

REVIEW

Binge drinking: A review and research agenda

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Abstract

Binge drinking is a wicked social problem associated with poor health and safety outcomes. However, most research on binge drinking occurs outside consumer research and marketing. This paper presents a systematic review of the contributions of key disciplines (Health, Marketing, Psychology, Economics, Management, Social Science, and Sociology) to the understanding of binge drinking. Using the theory, context, characteristics and methods (TCCM) framework, we find the need for more theoretical investigation in binge drinking research and more research conducted outside western countries. A wide set of independent factors has been included in binge drinking research, but few studies consider mediating and moderating variables. Methods used vary across disciplines and those used are mainly descriptive research, regression, and experiments. We conclude that whilst progress in this field is evident much needs to be done for greater generalizability and robustness of findings.

1 | INTRODUCTION

Excessive alcohol consumption has been the focus for many studies in consumer behavior (Banister & Piacentini, 2006; Gallage et al., 2018; Martin et al., 2013; Previte et al., 2015; Zhang & Shrum, 2009). Of particular concern to consumer behavior researchers in the area of excessive alcohol consumption is binge drinking (Banister & Piacentini, 2006; Gallage et al., 2018; Kubacki et al., 2011; Martin et al., 2013; Siemieniako et al., 2010; Wolburg, 2005; Zhang & Shrum, 2009). Binge drinking is excessive alcohol consumption in a short period of time. Clinically this is five standard drinks consumed within 2 h for men, or four for women in the same period, and excessive binge drinking being 10 standard drinks consumed for men and eight for women in the same period. (Alcohol Research: Current Reviews, 2018). Binge drinking has also been defined as “a pattern of heavy drinking that occurs over an extended period of time set aside for the purpose” (Herring et al., 2008, p. 476).

The World Health Organization views binge or excessive drinking as a significant health problem requiring worldwide attention. In its 2018 report (World Health Organization, 2020), it concluded, “Far too many people, their families and communities suffer the consequences

of the harmful use of alcohol through violence, injuries, mental health problems and diseases like cancer and stroke”. These concerns are mirrored in statistics on binge drinking effects. Deaths related to alcohol consumption globally in 2016 (the most recent figures) were estimated at 38.8 per 100,000, some 56.4 million people (World Health Organization, 2020, p. 85), or 5.3% of all deaths worldwide. Conditions associated with excessive alcohol consumption include cancer (4.7%), epilepsy (11.7%), cardiovascular diseases (4.1%), and digestive diseases (25.2%, World Health Organization, 2020, p. 85).

Binge drinking is associated with a myriad of health and social problems. In particular, it has been associated with greater risks of injury and death (Caamaño-Isorna et al., 2017), antisocial and illegal behavior such as drink-driving, assault, stealing and damaging property (Yang et al., 2016). There are long term health impacts on individuals who regularly binge drink (World Health Organization, 2020). Making matter worse, binge drinking across generations has also been shown to predict problem gambling behavior (Zhai et al., 2017), and binge drinking among young women places them at a greater risk of sexual assault (Luke, 2009). Whilst systematic reviews on excessive drinking exist (Kubacki et al., 2015), the area of binge drinking from a multidisciplinary perspective has yet to be examined in detail.

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Binge drinking produces substantial detrimental harm to individual consumers and society at large. The numerous studies in different disciplines using different approaches to understand and limit the extent of binge drinking indicate the importance of this complex issue in consumer behavior and for policy makers. Given that consumer behavior is a multi-disciplinary field (Inman et al., 2018) which can influence and is influenced by other fields of research and public policy (Prothero et al., 2011), there would seem a need to bring together this varied research to understand its contribution both as part of the discipline of marketing and to the important area of consumer misbehavior.

To the authors' knowledge, there is no systematic review that brings these various research streams together and identifies how they contribute to our understanding of the phenomenon. Arguably, this is because the research is spread across different fields and different methodological approaches. A systematic and coordinated approach to addressing the complex problem of binge drinking is difficult without understanding the contributions of different research fields.

To this end, this paper conducts a more inclusive systematic review by consolidating the binge drinking research across multiple disciplines. The aim is to take a structured approach following the TCCM framework (Chen et al., 2021; Paul & Rosado-Serrano, 2019) to summarize and highlight the important aspects of the research with reference to theory, context, constructs, and methodology. Through this approach, a more comprehensive understanding of the key features related to binge drinking is established and novel insights for future research identified. Our research shows a distinct lack of theoretical explanation for binge drinking across disciplines and the need for cross-disciplinary and methodological approaches to understand binge drinking better and offer practical advice for policy development and the design of interventions.

2 | REVIEW APPROACH

2.1 | Selection of articles

The articles were selected via a library mega-search across 53 EBSCO databases, Web of Science and Scopus containing the keywords "Binge drinking" or "Heavy Episodic Drinking" (often a term also used to describe binge drinking) and "Research" in the title, abstract or keywords. The systematic review was conducted between May 2021 and February 2022.

The EBSCO mega-search covered databases across social sciences (e.g., EconLit, ERIC, Humanities Source Ultimate, and Sociology Source Ultimate), health/psychology (Medline, Psychology, and Behavioral Science Collection) and business (Business Source Ultimate), plus others. The search did not include the terms alcohol abuse and heavy drinking as this systematic review aimed to examine the distinctive phenomena of binge drinking.

The initial search resulted in some 24,521 identified papers. The research was narrowed down by including the term "Consumer" and

selecting academic/peer-reviewed articles and then removing duplicate entries, which reduced the number to 391 papers.

We next followed a well-established criterion for inclusion of papers according to scholarly quality that is an impact factor greater than or equal to 1.0 for systematic reviews (Chatterjee & Sahasranamam, 2018; Dabić et al., 2020; López-Duarte et al., 2016; Paul & Rosado-Serrano, 2019). We must draw the line somewhere in binge drinking research, and the papers selected were well cited and in respectable journals. Also having an impact factor of greater than one, means the journal has significant impact in that its papers are cited on average at least once.

Next, we selected articles with an impact factor (2018) of 1.0 or above, as suggested by (Chatterjee & Sahasranamam, 2018; Dabić et al., 2020; López-Duarte et al., 2016; Paul & Rosado-Serrano, 2019). The final list consisted of 175 articles from 1983 to 2021. The journals and their impact factors of each are listed in Appendix A. As shown in Table 1, analyzing the research area by discipline shows 51.4% (90 papers) of research published was in the field of Health, followed by Marketing, 14.9% (26), and Psychology 8.6% (15), with a range of other social science disciplines making up the remainder. Papers were classified as belonging to a discipline on the basis of accepted disciplinary lists (e.g., ABDC list, <https://abdc.edu.au/research/abdc-journal-quality-list/>), Scimago journal and country rank (www.scimgor.com) or on the basis of the aims and description of the journal homepage. Figure 1 shows the PRISMA flowchart (Page et al., 2021) for the selection of articles.

The references for the review, were then imported into excel and coded according to the dimensions of the TCCM systematic review. This included theories used, countries studied, independent, mediating, moderating and dependent variables and type of method used. Coding was done on the basis of committee by agreement method. Citations for each article were also recorded so as to assess further the scholarly impact of research. First though we examine papers with the greatest impact in the field.

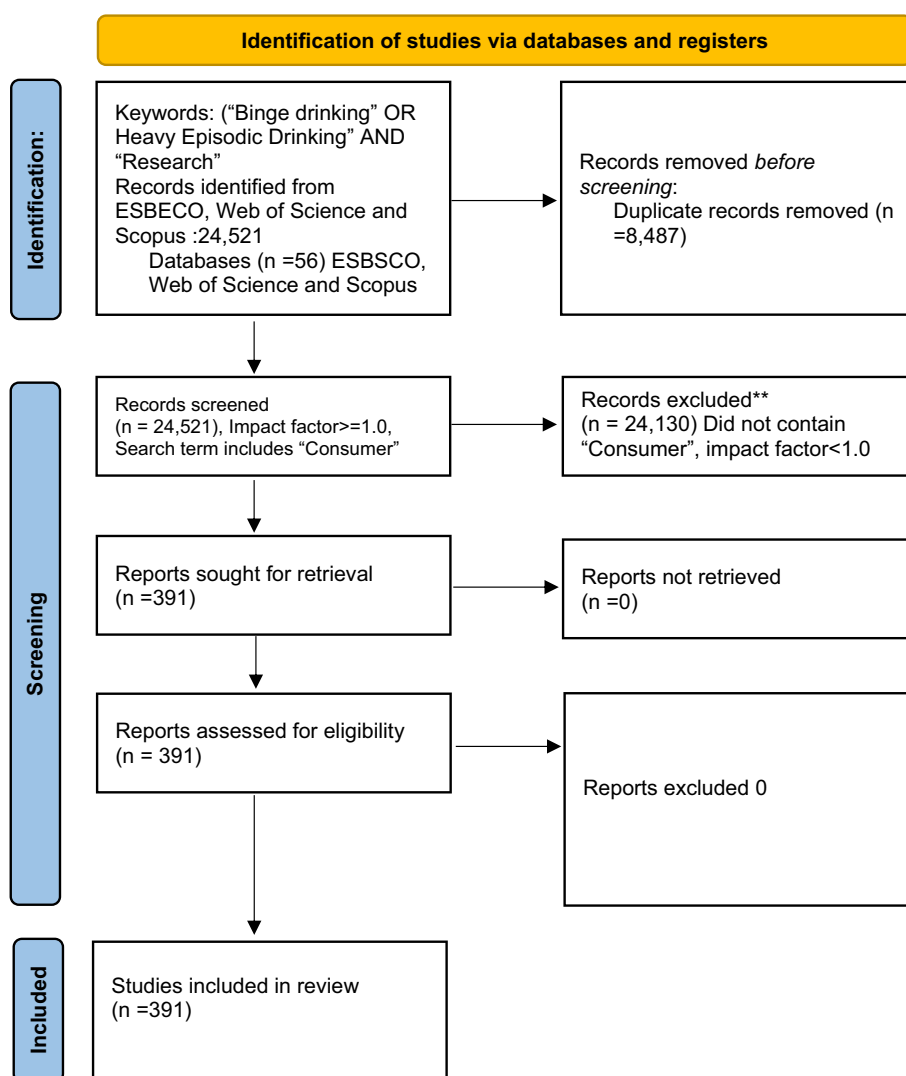
3 | TCCM FRAMEWORK

Paul and Criado (2020) provide a thorough overview of several ways to conduct systematic literature reviews. As the aim here is to bring together research across multiple disciplines to provide a richer understanding of binge drinking in relation to consumer behavior, an inclusive framework-based approach is used to structure the review. Specifically, this systematic review follows the TCCM framework (Paul & Rosado-Serrano, 2019). The TCCM framework is appropriate as it involves a careful consideration of the various guiding theories used in binge drinking research, a discussion of the different contexts in which the research was conducted (i.e., countries), a summary of the characteristics used which includes independent, mediating, moderating, or dependent variables, and a review of the types of methodological approaches taken. From this systematic review, the research gaps in binge drinking are exposed and future directions for consumer behavior research identified.

TABLE 1 Binge drinking research by discipline

Discipline	Number of studies	Percent	Average impact factor	Average citations (per year per paper)
Health	90	51.4	5.414	6.05
Marketing	26	14.9	2.277	5.51
Social science	15	8.6	2.015	5.53
Psychology	15	8.6	3.858	9.74
Economics	9	5.1	1.976	5.26
Risk	7	4.0	2.640	4.20
Management	5	2.9	2.399	6.34
Demography	3	1.7	1.914	9.68
Sociology	3	1.7	3.991	7.40
Gambling	1	0.6	2.760	5.75
Communication	1	0.6	3.391	1.80
Total	175	100.0	4.038	6.20

FIGURE 1 Selection of articles. PRISMA 2020 flow diagram [Colour figure can be viewed at wileyonlinelibrary.com]



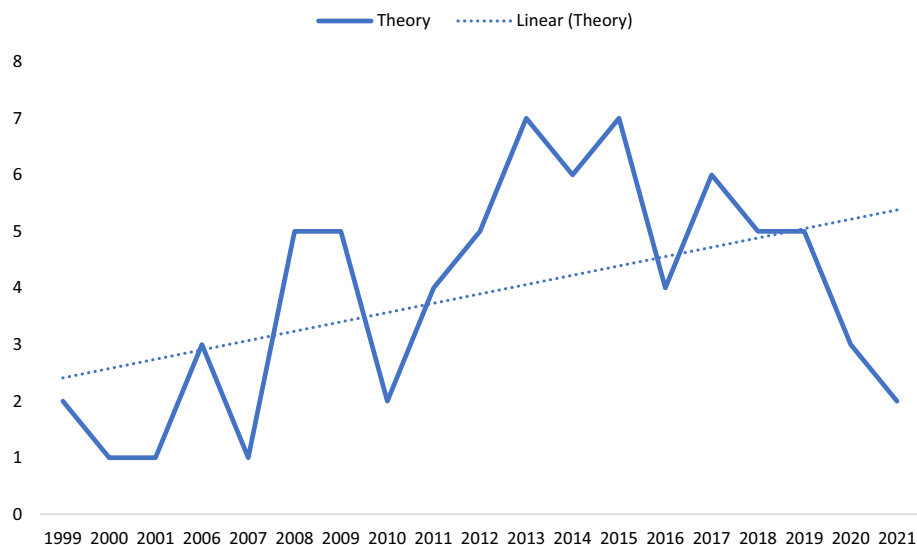


FIGURE 2 Theoretical studies in binge drinking research [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

3.1 | Theory

Theory provides a method of predicting the interactions of phenomena, and research enables the testing of theory and the discovery of new knowledge (Thomas, 2017). Binge drinking literature draws on a variety of theoretical frameworks and paradigms to explain consumption behaviors, attitudes, motivations, social influences, and many other general effects in regards to both positive and negative consequences. Interestingly, the use of theory fluctuates from year to year (see Figure 2) and 58% of the articles do not address any theory at all, which is a main weakness of binge drinking research. That is not say that papers can conceptualize and theorize about a problem without using an established theory, though we expressed concern about the lack of theoretical application in this field. Note papers could have multiple theories.

