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**Strategic Self-Presentation or Authentic Communication? Predicting Adolescents'
Alcohol References on Social Media**

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Abstract

Objective: The current study is one of the first to examine how self-reported alcohol consumption, friends' perceived alcohol consumption and the perceived number of friends sharing alcohol references on social networking sites (SNS) is associated with adolescents' sharing of alcohol references on SNS. **Method:** A cross-sectional paper-and-pencil survey was administered among 3172 adolescents ($M_{age}=17.16$, $SD=.93$; 50% girls). Structural equation modeling was used to test the hypotheses. **Results:** First, the results indicated that both self-reported drinking behavior and the perceived number of friends sharing alcohol references, were related to sharing alcohol references on SNS, but the perceived number of friends sharing alcohol references was a stronger predictor than self-reported drinking behavior. Friends' perceived drinking behavior was not a significant predictor. In the second place, self-reported drinking behavior was a stronger predictor for girls than for boys, whereas the perceived number of friends sharing alcohol references was a stronger predictor for boys than for girls. **Conclusion:** Adolescents' alcohol-related self-representation is in line with their alcohol consumption, and is also strongly related to what their friends are sharing. Thus, adolescents appear to communicate authentically about their drinking experiences, but the decision to do so is heavily influenced by the prevailing social norm regarding alcohol-related communication.

Keywords: alcohol, social networking sites, adolescents, self-presentation

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References on Social Media

Introduction

In every human culture, people construct and share stories about themselves, communicating to themselves and to others who they are now, who they used to be and who they hope to become (McAdams & McLean, 2013). One narrative that is especially prevalent during adolescence and emerging adulthood, is the drunken narrative (Griffin et al., 2009). Sharing collectively produced drinking stories plays a central role in the lives of young people, and using mobile phones to capture drunken exploits to share them on social networking sites (SNS) has become part of a wider drinking culture (Brown & Gregg, 2012; Griffin et al., 2009; Hebden et al., 2015; Niland et al., 2014). In Belgium, alcohol consumption is legal from the age of 16, and youth alcohol consumption is generally accepted (VAD, 2009). Consequently, most Belgian adolescents consume alcohol, with 35% of adolescents aged 16 and over frequently doing so (VAD, 2016). Moreover, 27% of Belgian adolescents under the age of 15 occasionally consume alcohol, and the average age of onset is 14 (VAD, 2016). This prevalence of underage alcohol consumption is in line with the European average, and by the age of 21, alcohol consumption among European and American emerging adults is comparable (Degenhardt et al., 2008; VAD, 2016).

Content analyses show that both textual (e.g., status updates) and visual (e.g., photos and videos) references of alcohol use are frequently shared on SNS among both European and American youngsters, and that alcohol is predominantly portrayed in a positive context (Beullens & Schepers, 2013; Moreno et al., 2010). Nevertheless, several studies have indicated that sharing alcohol references on SNS is not a harmless activity, as this behavior can affect alcohol consumption and alcohol misuse (D'Angelo et al., 2015; Geusens & Beullens, in press; Moreno et al., 2013; 2015). For example, D'Angelo et al. (2015) found that sharing alcohol

references on Facebook directly predicted how frequently participants engaged in binge drinking five months later.

The possibility to create and share one's own media content and personal information with an audience of friends and followers is an important attribution of SNS (Ellison & Boyd, 2013). People broadcast information about their social activities, everyday life, accomplishments and health-related behavior to an expansive network, encompassing a mix of friends, family, mere acquaintances and strangers (Lee-Won et al., 2014; Marshall et al., 2015). This audience plays a pivotal role in deciding how to present oneself, as individuals adapt their self-presentation to their audience's expectations by selectively displaying positive and desirable aspects of the self (Goffman, 1959; Schlenker, 1980; Utz, 2011). Consequently, research has indicated that many adolescents use their SNS profiles to construct socially desirable online identities to seek social approval from their audience (Griffiths & Casswell, 2010; Manago et al., 2008; Moreno et al., 2013; Ridout et al., 2012).

