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# 'Immediate access ... everywhere you go': a Grounded Theory Study of How Smartphone Betting Can Facilitate Harmful Sports Betting Behaviours Amongst Young Adults

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## Abstract

This study explored how the use of smartphones can influence sports betting by young adults, compared to using computers and land-based betting facilities. Interviews with 33 Australians aged 18–29 years, who bet regularly on sports, esports, and/or fantasy sports, were analysed using adaptive grounded theory. Seven major themes related to platform functionality, sourcing betting information, physical accessibility, financial accessibility, social influences, privacy, and marketing. The grounded theory model depicts how features of smartphones, online gambling, and betting apps combine in smartphone betting to provide instantaneous access to betting, anywhere and at any time, to facilitate harmful betting behaviours. These behaviours included increased betting participation, frequency and expenditure, placing a wider variety of bets, impulsive and spontaneous betting, placing riskier bets with longer odds, chasing losses, and acting on social encouragement to bet. These findings can inform harm minimisation measures, regulation, and policy.

**Keywords** Mobile gambling · Sports betting · Online gambling · Gambling harm · Problem gambling · Smartphone betting

Online sports betting is a rapidly growing form of gambling, facilitated by the uptake of smartphones and easy access to a plethora of mobile betting apps (Hing et al., 2018a; Lopez-Gonzalez & Griffiths, 2018; Winters & Derevensky, 2020). Smartphones are now the most popular device for sports betting in several countries (Lopez-Gonzalez & Griffiths, 2018), accounting for a major proportion of the overall growth in online wagering (O'Brien & He, 2021; Roy Morgan Research, 2018). In Australia, for example, 59.6% of sports bettors bet using a smartphone, compared to 36.4% betting in a land-based venue and 17.7% using a computer; and smartphones are also the most used platform for betting

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on esports (52.7%) and fantasy sports (55.9%) (Hing et al., 2021). Studies in other countries, including the USA, the UK, Spain, and Africa, also point to the popularity of betting using a smartphone (Bunn et al., 2020; Lopez-Gonzalez & Griffiths, 2018; McGee, 2020; Mwadime, 2017; O'Brien & He, 2021). Sports betting is prevalent amongst young adult males, a demographic that favours smartphones as a betting platform (Browne et al., 2020; McGee, 2020; Raymen & Smith, 2020).

Research has examined associations between the use of mobile betting platforms and harmful gambling. An Australian study ( $N=4,482$ ) found higher rates of gambling problems amongst online gamblers who preferred to bet with mobile devices (Gainsbury et al., 2016). Similarly, amongst Spanish sports bettors ( $N=659$ ), those categorised as problem gamblers on the PGSI tended to prefer betting with a smartphone (Lopez-Gonzalez et al., 2019). In representative Australian surveys, the proportion of adults nominating smartphones as their most harmful mode of gambling doubled from 11.7% in 2010/2011 to 25.2% in 2019 (Hing et al., 2014, 2021). However, limited research has examined the distinctive features of smartphone sports betting. A qualitative study with seven gamblers (Drakeford & Hudson-Smith, 2015) concluded that smartphone gambling is more accessible than land-based and online computer gambling, due to its proximity, social accessibility, privacy, and instant accessibility. Participants discussed how these features facilitated increased gambling frequency, impulsive gambling, and continuous engagement in gambling that became integrated into their daily activities. A study of risky environments for sports betting (Deans et al., 2016) also identified mobile technologies as potentially increasing frequency, expenditure, and persistence through providing 24/7 access to betting instantaneously, continuously, and from any location.

A qualitative study with 32 young male sports bettors found that mobile technologies have 'democratised and casualised' access to sports betting, so it is conveniently integrated into workplace, domestic, and leisure environments (McGee, 2020, p.90). Other qualitative research has analysed how smartphones have integrated gambling into leisure pursuits, lifestyles, cultural norms, and young male friendship groups (Gordon et al., 2015; Lamont & Hing, 2019, 2020; Raymen & Smith, 2020; Waitt et al., 2022). James et al. (2017) have also argued that frequent, intermittent, and habitual engagement with apps, which is typical of smartphone users, potentially accelerates the acquisition of harmful gambling behaviours because these multiple short bursts of constant checking provide frequent reinforcement.

Two studies have explored smartphone betting amongst people with a gambling disorder. Research involving five interviewees and behavioural data for 19 sports bettors identified smartphone technology as contributing to a continuous 'online sports betting loop' (Parke & Parke, 2019). Faced with opportunities for unlimited betting, live betting, cash-out options, micro-event betting, and instant depositing, the immediate access to betting and repeated exposure to wagering marketing provided by smartphones hindered self-control in those interviewed. This could manifest as continuous betting, lengthy betting sessions, high expenditure, impulsive betting, and loss-chasing. A focus group study with 35 smartphone gamblers in treatment (Lopez-Gonzalez et al., 2021) concluded that smartphone betting has exploited smartphone use-patterns of constant checking and response to push notifications, to transform betting into a continuous activity that permeates daily life. This was thought to accelerate gambling disorder and debts, and hinder treatment, because of the difficulties of avoiding gambling stimuli at home and work.

The above studies all support an expectation that certain features of smartphone betting heighten the risk of harmful betting behaviours. However, most have not explicitly set out to consider how features of smartphone betting interact with betting behaviour, compared to betting using computers and land-based venues. Instead, they focused on a broader set of

contextual factors that may increase risky gambling. The exception is Drakeford and Hudson-Smith's study (2015) which focused on the accessibility of different betting platforms, but in a small sample ( $N=7$ ). Accordingly, the current study aimed to explore how the use of smartphones can influence the sports betting behaviour of young adults, compared to using the alternative betting platforms of computers and land-based venues.