The theories identified within this literature review cover a broad range. Most of the research that incorporates theories focuses on individual characteristics and social aspects. While there are no determined categories or associations that have been consolidated within the research, Table 2 provides a summary of the types of theories used. As indicated in Table 2, social theories are drawn on the most, with social norms theory being the most common. While individual psychological theories are applied often, no primary theory is evident. Of the behavior change theories, the theory of planned behavior/reasoned action dominates. In the following sections, we discuss four of the more prominent theories used, including: social norms theory, the theory of planned behavior, ritual behavior and parental style/monitoring.

3.1.1 | Social theories: Social norms theory

Social norms are important determinants of health-related behaviors (Ajzen, 1991; Gerrard et al., 2008; Perkins & Berkowitz, 1986). Social norms theory focuses on two types of (mis)perceived social norms in

influencing individual behavior. These are injunctive norms relating to the perceived attitudes or approval of behaviors by others, and descriptive norms relating to perceptions of others' engagement in behaviors, for example the frequency of binge drinking (McAlaney et al., 2011).

Misperceptions of these social norms can have important implications for consumers, such as overestimating peers' alcohol use, which may make higher consumption perceived to be a socially desirable behavior leading individuals to match what they perceive to be the social norm (Festinger, 1954). Such misperceptions have been associated with a range of behaviors, including increased alcohol and other substance abuse (Martens et al., 2006). Many studies in the review focus on the role of social norms misperceptions of alcohol use, and how misperceived social norms can influence perceptions of what is considered to be healthy (Grossbard et al., 2011).

While many studies develop interventions based solely on social norms theory, or in conjunction with other strategies, to influence positive health behavior changes (Trockel et al., 2008), not all scholars find the social norms approach effective. In Real and Rimmel's (2005), research perceived degree of alcohol use was not predictive of alcohol abuse if other normative influences were considered. Baer and Carney (1993) also report no relationship between misperceptions of drinking problems and personal alcohol consumption. More empirical research is needed to further delve into binge drinking and social norm influence to determine the circumstances in which binge drinking misperceptions influence behavior.

3.1.2 | Behavior change theories: Theory of reasoned action / planned behavior

Social-psychological models of behavior change, such as the Ajzen's (1991) theory of planned behavior (TPB) which is an extension of Fishbein and Ajzen's (1975) theory of reasoned action (TRA), are used within 6 of the articles to study individual behavior. TPB is considered

TABLE 2 Theory in binge drinking research

Themes	Theories	No. of articles
Social theories		20
	Social norms	
	Social cognitive theory	
	Social learning theory	
	Social identity theory	
	Social capital	
	Cultural norms	
	Social displacement	
	Role theory	
	Neotribalism	
	Consumer socialization theory	
	Neutralization theory	
Individual/ Psychological theories		15
	Personality traits: The big five	
	Generalized anxiety disorder(GAD)	
	Goal systems	
	Motivated reasoning	
	Embarrass ability	
	Impulsivity	
	Agency theory	
	Space perception	
	Incentive-sensitization theory	
	Self-discrepancy theory	
	Calculated hedonism	
	Vulnerability	
	Jessor and Jessor's influential problems	
	McCracken's meaning transfer	
Behavior change		16
	Theory of planned behavior / Theory of reasoned action	
	Protection motivation theory	
	Health belief model	
	Expectancy-value theory	
	Risk theory	
	Persuasion	
	Rational choice theory	
	Cognitive model of argument	
	Sensation seeking	
	Problem behavior	
Ritual behavior		5
	Rook's ritual behavior	
	Bakhtin's theory of carnival	

(Continues)

TABLE 2 (Continued)

Themes	Theories	No. of articles
	Driver's "social gifts" of rituals	
Parenting		4
	Parental style	
	Parental monitoring	
Emotions		3
	Appraisal theory of discrete emotions	
	Coping	
	Strain-reduction theory	
		2
Economics	Behavioral economics	68
Total	Price elasticity	

Note: some articles used multiple theories.

one of the most influential attitude-behavior relationship models as it has been shown to predict behavior effectively (Christian et al., 2007; Previte et al., 2015).

Many risk behaviors have been studied using TPB (Fishbein and Ajzen, 1975) which makes it appropriate for binge drinking research. TPB has been applied to understand how attitudes, subjective norms, and perceived behavioral control influence binge drinking intentions and behavior. Some articles consider TPB in conjunction with parental theories, emotional theories, expectancy-value theory, and brand choice (Knox et al., 2019; Previte et al., 2015; Sharma, et al., 2013; Piper et al., 2021). Several articles suggests that a planned approach is appropriate for addressing binge drinking as TPB captures the key challenges faced by the individual when intending to drink moderately (Martin et al., 2013; Turrissi, 1999; Yan & Brocksen, 2013). TPB also captures individuals' beliefs about their ability to control drinking situations (Turrissi, 1999). Others suggest that persuasion, rational choice and sensation seeking can also be applied to risk taking, ultimately leading to behavior change for better or for worse (Blinn-Pike and Worthy, 2008; Meyer, 2010).

TBP approaches presume consumers can influence their binge drinking at least in part through a rational planning process. While much of the research focuses on reducing binge drinking, more work is needed to understand when consumer intentions to moderate their drinking break down. Established research in self-regulation failure (Baumeister and Heatherton, 1996; Robson et al., 2020) suggest inertia, transcendence and acquiescence may play a part. Additional research is also needed to look at consumer intentions to binge drink and how positive attitudes towards binge drinking are formed.

3.1.3 | Ritual behavior

The papers that examine binge drinking as a ritual consumption behavior mainly draw on Rook's (1985) seminal work on ritual

behavior and Driver's (1991) more functional typology that outlines the "social gifts" of rituals. Rook (1985, p. 252) explains that ritual behavior occurs in both every day and special occasions, it is "a type of expressive, symbolic activity constructed of multiple behaviors that occur in a fixed, episodic sequence, and that tend to be repeated over time." According to Rook, rituals involve four elements:

(1) a ritual artifact, such as a product like alcohol that is consumed, (2) a script, which directs the consumption practice, (3) a performance, which is enacting the expected behaviors and (4) an audience, who observe the performance. There are different types of rituals, such as "rites of passage" signifying the transition from one life stage to another, and small group rituals to establish order, cement relationships and encourage social cohesion. Driver's (1991) three "social gifts" correspond quite closely, as he sees rituals providing: (1) order, which gives a sense of direction and stability (2) shared experience, which increases a sense of community and (3) transformation, which gives the opportunity to change in the eyes of others and oneself.

Researchers who have used ritual consumption experience typically have explored binge drinking among university students. Binge drinking meets the criteria of ritual behavior (Treise, Wolburg, and Otnes 1999). Alcohol is the consumption artifact. Students follow rules, a script, on how to get alcohol (especially relevant as not all students are of legal drinking age), when to drink (e.g., time of day and week) and where to drink (e.g., dorms, house parties, bars). The performance of drinking includes what to order, how many drinks to consume and how fast, as well as how to behave while drinking. There are also roles to perform (e.g., caretaker, designated driver) and an audience (e.g., peers, bartenders, campus security). All three "social gift" are found in binge drinking (Wolburg, 2001) with transformation appearing to be the main benefit. Binging allows students to escape, feel free, experience the sensation and thrill of being out of control, gives them an excuse to break the "rules" and behave without any inhibitions. Understanding binge drinking as ritualistic behavior looks to be a fruitful approach, especially if consumer researchers can learn how rituals are initiated and how rituals can be interrupted to break the performance.

3.1.4 | Parental style/monitoring theory

Several researchers investigate the influence of parental style and monitoring on children's binge drinking. Baumrind's (1967) seminal work on parenting styles is based on the level of responsiveness (i.e., the degree to which parents react to their child's needs in a supportive and accepting manner), and the level of demandingness (i.e., the rules parents put in place, the expectations for children to comply, and the repercussions if rules are broken) (Arnett, 2013). Through her studies, she identifies three parenting styles: authoritative, authoritarian, and permissive. Authoritarian parents tend to impose rules and to be extremely directive in their approach to parenting. In contrast, permissive parents tend to impose few rules and to communicate in a manner that contains fewer directives (Mallett

et al., 2011). Alcohol research shows students with authoritarian parents tend to be at higher risk of engaging in drinking (Mallett et al. 2011). Additionally, more restrictive rule setting yields less effect on drinking behavior as adolescents age (Van der Vorst et al., 2006; Latendresse et al., 2008). In studies that combine parent and peer intervention was combined, alcohol consumption is reduced for youth with authoritarian and permissive parents (Mallett et al., 2011).

Although parental styles have been shown to critically influence children's behavior, parental monitoring theory has been applied to further inform children's and adolescents' behaviors. Parental monitoring refers to the supervision of youth and, the communication between parent and youth (Stanton et al., 2000). Several studies indicate that greater parental monitoring is related to less alcohol consumption and binge drinking (Veal & Ross, 2006; Larm, et al., 2018). Similar findings also support this, where specific family rules and tough parental monitoring predict lower alcohol use and abuse (Guo et al., 2001). Additionally, parental monitoring effects can have an influence from an early school age (Guo, et al., 2001; Ross et al., 1997) and research shows some gender differences. Poor parental monitoring has been related to greater alcohol use and abuse (as well as other drugs) for young males more so than females (Svensson, 2003).

The role of the family in consumer socialization (Moschis, 1985; 2007) is a respected area in consumer research. For binge drinking, many questions remain as to the parent-child relationship and family dynamics. How does parental style and monitoring interact? Does strict parental monitoring reduce youth's binge drinking because children want to please their parents or is it the fear of being caught and punished? Perhaps knowing your behavior is monitored gives an external justification to refrain? More work is also vital to understand the relationship between poor parental monitoring and binge drinking. To what extent are youths acting out for attention or are they looking for an escape?

4 | CONTEXT

4.1 | Countries in binge drinking research

Table 3 shows the countries in which binge drinking research has occurred. The United States is the most popular country for research comprising some 45.7% of all published studies. This reflects an ongoing concern about binge drinking amongst college or university students in this country (Berg et al., 2010; Caamaño-Isorna et al., 2017; Campo et al., 2009; Crawford & Novak, 2013; Fletcher & Frisvold, 2011; Kubacki et al., 2011; LaBrie et al., 2016; Luke, 2009; Nelson et al., 2005; Pedersen, 2013; Pedersen & Pithey, 2018; Ryan et al., 2010; Wechsler, Dowdall, Davenport, & Castillo, 1995; Wechsler, Dowdall, Davenport, & Rimm, 1995; Weitzman & Kawachi, 2000; Wolburg, 2001, 2016). Studies in Australia (10.9% of the total) and the United Kingdom (13.1%) also feature prominently. Exemplary research from the United Kingdom includes ethnographic research on night time binge drinking of young adults (Roberts, 2015) and in

TABLE 3 Countries in binge drinking research

Countries	Number of studies	%	Exemplary studies
<i>North America</i>	83	47.4	
USA	80	45.7	Wechsler, Dowdall, Davenport, and Castillo (1995)
Canada	3	1.7	Auld (2005)
<i>Oceania</i>	24	13.7	
Australia	19	10.9	Previte et al. (2015)
New Zealand	5	2.9	Martin et al. (2013)
<i>Europe</i>	24	13.7	
Sweden	5	2.9	Andersson (2015)
The Netherlands	3	1.7	Giabbanelli and Crutzen (2013)
Italy	3	1.7	Fabrizzi et al. (2017)
Denmark	2	1.1	Mørch et al. (2007)
Finland	1	0.6	Mørch et al. (2007)
Ireland	1	0.6	Hogan and O'Loughlin (2014)
Germany	1	0.6	Arnaud et al. (2017)
Spain	1	0.6	Galán et al. (2020)
Iceland	1	0.6	Ólafsdóttir and Ásgeirsdóttir (2015)
European union	1	0.6	Danielsson et al. (2012)
Portugal	1	0.6	Silva et al. (2014)
France	1	0.6	Verger et al. (2009)
Belgium	1	0.6	Tomberg (2010)
Russia	1	0.6	Neufeld et al. (2017)
Romania	1	0.6	Millea (2019)
<i>UK</i>	23	13.1	Roberts (2015)
<i>Cross country</i>	7	4.0	
UK and Australia	2	1.1	Hogan et al. (2014)
Poland and Canada	2	1.1	Kubacki et al. (2011)
Australia, UK, and Germany	1	0.6	Sharma et al. (2013)
USA and France	1	0.6	Martinetti et al. (2019)
Finland, Norway and the USA	1	0.6	Rossow et al. (2014)
<i>Various</i>	2	1.1	Baliunas et al. (2010)
<i>Africa and Asia</i>	5	2.9	
South Africa	2	1.1	Letsela et al. (2019)
Iran	1	0.6	Jahangard et al. (2019)
Ethiopia	1	0.6	Amogne et al. (2019)
India	1	0.6	Prasad (2009)
<i>South America</i>	2	1.1	
Chile	1	0.6	Paraje et al. (2021)
Brazil	1	0.6	De Boni et al. (2014)

(Continues)

TABLE 3 (Continued)

Countries	Number of studies	%	Exemplary studies
<i>Not applicable/ Not specified</i>	5	2.9	Courtney and Polich (2009)
Total	175	100.0	

Australia, policy actions to promote more moderate drinking (Previte et al. 2015).

