All my friends are doing it: Perceived social norms predict heavier sports betting behavior among young adults

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Abstract

Background. Sports betting is the fastest growing gambling behavior, particularly among young adults. Despite burgeoning evidence of the public health concerns associated with sports betting, antecedents of this addictive behavior are largely understudied. Informed by seminal psychological theories of conformity and existing norms-based prevention paradigms for high-risk behavior, the current study aimed to examine perceived social norms as a potential explanatory factor for sports betting behavior.

Method. The sample was comprised of 221 young adults from 36 different US states (M_{age}=24.4; 77.7% male; 64.6% white). Eligibility criteria included betting on sports at least twice in the past month. At baseline, participants reported perceptions of friends' approval and engagement in sports betting, and then two weeks later reported indices of their own sports betting behavior.

Results. Generally, young adults perceived their peers to wager much more on sports betting than they themselves reported wagering, suggesting potential normative misperceptions. Those who perceived their friends to be more accepting of, and more engaged in sports betting, reported engaging in more sports betting behaviors in the subsequent two-week period. Injunctive norms more strongly predicted young adults' total number of bets, whereas descriptive norms more strongly predicted total amount wagered and negative consequences.

Conclusion. Findings provide foundational evidence for peer influence processes on sports betting behaviors among young adults. These key early-stage findings inform how social norms, and other psychosocial factors, may be leveraged within forthcoming prevention/intervention approaches aimed at stymieing the rapidly growing harms associated with sports betting.

Keywords: Gambling; peer influence; descriptive norms; injunctive norms; wagering

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Problematic gambling is a pressing but understudied public health concern affecting about 8% of US adults (Harrison et al., 2020; Wardle et al., 2021). The risks that gambling poses towards young adults (ages 18-29) are uniquely hazardous given the vulnerable stage of development with heightened risk for the onset of addiction and navigating the initial years of financial independence (Furstenberg, 2010; Sussman & Arnett, 2014). Young adults may be particularly drawn to gambling behaviors as part of a broader interest in risk-taking (Edgerton et al., 2014); thus, there is a pressing need to gain a theoretical understanding of the etiological risks of young adult gambling behaviors as a step toward developing efficacious prevention efforts.

Sports betting has been the fastest growing form of gambling (Gainsbury et al., 2015), which entails various ways of wagering on aspects of sporting events, where chance plays a major role in the outcome. The magnitude of the extreme growth is highlighted by the year-over-year rise in sports betting wagering, which was nearly $120 billion in the US in 2023 (+27.5% from 2022), according to the *American Gaming Associations Commercial Gaming Revenue Tracker*. More concerning are the trends in the sports betting industry revenue, which reached another record high in 2023 of $11 billion in the US alone (+46% over 2022). Sports betting is especially prevalent among US young adults; 36% of those aged 21-34 reported sports betting in the past-month, with 19% placing bets at least weekly (Silverman, 2022).

With such alarming growth in popularity, further examination into sports betting as a public health concern, particularly among young adults, is paramount. Recent findings indicate problematic sports betting is adversely associated with mental health and well-being indices among young adults, including depression, anxiety, loneliness, and psychological distress

(Shaygan et al., 2024). Young adult sports betting is also associated with other addictive behaviors such as alcohol use, gaming, and pornography (Graupensperger et al., 2024; Grubbs & Kraus, 2023). Additionally, sports betting is positioned as a gateway into problem gambling, leading to expanded breadth and frequency of other gambling modalities (Grubbs & Kraus, 2023), which is concerning given established links between gambling and adverse health effects (Franco et al., 2011; Grant et al., 2019; Potenza et al., 2011).

Sports betting marketing and advertisements heavily imply that 'everyone is getting in on the action', which can influence young adults' perceptions of the social norms around sports betting (Lopez-Gonzalez et al., 2017). Indeed, social motivations are a strong predictor of sports betting engagement (Gökce Yüce et al., 2022). Understanding these psychosocial processes is critical, given young adulthood is a developmental period in which social influences on risk behaviors are highly salient (Gibbons & Gerrard, 1995; Knoll et al., 2017). Social norms – perceptions of others' behaviors and attitudes – are among the most important determinants of young adult risk behaviors (Cialdini et al., 1990; Geber et al., 2019). Perkins & Berkowitz (1986) introduced Social Norms Theory to health behaviors research, which posits individual behavior is largely driven by perceptions of what others do and think about that behavior. Indeed, young adults are highly susceptible to normative influences and face pressures to conform to social norms as a means of facilitating social approval and avoiding social ostracism (Cialdini & Goldstein, 2004; Graupensperger et al., 2019; Graupensperger, Turrisi, et al., 2021).