Furthermore, in addition to betting on 'traditional' sports, which has been the focus of previous studies into smartphone gambling, the current study includes betting on esports and fantasy sports, which are gaining popularity, particularly amongst youth (Houghton et al., 2019; Marchica et al., 2021). Esports betting involves placing wagers on professional video game competitions, while fantasy sports betting allows participants to compete for prize pools by assembling virtual teams of professional sports players whose performance is based on their real-world play. An Australian representative survey (Hing et al., 2021) found that esports bettors (45.2%) and fantasy sports bettors (48.6%) were more likely to use a computer to bet, compared to sports bettors (17.7%). Esports bettors (2.1%) and fantasy sports bettors (6.2%) were also far less likely to bet in land-based venues, compared to sports bettors (36.4%). However, we are not aware of any studies that have explored the reasons for these different preferences.

## Methods

We implemented an adaptive grounded theory methodology (Layder, 1998) to explore the lived experience of sports bettors when using the different betting platforms of smartphones, computers, and land-based venues. This methodology is necessarily subjective in nature, since the findings are shaped by how the participants interpret and share their experiences and how the researchers interpret the data, neither of which are value-free. The study was approved by [blinded for review] ethics committee (approval number: 22328).

### Recruitment and Participants

Using an information sheet and informed consent form provided by the researchers, a panel aggregator, Qualtrics, recruited the interviewees. The inclusion criteria reflected our purposive and theoretical sampling methods to focus on young adults aged 18–29 years living in New South Wales, Australia, who bet at least fortnightly on sports, esports, and/or fantasy sports. This age group was chosen because young adults are the demographic who are most likely to bet on these activities (Greer et al., 2019; Macey & Hamari, 2019; Ruihley et al., 2021). We included the three betting activities because they are the major types of sports betting in Australia. The recruitment used soft quotas to gain diversity by age, gender, type of sports bet on, and whether born in Australia (since 30% of Australian residents are born overseas [Australian Bureau of Statistics, 2021]). The 33 participants were aged 19–29 years, five were female, and eight were born overseas. All interviewees bet on traditional sports, and 13 also bet on esports, three on daily fantasy sports (DFS) and three on seasonal fantasy sports (SFS). Table 1 presents the key characteristics of participants.

### Procedure

Three gambling researchers conducted 40–60-min telephone interviews in August and September 2020. The interviews asked about the participant's betting behaviour, betting

**Table 1** Key characteristics of the participants

ID	Sex	Age	Type of sports betting	Platforms used
01	F	21	Sports	Smartphone only
02	M	29	Sports	Mainly computer, sometimes smartphone
03	M	25	Sports	Mainly smartphone, sometimes in-venue
04	F	21	Sports, esports, SFS	Mainly smartphone, sometimes computer
05	F	20	Sports, esports	Mainly tablet and computer, sometimes smartphone
06	M	21	Sports	Mainly computer
07	M	23	Esports	Mainly computer, also smartphone
08	M	29	Sports	Smartphone only
09	M	21	Sports	Mainly smartphone, also computer
10	M	25	Sports, DFS, SFS	Mainly smartphone and computer, sometimes in-venue
11	M	29	Sports, esports	Mainly smartphone, sometimes in-venue
12	M	26	Sports	Mainly smartphone, sometimes in-venue
13	M	26	Sports, esports	Mainly smartphone, sometimes computer, occasionally in-venue
14	M	21	Sports	Mainly smartphone, sometimes computer
15	M	24	Sports, SFS	Mainly smartphone
16	M	25	Sports, esports	Mainly smartphone, sometimes computer and in-venue
17	M	27	Sports, DFS	Mainly smartphone, sometimes computer, tablet and in-venue
18	M	19	Sports	Smartphone only
19	M	28	Sports	Computer only
20	F	26	Sports	Smartphone only
21	M	20	Sports, esports	Smartphone only
22	M	29	Sports, esports	Mainly smartphone, sometimes computer and in-venue
23	M	27	Sports, esports	Mainly smartphone, sometimes computer
24	M	27	Sports	Mainly smartphone, sometimes in-venue
25	M	20	Sports, DFS	Smartphone only
26	M	28	Sports	Mainly computer, sometimes smartphone
27	M	24	Sports	Mainly computer
28	M	23	Sports	Smartphone only
29	M	25	Sports, esports	Computer and smartphone
30	F	25	Sports, esports	Mainly computer, sometimes smartphone and in-venue
31	M	25	Sports	Mainly smartphone, sometimes in-venue
32	M	26	Sports, esports	Computer and smartphone
33	M	24	Sports, esports	Mainly smartphone

*M* male, *F* female, *DFS* daily fantasy sports, *SFS* seasonal fantasy sports

platforms used, and the advantages and disadvantages of each platform for access to betting, betting opportunities, ease of use, user-interface, sourcing betting information, financial transactions, wagering marketing, use in different locations, privacy, anonymity, and safety. The interviews were semi-structured, with questioning flexibly adapted by the interviewers within each of these topics according to the information each participant shared and opportunities to probe further where appropriate. Interviews were audio-recorded and professionally transcribed. Qualtrics compensated participants based on each panel's points rewards system.