Research in Europe has followed several theoretical approaches and foci. This has ranged from the examination of macroeconomic shocks on binge drinking in men and women in Iceland (Ólafsdóttir & Ásgeirsdóttir, 2015), examination of the youth drinking culture in Italy (Fabrizzi et al., 2017) and Russia (Neufeld et al., 2017), through to the use of simulations to understand peer influences in drinking as shown by research in The Netherlands, (Giabbanelli & Crutzen, 2013) and web and interactive voice messaging of Public Service Announcements (PSAs), in Sweden (Andersson, 2015). There also is a series of studies in Europe on the harm binge drinking can do to health in terms of liver damage (Nivukoski et al., 2019, in Finland) and breast cancer as shown in Danish research (Mørch et al., 2007).

Despite the variety and depth of research in the western world of binge drinking, there have few studies in Africa and Asia, 4 studies or around 2.9%, and an even smaller proportion in South America, with only two studies or 1.1% of binge drinking papers since 1983. Cross-country and global research is also rare with only 7 studies published or around 5.1% of total studies. Further comparison studies examining binge drinking across non-western countries looking at different consumer segments would be beneficial. Research examining the influence of culture, religion, and government policies may generate some unique consumer insights.

5 | CHARACTERISTICS

5.1 | Independent variables

With respect to independent variables (IVs), Table 4 shows a summary of the different types of variables. For ease of interpretation, we have not included the detail of each individual set of independent variables in the table, as there are 103 separate individual sets of independent analysis. We do though comment on the make-up of each major category of IVs in Table 5.

What is most prescient is that around a third of studies (32%) do not consider independent variables in their research design or take a merely a descriptive analysis of binge drinking. This is reflected by the large use of descriptive research that focuses only on the prevalence of binge drinking and related issues, as is seen in 29.1% of studies.

Binge drinking itself is used as an independent variable in research, as shown by 8% of studies. This is the result of early work

TABLE 4 Variables investigated in binge drinking research

	Number of papers	Percent
<i>Independent variables</i>		
Not applicable	54	30.9
Individual psychological factors	26	14.9
Social influences	24	13.7
Socio-economic and demographic factors	20	11.4
Market and industry factors	14	8.0
Binge drinking reports	10	5.7
Policy interventions	9	5.1
Situational factors	8	4.6
Alcohol consumption reports	7	4.0
None	2	1.1
Binge drinking and alcohol consumption reports	1	0.6
<i>Mediating variables</i>		
None	106	61.3
Not applicable	59	34.1
Individual psychological factors	6	3.5
Peer pressure, parental influence, boredom, availability of alcohol	1	0.6
Income and work	1	0.6
<i>Moderating variables</i>		
None	99	56.6
Not applicable	59	33.7
Individual psychological factors	6	3.4
Socio-economic and demographic factors	4	2.3
Individual drinking behavior	3	1.7
Peer drinking	2	1.1
Corporate social responsibility	1	0.6
TV in bedroom	1	0.6
<i>Dependent variables</i>		
Binge drinking behavior and attitudes	50	28.6
Not applicable	49	28.0
Alcohol consumption and behavior	40	22.9
Harm from binge drinking	34	19.4
None	1	0.6
Media health advice on alcohol consumption	1	0.6
Total	175	100.0

on binge drinking and cognitive loss among men and women (Parker et al., 1983) and later attempts to try and quantify risky outcomes associated with binge drinking (Caamaño-Isorna et al., 2017; Knott et al., 2013; Vassallo et al., 2008; Vingilis & Wilk, 2008). This can include greater risks of motor vehicle injuries (Caamaño-Isorna et al., 2017; Vassallo et al., 2008) and adverse health effects (Knott et al., 2013). Greater risk profiles for specific occupations, such as

shift workers has also been studied (Dorrian et al., 2017). Another area of focus examines sexual violence associated with binge drinking (Brooks, 2014; Luke, 2009). Other negative outcomes associated with increased alcohol consumption includes, for example, poorer academic performance by teens (Renna, 2008) and risky driving behaviors (Valentine et al., 2008). These situations also involve binge drinking, but these are not included in the research design per se as an independent variable.

Overall, the significant sets of independent variables examined in research include: individual psychological factors (14.9%), social influences (13.7%), socio-economic and demographic factors (11.4%), market and industry factors (8%), policy interventions (5.1%) and situational factors (4.6%). These are next examined in further detail.

5.1.1 | Individual psychological factors

This area of research focuses on the decisions and emotions of individuals with respect to binge drinking. How individuals define themselves in close relationships is also linked to binge drinking (Martin et al., 2013), with people favoring and valuing close-relationships found to respond more positive to health messages about moderate drinking. Attitudes to non-binge drinking alternatives, such as meeting for coffee, rather than drinking alcohol are also important in understanding the decision to drink excessively (Turrissi, 1999). Depression is associated with binge drinking and cognitive behavioral strategies which help deal with depression are found to reduce the risk of binge drinking (Martens et al., 2008).

Personality is linked to binge drinking. People who are more optimistic about the effect of heavy drinking are at risk of overindulgence (Sloan et al., 2013). Having a more agreeable personality is also more likely to be associated with binge drinking, more than personal economic circumstances (Bessey, 2018). Binge drinking is associated with more impulsive personalities (Zhang & Shrum, 2009) and those who are more hedonistic (Zhang & Shrum, 2009). Personality research suggests that some people may be more at risk of binge drinking, and that these should be specifically targeted to by policy makers.

Activating emotions of guilt and shame can assist in reducing or inhibiting binge drinking (Agrawal & Duhachek, 2010; Duhachek et al., 2012). Framing health messages with guilt appeals is more effective in combined with a gain scenario and shame appeals more in a loss situation. Resistance to public health messages has also been a focus of research (Hackley et al., 2015), with moral arguments likely to be undermined and subverted by those who heavily drink. In short, emotion research shows us that just saying no is not an appropriate health strategy. This research is also important in how messages should be framed in public health campaigns.

5.1.2 | Social influences

Research examining social influences examines the external interpersonal bases of binge drinking. This is important since much of binge drinking occurs within a social context. Fabbri et al. (2017),

TABLE 5 Method by discipline

Method	Number of studies	Percent
<i>Health</i>	90	51.4
Descriptive research	37	41.1
Regression	19	21.1
Experiment	15	16.7
Editorial	6	6.7
Review	3	3.3
Qualitative interview	3	3.3
Conceptual	2	2.2
Path analysis	1	1.1
Secondary data	1	1.1
Content analysis	1	1.1
Focus group	1	1.1
Observation	1	1.1
<i>Marketing</i>	26	14.9
Experiment	6	23.1
Qualitative interview	5	19.2
Focus group	5	19.2
Descriptive research	4	15.4
Mixed methods	2	7.7
Path analysis	2	7.7
Content analysis	1	3.8
Editorial	1	3.8
<i>Social science</i>	15	8.6
Qualitative interview	5	33.3
Descriptive research	3	20.0
Content analysis	2	13.3
Path analysis	1	6.7
Regression	1	6.7
Experiment	1	6.7
Case study	1	6.7
Focus group	1	6.7
<i>Psychology</i>	15	8.6
Experiment	5	33.3
Regression	4	26.7
Path analysis	2	13.3
Meta-analysis	1	6.7
Review	1	6.7
Descriptive research	1	6.7
Qualitative interview	1	6.7
<i>Economics</i>	9	5.1
Regression	8	88.9
Descriptive research	1	11.1
<i>Risk</i>	7	4.0
Regression	3	42.9
Content analysis	1	14.3
Descriptive research	1	14.3

(Continues)

TABLE 5 (Continued)

Method	Number of studies	Percent
Focus group	1	14.3
Path analysis	1	14.3
<i>Management</i>	5	2.9
Descriptive research	2	40.0
Regression	1	20.0
Case study	1	20.0
Experiment	1	20.0
<i>Sociology</i>	3	1.7
Experiment	1	33.3
Regression	1	33.3
Focus group	1	33.3
<i>Demography</i>	3	1.7
Regression	2	66.7
Descriptive research	1	33.3
<i>Gambling</i>	1	0.6
Descriptive research	1	100.0
<i>Communication</i>	1	0.6
Experiment	1	100.0
Total	175	100.0

for example, found that the use of some beverages, notably beer, are a means of socialization to a new group. Fraternity membership is a noteworthy predictor of binge drinking with college students (DeSimone, 2007). Ironically, the use of designated drivers increases binge drinking (Austin & Ressler, 2012).

Other research looks at the nature of social relationships, such as committed relationships versus casual contacts. Being in a committed relationship is found to reduce the risk of binge drinking (Duncan et al., 2006), but interestingly only for men (Pedersen & Pithey, 2018). Romantic partners can also be “network” bridges, though more to groups with more risky behaviors such as binge drinking (Kreager & Haynie, 2011). Social proximity, such as sharing a dorm with heavy drinker, has also been found to be associated with a higher risk of binge drinking (Guang et al., 2015).

Other research on close relationships looks at the influence of parents. Research on parenting shows that drinking patterns are modelled (Zhai et al., 2017) and that the style of parenting has an effect on binge drinking behavior (Mallett et al., 2011; Veal & Ross, 2006). Greater parental monitoring and communication with children is found to reduce the risk of binge drinking of youths (Mallett et al., 2011; Veal & Ross, 2006).

Out-group behavior is one important explanation for binge drinking (Gallage et al., 2018; Trockel et al., 2008). Trockel et al. (2008) find that nearly all the variance in alcohol consumption can be explained by collective norms. The findings indicate that when faced with social disruption from binge drinking, groups behave collectively in moderating drinking behavior. The authors suggest a successful culture-modifying intervention strategy is likely to favorably alter both these

measures of collective norms. Over time, changes in aggregate consumption-limit standards may drive subjective norms and vice versa. Related to this research (Crawford & Novak, 2013), social norms are also powerful at the individual level. Crawford and Novak (2013) find that the social embarrassment from over imbibing leads to more moderate drinking behavior.

Being in contact with out-groups who drink moderately or abstain has also been found to change attitudes of a heavy drinking in-group (Gallage et al., 2018), partially because the out-group are admired for their sense of control and healthier lifestyle. It is not surprising to find that in many countries policy makers highlight the social influences as a means to change behavior away from excessive drinking (Walton & Wilson, 2018). Overall research on social influences shows that binge drinking is very much situational and social, and that campaigns that just target individual emotions and decisions may not be effective when social conditions have been shown to have such a powerful effect. Public policy in this area therefore needs to focus more on the environment in which consumption takes place and address long-term social norms. This is considerably more difficult than just considering the individual.

5.1.3 | Socio-economic and demographic factors

Socio-economic factors are concerned with external effects on binge drinking. These have included economic effects (Cotti et al., 2015; Dee, 2001; Ólafsdóttir & Ásgeirsdóttir, 2015), for example binge drinking increases with men in periods of economic stress, but not for women (Dee, 2001). Worsening economic conditions, such as a downturn in the stock market, are associated with higher levels of self-reported mental health conditions and binge drinking (Cotti et al., 2015). Economic evidence suggests that increases in income and labor market successes are associated with higher levels of binge drinking (Hoke & Cotti, 2016; Shao-Hsun & Huffman, 2007, 2010). This is especially so for young drinkers, where increases in the minimum wage are associated with higher levels of binge drinking (Hoke & Cotti, 2016). Further detailed evidence suggests that binge drinking is indeed countercyclical, as long as one stays employed during an economic crisis (Dee, 2001). The primary reason for this is that binge drinking is a reaction to stress in uncertain times.

The extent of prestige of a college or university has also been found to affect binge drinking, with higher levels of binge drinking occurring in more selective colleges (Fletcher & Frisvold, 2011). The type of leisure activity has also been shown to be associated with binge drinking, with young men more likely to engage in excessive drinking when at concerts or sporting events (Andersson et al., 2014).

Differences and similarities between groups such as gender (Millea, 2019) as well as adults and youth have been studied (Nelson, 2008). Differences in regions such as states have been studied (De Boni et al., 2014; Nelson et al., 2005; Smith et al., 1990) along with characteristics of youths with heightened risks towards binge drinking

(Yarmuth et al., 2012). Research has also examined differences in binge drinking across socio-economic groups (Fone et al., 2013), as well as assessing the extent of the problem in the defence forces in both active duty and post-deployment phases (Larson et al., 2014).

Socio-economic and demographic research is useful to policy makers as it focuses on macro forces driving excessive alcohol consumption. It does not provide a complete set of remedies without considering individual and social factors involved in consumption. Nor does it focus on the actions of industry and market factors, which may encourage binge drinking which is discussed next.

5.1.4 | Market and industry factors

Though only accounting for 6.5% of published research, this is an important area for binge drinking research. Examining how industry players and marketing may encourage binge drinking is a critical component to addressing the issue. In terms of industry factors related to binge drinking, these include marketing such as advertising and sales promotions (Grievson & Djafarova, 2013; Noel et al., 2019; Sharma et al., 2013), the density of alcohol outlets (Ahern et al., 2016) and even glass shape (Angela et al., 2012), whereby more excessive drinking occurred with the use of curved rather than straight glasses, as the quantity of alcohol consumed was more difficult to judge. These studies, though piecemeal, should be further encouraged by grant agencies and funding, as they provide considerable insight how the unintended consequence of marketing and industry can lead to overconsumption in this area.