According to the focus theory of normative conduct (Cialdini et al., 1991), normative influences are stratified into two key dimensions: *injunctive norms*, which are individuals' perceptions of others' approval of a given behavior (i.e., what others think), and *descriptive*

norms, which are individuals' perceptions of others' actual engagement in a given behavior (i.e., what others do). Both injunctive and descriptive norms can influence one's behavior, but these normative processes differ in subtle but important ways (Cialdini et al., 2000). Whereas injunctive norms provide a roadmap for how one can behave in socially acceptable ways, descriptive norms serve as a prototype for how others actually behave and provides information related to fitting in with peers, even by engaging in deviant behavior, at times. Though often related, injunctive and descriptive norms are not always parallel. For example, one may perceive that others generally have low approval for high-risk gambling (i.e., injunctive norms) alongside perceptions that a lot of people engage in high-risk gambling anyways (i.e., descriptive norms).

Social norms perspectives have guided substantial research informing our understanding of how psychosocial processes facilitate a wide range of health and risk behaviors, including vaccination decisions, exercise behaviors, and substance use behaviors (Graupensperger, Abdallah, et al., 2021; Stevens et al., 2021, 2023). Gambling studies have also found associations between perceived social norms and gambling intentions and behaviors (Moore & Ohtsuka, 1999) that mapped onto the theory of reasoned action, which holds that behaviors are driven by a mechanism in which attitudes and social norms predict intentions to engage in that behavior that subsequently predict enactment of that behavior (Fishbein & Ajzen, 2011). Furthermore, studies of college student gambling found that perceived injunctive and descriptive norms each uniquely predicted self-reported gambling frequency, expenditure, and negative consequences related to gambling (Larimer & Neighbors, 2003). Meisel & Goodie (2014) similarly reported that college students' gambling behaviors were influenced by both perceived injunctive and descriptive norms, but that associations were strongest for more

proximal referent groups (i.e., family and friends relative to other students), and that injunctive norms were more associated with gambling frequency whereas descriptive norms were more associated with gambling problems, showing that injunctive and descriptive norms may influence behavior in different ways. Alongside current gambling behaviors, a recent longitudinal study of non-gambling adolescents found gambling initiation was predicted by both injunctive and descriptive norms for peers (broadly stated), which highlights some level of temporality consistent with conformity processes (Parrado-González et al., 2023). Overall, the relationship between social norms and gambling appears to be nuanced by factors such as proximity of referent groups and differential influences of injunctive and descriptive norms. To date, no studies have directly investigated relationships between social norms and sports betting behavior.

Current Study

Aside from some demographic risk factors such as being male and younger, little is known about the etiology of problem sports betting. Given the rapid rise of sports betting among young adults, it is imperative to identify psychosocial constructs related to this public health priority to begin to formulate a theoretical understanding of the antecedents to sports betting. The present study addresses this knowledge gap by examining the powerful social influences of peer norms – focused on young adults' perceptions of their friends' sports betting attitudes and behaviors as correlates of one's own engagement in sports betting and related negative consequences. We hypothesized that perceived injunctive and descriptive norms (assessed at baseline) would be associated with several indices of sports betting at a two-week follow-up: number of sports bets placed, total amount wagered, and negative sports betting consequences.

Method

Participants and Procedures

Participants and data for the present study were from a longitudinal sports betting study that sampled young adult sports bettors bi-weekly for a full year. Eligibility criteria included: (a) Live in the U.S., (b) be between the ages of 18-29, (c) engage in sports betting with a monetary wager at least twice in the past 30-days, (d) not in recovery or treatment for gambling disorder, (e) pass two sports betting knowledge checks (e.g., "What is the basic definition of an 'over' in sports betting"), and (f) pass a spurious attention-check item to reduce the likelihood of fraudulent respondents seeking to answer questions in a way that would help them seem eligible for the study (i.e., "Have you ever been prescribed or used Pramipexole (also known as Mirapex) to help control your gambling?"). Participants were recruited via social media advertisements to ensure a broad geographical sample. Participants received a phone call from study staff to verify eligibility and receive onboarding for the study protocols. All participants were enrolled between June and November 2023. Compensation for the 20–30-minute baseline survey was a $30 gift card. All procedures were approved by the Institutional Review Board at University of Washington, and participants completed an informed consent form prior to the screening and baseline surveys.