## Analysis

An adaptive grounded theory method (Layder, 1998) used inductive and deductive analyses to incorporate both emergent findings from the interviews and existing concepts and theories. This approach was appropriate to the study since there is a developed literature on risk factors for harmful gambling but limited knowledge of the influence of smartphones. The analysis generated an adaptive grounded theory model that provides comprehensive insights into the features of smartphones and their use that can influence betting behaviour.

After data familiarisation, the first author commenced with open coding of each transcript to identify initial features of potential relevance. This iterative coding process of words, phrases, sentences, or paragraphs, as appropriate, involved the constant comparative method to add, modify, and refine codes. Themes were then generated by grouping codes that shared a unifying feature. For example, initial codes of 'ease and speed of betting', 'being able to respond immediately to betting offers', and 'responding impulsively' were collapsed into a category of 'quick and spontaneous betting' under the broader theme of 'accessibility, convenience and constant availability of betting'. The literature review, which identified certain structural and situational features as potentially influencing betting behaviour, also informed the themes. Four authors (including the three interviewers) refined the analysis. The first author then reviewed the transcripts to enhance the saturation of themes with additional participant quotes.

Trustworthiness (Polit & Beck, 2014) was enhanced by collecting data from participants with lived experience to increase credibility. A semi-structured interview format allowed participants to decide the detail, scope, and order in which they shared their experiences, with the interviewers using a flexible conversational style to explore the issues. This helped to improve dependability by reducing interviewer bias. Including participants' quotes increased authenticity. The interviewers reviewed each analysis draft to optimise confirmability (Connelly, 2016).

## Findings

Table 2 shows the themes and sub-themes extracted from the analysis, which are discussed below.

### Functionality of the User Interface

Participants discussed the functionality of different betting platforms and how this affected their ease and speed of use.

#### Betting Using Smartphone Apps: Fast, Easy and an Adequate Interface

Thirty interviewees used their smartphones for betting. They generally agreed that betting apps had good functionality, were 'streamlined' (18), 'refined' (06), and easy to use and navigate, 'even [for] someone who is new to betting' (27). Compared to online betting using a computer, apps were also: 'easier to get into and there's no ads...I don't have to log in' (05). Many participants had transitioned to smartphone betting as the

**Table 2** Themes and sub-themes

Themes	Sub-themes
Functionality of the user interface	<ul style="list-style-type: none"> <li>• Betting using smartphone apps: fast, easy and an adequate interface</li> <li>• Betting using computers: easier navigation due to a larger screen</li> <li>• Betting in venues: relatively poor functionality compared to apps and websites</li> </ul>
Ease of sourcing betting information	<ul style="list-style-type: none"> <li>• Sourcing betting information using a smartphone: more limited than on computer</li> <li>• Sourcing betting information using a computer: easier and allows more informed bets</li> <li>• Sourcing betting information in a betting venue: very limited except on a smartphone</li> </ul>
Accessibility, convenience and the constant availability of smartphone betting	<ul style="list-style-type: none"> <li>• Constant presence of smartphones so betting is always available</li> <li>• Quick and spontaneous betting</li> <li>• Convenience of betting from anywhere</li> <li>• Betting integrated into daily activities to pass the time</li> <li>• 24/7 access to betting</li> <li>• Access to betting with multiple operators</li> <li>• Disadvantages of betting in a venue</li> </ul>
Financial accessibility	<ul style="list-style-type: none"> <li>• Convenience and speed of financial transactions</li> <li>• Easier to spend electronic money</li> </ul>
Social influences on betting	<ul style="list-style-type: none"> <li>• Betting in venues with friends</li> <li>• Betting in private homes with friends</li> <li>• Betting with friends while chatting online</li> </ul>
Privacy when betting	<ul style="list-style-type: none"> <li>• Privacy not important for some</li> <li>• Privacy important for others to avoid stigma and conceal gambling</li> </ul>
Exposure to online advertisements and promotions for betting	<ul style="list-style-type: none"> <li>• Betting on smartphones and computers enables operators to target their advertising</li> <li>• Inducements can trigger betting and prompt impulsive, riskier bets</li> </ul>

apps had improved: ‘The apps have...gotten better as time’s gone on, in terms of having succinct ways of displaying the information; you can just scroll through it really quickly’ (23).

Participants prioritised ease and speed of navigation in their choice of apps to facilitate instantaneous deposits and bets. While researching bets was easier on a computer, they found the smartphone interface adequate for their needs and used their phone when more convenient: ‘the screen is bigger on the PC and iPad, so I’ll go for them. But if I don’t have access to those two, then definitely my phone’ (05).

## **Betting Using Computers: Easier Navigation due to a Larger Screen**

Nineteen participants used a computer as their primary or supplementary betting device, mainly because the larger screen facilitated navigation. Better visuals made it easier to view details: 'more markets, you can quickly change to different sites...it is just easy to flick between what you want to bet on' (11).