Another part of market and industry research is on media influences. This includes for example, the media's portrayal of binge drinking (Fogarty & Chapman, 2012; Valentine et al., 2008) and media's representation on public health strategies to reduce binge drinking (Campo et al., 2009). An assessment of media campaigns in themselves to reduce binge drinking has also been studied (Wolburg, 2005). Media influences are a salient area to study given the importance of public support for campaigns to reduce binge drinking.

5.1.5 | Policy interventions

This area of research has focused on examining the effectiveness of policy interventions to reduce or moderate binge drinking. Such research uses a field experimental design to examine the effectiveness of an intervention versus a control (LaBrie et al., 2016; Montag et al., 2015; Tinghög & Tinghög, 2016). Intervention studies have included education programs at work (Deitz et al., 2005; Tinghög & Tinghög, 2016) and in communities (Komro et al., 2017), the use of smartphone apps to monitor unhealthy alcohol use (Bertholet et al., 2017) or provide culturally tailored SMS messaging (Bush et al., 2019) or industry case studies of greater supervision of heavy drinkers (Pratten & Greig, 2005). The effect of health and taxation policies, especially for Indigenous people to reduce harmful drinking, have also been documented (Gray et al., 1999), as well as better

policing of underage IDs (Zheng, 2018). While all this research is laudable, often it has been conducted without a theoretical framework in mind, other than judging the effectiveness of a program. Also, there is little or no published research on complete evaluations of entire programs. Research instead only focusing on partial evaluations of selected components of program interventions.

5.1.6 | Situational factors

Studies with IVs covering situational factors, which only account for 3.3% of research, are important as binge drinking can be impulsive and peer directed behavior (Zhang & Shrum, 2009) and thus situational factors are important. Situational independent variables in binge drinking research include ironically the use of designated drivers (Austin & Ressler, 2012), which encourage excessive drinking of others. Pre-drinking, or “pre-loading”, has also been found to be associated with binge drinking (Riordan et al., 2018). Location and type of alcohol can encourage binge drinking. Drinking in nightclubs compared to bars has been found to be associated with higher level of binge drinking, mainly because spirit consumption is involved (Callinan et al., 2014). There is also a higher risk on binge drinking as expected at holidays and at the end of the week (Reich et al., 2015). Situational factors, though under researched, are thus an important avenue for future research in binge drinking.

5.2 | Mediating variables

Surprisingly given the complexity of studies using IVs in binge drinking research, there are very few studies, which include mediating variables, nine studies or 4.7% of research. The most common are individual psychological factors (7 studies) and include factors such as self-efficacy and motivation to change as a mediating variable for an intervention of SMS messaging to prevent binge drinking (Bush et al., 2019), coping strategies (emotional and practical) in examining message appeals to prevent binge drinking (Duhachek et al., 2012) and coping with depression and conformity mediating the use of self-protective strategies to prevent binge drinking (Martens et al., 2008). Other studies have examined psychological mediators such as impulsivity in relation to the effectiveness self-construal on binge drinking (Zhang & Shrum, 2009). As can be seen research using mediational analysis greatly assists policy makers, as it shows the conditions when behaviors are likely to be triggered or program interventions will work. Thus, the need for more specified research.

5.3 | Moderating variables

Likewise, there are few studies that include moderating variables in their design, only around 9.7% or 17 studies. Individual psychological factors included as moderators are most popular (6 studies) followed by demographics (4 studies). Individual and peer drinking behavior,

corporate social responsibility (which moderates the link between binge drinking and online gambling, see Yani-de-Soriano et al., 2012) and the presence of a television in the bedroom (which moderates parental monitoring, see Veal & Ross, 2006) make up the remainder of moderators that have been included.

Individual psychological factors used as moderators in research designs have included risk taking in whether family history and binge drinking predicts gambling problems (Zhai et al., 2017), impulsivity as to whether binge drinking can be influenced by hedonistic goal directed behavior (Ramanathan & Menon, 2006) and motivation to get better as a moderator for program effectiveness to manage intoxication arising from binge drinking (Arnaud et al., 2017). Other individual psychological factors include self-referencing in moderating the effectiveness of messages to reduce binge drinking within social situations from a first or third person perspective (Martin et al., 2013), and the use of protective behaviors as moderators with motives to drink and depressive symptoms as predictors of binge drinking (Martens et al., 2008).

A range of demographic moderators have been included. College size has been used as a moderator for the relationship between race and binge drinking (Wechsler & Kuo, 2003), and age for the relationship between binge drinking and automobile accidents (Vingilis & Wilk, 2008). The city /rural dichotomy has been included in research examining the link between advertising exposure and binge drinking (White et al., 2017). Gender, subsidies, and education have been studied as moderators of the relationship of price of alcohol and binge drinking with Chilean youth (Paraje et al., 2021). As can be seen, the use of moderators greatly assists researchers in understanding the complexities and nature of effects of both causes of binge drinking and the effectiveness of policy interventions to prevent it. It is a pity that not more research has considered moderating effects, especially with demographic information, which is usually collected in any standard research project.

5.4 | Dependent variables

Dependent variables in binge drinking research not only include binge drinking behavior and attitudes (28.6%), but also wider alcohol consumption behaviors (22.9%) and harm from binge drinking (19.4%). Apart from binge drinking reports in 31 studies (17.7%), binge drinking has been studied in terms of intentions (Agrawal & Duhachek, 2010; Knox et al., 2019), attitudes and beliefs towards it (Landau et al., 2009; Martin et al., 2013) and even befriending a binge drinker, though only in an agent based model simulation (Giabbanelli & Crutzen, 2013).

6 | METHODOLOGY

Table 5 shows the types of methods used by various disciplines to study the problem of binge drinking. The method types are based on a similar framework in the systematic review by Paul and Rosado-Serrano

(2019). We coded research as descriptive in method, when only a descriptive survey approach was taken, for example the amount of binge drinking by various groups and used the term regression when survey data was analyzed to provide an explanation of factors influencing the dependent variable, which was usually binge drinking.

6.1 | Major methodological approaches by discipline

Across all disciplines, the major research methods used are quantitative. Descriptive research (29.1%) are most prevalent, followed by regression analysis (22.5%), and experiments (17.1%). Qualitative research and focus group research are used in 23 studies or 13.1% of the total. The focus on quantitative research may explain in part the limited theoretical development addressing binge drinking across disciplines. This is further complicated by the different research foci of each discipline in how they have investigated this issue. Qualitative research is an important research method for the creation of new theoretical understanding. This is not to downgrade the importance of quantitative research for theory testing.

As can be seen Health researchers have used descriptive research and regression designs as methods (45.1% and 21.1%, respectively), Marketing has used a more varied set of research methods including experiments (23.1%), focus groups (19.2%), descriptive research (15.4%), qualitative interviews (19%) and mixed methods (qualitative and quantitative approaches [7.7%]). Psychology, as expected, mostly use experiments as the major method in binge drinking research (33.3% of publications) and to much less extent, regression analysis (26.7%) and path analysis or structural equation modelling (13.3%). Economics research in binge drinking is mainly done using regression analysis (87.5%). Other social science researchers use a mix of all research approaches.

6.2 | Major methodological approaches by year

Figure 3 shows the major methodological approaches taken across all disciplines by year. For ease of interpretation, the top three are plotted. Survey research (40), 26.1% of papers, regression (39), 25.5% of papers and experiments (28) 18.3% of papers. The bar chart shows that experimental research in binge drinking did not occur until 2004, 21 years after the first recorded paper in our analysis. It also coincides with a greater focus on theory in binge drinking research from 2006 (See Figure 2) onwards, as shown by the liner trend in Figure 1. Experimental research often requires greater theoretical precision, for example, identification of independent, mediating, moderating variables as well as dependent variables and the understanding of the mechanism by how these parts influence each other. Theoretical development can come from qualitative studies, but it is vital for good experimental research.

The use of survey and regression approaches dominates the field until 2016, and since 2018, there has been a more even split of the major methodological approaches used.

7 | DIRECTIONS FOR FUTURE RESEARCH

In total, this paper has provided a systematic review of 175 journal articles on binge drinking research across multiple disciplines. Again, following the TCCM framework, which is common practice (Chen et al., 2021; Paul, Parthasarathy, & Gupta, 2017), we outline a research agenda to encourage further progress in the area. Next, we draw on and extend our work by discussing some of the opportunities for future research presented in Table 6.

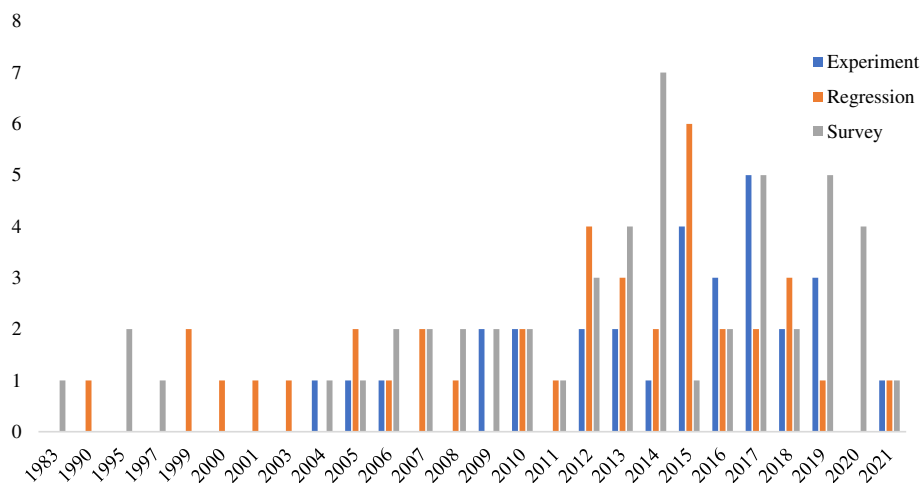
7.1 | Theory

Much of the research in binge drinking is not conducted with an identified theory. Only 44% of papers having a theoretical basis. Binge drinking behavior is defined and risk factors identified, but explanations as to why consumers engage in heavy episodic alcohol consumption and therefore how best to tackle the issue remains unclear. A range of theories are used with the Theory of Planned Behavior (Ajzen, 1991) and Social Norms Theory (Berkowitz, 2003) identified as the most common. Self-control and the social context play a role. People binge partly because they want to belong, they mistakenly think it's expected and everyone else is doing it.

Less is known about binge drinking as an impulsive, hedonic consumption experience. Recent research by Vosgerau et al. (2020) shows self-control failure does not necessarily mean sacrificing pleasure and identifies several strategies to assist consumers in limiting harmful consumption. Related to hedonic pleasure is Belk et al. (2003) work on desire who conceptualize desire as a recurring emotion with both positive and negative components involving a search for belongingness yet also experiencing a sense of being different than oneself, an aspect of risk yet also unreachable. Viewing binge drinking in terms of desire may open new ways of addressing the issue. Further research can consider binge drinking as a "sticky" consumption journey (Siebert et al., 2020) involving easy, low-cost entry and a variety of unpredictable, exciting experiences. It also may be beneficial to take a life course perspective (Moschis, 2007) which incorporates changes in life events (or transitions from one stage to another), socialization, stress, coping, identity, and knowledge influence consumption decisions.

As the social aspect of binge drinking is a main factor, theories of inter-group behavior such as Social Identity Theory (Tajfel & Turner, 1979) may bring further insights. Substantial evidence shows that once individuals feel that they belong to a social group, their self-esteem becomes tied to the group and motivates them to support their "in-group" norms. Rather than examine "in-group" influences, Gallange et al. (2018) examine how "out-groups" impact binge drinking. Another theoretical lens is to look at the role of culture in binge drinking, specifically Hofstede's (2011) sixth dimension of indulgence versus restraint. High indulgent societies report higher levels of happiness, value pleasure, and enjoying life but also have higher levels of obesity whereas societies scoring high in restraint report less positive emotions, leisure and freedom but lower levels of obesity. One

FIGURE 3 Major methodological approaches by year [Colour figure can be viewed at wileyonlinelibrary.com]



question to ask is whether binge drinking is more or less prevalent in high indulgent societies and why?

7.2 | Context

Our review shows that a vast majority of binge drinking research has been conducted in Western countries, with very little attention paid to in Asia, Africa, and South America countries. This is despite the World Health Organization identifying binge drinking a global health issue (World Health Organization, 2020). Therefore, there is a need for future research to be conducted about the causes and responses to binge drinking, a worldwide social problem to these countries. It is not known, for example, where policy prescriptions developed on the basis of Western research will be suitable in different contexts. Further complicating matters is a lack of cross-country research even among Western countries which makes translations of knowledge and practice difficult from one context to the next.

Much of binge drinking is studied within university and high school contexts. Extending the research to different workplaces is called for, especially in sectors where significant health and safety risks exist, such as the police force and shift work in medical system, oil and mining industries (Austin & Ressler, 2012; Dorrian et al., 2017). Excessive, episodic alcohol use may increase errors and serious accidents and put additional stress on workers in already high-pressured situations. Research is also needed to investigate binge drinking in public spaces, such as in pubs and clubs, as well as in domestic and other informal contexts (Valentine et al., 2008). Despite the established research indicating retail store atmospherics add hedonic value to the consumer shopping experience (Ballantine et al., 2010), few studies examine environmental factors on binge drinking. One exception by Carlini et al. (2014) shows 'all you can drink' service, multiple dance floors, and higher sound levels are all associated with binge drinking, though "pre-loading" before going out has a stronger effect suggesting the home environment is an important factor. While young adults and adolescents may see the home as providing a safe place, one where they have access to cheaper alcohol and more control to

be adventurous and experiment (Ander et al., 2015), binge drinking at home for older adults has increased due to the financial and mental health stressor related to the COVID-19 pandemic (Weerakoon et al., 2021).