However, SNS' audience diversity may create a 'multiple audience problem', resulting in online tension because each segment of the audience has different expectations to which the public image must be adjusted (Binder et al., 2009; Goffman, 1959; Leary, 1995). Moreover, it has been argued that many SNS users underestimate the size of their social network, and have difficulty determining their actual audience (Bernstein et al., 2013). Therefore, it has been argued that SNS users create and share content on their social media profiles with an *imagined* audience in mind (Litt, 2012; Marwick & Boyd, 2011; Pedroni et al., 2014).

The imagined audience can be defined as "the mental conceptualization of the people with whom we are communicating" (Litt, 2012, p. 331). Litt argued that the less an actual audience is visible or known, the more individuals become dependent on who they imagine their audience to be. Since young people mainly use their SNS to strengthen relationships with offline connections (Ellison et al., 2007), and younger users have the least number of family

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contacts on SNS (Binder et al., 2009), it can be expected that the imagined audience of adolescents is their friends and peers. Moreover, it has been argued that SNS users not only adapt their online self-presentation to what they believe their audience expects of them, but that young people also construct their online selves in relation to what peers are doing (Manago et al., 2008). Specifically, they adjust their self-presentation to resemble the one of their imagined audience (Manago et al., 2008; Utz, 2010). Though strategic self-presentation on SNS is not entirely accurate, it is seldom a gross misrepresentation of the self, as dishonest online self-presentations are likely to be discovered and called out, and foster negative impressions leading to social ramifications (DeAndrea & Walther, 2011; Utz, 2011).

Moreno et al. (2009) indicated that adolescents perceive many alcohol references on SNS to represent efforts to look cool, to be socially accepted, and to affiliate oneself with a peer group that enjoys drinking and partying. They also found that adolescents usually interpreted alcohol references on SNS as displays of actual behavior. Drinking alcohol is considered to be a shared social practice, an integral part of friendship and an inherent social pleasure, which is linked to having fun with close friends (MacLean, 2015; Niland et al., 2013). Sharing stories about these drinking occurrences is part of youth drinking culture and plays an important role in friendship dynamics (Griffin et al., 2009; Hebden et al., 2015; MacLean, 2015; Niland et al., 2014; Tutenges & Sandberg, 2013). These stories are shared both in face-to-face conversations and through photos, videos and anecdotes on SNS. Alcohol references on SNS precede, enhance and memorialize heavy drinking episodes, and the comments, encouragement and feedback of friends result in additional pleasure (Brown & Gregg, 2012). Moreover, it has been argued that sharing alcohol references on SNS helps adolescents to connect to their friends and to strengthen friendship group relations (Niland et al., 2014). Consequently, most drinking photos shared online are constructed as being about friendship, good time, social enjoyment and adventures with friends (Niland et al., 2013, 2014; Tutenges & Sandberg, 2013).

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In line with these findings, it can be expected that adolescents' self-reported alcohol consumption, their perception of friends' alcohol consumption and their perception of the number of friends sharing alcohol references on SNS are positively associated with their own sharing of alcohol references on SNS (H1). Yet, it is unclear which of these factors has most impact on sharing alcohol references. Therefore, the current study aims to examine whether these alcohol references reflect authentic communication, predominantly predicted by their self-reported drinking behavior, or whether they rather reflect a strategically constructed image corresponding to the perceived social norms regarding alcohol consumption and alcohol-related communication prevailing in the peer group.

In addition, the current study will examine whether these associations differ for boys and girls. Research has shown that boys consume more alcohol than girls (VAD, 2016), and that alcohol plays a different role in friendship for boys and girls (MacLean, 2015). Though there seem to be no gender differences in the number of alcohol references on SNS (Beullens & Schepers, 2013; Moreno et al., 2010), men, more than women, seem to intend to portray a wild and offensive image on their SNS profiles to impress peers (Peluchette & Karl, 2009), and they engage more in strategically exaggerated self-presentation than women in an online dating context (Guadagno et al., 2012). Moreover, research has shown that boys seem to feel a greater gender-conformity pressure (Vantieghem & Van Houtte, 2015) and heavy alcohol consumption is seen as a typically masculine behavior (de Visser & McDonnell, 2012). Finally, boys gain more social rewards (e.g., popularity), when they conform to their peers' drinking norm than girls (Balsa et al., 2011). In line with these findings, boys are expected to engage more in strategic self-presentation conforming to the social norm than girls. Therefore, it is expected that self-reported drinking behavior is a stronger predictor for girls than for boys (H2), whereas friends' drinking and sharing behavior are expected to be stronger predictors of sharing alcohol references for boys than for girls (H3).