The complexity of betting on certain activities also influenced choice of device, and this was especially highlighted by some esports and fantasy sports bettors. An esports skins bettor explained that using a computer enabled him to have multiple interfaces open, while a participant who bet on both daily and seasonal fantasy sports also preferred a computer to make his complex betting decisions:

You have your game, your game launcher, then you'd have CSGO Lounge, and you'd trade skins and all that. You'd have to open a trading interface and confirmation, a whole bunch of things to actually deposit your skins on to the Lounge and that's why we use a laptop/desktop. (07)

I've never used my phone for [a fantasy sports betting operator]. I always use my desktop...There's just more pieces to fantasy...if I had a choice I would probably stick to a computer, it's simpler...deciding on players...you can look at a team layout and all that, so things like that can get more difficult if you do it on your phone. (10)

## **Betting in Venues: Relatively Poor Functionality Compared to Apps and Websites**

Eleven participants sometimes bet on traditional sports in venues, including pubs, clubs, and retail betting outlets (TABs). When betting in a venue, they mainly used a self-service TAB machine but sometimes placed bets with an attendant or used their smartphone. They typically considered self-service machines to be poorly designed and operationally inferior to smart devices, which deterred their use for unplanned or complex bets:

I hate the TAB machine interface...most of the time, the touch screen doesn't work properly...the interface...looks like it is from the '80s...if they had something easier to navigate, I might be enticed to...put some multis on if I'm at the pub, as opposed to doing those on the app. (11)

## **Ease of Sourcing Betting Information**

Participants accessed multiple sources of betting information, including from sports websites, wagering operator sites, tipsters and odds comparison sites, sports and betting television channels, Twitter, and friends or chat groups. The amount of research undertaken varied greatly between bettors.

## **Sourcing Betting Information Using a Smartphone: More Limited than on Computer**

A few interviewees reported sourcing sufficient betting information for their needs on a smartphone. However, most preferred using a computer for this research. When relying on their smartphone, they tended to do far less research to inform their bets: 'Since I have bet



more on my phone...I've done less of comparing between odds...that's a disadvantage of using the phone, for sure' (31).

Participants tended to place more spontaneous bets involving little research when using a smartphone: 'something that comes to my mind, not something I'd be concentrating on' (09), and 'I don't really look up bets if I'm just doing a quick one on my phone...because it's such a spontaneous bet' (06).

### **Sourcing Betting Information Using a Computer: Easier and Allows More Informed Bets**

Most interviewees preferred using a computer to source betting information. The larger screen, bigger font, easier navigation, and ability to quickly switch between multiple pages facilitated their research, as explained by this participant who bet on sports and fantasy sports: 'On the phone, opening tabs and all that researching, everything's just smaller to read, not as quick...you've got to use your thumbs...the computer's definitely easier and quicker' (10).

Participants discussed how the comparative ease of sourcing information on a computer facilitated more considered and informed bets: 'It probably takes me 20 min to make a bet...It would be a much more thoughtful bet...and then most likely put more money on it' (06).

However, choice of platform also appeared to depend on the amount of research the participant wanted to do. This participant opted to do minimal research into her fantasy sports bets and only sometimes used a computer instead of her phone:

I play fantasy NRL mostly on my phone but sometimes on my computer as well... When it comes to fantasy NRL especially I'm not one to know players' names so I'll choose a name that I think is funny, one of those ones that's just available on the website...just from what I see maybe on social media or YouTube. (04)

### **Sourcing Betting Information in a Betting Venue: Very Limited Except on a Smartphone**

Interviewees did not rely on information provided in betting venues to research their betting. Instead, several who bet on traditional sports used their smartphone for this purpose when betting using the TAB facilities:

Just always on my phone just because it is quick and easy. They would have a little bit more [info] at the pub on those sorts of screens but I don't look at it that much. (04)

### **Accessibility, Convenience and the Constant Availability of Smartphone Betting**

Several sub-themes related to the heightened access to betting that smartphones provide, compared to the other betting platforms.

#### **Constant Presence of Smartphones so Betting Is Always Available**

Access to betting was constantly available because most participants always carried their smartphone: 'in my pocket' (22) or 'in my hand' (28):

Wherever I go, I have a mobile with me so I can check the scores and check bets... you don't always have access to your computer...My mobile is always with me. (33)

Habitual constant checking of smartphones could also encourage frequent engagement with betting: 'Everyone is pretty much addicted to their phone, and like, gambling is an addiction...so it feeds off each other.' (03).

### **Quick and Spontaneous Betting**

The ubiquitous presence of smartphones provided instant access to betting and made the betting process very fast: 'it's just a few clicks away' (18), 'an instantaneous thing you can do in a second' (23). The constant presence of smartphones also allowed bets to be quickly placed while multitasking: 'I can pick my phone up, spend five minutes putting my bet on and go straight back to my work' (08). This instant access also enabled fast and spontaneous responses to wagering notifications received on the phone: 'I have my mobile, and if any matches are going to happen, the notification will come, and then I just open the phone...then I bet immediately' (25).

Several interviewees noted they were more likely to place 'spur of the moment' bets (24) because of the ease and speed of smartphone betting: 'I become a lot less cautious, like spontaneous. I don't think about it as much' (06), and 'I just think of something, or I see something, or if I hear someone talking about a game...So I will just take my phone out [and bet]' (09). Others also commented on the dangers of impulse betting, which a smartphone facilitates:

It's probably quite dangerous...it's just so easy, just to do it whenever, whether it's on the train on the way home from work, or when I'm out with people...It's quick to spend money too, because your card is already on your phone, and you can deposit quite quickly. (04)

### **Convenience of Betting from Anywhere**

The portability of smartphones allows betting from any location: 'I can bet from anywhere, anytime...I literally do it whenever it suits me, like everywhere' (14). Participants mentioned several locations where they frequently bet on their smartphone 'on the run' (22), including when commuting, at work, during work breaks, when out with friends, at gambling venues, when travelling away from home, and in different locations at home. Betting on a smartphone, even at home, was easier than using a computer because of its portability: 'if I'm walking around the house or if I'm in front of the TV...I have my phone with me' (09).