7.3 | Characteristics

The review identifies a wide variety of independent variables have been examined, with binge drinking itself is an independent variable in around 7.2% of studies, mainly as a predictor of risky and harmful behavior associated with it. Other independent variables range from wider socio-economic factors, individual psychological factors and to a lesser extent social and parental influences and situational factors. The extraordinary situation caused by the COVID-19 global pandemic calls for studies examining the interplay between stress, depression and excessive alcohol consumption (Pedersen, 2013). As research shows binge drinking to be mainly a social activity, more research needs to be done with regards to social influences. Examining the role of social media, peer networks and the relationship between online and offline behaviors drinking may uncover new approaches to tackling binge drinking (Guilbeault and Centola, 2021; Lee and Ahn, 2017; Zhang and Centola, 2019). More research focusing on family dynamics (Zhai et al., 2017), especially role of parental style, monitoring and communication (LaBrie et al., 2016; Mallett et al., 2011) is critical to furthering our understanding.

Another important area of research not covered in depth by researchers has been the influence of the market and industry in promoting or unintentionally providing conditions for binge drinking to occur. Research directed towards product features, such as flavored alcohol (Albers et al., 2015), warning labels (Coomber et al., 2015), glass shape (Angela et al., 2012), and the combination of alcohol with energy drinks (Marczinski et al., 2017; Newcombe et al., 2020) is warranted. Further studies examining environmental factors (Hackley et al., 2015), including location, alcohol outlet density (Ahern et al., 2016), and atmospherics may also assist in understanding what triggers or facilitates binge drinking will assist in the development of

TABLE 6 Recommendations for future research

Theme	Proposed topics
Theory	<ul style="list-style-type: none"> • Further utilize theories involving self-control, emotions and hedonic consumption (Grieveon & Djafarova, 2013; Vosgerau et al., 2020) • What is the role of culture in binge drinking, specifically the effects of indulgence versus restraint (Hofstede, 2011; Heydari et al., 2021) • Consider theories concerning consumer desire (Belk et al., 2003), consumption over the life course (Mochis, 2007) and sticky journeys (Siebert et al., 2020) • Apply social identity theory and examine the impact of out-groups on excessive alcohol consumption (Gallage et al., 2018)
Context	<ul style="list-style-type: none"> • Compare results from multi-country studies and expand research in non-Western countries (Millea, 2019; Sharma et al., 2013) • Extend binge-drinking research in different workplaces, especially in sectors where significant health and safety risks exist (Austin & Ressler, 2012; Dorrian et al., 2017). • Investigate alcohol consumption in public spaces, such as the atmospherics in pubs and clubs, the importance of the home environment and other informal contexts (Ander et al., 2015; Valentine et al., 2008)
Characteristics	<ul style="list-style-type: none"> • Personal factors, sensation seeking (Noel et al., 2019) risk taking, agreeableness (Bessey, 2018), sociability (Reich et al., 2015), interplay between stress, depression, coping strategies and alcohol consumption (Duhachek, 2005; Pedersen, 2013; Stanisławski, 2019) • Family factors (Zhai et al., 2017), especially role of parental style, monitoring and communication (LaBrie et al., 2016; Mallett et al., 2011) • Social influences (Huang et al., 2014) such as social media, peer networks and the relationship between online and offline behaviors (Guilbeault and Centola, 2021) • Product consumption related features, such as flavored alcohol (Albers et al., 2015), warning labels (Coomber et al., 2015), glass shape (Angela et al., 2012) mixers energy drinks (Marczinski et al., 2017; Newcombe et al., 2020) • Place related factors (Hackley et al., 2015), alcohol outlet density (Ahern et al., 2016)
Methodology	<ul style="list-style-type: none"> • Use mixed methods, combining qualitative and quantitative approaches to triangulate findings (Campbell and Fiske, 1959). • More longitudinal (Vassallo et al., 2008; Vingilis & Wilk, 2008) and cohort studies (Caamaño-Isorna et al., 2017) are needed to understand the long-term effects of binge drinking. • Conduct in situ observational studies (Carlini et al., 2014) and field experiments (Zhang and Centola, 2019) to test consumer reactions to binge drinking interventions. • Event history analysis (Mayer and Tuma, 1990; Moschis, 2012) may assist in identifying key factors influencing changes in attitudes and behaviors as consumers transition from one life stage to another.
Recommendations	<ul style="list-style-type: none"> • How can technology assisted interventions, such as smartphone applications, help to address unhealthy alcohol use (Bertholet et al., 2017) • Further elaboration on government strategies to set minimum prices on alcohol products and the effects on reduction of binge drinking (e.g., Hawkins & McCambridge, 2014; Gray et al., 1999) • Examine the extent to which stricter control on the minimum drinking age affects alcohol purchases, consumption, and associated consequences (e.g., Kypri et al., 2014; Nelson et al., 2005; Hackley et al., 2013) • How can policy influence young people's focus on the long-term health risks of binge drinking (e.g., Fogerty & Chapman, 2012) • Consider standardized use of terminology in the implementation of educational interventions and communications campaigns, to reduce confusion about excessive alcohol consumption and health warnings (Jones et al., 2016; Coomber et al., 2015) • Identify ways in which all levels of governments can work with the liquor industry, especially with hospitality venues and retail outlets, to reduce binge drinking and associated antisocial behavior (Pratten & Greig, 2015) • Explore use of moral claims and how they can be effectively used in social marketing campaigns and endorsed by policy makers (e.g., Hogan et al., 2014)

place-related interventions. For there to be greater progress in curbing binge drinking, it would seem prudent that a much deeper analysis is required of how the market and industry may provide conditions, that may impact on binge drinking.

The review also revealed a lack of research considering mediating and moderating variables in research designs (5.9% and 11.1% of studies respectively). Where research did include these factors, the findings can be seen as more robust and generalizable. The lack though of more rigorous research designs and the limited context in which binge drinking research has occurred means generalizability of findings and advice to policy makers is at this stage limited.

Coping strategy is a possible mediating variable to include especially given the increased stress levels due to social media and the COVID-19 pandemic. Research indicates that some coping responses, such as hedonic disengagement and social diversion, have the potential for both adaptive and maladaptive outcomes (Stanislavski, 2019) which may help to explain the mixed results regarding binge-drinking interventions.

Complicating this, the dependent variables in binge drinking research do not include what is expected as shown by studies on wider alcohol and harm associated with bingeing. This presents a challenge and an opportunity for researchers and policy makers. The

challenge is that insights around binge drinking do not come necessarily when it is studied as a dependent variable. The opportunity is that studying research concerned with alcohol consumption and harm from binge drinking may provide insights not readily considered.

7.4 | Methodology

Our review shows that binge-drinking research tends to be studied with a limited set of methods, namely, surveys, regression analysis and experiments. Studies also tend to use a single method and data source, which brings in the issues of validity, reliability, and common method bias (Campbell and Fiske, 1959; Podsakoff et al., 2003). In addition, there is considerable differences across disciplines, with surveys being more favored by health researchers, regression analysis by economists and experiments by psychologists. Different methods by different disciplines make it difficult for policy makers and industry players to assess the evidence base of binge drinking, as this requires knowledge of quite different research approaches.

As all methodological approaches have their inherent weaknesses, we encourage future studies to incorporate mixed methods to triangulate findings. Very few studies collected observational data in situ (Carlini et al., 2014) or conducted field experiments (Zhang and Centola, 2019), both of which may be effective ways to test consumer reactions to binge drinking interventions. We also believe much can be gained regarding the long-term effects of binge drinking by conducting more longitudinal (Vassallo et al., 2008; Vingilis & Wilk, 2008) and cohort studies (Caamaño-Isorna et al., 2017). Event history analysis (Mayer and Tuma, 1990; Moschis, 2012) may prove useful in detecting key factors influencing changes in attitudes and behaviors as consumers transition from drinking no alcohol to moderate consumption to binge drinking as well as from binge drinking to moderate drinking. Combining qualitative and quantitative methods can lead to novel explanations and deeper appreciation of the behavior, attitudes, triggers and motivations related to binge drinking.

7.5 | Recommendations

Finally, our review brings forward possible future research topics on how to address the difficult and complex issue of binge drinking. Most of the studies focus on going upstream and suggest policy recommendations. Countries differ on the legal minimum age to purchase and consume alcohol. Globally most set the minimum age somewhere between 16 and 19 years with only a handful, the US included, mandating 21 years as the legal age. Research is needed to examine the extent to which stricter control on the minimum drinking age affects alcohol purchases, consumption, and associated consequences (Kypri et al., 2014; Nelson et al., 2005; Hackley et al., 2013). Other research suggests examining whether government strategies to set minimum prices on alcohol products are effective in reducing binge drinking (Hawkins & McCambridge, 2014; Gray et al., 1999). Policy recommendations also consider how can policy

influence young people's focus on the long-term health risks of binge drinking (Fogerty & Chapman, 2012). Going midstream, some recommend the implementation of parental training, educational, and communications campaigns, to reduce confusion about excessive alcohol consumption and health warnings (Jones et al., 2016; Coomber et al., 2015). Finally, a number go downstream to the individual consumer level and ask how technology assisted interventions, such as smartphone applications, help to address unhealthy alcohol use (Bertholet et al., 2017). Of course, these are just some of the possible recommendations available and are not meant to be an exhaustive list.

8 | LIMITATIONS

No study or systematic review is without limitations, and this is no exception. This systematic review only considers research identified as binge drinking or heavy episodic drinking. This review does not examine other types of alcohol consumption, such as abstinence, moderate and excessive drinking. It may well be that different factors influence these other alcohol consumption behaviors. Although a line must be drawn, somewhere when conducting a systematic review in terms of search terms, further studies building on this may also wish to consider the broader aspects of alcohol consumption. The search terms used may have also limited the scope of the review. We included research as search term, and this may have excluded papers, which contributed to binge drinking research but did not explicitly contain this keyword or search term.

Another limitation is that many worthy pieces of published research may have been excluded from the review due to the academic requirement of including higher impact journals. Policy papers and reports have also not been referenced in this review, nor have more recent conference papers. Future research may wish to include these papers in a meta-analysis of findings and examine the effectiveness of policy interventions (Kubacki et al., 2015).

9 | CONCLUSION

It seems that many of the individual factors leading to binge drinking are reasonably well studied, but some matters still warrant further research such as effective coping strategies and the interplay between stress, depression, and excessive alcohol consumption. In addition, the more complex, and some would say more potent causes of peer pressure and the broader social environment, also require greater attention. Following this paper, a meta-analysis of findings would also add considerably to our understanding, notably, as in this paper, if a cross-disciplinary analysis is used and results from policy interventions included. It is also crucial for such research to consider the integrity of qualitative research and other methodological approaches not typically found in a meta-analysis. These provide essential insights into the behavior of this phenomenon.

Binge drinking is a wicked social problem that requires a cross-disciplinary understanding to address it adequately. Policymakers deserve a comprehensive and considered view of this issue rather than a narrow, blinkered one. Researchers also need to look beyond their areas to find a more thorough explanation of this phenomenon. There is much to be gained from a more holistic view of the boundaries of expertise. Only then can meaningful progress be made in research and policy in this area.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions. The data that support the findings of this study are openly available from the University of Tasmania Library as this is a systematic review.

