



Original Article

Solitary and Social Drinking in South Korea: An Exploratory Study

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ABSTRACT

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Objectives: This study aimed to identify differences in drinking norms, heavy drinking, and motives between types of drinkers (abstainers, solitary, and social drinkers) in a representative sample of Korean adults.

Methods: An online survey of people registered on the electoral roll were randomly invited to be part of the "National Korean Drinking Culture Study" conducted in 2018 ($n = 3,015$). Participants included 1,532 men and 1,469 women aged 19–60 years. Questions included the number of times they drank in the last month, what they drank, and the volume drank. The amount of pure alcohol consumed was calculated. Drinking norms, motives, and types were determined in the survey questions.

Results: Solitary drinkers were more likely to be divorced or separated, less educated, and marginally employed. Solitary drinking peaked in those in their 30s (18.5%) and social drinkers in their 50s (68.1%). Solitary drinkers drank more frequently compared with social drinkers (6.1 vs. 3.6 times per month, $p < 0.001$), and consumed a significantly larger quantity of alcohol (69.5 g vs. 46.8 g per week). Solitary drinkers were more accepting of drinking-related behaviors in diverse situations compared with social drinkers. The regression analysis revealed that personal drinking motives were the most important factor influencing the frequency and quantity of alcohol consumption in both solitary and social drinking.

Conclusion: Solitary drinkers may be more vulnerable to alcohol abuse than social drinkers.

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Introduction

Alcohol consumption exacerbates many health conditions, from injuries to chronic diseases, and may lead to the harm of others through violence, and accidents. It accounts for a significant proportion of disease and injury in South Korea. In 2011, 4,393 deaths were attributed to alcohol consumption, accounting for 1.9% of all deaths in Korea. The socioeconomic cost of alcohol consumption in 2012 was approximately 7.3698 trillion won [1].

In 2018 there were 60.6% (70.5% men and 51.2% women) of Korean adults (aged 19 years and older) who consumed alcohol

in the last month. Approximately 50.8% of men and 26.9% of women reported binge drinking [consuming 7 or more standard drinks (7–8 g of pure alcohol) in 1 drinking session for men or 5 for women] in the past month [2]. In Korea, 20% of drinkers are binge or excessive drinkers, and are responsible for 66% of all alcohol consumption [2]. The Institute for Health Metrics and Evaluation identified alcohol intake at a harmful level (through excessive or binge drinking) as the fifth largest risk factor for death, and disability. However, the Korean government has invested little effort in preventing and reducing alcohol consumption [3].

Social norms include society's beliefs about alcohol and

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drinking behaviors [4]. Behaviors related to drinking reflect the history, culture, religion, lifestyle, and racial characteristics of each ethnic group or nationality [5]. An individual's attitude and behaviors concerning drinking constitute his or her social behavior, irrespective of the drinking style (solitary or social). Drinking motives are more important in determining drinking behavior than the alcohol-consumption expectation that influences choices, patterns, and outcomes related to alcohol [6]. Drinking motives are considered to contribute to drinking contexts. According to motivational models, the reasons for alcohol use include enhancing positive emotions and reducing negative emotions, which represent psychologically distinct and strategically motivated behaviors. Solitary drinkers use alcohol to cope with negative effects, while social drinkers use it to enhance positive affects [7-9]. However, these studies also reported solitary drinkers to have higher levels of both positive and negative expectancies [8,9].

The most important cross-cultural constant in social norms governing alcohol use in Asia may not influence solitary drinking. In almost all cultures, including South Korea, drinking is essentially a social act [10]. Accordingly, drinking alone is considered indicative of a drinker facing problems, depression, or interpersonal challenges [11]. However, some cultures actively approve of or encourage solitary drinking. The reason for alcohol use (drinking motive) and the drinking pattern may help explain whether solitary drinking is a problem.

Recently, the popularity of solitary drinking has increased in Korea [11] owing to the increasing number of people living alone. According to the Korean Food and Drug Administration, 2/3 of all Korean adults reported having consumed alcohol alone within the past 6 months [12]. Solitary drinking is not a problematic behavior in itself however, prior research has shown that solitary drinking is associated with heavier alcohol consumption and more alcohol-related problems [7,8,13]. In Korea, few studies have been conducted on solitary drinkers' socio-demographic characteristics, motives, and alcohol consumption; that is, little is currently known about solitary drinkers [3]. In this study the differences in the social norms of drinking, motives, and alcohol consumption according to drinking types was examined in a nationally representative sample of Korean adults.