However, while being able to bet from any location was convenient, instantaneous access to betting from anywhere could be problematic:

Being able to bet on the train...at home...while you're just waiting for friends...it can definitely become a problem if you have...immediate access anywhere you go and everywhere you go. (23)

### **Betting Integrated into Daily Activities to Pass the Time**

Instant access to smartphone betting allowed betting to become integrated into daily activities and used just to pass the time: 'You never know where you're going to be, when you're

going to need to pass time...having that...availability anywhere you go' (23). This also included betting in bed: 'When I can't sleep...I'll have a look...some sports you can watch over the phone as well. I use it to kill time, by betting on something and watching it' (22).

Constant checking and browsing of smartphones were common habits and could alert participants to betting opportunities and result in unplanned bets. This participant described that his unplanned betting occurs: 'when I have nothing to bet on...when I'm bored...when scrolling or something. Because, for example, there's a game going on soon when I open the app...during those times' (13).

## 24/7 Access to Betting

Participants discussed several effects of having 24/7 access to betting via a smartphone. Around-the-clock access enabled regular betting on international sporting fixtures that occurred when venues were closed: 'Premier league...[is] always played overnight and if you're on a late night out with mates...and want to put a small bet on, you've always got that opportunity' (15).

Another effect of 24/7 access was that it allowed bettors to act on tips, even when venues were closed: 'Esports is always at night...there was a good tip by my friend ...it was 2am...I placed a \$200 bet' (16). Around-the-clock access was also appreciated by shift workers who would otherwise find it difficult to bet: 'I'm working at nights and I need to get some sleep during the day...you can just use it [smartphone] wherever you want...it's really nice to have that 24/7 access' (23).

## Access to Betting with Multiple Operators

Using an online platform, either a computer or smartphone, enables betting with multiple betting operators, whereas the TAB is the only land-based sports betting operator licensed in Australia. Approximately three-quarters of participants bet with multiple operators so they could compare and access better prices, 'because they all offer different odds' (21). Comparing and accessing inducements and different types of bets were other reasons for using multiple betting apps: 'I have been more inclined to jump from app to app depending on specials that they may have' (24). Betting with multiple operators expanded choice for customers, enabling them to compare prices, products, and specials. This influenced their betting by enabling them to place a wider variety of bets, particularly complex bets incentivised with inducements.

## Disadvantages of Betting in A venue

Participants identified several disadvantages of using land-based betting venues. They were considered unattractive places that 'smell of stale beer and too many crowds and the seating is uncomfortable' (12). Added expense was another deterrent: 'I've got to...pay for a taxi to get there and back, so there's \$100...four schooners is another \$20 gone' (08). Having to 'deal with people' (07) was considered a nuisance: 'I've got to worry about getting into a fight if someone bumps me or spills my beer. I've got to worry about trying to see the TV screen in case there's a big crowd' (08). Using the TAB machine might involve queuing or missing a bet: 'there's someone stuck at the machine and they're...drunk or putting on heaps of bets so sometimes, you do miss out' (11). Paper-based receipts were a hassle: 'You might lose it...with the phone, it's all in the system' (22). Because of these

disadvantages, several interviewees used their smartphone to bet when in venues. Numerous participants would not bet at all if it were only available in venues, because of the inconvenience: 'I don't have a car' (20), '[I'm] just too lazy' (30), and 'If I didn't have my phone, I wouldn't be gambling. I wouldn't walk down to the pub and bet' (03).

## **Financial Accessibility**

### **Convenience and Speed of Financial Transactions**

Financial betting transactions using a smartphone or computer were fast and convenient compared to betting in a venue and avoided the need to carry cash: 'It's more convenient to just transfer it digitally, especially as we're moving to more of a cashless society' (24). Electronic deposits into betting accounts were an easy instantaneous process: 'It's easy to understand and it's quick, it's easy to add money to the account, have the card linked to everything' (31), it takes 'three, four seconds' (25). However, withdrawals from betting accounts were slower, as explained by this participant in relation to his sports and fantasy sports betting: 'It takes a few hours. The withdrawals are always slower than deposits' (10).

### **Easier to Spend Electronic Money**

While some felt that betting with electronic money made no difference to how much they spent, numerous participants found it easier to spend digital money compared to cash. This was because electronic money had lower perceived value and was more difficult to track: 'it's so much easier to punch some numbers in rather than hand over a note. [With cash] you feel like there's more value to it' (15).

Spending electronic money was also fast, convenient, and private, because it did not require using an automatic teller machine (ATM) or interacting with venue attendants. This led several interviewees to sometimes bet more than planned, 'until your bank account is dry' (18). One commented how the ease, convenience, and privacy of topping up his account led to higher spending and chasing losses:

Going to the ATM in person, withdrawing cash, people see you. It is a physical effort...but online...it is so easy just to keep topping up an extra \$50 here, \$50 there...you start chasing your losses... at half time you'll put \$100 bet on and try and win your original bet back...But if I was at the pub, I probably would just say goodbye to the \$50 and just focus on watching the rest of the game. (11)

## **Social Influences on Betting**

The portability of smartphones expanded opportunities to bet in social situations, including social gatherings focused on betting.