Method

Sample

Data for this study were drawn from the FLAMES research project (Geusens & Beullens, in press). Data were collected through self-report standardized questionnaires among a representative sample of 3172 adolescents aged 16-20, half of which were male. The respondents were adolescents of the 5th, 6th, and 7th year of 49 secondary schools of all education systems selected in Flanders (Belgium). Respondents were invited to participate in a study on leisure activities by completing a paper-and-pencil questionnaire during school time with a teacher and research assistant present. The study was approved by the ethical committee of the authors' university.

Measures

Sharing alcohol references on SNS was measured using a scale similar to Beullens and Vandebosch (2015). Respondents were asked (1) how often they publicly displayed and (2) how often they privately shared the following items on any social medium: (a) photos or movie clips referring to alcohol use, (b) textual updates referring to alcohol use, (c) photos or movie clips in which they are drunk, (d) textual updates while they are drunk. 'Private sharing' was defined as 'references shared with a limited amount of people, e.g., through communication via direct messaging, private groups, or group chats'. Responses ranged from (0) 'never' to (6) 'several times a day'. No specific SNS were assessed, but the preceding question named 10 different SNS (e.g., Facebook, Instagram, SnapChat).

Self-reported drinking behavior was assessed using AUDIT's alcohol use subscale, measuring frequency of drinking, typical quantity, and frequency of heavy drinking (Babor et al., 2001). Respondents were asked to indicate how often they consumed alcohol (responses ranged from (0) 'never' to (4) 'more than 4 times a week'), how much alcohol they typically

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consumed ((0) 'less than two drinks' to (4) '10 or more drinks'), and how often they consumed more than 6 drinks ((0) 'never' to (4) 'nearly every day').

Friends' perceived drinking behavior was assessed by asking respondents to indicate how often their friends (a) consumed alcohol, (b) got drunk, and (c) engaged in binge drinking. Answers ranged from (0) 'never' to (6) 'nearly every day'.

Perceived number of friends sharing alcohol references on SNS was assessed by asking respondents to indicate how many of their friends shared (a) photos or movie clips referring to alcohol use, (b) textual updates referring to alcohol use, (c) photos or movie clips in which they are drunk, (d) textual updates while they are drunk. Responses ranged from (0) 'none' to (4) 'all of them'.

Control Variables were gender (with (0) is male, and (1) is female), age (open question), and sensation seeking, which was assessed with the previously shown reliable and valid 8-item Brief Sensation-Seeking Scale (BSSS) (Hoyle et al., 2002). Respondents were asked to indicate whether they agreed with 8 statements (e.g., "I would like to try bungee jumping"). Responses ranged from (1) 'strongly disagree' to (5) 'strongly agree'.

Analyses?

After calculating descriptive statistics and bootstrapped (1000 samples) correlation analyses in SPSS 23, AMOS 22 was used for testing the measurement model and structural equation model, whereby alpha was set at .05. The hypotheses were tested while controlling for age, sensation seeking and gender because these constructs have previously been shown to be related to both SNS use and alcohol consumption (e.g., Beullens & Vandebosch, 2015; Peluchette & Karl, 2009; Ridout et al., 2012). Model fit was decided upon inspection of the comparative fit index (CFI, >.90), goodness of fit index (GFI, >.95), adjusted goodness of fit index (AGFI, >.80), and root mean square error of approximation (RMSEA, <.08) (Hu & Bentler, 1999).

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Multiple group analysis was used to examine the moderating role of gender (Kenny, 2011a). Measurement invariance was established by constraining all factor loadings to be equal across both groups, with the exception of the factor loadings of privately sharing drunken visual and textual references and publicly sharing visual and textual alcohol references, which were free. To examine the strength of the associations across different associations and across different groups, we constrained the associations of interest to be equal, after which we used nested model comparison to test whether the χ^2 -difference between the constrained and unconstrained model was significant (Kenny, 2011a).