Materials and Methods

1. Participants and procedure

A demographically proportioned, stratified sampling (gender, age, and region) was conducted in April 2018 using a panel of participants (registered with a Korean research company) to determine the sample size for this study. The assigned number

of samples was 3,300, stratified by gender, age, and region to obtain a nationally representative sample. An invitation to take an online survey, titled the "National Korean Drinking Culture Study," was sent to 7,411 adults aged 19-60 years, randomly selected from the electoral roll. The final study sample included 3,015 participants: 1,546 men and 1,469 women, aged 19-60 years. Only adults aged 19-60 years were included because the monthly drinking rates of older adults (49.6% for those in their 60s and 29.1% for those in their 70s and above) were low [2].

The mean age of the final sample was 40.64 years (SD = 11.06). Approximately 55.5% of the participants were married. Before conducting the survey, approval of the relevant Institutional Review Board (no.: 2-104078-AB-N-01-2017105HR) was obtained. Informed consent was also obtained from all participants.

2. Measures

2.1. Amount of alcohol consumption

Participants were asked to share information on beverage-specific quantity (number of drinks/occasion) and frequency of alcohol consumption, to allow the measure of their alcohol intake during the past month. Firstly, participants were asked about the number of times they drank during the past month. If they drank once or more per month, inquiries into their preferred alcoholic beverage (Korean traditional distilled liquor Soju, beer, wine, or spirits) were made and the quantity of the preferred alcoholic beverage(s) consumed on each occasion (number of drinks/occasion). For example, if a participant drank 500 mL of beer, the quantity would be calculated by 500×0.045 (alcohol content % by volume) $\times 0.789^1$ (density) = 17.75 [3]. This participant would have consumed 17.75 g of pure alcohol (ethanol), which represented his or her drinking quantity.

2.2. Type of drinkers: Abstainer, solitary drinker, or social drinker

Abstainers were classified as those participants who do not drink or drank less than 1 drink per month. A single item developed by Christiansen et al [8] and Gonzalez et al [7] was modified. The participants were asked to classify themselves as solitary or social drinkers who drank more than 1 drink per month. This question involved dichotomizing participants and simply reflected whether the respondent usually drank alone or with other people. A solitary drinker may also be a social drinker however, for the study's purposes, participants were classified exclusively as solitary or social drinkers.

¹ Ethanol weighs 0.7893 g per cubic centimeter.

2.3. Social norms of drinking

The survey questions on the social norms of drinking developed by Sohn [14], comprised of 7 self-report items, such as whether the respondents considered it acceptable to drink in the park or on a mountain, during the day, when under-aged, alone, and so on. The responses were coded using a 5-point Likert scale, and the scores were summed to yield the total score. The higher the score, the more acceptable certain drinking behaviors were to the participant. Cronbach's coefficient (α) was 0.70.

2.4. Drinking motives

Based on the participants' responses to drinking once or more per month, their motives for drinking were asked. The questions on drinking motives developed by Sohn [14], comprised of 12 self-report items under 3 subscales. Personal drinking motives (6 items) consisted of enhancement of positive emotions (3 items) and coping with negative effects (3 items). In Sohn's study, since the enhancement of positive emotions and coping with negative effect did not differ, they were combined under the same domain [14]. Social drinking motives (3 items) referred to the improvement of sociability and interaction with others. Environmental drinking motives (3 items) referred to stimulation by an environment containing multiple liquor stores and places to drink. Participants were asked to rate how often each statement reflected their reasons for drinking over the last 12 months on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The subscales demonstrated good convergent and concurrent validity [14]. Higher scores indicated the strength of agreement with personal, social, and environmental drinking motives. Cronbach's coefficients for the personal, social, and environmental drinking motive subscales were 0.84, 0.83, and 0.88, respectively, showing relatively high reliability.