### **Betting in Venues with Friends**

Nearly all participants reported betting more when watching sporting events in venues with friends than when betting alone. One participant explained that he bet more and placed less considered bets when betting on his smartphone in a venue with other people:

If I am at a pub and I am watching it...with people that are...betting as well, I bet a lot more. But...if I am by myself, I would bet a bit less. Bit more strategic bets... just have more time to think about it...[but] If I didn't have my phone with me [in the venue], I probably wouldn't bet at all. (03)

There were several reasons why interviewees bet more when watching matches with friends, including peer pressure, group excitement, tips from friends, social bonding, friendly rivalry, and bravado. 'Group mentality' (04) and confidence gained from friends' betting tips could also result in placing more and bigger bets: 'if I was by myself, I probably would think better to say, "that [win] probably won't happen"' (03).

### Betting in Private Homes with Friends

Smartphone betting had catalysed regular social gatherings at friends' homes, specifically to watch sport and bet. Many participants preferred private gatherings and were averse to going to venues at all. One interviewee, who did '80% betting with friends, 20% by myself' (18), described a typical gathering and how peer pressure and male bonding encouraged betting, especially if drinking alcohol:

'We've got the footy on tonight, does everyone want to come around to mine, bring some drinks and we'll watch it?'...and someone will be just like 'hey do you want to bet?'...Yeah 100%, all on our smartphones...we would nine out of 10 times just all bet on the same team. That way...we all lose together or...we all win together... Especially if...we've already been drinking...As opposed to our normal little safe bets, someone might 'gee everyone up' to go really hard and then everyone will go hard. Yeah, if we lose, we can always get smashed. But if we win it's awesome...if you lose that, they'll say, 'oh that's okay, let's do another bet and make it back'. (18)

The following esports bettor also described betting more, and more impulsively, when with friends at home: 'We have the bragging right...about our wins...brings the rivalry out...really amps it up...You're probably more likely to be more spontaneous...willing to take a gamble' (32).

### Betting with Friends While Chatting Online

Some participants engaged in online chat groups about sports betting. This interaction could result in betting more than intended due to peer pressure and the opportunity to participate in group bets. These online chats occurred when the sporting match was on, providing an online equivalent to direct social influences when betting with others:

Usually when I'm betting it could be in a group chat...'let's chuck \$20 on Liverpool'...or let's do a group bet...we talk about it online while we're all watching it... sometimes we just talk about bonus bets...if I'm on my phone I'll put on \$5 or \$6 or maybe \$10, but with my mates, I'll put on like \$20, \$30...there's a bit of pressure there to bet a bit more. (09)

### Privacy When Betting

Unlike betting through land-based venues, betting can be private on a smartphone or computer, potentially influencing the choice of betting platform and betting behaviours.

### **Privacy not Important for Some**

About half the participants were not concerned about maintaining privacy around their betting. This was because their betting was controlled, people knew they gambled, their friends also bet or they did not care what others thought: ‘personally, it doesn’t matter to me...I have got a pretty good control over it’ (01), ‘A lot of people know I just like gambling’ (18), and ‘I’ve always hung out with like-minded people’ (04).

### **Privacy Important for Others to Avoid Stigma and Conceal Gambling**

In contrast, being able to bet privately was important to other participants: ‘you don’t want to let people see that you bet all the time’ (13) and ‘I’d much prefer for people not to know’ (22). Privacy avoided stigma, and betting on a smartphone made it easy to hide gambling from others in a venue: ‘You wouldn’t want...people looking at you, thinking, this guy is putting heaps of bets on. Whereas with your phone, you can just do it in secret’ (03). Smartphones also enabled people to conceal their betting from family, even when betting at home:

You don’t want anyone...close families and your partner to know...because they still have a bad perception about betting...so I find it quite good to keep it personal, because if you use your phone, nobody would know...You could be just browsing Instagram, but matter of fact, you were betting. (27)

Interviewees recognised some dangers of privacy when betting, since it removed any social pressure or advice from friends to moderate betting:

It is like a silent sort of killer when you’re in the venue. Because your mates don’t know...Whereas if you bet with cash...then your mates can be responsible and say, ‘hey, I’ve seen you’ve put two bets on already. Maybe you should stop’... Whereas if you’re on your phone, you can just easily just smash your bank account without anyone knowing. (11)

### **Exposure to Online Advertisements and Promotions for Betting**

A few interviewees said they resisted being swayed by wagering advertising, and about one-quarter had unsubscribed from push notifications or blocked advertisements on their devices. The remainder commented on the prolific advertising and its effects on their betting.

### **Betting on Smartphones and Computers Enables Operators to Target Their Advertising**

Participants described frequent exposure to wagering advertisements in their social media. Operators targeted them because they could track their use of betting websites and apps, as described by this fantasy sports bettor:

I see it on Facebook a lot...Instagram...YouTube...fantasy sports plenty of times popping up in ads...It’s definitely tracking data...all those gambling ads, they’re

only showing up because they've seen my interest in betting...I see daily fantasy sports ads a lot. (10)

Unlike anonymous venue-based cash betting, online betting requires a betting account. This allows operators to target customers with push marketing through text messages, in-app notifications, emails, and phone calls. These direct messages could be frequent: 'Every second day...they often push me to make a bet...and you can click through [straight to the betting screen in the app]' (19). Bettors are further exposed to wagering advertising when they use betting websites and apps: 'they'll usually have it [inducement] on the banner on the website...but if not, they send an email through' (30).