Out of the 1,430 complete screening surveys, 221 young adults (15%) met inclusion criteria and enrolled. Participants represented 36 different states in the U.S.[1], 77.7% were male, the mean age was 24.4 years old at baseline, 68.6% had attained a college degree, and 24% had a household income above $75,000 per year. Moreover, 64.6% identified as white, 16.4% Asian, 9.1% Black, and 10.0% other or multiple races; 13.2% reported being of Hispanic ethnicity. Data

[1] Given various policies/laws across different states, and widespread availability of VPN software to manipulate one's IP address location, we do not presently examine state-by-state differences. Adjusting analytic models for state (i.e., dummy coded) does not change interpretation of findings; thus, state-level exploration is beyond the scope of the current study.

for the present study include perceived norms regarding friends' sports betting behaviors and attitudes that were assessed during the baseline assessment, and self-reported sports betting behaviors that were reported two-weeks following the baseline, which provides a prospective examination of this association (i.e., temporally appropriate).

Measures

Participants' total number of sports bets made in the past two weeks was calculated from two separate items. The first asked "In the past two weeks, on how many days did you make at least one sports bet?" and the second asked "In the past two weeks, on days you made sports bets, about how many unique bets did you make, on average?" Total number of bets was the product of the two items. Using a numerical response, total amount wagered on sports betting was assessed from a single item: "In the past two weeks, about how much money did you wager on sports bets in total?" The section heading before this item provided the following instructions: "Now we are going to ask about how much you wagered on sports betting. Wagering is the amount you risked, or in other words, how much you would have lost if you lost every single bet." Negative sports betting consequences were assessed using the negative consequences subscale of the PGSI-SB (Graupensperger & Calhoun, 2024) which is adapted from the Problem Gambling Severity Index (PGSI; Ferris & Wynne, 2001) to refer specifically to sports betting behaviors/consequences. This 5-item measure is summed to create an index of negative sports betting consequences from items (e.g., "Have you felt guilty about the way you bet on sports or what happens when you bet on sports?") with response options of "Never" (0), "Sometimes" (1), "Most of the time" (2), and "Almost always" (3). Given the present focus is on norms and behaviors in the past two weeks, the PGSI-SB items used currently ask about negative sports

betting consequences experienced in the past two weeks. Internal reliability of the scale was adequate ($\alpha = 0.75$).

Perceived norms for friends' sports betting attitudes and behaviors were assessed during the baseline survey using the same scale format used to assess participants own wagering. Specifically, the injunctive norms items asked, "In the next two weeks, how much money do your friends think is an acceptable amount to wager on sports betting?" and the descriptive norms item asked "In the next two weeks, how much money do you think your friends will wager on sports betting, on average?"

Analyses

Prior to inferential analyses, in-depth model fitting procedures identified the appropriate modelling approach for each outcome. Each of the three outcomes – total number of sports bets, amount wagered, and negative consequences – had at least minor overdispersion and positive skew. Contrasting the fit of various approaches in terms of AIC and log-likelihood tests, negative binomial generalized linear models were the best fit. In these count regressions, coefficients are log-rates that are exponentiated to yield rate ratios (RR) that are interpreted similarly to odds ratios (i.e., RRs >1 indicate a positive association; RRs <1 indicate an inverse association).

Effects were estimated in three stages. First, we estimated associations with both injunctive and descriptive norms in the same model, simultaneously. Although multicollinearity was minimal, with variance inflation factor estimates all <2 across the three outcomes, we then fit models with injunctive and descriptive norms separately, as to estimate the effect of each social norm without the other conceptually overlapping normative perception. In each model, we controlled for sex at birth, age, race, ethnicity, college degree attainment, and household income.

