |
| My sport governing body's decisions are based on fact, not personal opinion | 1 | 2 | 3 | 4 | 5 |
| I comply with my sport's policies, even if I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I follow the instructions given to me by my sport governing body, even when I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I ignore my sport governing body's instructions | 1 | 2 | 3 | 4 | 5 |
| I do what my sport governing body ask me to do | 1 | 2 | 3 | 4 | 5 |
| I comply with the policies of my organisation/club, even if I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I follow the instructions given to me by my superiors, even when I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I ignore my superior's instructions | 1 | 2 | 3 | 4 | 5 |
| I do what my superiors ask me to do | 1 | 2 | 3 | 4 | 5 |

## SECTION 5: SOCIAL DESIRABILITY

This section will ask you questions about social desirability. Your answers are completely anonymous.

| | | |
|---|---|---|
| Would you smile at people every time you meet them? | No | Yes |
| Do you always practice what you preach to people? | No | Yes |
| If you say to people that you will do something, do you always keep your promise no matter how inconvenient it might be? | No | Yes |
| Would you ever lie to people? | No | Yes |

**-END OF SURVEY-**
**Thank you for your time**

**If you wish to enter the prize draw**

**for a chance to win…**

**1 of 5**
**$100 SHOPPING VOUCHERS**

**Please tear off this page and fill in your name and email address so we can notify you if you have won. Place this in the separate (smaller) envelope provided. This cannot link you to your survey answers.**

-----------------------------------------------------------------------

| | |
|---|---|
| **Name:** | |
| **Email address:** | |

## Appendix C – Questionnaire and Consent Form (Basketball)

# ATHLETE AND NON-ATHLETE ATTITUDES TOWARDS BETTING-MOTIVATED CORRUPTION ANONYMOUS SURVEY

## Griffith University
## Ethics No. 2017/171

**Athlete and Non-Athlete Attitudes Towards Betting-Motivated Corruption Anonymous Survey**

**CONSENT FORM**

**Research Team**

Dr Christine Bond
*Principal Investigator*
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Dept. Tourism, Sport and Hotel Management
Griffith University, Nathan Campus
[redacted]

Insp Jason Saunders
*Co-investigator*
Queensland Police Service

I confirm that I have read and understood the information package and, in particular, have noted that:

- I understand that my involvement in this research will involve completing an anonymous survey regarding my attitudes towards betting-motivated corruption within my sport;
- I have had any questions answered to my satisfaction;
- I understand the risks involved;
- I understand that I have the option to enter a draw to win 1 of 5 $100 shopping vouchers for my participation in the survey;
- I understand that my participation in this research is voluntary;
- I understand that if I have any additional questions I can contact the research team;
- I understand that I am free to withdraw at any time, without explanation or penalty;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (07) 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project (GU reference no.: 2017/171);
- **By reading this consent form and returning the completed survey means you consent to participating in this research.**

## SECTION 1: ABOUT YOU

This section asks questions about you. Your answers cannot be used to identify you.

Q4. What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other (please specify) ________________________

Q5. Please select your age range

| | | |
|---|---|---|
| ☐ 18 – 24 | ☐ 25 - 34 | ☐ 35 - 44 |
| ☐ 45 – 54 | ☐ 55 - 64 | ☐ 65 and over |

Q6. Which best describes your current role?

- ☐ Athlete → (Skip to Question 4)
- ☐ Non-athlete (e.g. coach, support staff, administrator, official)

Q3a. Are you a former semi-pro (sub-elite) or professional (elite) athlete?

- ☐ Yes
- ☐ No

Q4. What level of sport is your current role (athlete/non-athlete)?

- ☐ Professional (elite) (e.g. NBL)
- ☐ Semi-professional (sub-elite) (e.g.. QBL, SEABL)
- ☐ Amateur

Q4a. How long have you been at that level in your current role (athlete/non-athlete)?

- ☐ Less than 1 year
- ☐ 1 – 2 years
- ☐ 3 – 5 years
- ☐ 6 – 9 years
- ☐ 10 or more years

## SECTION 2: KNOWLEDGE AND BELIEFS

This section of the survey asks about your knowledge and beliefs of betting-motivated corruption. For the purpose of this survey, betting-motivated corruption includes:

- Match-fixing (fixing the end result of a match to support a bet)
- Spot-fixing (fixing a certain event during a match to support a bet, like the first points scorer)
- Misuse of insider information (misusing private insider information to support a bet, such as the injury of a key player before it is made public)

Please answer the questions as honestly as you can – **remember your answers are anonymous.**

Q31. Have you ever played or been involved in a match/contest that has since been identified as fixed/manipulated?