### Inducements Can Trigger Betting and Prompt Impulsive, Riskier Bets

Bettors reported several ways that inducements influenced their betting. One was to remind them of upcoming events: 'That's a big one...there's a match tonight and it's a match that you may not have thought about' (02). Messages could also remind bettors of inducements: 'I get text messages from [three operators]...telling you about bonuses...I've definitely done those \$50 bets before...It reminds me that they still exist' (04). Inducements could trigger betting even if the promoted inducement was not attractive: 'I never click on them [adverts] but they can act as triggers sometimes for me to go and think about putting a bet down for sure' (10).

Messages could be personally tailored: 'I get a lot of messages about certain sports based on my previous betting history' (24). The following participant described receiving bonus offers after a break from betting which usually prompted him to re-engage. Some operators placed a time limit on bonuses, creating urgency to bet:

When I stop or don't bet with them for a little while...They'll lure you back in with a bonus bet...even though I've unsubscribed...And normally, that's enough for me to say, 'oh, hey, I might check out what I can use it on'... [Operators] make the offers expire...within three days...if they offer a good bonus bet, I'll reinstall the app. (11)

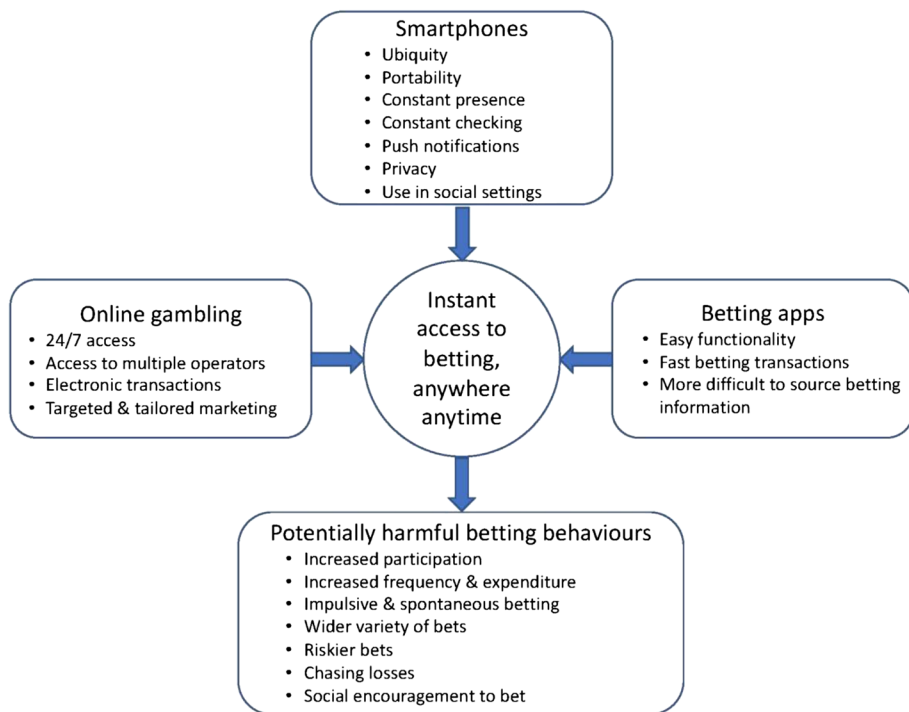
Interviewees also noted that inducements prompted them to make impulsive bets and riskier bets with longer odds:

Spur of the moment...they provide bonus bets where it's almost like a free bet. They give you, I guess, credit and when you do receive that it feels like it's almost free money, so you do a lot riskier bets. (24)

## Discussion

Figure 1 presents our grounded theory model depicting how the features of smartphones, online gambling, and betting apps combine in smartphone betting to provide instantaneous access to betting, anywhere, anytime. While participants valued having immediate, around-the-clock access to betting conveniently from any location, they also reported this could foster a range of harmful betting behaviours.

Instant access, combined with the ease and speed of smartphone betting, were said to facilitate more frequent betting. Many interviewees maintained that they would not bet at all if this required going to a land-based venue. Instead, convenient 24/7 access to betting on their smartphone provided a plethora of betting opportunities, including on



**Fig. 1** Influence of smartphones, online gambling, and betting apps on harmful sports betting behaviours

overseas events held when land-based venues are closed. Bettors could place bets without the constraints of venue access or opening hours. Betting became integrated into daily activities and routines, including when in bed, at work, commuting, or socialising. These findings support previous studies showing that increased access to unlimited betting opportunities acts to intensify betting and escalate it to harmful levels (Drakeford & Hudson-Smith, 2015; Hing et al., 2015, 2021; Parke & Parke, 2019).

Participants reported always carrying their smartphone and, like many people, habitually engaged in constant checking (Mihailidis, 2014; Toh et al., 2021). This allowed an immediate response to betting information. Some interviewees bet impulsively in response to push notifications from wagering operators or to betting opportunities they saw while routinely scrolling on their phone. Wagering marketing can trigger impulse bets, especially targeted advertisements and inducements sent directly to personal devices (Drakeford & Hudson-Smith, 2015; Hing et al., 2018b; Parke & Parke, 2019; Russell et al., 2018). Most participants had betting accounts with several operators, with additional accounts increasing the push notifications and inducements they received. Consistent with previous research, these inducements could remind them to bet, trigger gambling urges, entice them back while they were taking a break, and result in unplanned, larger, and more frequent bets to take advantage of promotional offers (Hing et al., 2015, 2018a).