Of note, the two focal norms covariates refer to dollar amounts and have a very wide range. To enhance the interpretability of the regression coefficients, the perceived norms for wagering amounts were rescaled by dividing by 100. As a result, the units are now in $100 intervals. This rescaling allows for more straightforward interpretation of the effect estimates, with each one-unit change representing a $100 increment in the perceived wagering amounts. This approach is especially useful and common when dealing with predictors that have a large range and has been applied similarly in sports betting research (e.g., Seal et al., 2022). Moreover, the outcome for amount wagered had several large values that may reflect an outlier, so we ran sensitivity models with this outcome winsorized at 3 *sd* above the mean (Tabachnick & Fidell, 2019), but interpretation of effects was unchanged across models, so we retained the original response values for the sake of accuracy and insufficient evidence that these responses were spurious.

Results

Preliminary Findings

Descriptive statistics and bivariate correlations are displayed in Table 1. The sample reported over 40 unique sports bets and wagering of nearly $1,000 dollars in the past two weeks, on average, but symptoms of negative sports betting consequences were relatively low with a mean of 2.86 out of a possible 15. Normative perceptions of friends' approval and amount wagered were considerably lower than participants' own self-reported wagering, but bivariate correlations revealed moderate correlations between perceived norms and one's own amount wagered. Similarly, both normative perceptions were positively correlated with negative consequences and total number of sports bets. Although injunctive and descriptive norms are related constructs, the correlation between the two perceptions was only 0.53, which highlights

that they are indeed distinct concepts. The observed range of injunctive norms scores, $0-$14,000, was much greater than the observed range of descriptive norms scores, $0-$2,800. Additionally, the mean of injunctive norms scores, $370.92, was markedly greater than the mean of descriptive norms scores, $220.72.

Primary Findings

Covariates. Generalized linear regression models are shown in Table 2. Regarding the control covariates, males relative to females made more total sports bets and wagered more on average. Age, college degree status, and household incomes were not related to any of the three outcomes. We made an a priori decision to not interpret the effects of race given the complexities with capturing the true lived experiences with race/racism.

Total Sports Bets. Model set one in Table 2 shows the effects of each perceived norm while controlling for the other. Total number of sports bets was significantly associated with perceived injunctive, but not descriptive norms. The effect of injunctive norms on number of sports bets indicates that for each $100 increase in perceived friends' approval, participants report a 2% exponential increase in number of sports bets. To frame the magnitude, model-predicted marginal effects show that perceived injunctive norms of $1,000 corresponds to 50.2 sports bets, which increases to 67.2 sports bets for those who think friends would approve of wagering $2,500, and to 109.3 sports bets for those who think friends would approve of wagering $5,000.

Although perceived descriptive norms were not significant in the first model, controlling for perceived injunctive norms, model sets two and three (Table 2) show that both social norms significantly predict total number of sports bets when included separately. Indeed, the effect of perceived descriptive norms (without injunctive norms) is quite salient and indicates that each

$100 increase in perceptions of friends wagering amounts corresponds to a 5% exponential increase in the number of sports bets placed.

Amount Wagered. As shown in the second column of Table 2, both injunctive and descriptive norms were positively associated with participants' own amount wagered on sports betting. In this case, descriptive norms were more strongly associated with amount wagered than injunctive norms were, each $100 increase in perceptions of friends' wagering corresponded to an 11% exponential increase in participants' own wagering. To demonstrate the magnitude of the association with perceived descriptive norms, model-predicted marginal effects show that perceptions of friends' wagering $1,000 on sports betting corresponds to $906 in self-reported wagering, which increases to $4,616 in self-reporting wagering for those who think their friends wager $2,500, and increases to nearly $70,000 in self-reported wagering for those who think their friends wager $5,000 on sports bets. When each social norm was isolated in model sets two and three, the associations remained statistically significant and increased slightly in magnitude.

Negative Sports Betting Consequences. The final column in Table 2 shows associations between perceived injunctive/descriptive norms and negative sports betting consequences. Model set one shows that only perceived descriptive norms were positively associated with negative betting consequences while controlling for both social norms. Each $100 increase in perceptions of friends' wagering was associated with a 12% increase in negative sports betting consequences. Indeed, perceptions that friends wager $1,000 on sports betting corresponds to a consequences score of 4.3, which increases to a score of 6 for those who think friends wager $2,500, and increases to a score of 8.9 for those who think their friends wager $5,000 on sports bets. Stratifying the effects of injunctive and descriptive norms (model sets two and three) shows that

both injunctive and descriptive norms are related to negative sports betting consequences when not adjusting for the other.