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REFERENCES

- Agrawal, N., & Duhachek, A. (2010). Emotional compatibility and the effectiveness of antidrinking messages: A defensive processing perspective on shame and guilt. *Journal of Marketing Research*, 47(2), 263–273.
- Ahern, J., Colson, K. E., Margerson-Zilko, C., Hubbard, A., & Galea, S. (2016). Predicting the population health impacts of community interventions: The case of alcohol outlets and binge drinking. *AJPH Public Health of Consequence*, 106(11), 1938–1943.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Process*, 50, 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Albers, A. B., Siegel, M., Ramirez, R. L., Ross, C., DeJong, W., & Jernigan, D. H. (2015). Flavored alcoholic beverage use, risky drinking behaviors, and adverse outcomes among underage drinkers: Results from the abrand study. *American Journal of Public Health*, 105(4), 810–815.
- Alcohol Research: Current Reviews Editorial Staff. (2018). Drinking patterns and their definitions. *Alcohol Research: Current Reviews*, 39(1), 17.
- Amogne, M. D., Balcha, T. T., & Agardh, A. (2019). Prevalence and correlates of physical violence and rape among female sex workers in Ethiopia: A cross-sectional study with respondent-driven sampling from 11 major towns. *BMJ Open*, 9(7), e028247.
- Andersson, A., Mårdby, A.-C., Holmgren, K., & Hensing, G. (2014). Associations between leisure activities and binge drinking in adults: Findings from a Swedish newly sick-listed sample. *Work*, 48(2), 143–153.
- Ander, B., Abrahamsson, A., & Gerdner, A. (2015). Changing arenas of underage adolescent binge drinking in Swedish small towns. *Nordic Studies on Alcohol and Drugs*, 32(4), 427–442.
- Andersson, C. (2015). Comparison of web and interactive voice response (ivr) methods for delivering brief alcohol interventions to hazardous-drinking university students: A randomized controlled trial. *European Addiction Research*, 21(5), 240–252.
- Angela, S. A., Nicholas, E. S.-S., George, S., & Marcus, R. M. (2012). Glass shape influences consumption rate for alcoholic beverages. *PLoS One*, 7(8), e43007.
- Arnaud, N., Diestelkamp, S., Wartberg, L., Sack, P.-M., Daubmann, A., & Thomasius, R. (2017). Short- to midterm effectiveness of a brief motivational intervention to reduce alcohol use and related problems for alcohol intoxicated children and adolescents in pediatric emergency departments: A randomized controlled trial. *Academic Emergency Medicine*, 24(2), 186–200.
- Arnett, J. (2013). *Adolescence and Emerging Adulthood: A Cultural Approach*. Pearson Education. ISBN 9780205892495
- Auld, M. C. (2005). Smoking, drinking, and income. *Journal of Human Resources*, 40(2), 505–518.
- Austin, W. A., & Ressler, R. W. (2012). Do designated drivers and workplace policies effect alcohol consumption? *Journal of Socio-Economics*, 41(1), 104–109.
- Baliunas, D., Rehm, J., Irving, H., & Shuper, P. (2010). Alcohol consumption and risk of incident human immunodeficiency virus infection: A meta-analysis. *International Journal of Public Health*, 55(3), 159–166.
- Banister, E. N., & Piacentini, M. G. (2006). Binge drinking-do they mean us? Living life to the full in students' own words. *Advances in Consumer Research*, 33, 390–398.
- Baer, J. S., & Carney, M. M. (1993). Biases in the perceptions of the consequences of alcohol use among college students. *Journal of Studies on Alcohol*, 54, 54–60.
- Ballantine, P. W., Jack, R., & Parsons, A. G. (2010). Atmospheric cues and their effect on the hedonic retail experience. *International Journal of Retail & Distribution Management*, 38(8), 641–653.
- Baumeister, R., & Heatherton, T. (1996). Self-regulation failure: an overview. *Psychological Inquiry*, 7(1), 1–15.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, 75(1), 43–88.
- Belk, R. W., Ger, G., & Askegaard, S. (2003). The fire of desire: A multisited inquiry into consumer passion. *Journal of Consumer Research*, 30(3), 326–351.
- Berg, C. J., Ling, P. M., Hongfei, G., Windle, M., Thomas, J. L., Ahluwalia, J. S., & An, L. C. (2010). Using market research to characterize college students and identify potential targets for influencing health behaviors. *Social Marketing Quarterly*, 16(4), 41–69.
- Bertholet, N., Daeppen, J.-B., McNeely, J., Kushnir, V., & Cunningham, J. A. (2017). Smartphone application for unhealthy alcohol use: A pilot study. *Substance Abuse*, 38(3), 285–291.
- Berkowitz, A. D. (2003). Applications of social norms theory to other health and social justice issues. The social norms approach to preventing school and college age substance abuse: A handbook for educators, counselors, and clinicians, 1.
- Bessey, D. (2018). Preferences, personality and health behaviors: Results from an explorative economic experiment. *International Journal of Health Economics and Management*, 18(4), 437–456.
- Blinn-Pike, L., & Worthy, S. L. (2008). Undergraduate women who have gambled in casinos: Are they at risk? *Family and Consumer Sciences Research Journal*, 37(1), 71–83.
- Brooks, O. (2014). Interpreting young women's accounts of drink spiking: The need for a gendered understanding of the fear and reality of sexual violence. *Sociology*, 48(2), 300–316.
- Bush, R., Brown, R., McNair, R., Orellana, L., Lubman, D. I., & Staiger, P. K. (2019). Effectiveness of a culturally tailored sms alcohol intervention for same-sex attracted women: Protocol for an rct. *BMC Women's Health*, 19(1), 29.
- Caamaño-Isorna, F., Moure-Rodríguez, L., Doallo, S., Corral, M., Rodríguez Holguín, S., & Cadaveira, F. (2017). Heavy episodic drinking and alcohol-related injuries: An open cohort study among college students. *Accident Analysis & Prevention*, 100, 23–29.

- Callinan, S., Livingston, M., Dietze, P., & Room, R. (2014). Heavy drinking occasions in Australia: Do context and beverage choice differ from low-risk drinking occasions? *Drug & Alcohol Review*, 33(4), 354–357.
- Campo, S., Askelson, N. M., Mastin, T., & Slonske, M. (2009). Using evidence-based research to redirect a conversation: Newspapers' coverage of strategies to address college binge drinking. *Public Relations Review*, 35(4), 411–418.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56(2): 81–105. <https://doi.org/10.1037/h0046016>
- Carlini, C., Andreoni, S., Martins, S. S., Benjamin, M., Sanudo, A., & Sanchez, Z. M. (2014). Environmental characteristics associated with alcohol intoxication among patrons in Brazilian nightclubs. *Drug and Alcohol Review*, 33(4), 358–366.
- Chatterjee, D., & Sahasranamam, S. (2018). Technological innovation research in China and India: A bibliometric analysis for the period 1991–2015. *Management and Organization Review*, 14(1), 179–221.
- Chen, Y., Mandler, T., & Meyer-Waarden, L. (2021). Three decades of research on loyalty programs: A literature review and future research agenda. *Journal of Business Research*, 124, 179–197.
- Christian, J., Armitage, C., & Abrams, D. (2007). Evidence that theory of planned behaviour variables mediate the effects of socio-demographic variables on homeless people's participation in service programmes. *Journal of Health Psychology*, 12, 805–817.
- Coomer, K., Martino, F., Barbour, I. R., Mayshak, R., & Miller, P. G. (2015). Do consumers 'get the facts'? A survey of alcohol warning label recognition in Australia. *BMC Public Health*, 15(1), 1–9.
- Cotti, C., Dunn, R. A., & Tefft, N. (2015). The dow is killing me: Risky health behaviors and the stock market. *Health Economics*, 24(7), 803–821.
- Courtney, K. B., & Polich, J. (2009). Binge drinking in young adults: Data, definitions, and determinants. *Psychological Bulletin*, 135(1), 142–156.
- Crawford, L. A., & Novak, K. B. (2013). The effects of public self-consciousness and embarrassment ability on college student drinking: Evidence in support of a protective self-presentational model. *Journal of Social Psychology*, 153(1), 109–122.
- Dabić, M., Vlačić, B., Paul, J., Dana, L.-P., Sahasranamam, S., & Glinka, B. (2020). Immigrant entrepreneurship: A review and research agenda. *Journal of Business Research*, 113, 25–38.
- Danielsson, A. K., Wennberg, P., Hibell, B., & Romelsjö, A. (2012). Alcohol use, heavy episodic drinking and subsequent problems among adolescents in 23 European countries: Does the prevention paradox apply? *Addiction*, 107(1), 71–80.
- De Boni, R. B., Bertoni, N., Bastos, L. S., & Bastos, F. I. (2014). Unrecorded alcohol in Rio de Janeiro: Assessing its misusers through respondent driven sampling. *Drug & Alcohol Dependence*, 139, 169–173.
- Dee, T. S. (2001). Alcohol abuse and economic conditions: Evidence from repeated cross-sections of individual-level data. *Health Economics*, 10(3), 257–270.
- Deitz, D., Cook, R., & Hersch, R. (2005). Workplace health promotion and utilization of health services: Follow-up data findings. *Journal of Behavioral Health Services & Research*, 32(3), 306–319.
- DeSimone, J. (2007). Fraternity membership and binge drinking. *Journal of Health Economics*, 26(5), 950–967.
- Dorrian, J., Heath, G., Sargent, C., Banks, S., & Coates, A. (2017). Alcohol use in shiftworkers. *Accident Analysis & Prevention*, 99, 395–400.
- Driver, T. F. (1991). *The magic of ritual: Our need for liberating rites that transform our lives and our communities*. Harper, San Francisco.
- Duhachek, A. (2005). Coping: A multidimensional, hierarchical framework of responses to stressful consumption episodes. *Journal of Consumer Research*, 32(1), 41–53.
- Duhachek, A., Agrawal, N., & Han, D. (2012). Guilt versus shame: Coping, fluency, and framing in the effectiveness of responsible drinking messages. *Journal of Marketing Research*, 49(6), 928–941.
- Duncan, G. J., Wilkerson, B., & England, P. (2006). Cleaning up their act: The effects of marriage and cohabitation on licit and illicit drug use. *Demography*, 43(4), 691–671.
- Fabrizzi, S., Marinelli, N., Menghini, S., & Casini, L. (2017). Why do you drink? A means-end approach to the motivations of young alcohol consumers. *British Food Journal*, 119(8), 1854–1869.
- Festinger, L. (1954). A theory of social comparison processes. *Human Communications*, 7, 117–140. <https://doi.org/10.1177/001872675400700202>
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Addison–Wesley.
- Fletcher, J. M., & Frisvold, D. E. (2011). College selectivity and young adult health behaviors. *Economics of Education Review*, 30(5), 826–837.
- Fogarty, A. S., & Chapman, S. (2012). Australian television news coverage of alcohol, health and related policies, 2005 to 2010: Implications for alcohol policy advocates. *Australian & New Zealand Journal of Public Health*, 36(6), 530–536.
- Fone, D. L., Farewell, D. M., White, J., Lyons, R. A., & Dunstan, F. D. (2013). Socioeconomic patterning of excess alcohol consumption and binge drinking: A cross-sectional study of multilevel associations with neighborhood deprivation. *BMJ Open*, 3(4), e002337.
- Galán, I., Simón, L., Rodríguez-Blázquez, C., Ortiz, C., López-Cuadrado, T., & Merlo, J. (2020). Individual and contextual factors associated with hazardous drinking in Spain: Evidence from a national population-based study. *Alcoholism, Clinical and Experimental Research*, 44(11), 2247–2256.
- Gallage, H., Samanthika, P., Tynan, C., & Heath, T. (2018). Out-group peer involvement in youth alcohol consumption. *Journal of Consumer Behaviour*, 17(1), e42–e51.
- Gerrard, M., Gibbons, F. X., Houlihan, A. E., Stock, M. L., & Pomery, E. A. (2008). A dual-process approach to health risk decision making: the prototype willingness model. *Developmental Review*, 28, 29–61. <https://doi.org/10.1016/J.DR.2007.10.001>
- Giabbanelli, P., & Crutzen, R. (2013). An agent-based social network model of binge drinking among Dutch adults. *Journal of Artificial Societies and Social Simulation*, 16(2), 10.
- Gray, D., Chikritzhs, T., & Stockwell, T. (1999). The northern territory's cask wine levy: Health and taxation policy implications. *Australian & New Zealand Journal of Public Health*, 23(6), 651–654.
- Grieverson, R., & Djafarova, E. (2013). Alcohol advertising and young adults' binge consumption. *Journal of Marketing & Communication*, 8(3), 37–44.
- Grossbard, J. R., Neighbors, C., & Larimer, M. E. (2011). Perceived norms for thinness and muscularity among college students: what do men and women really want? *Eating Behaviours*, 12, 192–199. <https://doi.org/10.1016/j.eatbeh.2011.04.005>
- Guang, G., Yi, L., Hongyu, W., Tianji, C., & Duncan, G. J. (2015). Peer influence, genetic propensity, and binge drinking: A natural experiment and a replication. *American Journal of Sociology*, 121(3), 914–954.
- Guilbeault, D., & Centola, D. (2021). Topological measures for identifying and predicting the spread of complex contagions. *Nature Communications*, 12(1), 1–9.
- Guo, J., Hawkins, J. D., Hill, K. G., & Abbott, R. D. (2001). Childhood and adolescent predictors of alcohol abuse and dependence in young adulthood. *Journal of Studies on Alcohol*, 62, 754–762.
- Hackley, C., Bengry-Howell, A., Griffin, C., Szmigin, I., Mistral, W., & Hackley, R. A. (2015). Transgressive drinking practices and the subversion of proscriptive alcohol policy messages. *Journal of Business Research*, 68(10), 2125–2131.
- Hackley, C., Bengry-Howell, A., Griffin, C., Mistral, W., Szmigin, I., & Tiwaskul, R. A. H. n. (2013). Young adults and 'binge' drinking: A bakhinian analysis. *Journal of Marketing Management*, 29(7–8), 933–949.
- Hawkins, B., & McCambridge, J. (2014). Industry actors, think tanks, and alcohol policy in the United Kingdom. *American Journal of Public Health*, 104(8), 1363–1369.