☐ Yes

☐ No → (Skip to Question 6)

☐ Don't know → (Skip to Question 6)

Q5a. Did you know anything at the time or did you have any suspicions that the match/contest was fixed?

☐ Yes

☐ No

Q32. In the past 12 months, has anyone asked you to match-fix (i.e. fix the end result)?

☐ Yes

☐ No → (Skip to Question 7)

☐ Don't know → (Skip to Question 7)

Q6a. Did you report this anywhere?

☐ Yes

☐ No

Q33. In the past 12 months, has anyone asked you to spot-fix (i.e. fix a certain event during a game that isn't the end result - like who wins the first quarter)?

☐ Yes

☐ No → (Skip to Question 8)

☐ Don't know → (Skip to Question 8)

Q7a. Did you report this anywhere?

☐ Yes

☐ No

Q34. Have you ever been approached in the past 12 months by anyone (e.g. family, friend or stranger) asking you to share sensitive insider information? (e.g. injury of a key player before it is made public)

- ☐ Yes
- ☐ No → (Skip to Question 9)
- ☐ Don't know → (Skip to Question 9)

Q8a. Did you report this anywhere?

- ☐ Yes
- ☐ No

Q35. Have you ever suspected a match in your league to be fixed in the past 12 months?

- ☐ No → (Skip to Question 10)
- ☐ Yes

Q9a. How many times do you think matches were fixed during that period?

- ☐ 1
- ☐ 2 - 5
- ☐ 6 – 10
- ☐ More than 10

Q36. Have you seen or heard sensitive inside information being shared with anyone outside of your club/organisation in the past 12 months?

- ☐ Yes
- ☐ No → (Skip to Question 11)

Q10a. How was this information shared?

- ☐ Verbally
- ☐ Through Social Media (e.g. Facebook, Twitter, Snap Chat etc.)
- ☐ Through Instant Messaging (e.g. Messenger, WhatsApp, Viber, SMS etc.)
- ☐ Other (please specify) ______________________

Q10b. Did you report this anywhere?

- ☐ Yes
- ☐ No

Q37. In your opinion, which of the following is most likely to plan and direct a match-fix/spot-fix – pick **ONE** answer.

☐ Club official/s (e.g. club manager, club administrator, owner)

☐ Player manager

☐ Support staff (e.g. scientist, physio, trainer)

☐ Coach/assistant coach

☐ Player/s

☐ Referee or other game official

☐ Someone outside the sport (please specify who below)

____________________________________

☐ Other (please specify)

____________________________________

Q38. In your opinion, which of the following is most likely to share sensitive insider information – pick **ONE** answer.

☐ Club official/s (e.g. club manager, club administrator, owner)

☐ Player manager

☐ Support staff (e.g. scientist, physio, trainer)

☐ Coach/assistant coach

☐ Player/s

☐ Referee or other game official

☐ Someone outside the sport (Please specify who below)

____________________________________

☐ Other (please specify)

____________________________________

Q39. What do you think might be the most common reason (s) why someone might engage in betting-motivated corruption (i.e. match-fixing, spot-fixing or misuse of insider information for betting)? Please select the **THREE** most important reasons.

- ☐ Acceptance of match- or spot-fixing in sport
- ☐ Pressure by family
- ☐ Financial difficulties
- ☐ Pressure by outside person
- ☐ Easy money with little chance of detection
- ☐ Threat of violence towards you
- ☐ Pressure by other players/game officials at the match
- ☐ Threats of violence towards your family
- ☐ Pressure by team officials
- ☐ Lack of awareness of behaviour
- ☐ Thrill-seeking
- ☐ Lack of awareness of the consequences if caught
- ☐ No fallback career (career after sport)
- ☐ Other/s (please specify) ______________________________

Q40. What are the most important factors that stop you from engaging in betting-motivated corruption? Please select the **THREE** most important reasons.

- ☐ Don’t need the money
- ☐ Personal honesty and integrity
- ☐ Letting down fans
- ☐ Threat of arrest by police
- ☐ Letting down teammates
- ☐ Threat of suspension/ban by sport
- ☐ Letting down club/organisation
- ☐ Threat to future career in sport
- ☐ Letting down family
- ☐ Threat to future career outside sport
- ☐ Letting down the ‘game’
- ☐ Other/s (please specify) ______________________________

Q41. How do you think players and staff can best be prevented from engaging in betting-motivated corruption? Please select the **THREE** most important reasons.