Most participants found it more difficult to research their bets on a smartphone compared to a computer. Accordingly, they tended to place less well-researched and more spontaneous bets when they only had access to a smartphone. Sports bettors prioritise



instant accessibility to betting over the ease of researching betting information (Hing et al., 2022), with the speed of betting transactions further enhancing this immediate access. As found in previous studies, participants reported that using electronic money for betting facilitated spontaneous bets, higher betting expenditure, and chasing losses because these financial transactions were fast, did not require withdrawing cash, and did not feel as 'real' as cash wagering (Deans et al., 2016; Hing et al., 2015). Other research has found that smartphone betting facilitates unplanned bets because of its proximity to the bettor, and the fast, easy placement of bets with just one tap (Drakeford & Hudson-Smith, 2015).

Smartphone betting also provides easy access to multiple betting accounts with no need to go through time-consuming log-in processes like when betting from a computer. Many participants reported installing numerous apps on their phone in response to operators' offers, which then provided access to a wider variety of bet types. Exotic bets, such as multi-bets, were particularly popular. This supports research showing that having more smartphone betting apps can broaden the range of activities people bet on (Drakeford & Hudson-Smith, 2015). Complex and accumulator bets typically have less favourable odds (Lopez-Gonzalez et al., 2019; Newall et al., 2021a, b). Therefore, access to a wide variety of bet types likely facilitates placing riskier bets with longer odds, which are those that operators tend to incentivise (Hing et al., 2017; Newall, 2017; Rockloff et al., 2019).

Social encouragement to bet was a further common feature of smartphone betting. Betting was central to frequent social gatherings in some friendship groups and made possible by each person having a personal and portable betting device. Betting has become an integral feature of weekend leisure experiences amongst many young men, and a shared activity in physical and online settings (Raymen, 2019; Raymen & Smith, 2020). Nearly all participants reported betting more in these social situations due to friendly rivalry, bravado, shared betting tips and peer pressure, as previously observed (Deans et al., 2016; Gordon et al., 2015; Lamont & Hing, 2019). Conversely, some participants preferred to keep their betting private. Smartphones optimise privacy, which can increase harmful betting due to a lack of scrutiny (Hing et al., 2015; Rockloff & Greer, 2011). Some participants acknowledged that smartphone betting allowed them to avoid social pressure and judgement, which would otherwise act to moderate their betting.

## Limitations

The study used purposive sampling to better understand young adults' experiences of smartphone sports betting. The sample focused on regular bettors, rather than only those with a gambling problem, to reflect a public health perspective that recognises the potential for gambling harm across all gambling risk groups (Browne et al., 2017a, b). The study relied on self-report which may be subject to recall, social desirability, and other biases. The sub-samples of fantasy sports bettors and esports bettors were relatively small, which precluded specific analysis by type of betting.

## Further Research

The constructs and relationships in Fig. 1 can inform quantitative studies aimed at identifying operative mechanisms, as well as psychological processes, that might link smartphone betting, harmful betting behaviours, and gambling problems. Future research that considers a wider diversity of views, including how older generations engage in smartphone betting,

would be beneficial to better understand the impact of this public health issue. Research with larger samples of fantasy sports bettors and esports bettors could also explore the reasons driving their platform preferences, compared to traditional sports bettors.

## Conclusions and Implications

This study extends upon previous research into the structural and situational features of smartphone betting (Drakeford & Hudson-Smith, 2015; Lopez-Gonzalez et al., 2021; Parke & Parke, 2019) and how online gambling can facilitate gambling participation, problems, and harm (e.g. Gainsbury, 2012; Hing et al., 2014, 2015, 2021; McCormack & Griffiths, 2013). The findings highlight how smartphone betting can facilitate harmful betting behaviours by exploiting the structural characteristics of both the device (e.g. portability) and betting app (e.g. speed of transactions), as well as the ways users engage with smartphones (e.g. constant checking), and the ability to bet online in any context and at any time. It illuminates how the ubiquity and portability of smartphones have augmented the 24/7 temporal accessibility afforded by online gambling, with instant geographical accessibility to betting.

Unlike land-based gambling, online and smartphone gambling have no restrictions on geographical and temporal accessibility. Instead, policy, regulation, and harm minimisation measures should focus on reducing risky industry products and practices. As discussed above, research has consistently linked wagering inducements with more harmful betting, so curtailing inducements sent to smartphones would reduce impulsive betting in response to this marketing. Innovated bet types such as multi-bets and complex bets should also be restricted since their structural characteristics increase the risk of gambling harm. Bettors may also benefit from consumer education to restrict times and locations for smartphone betting, limit their uptake of betting inducements and gambling app notifications, and reduce their number of betting accounts. Bettors can be encouraged to use consumer protection tools, such as limit-setting and unsubscribing from wagering marketing. A wide range of measures are needed to reduce the numerous risky structural and situational features of smartphone betting, to better protect public health.

**Author Contribution** All authors designed the study and research materials. HT, AR, and PN conducted the interviews. NH completed the first draft of the analysis, which was reviewed and refined by HT, AR, PN, and NG. NH completed the first draft of the manuscript. All authors refined and approved the submitted version of the manuscript.

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**Data Availability** Data are available from the lead author on reasonable request.

**Materials Availability** Materials used in this study are available from the lead author on reasonable request.

## Declarations

**Ethics approval and Consent to Participate** This study was approved by the CQUniversity Human Research Ethics Committee, approval number: 22328. All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the

Helsinki Declaration of 1975, as revised in 2000 (5). Informed consent was obtained from all participants for being included in the study.

**Conflict of Interest** The authors declare no competing interests.

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