- Herring, R., Berridge, V., & Thom, B. (2008). Binge drinking: An exploration of a confused concept. *Journal of Epidemiology and Community Health*, 62(6), 476–479.
- Heydari, A., Laroche, M., Paulin, M., & Richard, M.-O. (2021). Hofstede's individual-level indulgence dimension: Scale development and validation. *Journal of Retailing and Consumer Services*, 62(September), 1–10.
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online readings in psychology and culture*, 2(1), 2307–0919.
- Hogan, G., & O'Loughlin, D. (2014). A qualitative study of Irish postgraduate students' alcohol consumption. *Journal of Substance Use*, 19(5), 373–377.
- Hogan, S. P., Perks, K. J., & Russell-Bennett, R. (2014). Identifying the key sociocultural influences on drinking behavior in high and moderate binge-drinking countries and the public policy implications. *Journal of Public Policy & Marketing*, 33(1), 93–107.
- Hoke, O., & Cotti, C. (2016). Minimum wages and youth binge drinking. *Empirical Economics*, 51(1), 363–381.
- Huang, G. C., Soto, D., Fujimoto, K., & Valente, T. W. (2014). The interplay of friendship networks and social networking sites: longitudinal analysis of selection and influence effects on adolescent smoking and alcohol use. *American journal of public health*, 104(8), e51–e59.
- Inman, J. J., Campbell, M. C., Kirmani, A., & Price, L. L. (2018). Our vision for the journal of consumer research: It's all about the consumer. *Journal of Consumer Research*, 44(5), 955–959.
- Jahangard, L., Behmanesh, H., Ahmadpanah, M., Poormoosav, S. M., Solitani, A., & Highighi, M. (2019). Risky behaviors and health-promoting behaviors in young adults: An epidemiological study. *Iranian Journal of Psychiatry*, 14(4), 302–308.
- Jones, S., C., Gordon, C. S., & Andrews, K. (2016). What is 'binge drinking'? Perceptions of Australian adolescents and adults, and implications for mass media campaigns. *Australian & New Zealand Journal of Public Health*, 40(5), 487–489.
- Knott, C. S., Scholes, S., & Shelton, N. J. (2013). Could more than three million older people in England be at risk of alcohol-related harm? A cross-sectional analysis of proposed age-specific drinking limits. *Age & Ageing*, 42(5), 598–603.
- Knox, K., Dietrich, T., Rundle-Thiele, S., & Connor, J. P. (2019). Parent and peer behavior: Fueling adolescent binge drinking intentions? *Journal of Consumer Marketing*, 36(5), 539–550.
- Komro, K. A., Livingston, M. D., Wagenaar, A. C., Kominsky, T. K., Pettigrew, D. W., & Garrett, B. A. (2017). Multilevel prevention trial of alcohol use among American, Indian, and white high school students in the Cherokee nation. *American Journal of Public Health*, 107(3), 453–459.
- Kreager, D. A., & Haynie, D. L. (2011). Dangerous liaisons? Dating and drinking diffusion in adolescent peer networks. *American Sociological Review*, 76(5), 737–763.
- Kypri, K., Davie, G., McElduff, P., Connor, J., & Langley, J. (2014). Effects of lowering the minimum alcohol purchasing age on weekend assaults resulting in hospitalization in New Zealand. *American Journal of Public Health*, 104(8), 1396–1401.
- Kubacki, K., Rundle-Thiele, S., Pang, B., & Buyucek, N. (2015). Minimizing alcohol harm: A systematic social marketing review (2000–2014). *Journal of Business Research*, 68(10), 2214–2222.
- Kubacki, K., Siemieniako, D., & Rundle-Thiele, S. (2011). College binge drinking: A new approach. *Journal of Consumer Marketing*, 28(3), 225–233.
- LaBrie, J. W., Earle, A. M., Boyle, S. C., Hummer, J. F., Montes, K., Turrissi, R., & Napper, L. E. (2016). A parent-based intervention reduces heavy episodic drinking among first-year college students. *Psychology of Addictive Behaviors*, 30(5), 523–535.
- Landau, M. J., Sullivan, D., & Greenberg, J. (2009). Evidence that self-relevant motives and metaphorical framing interact to influence political and social attitudes. *Psychological Science*, 20(11), 1421–1427.
- Larm, P., Livingston, M., Svensson, J., Leifman, H., & Raninen, J. (2018). The increased trend of non-drinking in adolescence: The role of parental monitoring and attitudes toward offspring drinking. *Drug and Alcohol Review*, 37(S1), S34–S41. doi:10.1111/dar.12682
- Larson, M. J., Mohr, B. A., Adams, R. S., Wooten, N. R., & Williams, T. V. (2014). Missed opportunity for alcohol problem prevention among army active duty service members post deployment. *American Journal of Public Health*, 104(8), 1402–1412.
- Latendresse, S. J., Rose, R. J., Viken, R. J., Pulkkinen, L., Kaprio, J., & Dick, D. M. (2008). Parenting mechanisms in links between parents' and adolescents' alcohol use behaviors. *Alcoholism: Clinical and Experimental Research*, 32, 322–330.
- Lee, Y.-J., & Ahn, H. (2017). The interaction effects of social norms and dissatisfaction toward drinking on willingness to visit and comment on binge drinking prevention Facebook. *Journal of Promotion Management*, 23(6), 813–833. <https://doi.org/10.1080/10496491.2017.1323258>
- Letsela, L., Weiner, R., Gafos, M., & Fritz, K. (2019). Alcohol availability, marketing, and sexual health risk amongst urban and rural youth in South Africa. *AIDS and Behavior*, 23(1), 175–189.
- López-Duarte, C., González-Loureiro, M., Vidal-Suárez, M. M., & González-Díaz, B. (2016). International strategic alliances and national culture: Mapping the field and developing a research agenda. *Journal of World Business*, 51(4), 511–524.
- Luke, K. P. (2009). Sexual violence prevention and technologies of gender among heavy-drinking college women. *Social Service Review*, 83(1), 79–109.
- Mallett, K. A., Turrissi, R., Ray, A. E., Stapleton, J., Abar, C., Mastroleo, N. R., Tollison, S., Grossbard, J., & Larimer, M. E. (2011). Do parents know best? Examining the relationship between parenting profiles, prevention efforts, and peak drinking in college students. *Journal of Applied Social Psychology*, 41(12), 2904–2927.
- Marczinski, C. A., Fillmore, M. T., Maloney, S. F., & Stamates, A. L. (2017). Faster self-paced rate of drinking for alcohol mixed with energy drinks versus alcohol alone. *Psychology of Addictive Behaviors*, 31(2), 154–161.
- Martens, M. P., Hatchett, E. S., Fowler, R. M., Fleming, K. M., Karakashian, M. A., Martin, J. L., & Cimini, M. D. (2008). Protective behavioral strategies and the relationship between depressive symptoms and alcohol-related negative consequences among college students. *Journal of Counseling Psychology*, 55(4), 535–541.
- Martens, M. P., Page, J. C., Mowry, E. S., Damann, K. M., Taylor, K. K., & Cimini, M. D. (2006). Differences between actual and perceived student norms: an examination of alcohol use, drug use, and sexual behavior. *Journal of American College Health* 54: 295–300. <https://doi.org/10.3200/JACH.54.5.295-300>
- Martin, B. A. S., Lee, C. K.-C., Weeks, C., & Kaya, M. (2013). How to stop binge drinking and speeding motorists: Effects of relational-interdependent self-construal and self-referencing on attitudes toward social marketing. *Journal of Consumer Behaviour*, 12(1), 81–90.
- Martinetti, M. P., Caughron, R. L., Berman, H. L., André, J., Sokolowski, M. B. C., Wiley, S., & Naassila, M. (2019). The behavioral economics of alcohol demand in French and American university students. *Alcoholism: Clinical and Experimental Research*, 43(3), 531–544.
- Mayer, K. U., & Tuma, N. B. (1990). Life course research and event history analysis: An overview. In K. U. Mayer & N. B. Tuma (Eds.), *Event history analysis in life course research* (pp. 3–20). University of Wisconsin Press.
- McAlaney, J., Bewick, B., & Hughes, C. (2011). The international development of the 'Social Norms' approach to drug education and prevention. *Drugs Education and Prevention Policy*, 18, 81–89. <https://doi.org/10.3109/09687631003610977>
- Meyer, A. (2010). "Too drunk to say no": Binge drinking, rape and the daily mail. *Feminist Media Studies*, 10(1), 19–34.
- Millea, V. Z. (2019). Gender alcohol use disparities and (possible) consequences of men and women health status. *Social Research Reports*, 11(3), 44–80.
- Montag, A. C., Brodine, S. K., Alcaraz, J. E., Clapp, J. D., Allison, M. A., Calac, D. J., Hull, A. D., Gorman, J. R., Lyons Jones, K., & Chambers, C. D. (2015). Effect of depression on risky drinking and

- response to a screening, brief intervention, and referral to treatment intervention. *American Journal of Public Health*, 105(8), 1572–1576.
- Moschis, G. (1985). The role of family communication in consumer socialization of children and adolescents. *Journal of Consumer Research*, 11(4), 898–913.
- Moschis, G. (2007). Life course perspectives on consumer behavior. *Journal of the Academy of Marketing Science*, 35(May), 295–307.
- Moschis, G. P. (2012). “Consumer behavior in later life: Current knowledge, issues, and new directions for research”. *Psychology & Marketing*, 29(2), 57–75.
- Mørch, L. S., Johansen, D., Thygesen, L. C., Tjønneland, A., Løkkegaard, E., Stahlberg, C., & Grønbæk, M. (2007). Alcohol drinking, consumption patterns and breast cancer among Danish nurses: A cohort study. *European Journal of Public Health*, 17(6), 624–629.
- Nelson, J. (2008). How similar are youth and adult alcohol behaviors? Panel results for excise taxes and outlet density. *Atlantic Economic Journal*, 36(1), 89–104.
- Nelson, T. F., Naimi, T. S., Brewer, R. D., & Wechsler, H. (2005). The state sets the rate: The relationship among state-specific college binge drinking, state binge drinking rates, and selected state alcohol control policies. *American Journal of Public Health*, 95(3), 441–446.
- Neufeld, M., Wittchen, H.-U., & Rehm, J. (2017). Drinking patterns and harm of unrecorded alcohol in Russia: A qualitative interview study. *Addiction Research & Theory*, 25(4), 310.
- Newcombe, D., Knaebe, B., Malloy, R., Peacock, A., & Bruno, R. (2020). Mixing alcohol and energy drinks: Associations with risk-taking, alcohol consumption and motivations in a new zealand sample. *Journal of Substance Use*, 25(2), 157–162.
- Nivukoski, U., Bloigu, A., Bloigu, R., Aalto, M., Laatikainen, T., & Niemelä, O. (2019). Liver enzymes in alcohol consumers with or without binge drinking. *Alcohol*, 78, 13–19.
- Noel, J. K., Xuan, Z., & Babor, T. F. (2019). Perceptions of alcohol advertising vary based on psychological characteristics. *Substance Use and Misuse*, 54(6), 986–997.
- Ólafsdóttir, T., & Ásgeirsdóttir, T. (2015). Gender differences in drinking behavior during an economic collapse: Evidence from Iceland. *Review of Economics of the Household*, 13(4), 975–1001.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hrobjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The prisma 2020 statement: An updated guideline for reporting systematic reviews. *International Journal of Surgery*, 88, 105906.
- Paraje, G. R., Guindon, G. E., & Chaloupka, F. J. (2021). Prices, alcohol use initiation and heavy episodic drinking among Chilean youth. *Addiction*, 116(3), 485–494.
- Parker, D. A., Parker, E. S., Brody, J. A., & Schoenberg, R. (1983). Alcohol use and cognitive loss among employed men and women. *American Journal of Public Health*, 73(5), 521–526.
- Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717.
- Paul, J., Parthasarathy, S., & Gupta, P. (2017). Exporting challenges of SMEs: A review and future research agenda. *Journal of world business*, 52(3), 327–342.
- Paul, J., & Rosado-Serrano, A. (2019). Gradual internationalization versus born-global/international new venture models: A review and research agenda. *International Marketing Review*, 36(6), 830–858.
- Pedersen, D. E. (2013). Gender differences in college binge drinking: Examining the role of depression and school stress. *Social Science Journal*, 50(4), 521–529.
- Pedersen, D. E., & Pithey, K. P. (2018). Romantic relationships, college student alcohol use, and negative consequences of drinking. *Social Science Journal*, 55(2), 198–207.
- Perkins, H. W., & Berkowitz, A. D. (1986). Perceiving the community norms of alcohol use among students: some research implications for campus alcohol education programming. *International Journal of Addiction*, 21, 961–976. <https://doi.org/10.3109/10826088609077249>
- Piper, L., Mileti, A., Prete, M. I., & Guido, G. (2021). Pictorial warning labels as deterrents of alcohol abuse. *British Food Journal*, 123(13), 469–489.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Prasad, R. (2009). Alcohol use on the rise in India. *The Lancet*, 373(9657), 17–18.
- Pratten, J., & Greig, B. (2005). Can pub watch address the problems of binge drinking?: A case study from the north west of England. *International Journal of Contemporary Hospitality Management*, 17(3), 252–260.
- Previte, J., Russell-Bennett, R., & Parkinson, J. (2015). Shaping safe drinking cultures: Evoking positive emotion to promote moderate-drinking behavior. *International Journal of Consumer Studies*, 39(1), 12–24.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W. E., Luchs, M. G., Ozanne, L. K., & Thøgersen, J. (2011). Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, 30(1), 31–38.
- Ramanathan, S., & Menon, G. (2006). Time-varying effects of chronic hedonic goals on impulsive behavior. *Journal of Marketing Research*, 43(4), 628–641.
- Reich, R. R., Cummings, J. R., Greenbaum, P. E., Moltisanti, A. J., & Goldman, M. S. (2015). The temporal “pulse” of drinking: Tracking 5 years of binge drinking in emerging adults. *Journal of Abnormal Psychology*, 124(3), 635–647.
- Renna, F. (2008). Teens' alcohol consumption and schooling. *Economics of Education Review*, 27(1), 69–78.
- Rimal, R. N., & Real, K. (2005). How Behaviors are Influenced by Perceived Norms: A Test of the Theory of Normative Social Behavior. *Communication Research*, 32(3), 389–414. <https://doi.org/10.1177/0093650205275385>
- Riordan, B. C., Conner, T. S., Flett, J. A. M., Droste, N., Cody, L., Brookie, K. L., Riordan, J. K., & Scarf, D. (2018). An intercept study to measure the extent to which New Zealand university students pregame. *Australian & New Zealand Journal of Public Health*, 42(1), 30–34.
- Roberts, M. (2015). ‘A big night out’: Young people's drinking, social practice and spatial experience in the ‘liminoid’ zones of English night-time cities. *Urban Studies*, 52(3), 571–588.
- Robson, D. A., Allen, M. S., & Howard, S. J. (2020). Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review. *Psychological Bulletin*, 146(4), 324–354. <https://doi.org/10.1037/bul0000227>
- Rook, D. W. (1985). The ritual dimension of consumer behavior. *Journal of Consumer Research*, 12(3), 251–264.
- Ross, L. T., Leech, S. L., & Loveland-Cherry, C. (1997, April). Parenting practices and substance use: Child and parent agreement. In Poster presented at the Society for Research in Child Development meeting.
- Rossow, I., Mäkelä, P., & Kerr, W. (2014). The collectivity of changes in alcohol consumption revisited. *Addiction*, 109(9), 1447–1455.
- Ryan, J. J., Kreiner, D. S., Chapman, M. D., & Stark-Wroblewski, K. (2010). Virtual reality cues for binge drinking in college students. *CyberPsychology, Behavior & Social Networking*, 13(2), 159–162.
- Shao-Hsun, K., & Huffman, W. E. (2007). Binge drinking and labor market success: A longitudinal study on young people. *Journal of Population Economics*, 20(1), 35–54.
- Shao-Hsun, K., & Huffman, W. E. (2010). Binge drinking and labor market success: A longitudinal study on young people. *Journal of Population Economics*, 23(1), 303–322.
- Sharma, B., Raciti, M., O'Hara, R., Reinhard, K., & Davies, F. (2013). University students' perceived susceptibility to alcohol retail sales promotions. *Journal of Consumer Marketing*, 30(3), 283–294.
- Siebert, A., Gopaladas, A., Lindridge, A., & Simões, C. (2020). Customer experience journeys: Loyalty loops versus involvement spirals. *Journal of Marketing*, 84(4), 45–66.
- Siemieniako, D., Rundle-Thiele, S., & Kubacki, K. (2010). Exploring locality and college binge drinking: A Polish and Canadian perspective. *Young Consumers*, 11(4), 320–329.