Results

Descriptives

TABLE 1 ABOUT HERE

The descriptive analyses of the main constructs are displayed in Table 1. Of the 3172 adolescents who completed the survey, 50.7% was male. The adolescents in our sample had a mean age of 17.16 ($SD=.93$), with 1% of the respondents ($n=33$) being either younger than 16 or older than 20, and 6 respondents not sharing their age. They were deleted from the sample, so it would only contain late adolescents (age 16-20). Thus, the total sample on which the analyses of this study were conducted, consisted of 3133 adolescents, though some responses were missing for certain variables (see Table 1 for n per variable).

TABLE 2 ABOUT HERE

Of the adolescents in our sample, about 32% indicated to never share alcohol references on SNS. Ten percent indicated to never consume alcohol, while most of the adolescents (57%) indicated to consume alcohol a few times a month. Only 15% indicated to consume alcohol more than once a week. On average, the adolescents in our sample typically consumed 4 to 5 glasses of alcohol, and 28% engaged in binge drinking at least once a month. They perceived their friends to consume alcohol a few times a month ($M=3.38$, $SD=1.19$), and to engage in

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binge drinking ($M=2.30$, $SD=1.41$) or get drunk ($M=1.99$, $SD=1.26$) about once a month. Most adolescents indicated that a minority of their friends (44%) shared alcohol references on SNS. All variables correlated significantly and rather strongly (see Table 2).

Measurement model

All variables, except age and gender, were specified as latent variables. Confirmatory factor analysis (CFA) indicated that the fit of the measurement model could be improved (see Table 3). Following the guidelines by Harrington (2009) and Kenny (2011b), we respecified the model. First, we identified adolescents' own sharing of alcohol references as a second order latent variable (Kenny, 2016), the indicators of which are: publicly and privately sharing alcohol references on SNS. Next, we dropped the sensation seeking items "I get restless when I spend too much time alone" as well as "I would like to explore strange places", which had factor loadings of below .40. Finally, we used the modification indices to identify which error loadings should be covaried. Specifically, due to the wording of our sharing alcohol references scales, the error loadings of private and public references of each reference type had to be covaried ($r_{\text{visual alcohol references}}=.53$, $r_{\text{textual alcohol references}}=.31$, $r_{\text{visual intoxication references}}=.47$, $r_{\text{textual intoxication references}}=.44$, $p<.001$). The error loadings of privately sharing visual alcohol references and textual intoxication references had to be covaried as well ($r=-.51$, $p<.001$), as well as those of publicly sharing visual alcohol references and textual intoxication references ($r=-.35$, $p<.001$), and the number of friends sharing visual alcohol references and textual intoxication references ($r=-.91$, $p<.001$). These modifications resulted in a decent model fit of the measurement model (see Table 3).

TABLE 3 ABOUT HERE

Predicting Alcohol references on SNS

Structural equation modeling was used to test whether self-reported drinking behavior, friends' perceived drinking behavior and the perceived number of friends sharing alcohol

references on SNS predicted sharing alcohol references on SNS, while controlling for gender, age and sensation seeking (see Figure 1). The structural model had a decent fit and indicated that in contrast to our expectations, friends' drinking behavior did not predict sharing alcohol references on SNS (*Cohen's* $f^2=.00$). In line with hypothesis 1, both the perceived number of friends sharing alcohol references (*Cohen's* $f^2=.43$) and self-reported drinking behavior (*Cohen's* $f^2=.04$) were predictors of sharing alcohol references. Thus, H1 is partly confirmed. Model comparison (see table 3 for an overview of all model comparisons) indicated that the number of friends sharing alcohol references was a much stronger predictor of sharing alcohol references than self-reported drinking behavior ($\Delta\chi^2(1)=54.45$, $p<.001$).