- ☐ Higher wages
- ☐ More education on how betting-motivated corruption works
- ☐ Wages paid on time
- ☐ More education on the dangers of betting-motivated corruption
- ☐ Wages and bonuses should not be handed in cash
- ☐ More powerful union able to support players and staff
- ☐ Better working conditions and respect shown by workplace
- ☐ Other/s (please specify) ______________________________
- ☐ Harsher penalties

Q42. Have you previously received education/training on illegal betting and betting-motivated corruption (e.g. match-fixing etc.)?

- ☐ Yes
- ☐ No (Go to Question 17)

Q16a. If yes, how many times a year do you receive this training?

- ☐ Less than once a year (i.e. not consistently each year)
- ☐ Once a year
- ☐ Twice a year
- ☐ 3 or more times a year

Q43. Who do you think should deliver education courses for players and staff on the dangers of betting-motivated corruption? Please select **ONE** answer.

- ☐ Club official (e.g. club manager/administrator)
- ☐ Players Union
- ☐ University/TAFE educator
- ☐ Police
- ☐ Current player
- ☐ Sport Governing Body/Integrity Unit
- ☐ Ex-player
- ☐ Other (please specify) ____________________

Q44. Who would you trust MOST to report to if you had any suspicions of betting-motivated corruption? Please select **ONE** answer.

- ☐ Own club/sport organisation
- ☐ National Sport Governing Body
- ☐ Independent ombudsman
- ☐ International Sport Governing Body
- ☐ Police
- ☐ Player Union
- ☐ State Sport Governing Body
- ☐ Crime Stoppers
- ☐ Other (please specify) ____________________

Q45. Would you ever confidentially report being approached to fix or share insider information OR any suspicions you have of match-fixing, spot-fixing or the intentional misuse of insider information?

- ☐ Yes
- ☐ No

Q46. If you were to report, which reporting method do you think would be best to use? Please indicate **ONE** answer.

- ☐ Telephone hotline
- ☐ Mobile app
- ☐ Online reporting form
- ☐ Face-to-face/in-person
- ☐ Other (please specify) ____________________

Q47. What would stop you from reporting an approach or suspicion? Please indicate **ONE** answer.

- ☐ Lack of trust of the confidentiality
- ☐ Lack of support from team
- ☐ Lack of support from authorities (e.g. police)
- ☐ Fear of consequences for self or those involved
- ☐ Violence or intimidation threats
- ☐ Threat to career
- ☐ Other (please specify) ______________________

Q48. Do you know the rules on what an athlete/non-athlete in your sport can bet on in Australia?

- ☐ Yes
- ☐ No

Q49. Do you understand the rules on insider information in your sport?

- ☐ Yes
- ☐ No

Q50. Have you ever placed a bet on any Basketball while in your current role?

- ☐ Yes
- ☐ No (Go to Question 25)

Q24a. In the past 12 months, how many times have you gambled on Basketball played <u>in</u> Australia (e.g. NBL)?

- ☐ Once a week or more
- ☐ 1 – 3 times per month
- ☐ Less than once per month
- ☐ Not at all

Q24b. In the past 12 months, how many times have you gambled on Basketball <u>outside</u> Australia (e.g. NBA)?

- ☐ Once a week or more
- ☐ 1 – 3 times per month
- ☐ Less than once per month
- ☐ Not at all

Q51. In the past 12 months, how many times have you gambled on OTHER sports (i.e. sports that are not Basketball)?

- ☐ Once a week or more

☐ 1 – 3 times per month

☐ Less than once per month

☐ Not at all

## SECTION 3: RESPONDING TO SCENARIOS

Here you are presented **(4) hypothetical scenarios** that could occur in your sport. A series of questions will ask how **YOU** and **YOUR CLUB/ORGANISATION** might respond to each scenario. Please be as honest as possible. Remember, **your answers are anonymous.**