- Silva, A. P., Figueiredo, I., Hogg, T., & Sottomayor, M. (2014). Young adults and wine consumption a qualitative application of the theory of planned behavior. *British Food Journal*, 116(5), 832–848.
- Sloan, F., Eldred, L., Guo, T., & Xu, Y. (2013). Are people overoptimistic about the effects of heavy drinking? *Journal of Risk & Uncertainty*, 47(1), 93–127.
- Smith, P. F., Remington, P. L., Williamson, D. F., & Anda, R. F. (1990). A comparison of alcohol sales data with survey data on self-reported alcohol use in 21 states. *American Journal of Public Health*, 80(3), 309–312.
- Stanislavski, K. (2019, April 16). The coping circumplex model: an integrative model of the structure of coping with stress. *Frontiers in psychology*, 10, 694.
- Stanton, B. F., Li, X., Galbraith, J., Cornick, G., Feigelman, S., Kaljee, L., & Zhou, Y. (2000). Parental underestimates of adolescent risk behavior: A randomized, controlled trial of a parental monitoring intervention. *Journal of Adolescent Health*, 26(1), 18–26.
- Svensson, R. (2003). Gender differences in adolescent drug use: The impact of parental monitoring and peer deviance. *Youth & society*, 34(3), 300–329.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of inter-group conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of inter-group relations* (pp. 33–47). Brooks/Cole.
- Thomas, J. E. (2017). Scholarly Views on Theory: Its Nature, Practical Application, and Relation to World View. *International Journal of Business and Management*, 12(9), 1833–8119. doi:10.5539/ijbm.v12n9p231
- Tinghög, M. E., & Tinghög, P. (2016). Preventing alcohol problems and improving drinking habits among employees: An evaluation of alcohol education. *Work*, 53(2), 421–428.
- Tomburg, C. (2010). Categories of alcohol consumers: Definitions and criteria of alcohol addiction. *Journal of Psychophysiology*, 24(4), 213–214.
- Treise, D., Wolburg, J. M., & Otnes, C. C., 1999. Understanding the “social gifts” of drinking rituals: An alternative framework for PSA developers. *Journal of Advertising*, 28(2), pp. 17–31.
- Trockel, M., Wall, A., Williams, S. S., & Reis, J. (2008). When the party for some becomes a problem for others: The effect of perceived second-hand consequences of drinking behavior on drinking norms. *Journal of Psychology*, 142(1), 57–69.
- Turrisi, R. (1999). Cognitive and attitudinal factors in the analysis of alternatives to binge drinking. *Journal of Applied Social Psychology*, 29(7), 1512–1535.
- Valentine, G., Holloway, S., Knell, C., & Jayne, M. (2008). Drinking places: Young people and cultures of alcohol consumption in rural environments. *Journal of Rural Studies*, 24(1), 28–40.
- Van der Vorst, H., Engels, R. C. M. E., Meeus, W., Dekovic, M., & Vermulst, A. (2006). Parental attachment, parental control, and early development of alcohol use: A longitudinal study. *Psychology of Addictive Behaviors*, 20, 107–116.
- Vassallo, S., Smart, D., Sanson, A., Cockfield, S., Harris, A., McIntyre, A., & Harrison, W. (2008). Risky driving among young Australian drivers II: Co-occurrence with other problem behaviors. *Accident Analysis & Prevention*, 40(1), 376–386.
- Veal, M. L., & Ross, L. T. (2006). Gender, alcohol consumption, and parental monitoring. *Journal of Psychology*, 140(1), 41–52.
- Verger, P., Lions, C., & Ventelou, B. (2009). Is depression associated with health risk-related behavior clusters in adults? *European Journal of Public Health*, 19(6), 618–624.
- Vingilis, E., & Wilk, P. (2008). The effects of health status, distress, alcohol, and medicinal drug use on subsequent motor vehicle injuries. *Accident Analysis & Prevention*, 40(6), 1901–1907.
- Vosgerau, J., Scopelliti, I., & Huh, Y. E. (2020). Exerting self-control= sacrificing pleasure. *Journal of Consumer Psychology*, 30(1), 181–200.
- Walton, G. M., & Wilson, T. D. (2018). Wise interventions: Psychological remedies for social and personal problems. *Psychological Review*, 125(5), 617–655.
- Wechsler, H., Dowdall, G. W., Davenport, A., & Castillo, S. (1995). Correlates of college student binge drinking. *American Journal of Public Health*, 85(7), 921–926.
- Wechsler, H., Dowdall, G. W., Davenport, A., & Rimm, E. B. (1995). A gender-specific measure of binge drinking among college students. *American Journal of Public Health*, 85(7), 982–985.
- Wechsler, H., & Kuo, M. (2003). Watering down the drinks: The moderating effect of college demographics on alcohol use of high-risk groups. *American Journal of Public Health*, 93(11), 1929–1933.
- Weerakoon, S. M., Jetelina, K. K., Knell, G., & Messiah, S. E. (2021). COVID-19 related employment change is associated with increased alcohol consumption during the pandemic. *The American Journal of Drug and Alcohol Abuse*, 47(6), 730–736.
- Weitzman, E. R., & Kawachi, I. (2000). Giving means receiving: The protective effect of social capital on binge drinking on college campuses. *American Journal of Public Health*, 90(12), 1936–1939.
- White, V., Azar, D., Faulkner, A., Coomber, K., Durkin, S., Livingston, M., Chikritzh, T., Room, R., & Wakefield, M. (2017). Adolescents' exposure to paid alcohol advertising on television and their alcohol use: Exploring associations during a 13-year period. *Addiction*, 112(10), 1742–1751.
- Wolburg, J. M. (2001). The “risky business” of binge drinking among college students: Using risk models for psas and anti-drinking campaigns. *Journal of Advertising*, 30(4), 23–39.
- Wolburg, J. M. (2005). How responsible are “responsible” drinking campaigns for preventing alcohol abuse? *Journal of Consumer Marketing*, 22(4), 176–177.
- Wolburg, J. M. (2016). Insights for prevention campaigns: The power of drinking rituals in the college student experience from freshman to senior year. *Journal of Current Issues & Research in Advertising*, 37(1), 80–94.
- World Health Organization. (2020). Who global status report on alcohol and health 2018. World Health Organization. https://www.who.int/substance_abuse/publications/global_alcohol_report/en
- Yan, J., & Brocksen, S. (2013). Adolescent risk perception, substance use, and educational attainment. *Journal of Risk Research*, 16(8), 1037–1055.
- Yang, O., Zhao, X., & Srivastava, P. (2016). Binge drinking and antisocial and unlawful behaviors in Australia. *Economic Record*, 92(297), 222–240.
- Yani-de-Soriano, M., Javed, U., & Yousafzai, S. (2012). Can an industry be socially responsible if its products harm consumers? The case of online gambling. *Journal of Business Ethics*, 110(4), 481–497.
- Yarmuth, M., Patterson, J., Burton, T., Douglas, C., Taylor, T., & Boyle, M. (2012). Using research to understand youth in high-risk urban communities. *Social Marketing Quarterly*, 18(3), 187–202.
- Zhai, Z., Yip, S., Steinberg, M., Wampler, J., Hoff, R., Krishnan-Sarin, S., Potenza, M., Zhai, Z. W., Yip, S. W., Steinberg, M. A., Hoff, R. A., & Potenza, M. N. (2017). Relationships between perceived family gambling and peer gambling and adolescent problem gambling and binge drinking. *Journal of Gambling Studies*, 33(4), 1169–1185.
- Zhang, J., & Centola, D. (2019). Social networks and health: New developments in diffusion, online and offline. *Annual Review of Sociology*, 45(1), 91–109.
- Zhang, Y., & Shrum, L. J. (2009). The influence of self-construal on impulsive consumption. *Journal of Consumer Research*, 35(5), 838–850.
- Zheng, E. Y. (2018). Can technology really help to reduce underage drinking? New evidence on the effects of false id laws with scanner provisions. *Journal of Health Economics*, 57, 102–112.

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APPENDIX A

Journals selected for the systematic review.

Journals	Number	Impact factor
Academic emergency medicine	1	3.451
Accident analysis and prevention	5	3.051
Addiction	6	6.851
Addiction research and theory	1	1.33
Advances in nutrition	1	8.701
Age and ageing	1	4.511
AIDS and behavior	1	3.312
AJPH public health of consequence	1	5.381
Alcohol	1	2.006
Alcohol and alcoholism	2	2.724
Alcohol research: Current reviews	1	3.79
Alcoholism: Clinical and experimental research	10	3.235
American journal of drug and alcohol abuse	1	3.829
American journal of public health	18	5.381
American journal of sociology	1	3.764
American sociological review	1	5.391

(Continues)

Journals	Number	Impact factor
Australian and New Zealand journal of public health	9	1.911
BMC public health	2	2.567
BMC women's health	1	1.592
BMJ open	2	2.376
British food journal	3	1.717
Communication research	1	3.391
Cyber psychology, behavior, and social networking	1	2.330
Demography	1	2.802
Disease markers	2	2.137
Drug and alcohol dependence	1	3.446
Drug and alcohol review	2	2.855
Economics of education review	2	1.519
European addiction research	1	2.653
European journal of marketing	1	4.57
European journal of public health	3	2.459
Experimental and clinical psychopharmacology	1	3.157
Family and consumer sciences research journal	1	1.020
Feminist media studies	1	1.607
Health economics	2	2.123
Health education research	1	1.667
Health, risk and society	2	1.397
International journal of consumer studies	1	1.74
International journal of contemporary hospitality management	1	1.98
International journal of health economics and management	1	1.675
International journal of public health	1	3.39
Iranian journal of psychiatry	1	1.530
JMIR mHealth and uHealth	1	4.770
Journal of abnormal psychology	1	4.642
Journal of advertising	2	3.518
Journal of applied social psychology	3	1.231
Journal of artificial societies and social simulation	1	2.914
Journal of behavioral health services and research	1	1.875
Journal of business ethics	1	4.141
Journal of business research	1	4.028
Journal of consumer behavior	2	1.659
Journal of consumer marketing	4	1.26
Journal of consumer research	1	3.88
Journal of counseling psychology	1	3.334
Journal of current issues and research in advertising	1	1.240
Journal of gambling studies measurement	1	2.760

(Continues)

Journals	Number	Impact factor
Journal of health economics	2	3.250
Journal of human resources	1	3.857
Journal of marketing communication	1	3.05
Journal of marketing management	1	2.392
Journal of marketing research	3	4.200
Journal of population economics	2	1.470
Journal of promotion management	1	1.010
Journal of psychology	2	1.867
Journal of psychophysiology	1	2.882
Journal of public policy and marketing	1	2.457
Journal of risk and uncertainty	1	1.886
Journal of risk research	1	1.340
Journal of rural studies	1	2.380
Journal of social psychology	1	1.102
Journal of socio-economics	1	1.140
Journal of substance use	2	2.728
Journal of youth studies	1	1.175
Molecular medicine reports	1	2.100
Nordic studies on alcohol and drugs	1	1.600
Occupational health	1	1.800
PLoS ONE	1	2.776
Psychiatry research: Neuroimaging	1	2.964
Psychological bulletin	2	13.25
Psychological science	1	4.902
Psychology of addictive behaviors	3	2.543
Public relations review	1	1.311
Review of economics of the household	1	1.184
Social marketing quarterly	3	1.050
Social research reports	1	1.756
Social science and medicine	1	3.087
Social science journal	2	1.010
Social service review	1	1.738
Sociology	1	2.817
Sociology of health and illness	1	3.041
Substance abuse	1	2.986
Substance use and misuse	1	1.132
The journal of adolescent health	1	3.945
The lancet	3	59.102
Urban studies	1	3.272
Work	2	1.009
Young consumers	2	1.190
Total/ average impact factor	175	4.038