FIGURE 1 ABOUT HERE

Gender Differences in Self-Presentation

Multiple group analysis indicated that the partial metric invariance model fitted decently for boys as well as girls. A closer inspection of the standardized regression coefficients revealed some significant gender differences (see Figure 2 and Table 3). Self-reported drinking behavior was a stronger predictor of sharing alcohol references for girls (*Cohen's* $f^2=.05$) than for boys (*Cohen's* $f^2=.03$; $\Delta\chi^2(15)=31.18$, $p=.01$), confirming hypothesis 2. On the other hand, the perceived number of friends sharing alcohol references was a slightly stronger predictor of sharing alcohol references for boys (*Cohen's* $f^2=.36$) than for girls (*Cohen's* $f^2=.31$; $\Delta\chi^2(15)=25.97$, $p=.04$), confirming hypothesis 3. Moreover, the perceived number of friends sharing alcohol references was a stronger predictor of sharing alcohol references than self-reported drinking behavior both for boys ($\Delta\chi^2(15)=81.09$, $p<.001$), and for girls ($\Delta\chi^2(15)=29.06$, $p=.02$). Friends' perceived drinking behavior was not significant for girls ($\beta=-.07$, $p=.06$) or boys ($\beta=.05$, $p=.23$).

FIGURE 2 ABOUT HERE

Discussion

SNS are frequently used by adolescents and emerging adults as tools of identity expression and self-presentation (Moreno, Kota, et al., 2013; Nadkarni & Hofmann, 2012). For young individuals alcohol use is often part of this identity and it has been shown that many status updates and pictures on SNS contain positive references to alcohol use (Beullens & Schepers, 2013; Moreno et al., 2010). The current study is among the first to examine and compare the predictors of sharing alcohol references on SNS among adolescents. The results indicated that, in line with our hypothesis, the more alcohol adolescents consumed, and the more of their friends shared alcohol references on SNS, the more often they shared alcohol references on SNS. This is in line with previous studies indicating that drinking stories are often shared online to memorialize the drinking event (Griffin et al., 2009; Hebden et al., 2015; MacLean, 2015; Niland et al., 2014; Tutenges & Sandberg, 2013) and that young people construct their online selves in relation to that of their peers (Manago et al., 2008).

Surprisingly, friends' drinking behavior did not seem to play a role in adolescents' alcohol-related sharing behavior. Yet, previous research indicated that friends' drinking behavior plays an important role in young people's alcohol-related communication (MacLean, 2015; Niland et al., 2013, 2014). It has been argued that adolescents are exceptionally susceptible to peer influence, and they rely heavily on their peers to understand which behavior is acceptable and desired (e.g., Brechwald & Prinstein, 2011; Steinberg & Monahan, 2007). This seems to be true for online (alcohol-related) self-presentation as well. For example, Utz (2010) found that SNS profiles of friends often contain similar content and Van Gool et al. (2015) found that the intention to share personal information on SNS was dependent on the perceived acceptance of this behavior. Likewise, when we only looked at the respondents in our sample who indicated that none of their friends shared alcohol references (n=246), self-reported drinking behavior was no longer a significant predictor of sharing alcohol references.

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Thus, the online communicative patterns of adolescents seem to be modeled by the communicative patterns of friends, and adolescents learn through socialization and observational learning whether sharing alcohol references on SNS is accepted in their peer group. Peer conformity results in positive outcomes for adolescents, whereas deviance often has negative consequences (Brechwald & Prinstein, 2011; Gibbons et al., 2003; Hebden et al., 2015). Consequently, adolescents are much more likely to share alcohol references when it is normalized within the peer group. When it goes against the prevailing norm, they are unlikely to share their drinking stories online, even if the drinking event occurred within a context of friendship. Therefore, the finding that friends' drinking behavior was not a significant predictor in our model, could potentially be explained by the idea that social norms regarding alcohol-related communication are potentially more influential than social norms regarding consumption when explaining alcohol-related sharing behavior. Indeed, when we deleted the number of friends sharing alcohol references from our model, friends' perceived drinking behavior became a significant predictor of sharing alcohol references.

Additionally, it was expected that boys would engage more in strategic self-presentation than girls, as they seem to be more susceptible to gender-conformity pressure (Vantieghem & Van Houtte, 2015) and heavy alcohol consumption is seen as a typically masculine behavior (de Visser & McDonnell, 2012). Particularly, boys were expected to rely more on social norms and less on self-reported drinking behavior to guide their alcohol-related sharing behavior than girls. Our results supported this hypothesis: Though, regardless of gender, adolescents seemed to rely more heavily on the prevailing social norms rather than on their self-reported drinking behavior when communicating about alcohol, this distinction is greater for boys than for girls. Specifically, self-reported drinking behavior had a stronger association with sharing alcohol references for girls than for boys, and the perceived number of friends sharing alcohol references related stronger to sharing alcohol references for boys than for girls.