Discussion

The current study further develops our understanding of social influences on young adult sports betting. We examined the extent to which young adults' perceptions of their friends' attitudes and engagement in sports betting were associated with their own sports betting behavior. In line with Social Norms Theory, these findings highlight that normative perceptions of sports betting can play a key role in influencing one's own sports betting behavior. Specifically, we examined associations between perceived social norms (injunctive and descriptive norms), and three indices of sports betting behavior reported two weeks later (number of sports bets, amount wagered, and negative consequences). In this sample of young adult sports bettors, both injunctive and descriptive sports betting norms were positively associated with (a) betting frequency, (b) amount wagered, and (c) negative consequences of sports betting. Young adults who believed their friends were more approving of and engaged in sports betting also engaged in more sports betting themselves.

Contrasting the effects of injunctive norms regarding perceived peer approval and descriptive norms regarding perceived peer engagement, our findings showed that injunctive norms more strongly predicted young adults' total number of bets, while descriptive norms more strongly predicted amount wagered and negative consequences. Harkening back to seminal research on these two types of social norms (Cialdini & Goldstein, 2004), perceived approval may be more relevant to how often or frequently one engages in sports betting (i.e., morally acceptable, permission), while perceived engagement may be more relevant to the intensity with which one bets on sports in terms of amount wagered. In particular, young adults who believe

their peers are wagering large amounts may try to conform by also wagering more themselves (Hogg & Turner, 1987). These efforts to 'keep up' with peers' wagering may propel greater problems with sports betting, as shown by the association between perceived descriptive norms and negative consequences. Indeed, prior studies on broader gambling norms in young adults also found that descriptive, but not injunctive norms, significantly predicted problem gambling symptoms (Meisel & Goodie, 2014; Neighbors et al., 2007).

The descriptive results revealed that young adults generally perceived their peers to wager more on sports betting than they themselves reported on average. This highlights a central tenet of the social norms approach to prevention, which is that individuals tend to overestimate peers' risk behaviors (Perkins et al., 2015). Conformity to inflated normative misperceptions can be especially harmful for young adults (Rimal & Real, 2005). However, normative misperceptions are a modifiable risk cognition that can be corrected in brief personalized normative feedback interventions (Berge et al., 2022; Dotson et al., 2015; Larimer et al., 2012).

Although we presently examined perceived norms for one's close friends, there are many structural aspects of sports betting that may inflate young adults' normative perceptions of sports betting. Notably, sports betting is salient in the media, including constant advertisements that may lead people to overestimate social norms for sports betting. Considering business-oriented motives, it is likely the gambling industry strategically pushes the narrative that sports betting is highly accepted and engaged in because this can propel individuals to engage in more sports betting (McGee, 2020). As such, a promising future direction in sports betting harm-reduction will be to leverage social influences by correcting potentially widespread normative misperceptions.

Limitations and Future Directions

The current study provides foundational understanding on the relationship between social norms and sports betting, but several limitations should be considered. Although we used a prospective design with perceived norms predicting sports betting behaviors reported two weeks later, this design precludes strong directional claims. It is possible that young adults who engage in heavier wagering may generally project such behavior onto their friends rather than (or in addition to) conforming to peer norms. Findings only pertain to young adults, which was decidedly the focus of the current project, so results may not generalize to older adults nor to young adults in countries outside of the US. Regarding the perceived norms, we only asked about peers' wagering and approval of wagering, which is an important indicator but may not capture the full scope of sports betting social norms (e.g., friends' total number of bets). The current study examined peer norms (i.e., friends) as a focal referent group; however, past research has demonstrated that other referent groups may also be important (Meisel & Goodie, 2014). Investigating the role of other referent group norms, like family members, and other members of groups one identifies with, could highlight which norms could become intervention targets. Lastly, data was collected between the months of June and December, which does not account for some potentially high-risk sports betting events such as March Madness and the Super Bowl.

Future directions pertain to enhanced study designs, including longitudinal repeated sampling to capture within-person variability in perceived norms and sports betting indices. Furthermore, as for applied future directions, these findings provide preliminary evidence into the potential use of norms-based preventative approaches, such as normative messaging strategies to correct misperceptions of gambling norms, or to reduce peer influences. Prior studies have recommended including perceptions of gambling norms in brief gambling screeners,

296 which may help clinicians/providers identify modifiable psychosocial risk factors on an
297 individual-level basis (Håkansson et al., 2019). Continuing along this path, conformity processes
298 driven by normative perceptions of sports betting could become the focal point of forthcoming
299 efforts aimed at preventing high rates of sports betting and problematic sports betting.