3. Statistical analysis

Data was analyzed using SPSS 25.0 (IBM Corp., Armonk, NY, USA) for statistical analysis. The characteristics of different groups were analyzed using descriptive statistics (frequency, percentage, means, and standard deviation). The Mantel-Haenszel test (X_{MH}^2) with gender as a covariate for frequency and quantity was performed to compare the socio-demographic characteristics of different groups. A multivariate analysis of covariance with gender as a covariate, was used to compare social and solitary drinkers in terms of the frequency of drinking occasions per month and the amount of alcohol consumption per week. The frequency of drinking occasions per month and the amount of alcohol consumption were square-root-transformed to improve normality and reduce the influence of outliers. A hierarchical regression analysis was

used to identify the factors affecting the frequency of drinking occasions per month and the amount of alcohol consumption per week.

Results

1. Participants' demographic characteristics by drinking type

The demographic characteristics of the 3 groups (abstainers, solitary drinkers, and social drinkers) are presented in Table 1. Approximately 80.4% of the participants had a drink during the month: 64.3% reported being social drinkers, 16.1% reported being solitary drinkers, and 19.5% abstained or drank less than once per month. The proportions of solitary drinkers among men and women were 17.5% and 14.7%, respectively. Overall, socio-demographic characteristics, including gender, age, marital status, education level, monthly income, job status, job type, and smoking status, correlated significantly with drinking patterns (Table 1). Men were more likely to be solitary and social drinkers compared with women. Solitary drinking peaked in 30-year old's (18.5%) and social drinking in 50-year old's (68.1%). Among the various occupations, the highest proportion of solitary drinkers was observed among those in service/sales (19.3%) or self-employment (26.3%).

2. Social norms and motives regarding drinking by drinking type

Subjective social norms and motives regarding drinking differ by drinking type (Table 2). Social norms for drinking shape common attitudes, perceptions, and behaviors. Except for 2 statements, solitary drinkers agreed with the statements more often compared with social drinkers. Among the drinking behaviors considered acceptable by solitary drinkers, the highest reported percentage was for "drinking alone" (85.2%), followed by "getting drunk" (42.6%), "drinking in a convenience store" (38.1%), and "drinking during the day" (37.0%). Among social drinkers, the highest percentage was also reported for "drinking alone" (69.1%), followed by "getting drunk" (37.9%), "drinking in a convenience store" (35.2%), and "drinking during the day" (31.5%). However, those participants who abstained from drinking or drank less than 1 drink per month showed relatively less agreement with all the statements compared with solitary and social drinkers; the highest percentages were reported for "drinking alone" (61.1%), followed by "drinking during the day" (25.1%), "getting drunk" (25.0%), and "drinking in a convenience store" (24.6%; Table 2).

Drinking motives are important factors influencing the choices, patterns, and outcomes regarding alcohol consumption. The drinking motives of solitary and social drinkers are presented in Table 2. Solitary drinkers showed

Table 1. Participants' demographic characteristics by drinking type (N = 3,015).

		N	Abstainers (n = 589) %	Solitary (n = 486) %	Social (n = 1,940) %	X ²
Gender	Men	1,546 (100.0)	15.8	17.5	66.8	43.21***
	Women	1,469 (100.0)	23.5	14.7	61.8	
Age (y)	19-29	670 (100.0)	24.5	11.5	64.0	43.21***
	30-39	670 (100.0)	23.3	18.5	58.2	
	40-49	797 (100.0)	17.4	16.9	65.6	
	50-60	878 (100.0)	14.8	17.1	68.1	
Marital status	Never married	1,238 (100.0)	24.3	16.6	59.0	44.01***
	Married	1,672 (100.0)	16.3	15.1	68.7	
	Divorced/widowed	105 (100.0)	15.2	26.7	58.1	
Education	< Senior high school graduates	617 (100.0)	23.3	16.9	59.8	14.71*
	2-year college graduates	498 (100.0)	20.9	15.7	63.5	
	4-year college graduates	1,576 (100.0)	18.1	16.7	65.2	
	Graduate school graduates	324 (100.0)	17.0	12.7	70.4	
Job status	Employed	1,772 (100.0)	17.4	15.1	67.5	42.01***
	Temporarily employed	332 (100.0)	21.1	17.5	61.4	
	Self-employed	268 (100.0)	14.9	23.5	61.6	
	Unemployed	643 (100.0)	26.6	15.1	58.3	
Occupation	Professionals	1,614 (100.0)	17.6	15.1	67.3	66.65***
	Managers	209 (100.0)	10.5	13.4	76.1	
	Service/sales workers	212 (100.0)	23.6	19.3	57.1	
	Laborers/transportation	66 (100.0)	22.7	18.2	59.1	
	Self-employed	190 (100.0)	13.2	26.3	60.5	
	Unemployed (including students and housewives)	724 (100.0)	26.7	15.5	57.9	
Smoking	Yes	609 (100.0)	14.0	20.5	65.5	21.51***
	No	2,406 (100.0)	20.9	15.0	64.0	
Total		3,015 (100.0)	19.5	16.1	64.3	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