Limitations

Despite the relevance of the results of the present study, there are some limitations that should be taken into account for future research. First, the cross-sectional nature of the study prevents us from making statements about the causality of the relations. In line with ideas proposed by Slater (2007), we believe it is likely that sharing alcohol references is not only predicted by one's own and friends' drinking behavior, but that it reinforces it as well. A reversed model didn't fit the data as well as the model proposed in the current study (Blunch, 2013, $AIC_{\text{original model}}=3394.30$, $AIC_{\text{reversed model}}=4225.39$), but sharing alcohol references was significantly associated with self-reported drinking behavior, friends' perceived drinking behavior and the perceived number of friends sharing alcohol references. Therefore, we recommend future studies to adopt a longitudinal design, which considers a mutually reinforcing association between media selection and media effects, whereby alcohol consumption and sharing alcohol references on SNS reinforce each other over time.

Second, this study relied on self-reports. Though it is possible that some respondents over- or under-reported their alcohol and SNS usage, the use of self-reports in this type of research is common and self-report measures have been demonstrated to be reliable (Flisher et al., 2004). Moreover, we did not measure any specific SNS, nor did we adjust for how adolescents accessed these SNS (mobile, desktop, ...). It is possible that alcohol references are shared predominantly while the drinking event is happening, and that only adolescents accessing their SNS on their phones are sharing these references. Likewise, it is possible that adolescents share their alcohol references on Facebook, but not, for example, on Twitter.

Additionally, the large sample could have resulted in a type I error, because significance is more likely to be found even when the difference in outcome between groups is negligible. To counter this, all analyses were bootstrapped, resampling the data in 1000 samples, a method which was proposed by Field (2009).

Finally, the current data were collected among a sample of Belgian adolescents, and intercultural differences exist between Europe and the United States. First, though we did not assess ethnicity or religion, government data indicate that, in contrast to the US, the Belgian population is culturally and racially not very diverse (Statistics Belgium, 2013; United States Census Bureau, 2016). Moreover, the social acceptance of adolescent alcohol use, the use itself and the display of alcohol use on SNS differ between Europe and the United States, with a much more tolerant alcohol policy in Europe (e.g., Beullens & Schepers, 2013; Moreno et al., 2010; Steketee et al., 2013; VAD, 2015). Given these differences, the results of the current study cannot be generalized and cross-cultural research is needed to examine whether the model holds in other samples.

Conclusion

Both self-reported drinking behavior and the perceived number of friends sharing alcohol references predicted how often adolescents shared alcohol references on SNS . This indicates that alcohol references on SNS are mostly authentic communication about drinking experiences, though the communication is also strategically driven by conformation to social norms and expectation set by peers. This seems to be true regardless of gender, but boys seem to rely less on self-reported drinking behavior and more on the perceived number of friends sharing alcohol references to guide their alcohol-related sharing behavior than girls.

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Table 1

Descriptive Statistics of the Main Constructs in the Model

	Total Sample	Boys	Girls
Sharing alcohol references	n=3108	n=1561	n=1514
Mean	.40	.48	.32
SD	.71	.81	.58
Range	0-6	0-6	0-6
Self-reported drinking behavior	n=3131	n=1577	n=1548
Mean	1.44	1.69	1.18
SD	.95	.99	.77
Range	0-4	0-4	0-4
Friends' perceived drinking behavior	n=3085	n=1547	n=1532
Mean	2.56	2.81	2.32
SD	1.13	1.16	1.05
Range	0-6	0-6	0-6
Perceived number of friends sharing alcohol references	n=3097	n=1550	n=1540
Mean	.92	1.04	.81
SD	.80	.82	.76
Range	0-4	0-4	0-4
Sensation seeking	n=3122	n=1569	n=1547
Mean	3.20	3.29	3.12
SD	.83	.79	.87
Range	1-5	1-5	1-5
Age	n=3133	n=1578	n=1549
Mean	17.16	17.30	17.00
SD	.93	.98	.84
Range	16-20	16-20	16-20