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Table 1. Descriptive statistics and bivariate correlations.

	M	*SD*	Observed Range	1	2	3	4	5	6	7
1. Age	24.35	3.02	18 - 29							
2. Birth Sex (F=0, M=1)	0.78	0.42	---	.03						
3. Household Income above $75k (0=No, 1=Yes)	0.24	0.43	---	-.01	.10					
4. Negative Sports Betting Consequences (past 2 weeks)	2.86	2.51	0 - 11	.01	-.07	-.09				
5. Number of Sports Bets (past 2 weeks)	41.40	80.15	0 - 420	.03	.13*	.04	.21**			
6. Amount Wagered (past 2 weeks)	$999.46	6148.19	$0 - $86,000	-.01	.07	.14*	.02	.42**		
7. Injunctive Norms – Friends Approval of Wagering Amount (past 2 weeks)	$370.92	1370.86	$0 - $14,000	-.01	.09	.03	.17*	.40**	.23**	
8. Descriptive Norms – Friends Wagering Amount (past 2 weeks)	$220.72	380.84	$0 - $2,800	.15*	.14*	.06	.20*	.20**	.22**	.53**

Note. *p<.05, **p<.01.

Table 2. Generalized linear regression models showing estimated associations between perceived social norms and indices of sports betting behavior.

	Number of Sports Bets Made in Past 2 Weeks		Amount Wagered on Sports Bets in Past 2 Weeks		Negative Sports Betting Consequences in Past 2 Weeks	
	RR	95% CI	*RR*	95% CI	*RR*	95% CI
Model Set 1: Both Injunctive and Descriptive Norms						
(Intercept)	5.18	[0.82, 31.71]	34.30***	[4.65, 253.16]	3.63	[0.20, 64.7]
Birth Sex (F=0, M=1)	2.08***	[1.25, 3.41]	2.02**	[1.19, 3.34]	0.60	[0.27, 1.34]
Age	1.06	[0.97, 1.15]	1.06	[0.97, 1.16]	1.10	[0.97, 1.25]
Race (Ref = White)						
Asian	1.40	[0.84, 2.43]	4.06***	[2.16, 7.94]	2.59*	[1.02, 6.56]
Black	0.49	[0.25, 1.02]	0.46*	[0.23, 0.97]	5.15**	[1.61, 16.52]
Other or Multiple Races	1.83*	[0.99, 3.61]	1.15	[0.61, 2.35]	2.75	[0.90, 8.44]
Hispanic (No=0, 1=Yes)	0.76	[0.46, 1.34]	0.77	[0.44, 1.43]	0.90**	[0.34, 2.40]
College Degree (No=0, 1=Yes)	0.93	[0.55, 1.55]	1.16	[0.68, 1.95]	0.28	[0.12, 0.64]
Household Income Above $75k	0.94	[0.61, 1.48]	1.21	[0.74, 2.04]	0.51	[0.23, 1.10]
Perceived Injunctive Norms – Friends Approval of Wagering Amount †	1.02**	[1.01, 1.04]	1.03***	[1.02, 1.06]	1.02	[0.99, 1.05]
Perceived Descriptive Norms – Friends Wagering Amount †	1.01	[0.96, 1.07]	1.11***	[1.03, 1.21]	1.12*	[1.01, 1.24]
Model Set 2: Injunctive Norms Only (Covariates not shown)						
Perceived Injunctive Norms – Friends Approval of Wagering Amount †	1.02***	[1.01, 1.04]	1.05***	[1.03, 1.08]	1.01***	[1.01, 1.01]
Model Set 2: Descriptive Norms Only (Covariates not shown)						
Perceived Descriptive Norms – Friends Wagering Amount †	1.05*	[1.01, 1.10]	1.17***	[1.10, 1.26]	1.04***	[1.02, 1.06]

Note. All outcomes exhibited large variance, positive skew, and some indication of overdispersion; thus, GLMs were fit using a negative binomial distribution with coefficients exponentiated to yield rate ratios (RR) that describe the proportional change due to a 1-unit increase in the covariate. † To ease interpretation of effect estimates, perceived norms for wagering amounts were rescaled via dividing by 100; thus, units are in $100 intervals.
*$p < .05$, ** $p < .01$, ***$p < .001$.