**Q52. Scenario 1: An athlete (player) or staff member places a bet on their own team as well as other fixtures in the competition.**

| | Not at All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

**Q53. Scenario 2: A group of players, coach and manager get together to lose a match intentionally to support a bet placed with a bookmaker.**

| | Not At All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

**Q54. Scenario 3: A player or staff member discusses private team information to family and/or friends. This information is later used by a friend/family member to place a bet.**

| | Not At All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

**Q55. Scenario 4: A player has a key position in the team and manipulates who will score the first points to win a bet placed with a bookmaker.**

| | Not At All Serious | Not Very Serious | Neutral | Serious | Very Serious |
|---|---|---|---|---|---|
| How serious do YOU consider this behaviour to be? | 1 | 2 | 3 | 4 | 5 |
| How serious do you think most people in your CLUB/ORGANISATION would consider this behaviour? | 1 | 2 | 3 | 4 | 5 |

| | Definitely Not | Probably Not | Maybe | Probably Yes | Definitely Yes |
|---|---|---|---|---|---|
| Would this behaviour be regarded as a violation of official policy in your sport? | 1 | 2 | 3 | 4 | 5 |

| | Very Unlikely | Unlikely | Maybe | Likely | Very Likely |
|---|---|---|---|---|---|
| Do you think YOU would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |
| Do you think MOST PEOPLE IN YOUR CLUB/ORGANISATION would report a fellow player/colleague who engaged in this behaviour? | 1 | 2 | 3 | 4 | 5 |

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **WOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

If someone in your club/organisation engaged in this behaviour and was discovered doing so, what discipline do YOU think **SHOULD** follow? – Please tick all that apply.

☐ None ☐ Suspension ☐ Verbal warning

☐ Fine ☐ Ban (i.e. deregistration) ☐ Written warning

## SECTION 4VIEWS OF GOVERNING BODY'S AUTHORITY AND COMPLIANCE

This section will ask about your previous experiences with your sport's governing body and compliance. Please read the questions and answer how you feel regarding the following statements. Your answers are anonymous.

Q56. Your general views are that….

| | Strongly Disagree | Disagree | Neither | Agree | Strongly Agree |
|---|---|---|---|---|---|
| My sport governing body treats people with respect | 1 | 2 | 3 | 4 | 5 |
| My sport governing body gives people the opportunity to express their views before decisions are made | 1 | 2 | 3 | 4 | 5 |
| My sport governing body listens to people before making decisions | 1 | 2 | 3 | 4 | 5 |
| My sport governing body's decisions are consistent | 1 | 2 | 3 | 4 | 5 |
| My sport governing body's decisions are based on fact, not personal opinion | 1 | 2 | 3 | 4 | 5 |
| I comply with my sport's policies, even if I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I follow the instructions given to me by my sport governing body, even when I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I ignore my sport governing body's instructions | 1 | 2 | 3 | 4 | 5 |
| I do what my sport governing body ask me to do | 1 | 2 | 3 | 4 | 5 |
| I comply with the policies of my organisation/club, even if I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I follow the instructions given to me by my superiors, even when I think they are wrong | 1 | 2 | 3 | 4 | 5 |
| I ignore my superior's instructions | 1 | 2 | 3 | 4 | 5 |
| I do what my superiors ask me to do | 1 | 2 | 3 | 4 | 5 |

## SECTION 5: SOCIAL DESIRABILITY

This section will ask you questions about social desirability. Your answers are completely anonymous.

| | | |
|---|---|---|
| Would you smile at people every time you meet them? | No | Yes |
| Do you always practice what you preach to people? | No | Yes |
| If you say to people that you will do something, do you always keep your promise no matter how inconvenient it might be? | No | Yes |
| Would you ever lie to people? | No | Yes |

**-END OF SURVEY-**
**Thank you for your time**

**If you wish to enter the prize draw**

**for a chance to win…**

**1 of 5**
**$100 SHOPPING VOUCHERS**

**Please tear off this page and fill in your name and email address so we can notify you if you have won. Place this in the separate (smaller) envelope provided. This cannot link you to your survey answers.**

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| | |
|---|---|
| **Name:** | |
| **Email address:** | |

# Appendix D – Ethical Clearance Letter

2 May 2017

GRIFFITH UNIVERSITY HUMAN RESEARCH ETHICS REVIEW

Dear Dr Christine Bond

I write further to the additional information provided in relation to the provisional approval granted to your application for ethical clearance for your project "A conceptual framework for the prevention and management of betting-motivated corruption in Australian sport: A multiple case study of corruption management" (GU Ref No: 2017/171).

This is to confirm that this response has addressed the comments and concerns of the HREC.

The ethics reviewers resolved to grant your application a clearance status of "Fully Approved".

Consequently, you are authorised to immediately commence this research on this basis.

Regards

Kim Madison | Human Research Ethics

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