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Table 2

Bootstrapped Correlation Analyses of the Main Constructs in the Model

	1.	2.	3.	4.	5.	6.
1. Sharing alcohol references						
2. Self-reported drinking behavior	.36***					
3. Friends' perceived drinking behavior	.32***	.60***				
4. Perceived number of friends sharing alcohol references	.53***	.30***	.36***			
5. Sensation seeking	.25***	.39***	.28***	.22***		
6. Age	.10***	.12***	.17***	.11***	.02	
7. Gender	-.05**	-.26***	-.21***	-.09***	-.08***	-.16***

Note. *** $p < .001$, ** $p < .01$

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Table 3

Overview of Model Fits Compared to the Default Unconstrained Structural Model

	χ^2	df	χ^2/df	p	GFI	AGFI	CFI	RMSEA	AIC	$\Delta\chi^2$
Total Sample										
Measurement model	7398.31	284	26.05	<.001	.83	.79	.87	.09	7532.31	
Measurement model (respecified)	2981.05	232	12.85	<.001	.92	.90	.95	.06	3117.05	
Structural model (unconstrained)	3232.30	270	11.97	<.001	.92	.90	.95	.06	3394.30	
Constraining self-reported drinking behavior and perceived number of friends sharing alcohol references to be equal	3286.75	271	12.13	<.001	.92	.90	.94	.06	3446.75	54.45***
Gender comparisons										
Structural model (unconstrained)	3376.70	504	6.36	<.001	.92	.89	.95	.04	3668.09	
Factor loadings constrained to be equal across both genders (full metric invariance)	3486.42	522	6.68	<.001	.91	.89	.94	.04	3742.42	110.34***
Factor loadings constrained to be equal across both genders (partial metric invariance)	3399.37	518	6.56	<.001	.92	.90	.94	.04	3663.37	23.28
Constraining self-reported drinking behavior to be equal across both genders	3407.27	519	6.57	<.001	.92	.90	.94	.04	3669.27	31.18**
Constraining perceived number of friends sharing alcohol references to be equal across both genders	3402.06	519	6.56	<.001	.92	.90	.94	.04	3664.06	25.97*
Constraining self-reported drinking behavior and perceived number of friends sharing alcohol references to be equal for boys	3457.17	519	6.66	<.001	.92	.89	.94	.04	3719.17	29.06*
Constraining self-reported drinking behavior and perceived number of friends sharing alcohol references to be equal for girls	3405.15	519	6.56	<.001	.92	.90	.94	.04	3667.15	81.09***

Note. *** $p < .001$, ** $p < .01$, * $p < .05$

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$\chi^2=3232.30$, $df=270$, $\chi^2/df=11.97$, $p<.001$, $GFI=.92$, $AGFI=.90$, $CFI=.95$, $RMSEA=.06$

Control variables: Age, gender, sensation seeking

Note: *** $p<.001$, ** $p<.01$, * $p<.05$

Figure 1. Standardized bootstrapped (1000 samples) structural equation model for the total sample (n=2940) examining the association between self-reported drinking behavior, friends' perceived drinking behavior, perceived number of friends sharing alcohol references, and own sharing of alcohol references.

PUBLIC AND PRIVATE ALCOHOL-RELATED SHARING

$\chi^2=3399.37$, $df=518$, $\chi^2/df=6.56$, $p<.001$, $GFI=.92$, $AGFI=.90$, $CFI=.94$, $RMSEA=.04$

Control variables: Age, sensation seeking

Note: *** $p<.001$, ** $p<.01$, * $p<.05$ Each arrow displays the standardized regression coefficient for boys first, followed by the standardized regression coefficient for girls (boys/girls).

Figure 2. Standardized bootstrapped (1000 samples) structural equation model for boys ($n=1472$) and girls ($n=1463$) examining the association between self-reported drinking behavior, friends' perceived drinking behavior, the perceived number of friends sharing alcohol references, and own sharing of alcohol references.