more agreement with all the personal motive statements (positive and negative reinforcements) compared with social drinkers. Among solitary drinkers, the main motive was “drinking helps to overcome work and life stress” (57.2%), followed by “I drink to feel good/happy” (51.6%), “alcohol makes food taste better” (39.3%), and “I want to fall asleep quickly” (37.2%). Among social drinkers, the highest number of participants agreed that “drinking helps to overcome work and life stress” (44.2%), followed by “I drink to feel good and happy” (43.6%), “alcohol makes food taste better” (28.0%), and

“I want to get rid of my fears and be brave” (19.7%). There were no significant differences between solitary and social drinkers concerning social motives. Both solitary and social drinkers were in more agreement with social motives compared with those participants who abstained from drinking or drank less than 1 drink per month. Concerning environmental motives, solitary drinkers endorsed the following items more than social drinkers did: “many stores sell alcohol” (66.3% versus 62.5%), “there are many places to drink” (31.3% versus 25.1%), and “the price of alcohol is low” (17.5% versus 11.9%; Table 2).

Table 2. Social drinking norms and motives by drinking type (% of agreement).

	Abstainers (n = 589) %	Solitary (n = 486) %	Social (n = 1,940) %	X _{MH} ² or F
<i>Subjective social norms of drinking</i>				
It is acceptable to drink in a park or on a mountain after hiking.	8.1	12.3	10.4	23.3***
It is acceptable to drink during the day.	25.1	37.0	31.5	63.9***
It is acceptable to get drunk.	25.0	42.6	37.9	85.4***
It is acceptable for high school students to drink.	3.7	4.1	4.4	13.1*
It is acceptable to drink alone.	61.1	85.2	69.1	91.2***
Wrongdoing (or crimes) committed while drunk can be forgiven.	0.8	1.6	1.6	7.7
It is discourteous to refuse a drink offered by someone else.	5.8	7.4	7.4	7.6
It is acceptable to drink in a convenience store.	24.6	38.1	35.2	52.5***
Mean (SD)	2.33 (0.61)	2.67 (0.49)	2.56 (0.51)	F = 61.0***
<i>Personal motives</i>				
I drink to feel good/happy.	24.8	51.6	43.6	14.9***
I drink because there are few things to enjoy except drinking.	11.5	25.7	16.9	26.0***
I drink because alcohol makes food taste better.	16.3	39.3	28.0	31.9***
I drink to overcome work and life stress.	27.2	57.2	44.2	3.2
When I cannot fall asleep easily, I drink because I want to fall asleep quickly.	11.5	37.2	15.7	134.7***
I drink when I want to get rid of my fears and be brave.	15.6	25.3	19.7	11.9**
Mean (SD)	2.32 (0.84)	3.04 (0.03)	2.71 (0.02)	F = 3.83***
<i>Social motives</i>				
I drink with others to become friends quickly and to get along with them.	34.3	57.2	57.3	2.1
I drink to deal with difficult relationships.	29.2	50.8	48.4	0.9
I drink a lot because of work-related gatherings.	19.7	21.0	23.6	3.2
Mean (SD)	2.6 (0.95)	3.15 (0.03)	3.12 (0.02)	F = 0.35
<i>Environmental simulation motives</i>				
I drink to enjoy low-cost recreation because the price of alcohol is low.	10.9	17.5	11.9	18.8***
I drink because there are many stores where I can buy alcoholic beverages anytime.	54.2	66.3	62.5	4.5
I drink because there are many places to drink everywhere.	20.0	31.3	25.1	8.8*
Mean (SD)	2.64 (0.91)	3.03 (0.03)	2.87 (0.02)	F = 16.75***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.X_{MH}² = Gender was controlled as a covariate.

Solitary and social drinkers are monthly drinkers.

3. Frequency and quantity of alcohol consumption

Multivariate analysis of covariance with gender as a covariate, was used to compare social and solitary drinkers regarding the frequency of drinking occasions per month and the quantity of alcohol consumption per week. The average frequencies of

drinking in solitary and social drinkers were 6.1 and 3.6 times per month, respectively ($F=131.94$, $p < 0.001$, $\eta^2=0.098$). The average consumption of pure alcohol (ethanol) per week was 69.5 g and 46.8 g, respectively ($F=160.52$, $p < 0.001$, $\eta^2=0.117$). Solitary drinkers drank more frequently and consumed

significantly more alcohol compared with social drinkers. The pattern of solitary drinking behavior may be predictive of high alcohol consumption (Table 3).

4. Factors associated with the frequency and quantity of alcohol consumption for solitary and social drinkers

A hierarchical regression analysis was conducted to determine factors associated with the frequency and quantity of alcohol consumption among solitary and social drinkers

(Table 4). In Step 1, socio-demographic variables (gender, marital status, education status, household, and smoking status) and dependent variables (frequency and quantity of alcohol consumption) were entered into the model. In Step 2, 4 variables (drinking norms, personal, social, and environmental motives) were entered into the model.

Among solitary drinkers, gender, age, job, smoking status, drinking norms, and personal motives were significantly associated with the frequency and quantity of alcohol

Table 3. Frequency of drinking occasions, alcohol consumption, and alcohol-related problems (g).

	Solitary (n = 486)		Social (n = 1,940)		Total (n = 2,426)		F (η^2)
	M	(SD)	M	(SD)	M	(SD)	
Frequency of drinking occasions per month	6.14	(5.46)	3.65	(3.92)	4.15	(4.39)	131.94*** (0.098)
Quantity of alcohol consumption per week (g)	69.54	(89.39)	46.82	(25.74)	41.3	(78.79)	160.52*** (0.117)

The frequency of drinking occasions per month and the quantity of alcohol consumption per week were square-root-transformed prior to the analyses. Means and standard deviations shown are for the untransformed variables. Univariate test results reported are from Analyses of Covariance (ANCOVA). Gender was controlled in all analyses. η^2 = effect size (eta squared).

*** $p < 0.001$.

Table 4. Multivariate analysis of factors associated with the frequency and quantity of alcohol consumption.

	Solitary drinker (n = 486)						Social drinker (n = 1,940)					
	Frequency			Quantity of alcohol consumption			Frequency			Quantity of alcohol consumption		
	R ²	β	SEB	R ²	β	SEB	R ²	β	SEB	R ²	β	SEB
Demographic variables												
Gender	0.17***	0.11**	0.10	0.20***	0.19***	0.41	0.09***	0.14***	0.04	0.15***	0.19***	0.19
Age		0.18**	0.01		0.14**	0.02		-0.04	0.00		-0.06*	0.01
Marital status		-0.02	0.11		-0.06	0.45		0.04	0.05		0.02	0.23
Education status		-0.06	0.12		-0.03	0.48		0.03*	0.04		0.06*	0.23
Job		-0.09*	0.10		-0.06	0.40		-0.07	0.04		-0.07	0.18
Household income		0.06	0.05		0.05	0.23		0.07	0.02		0.03	0.11
Smoking		0.13**	0.11		0.19***	0.47		0.09	0.05		0.15***	0.23
Attitude variables	0.29***			0.33***			0.24***			0.28***		
Drinking norms		0.07***	0.11		0.09*	0.45		0.08	0.04		0.09***	0.20
Personal motives		0.38***	0.10		0.35***	0.41		0.33***	0.04		0.31***	0.18
Social motives		-0.06	0.09		-0.03	0.36		-0.04	0.04		0.05	0.16
Environmental motives		-0.03	0.08		-0.03	0.32		-0.00	0.03		-0.04	0.14

Gender (men=1, women=0), marital status (married=1, single/divorced/widow=0), job (No job=1, had a job=0).

consumption after demographic variables were controlled for in Step 1 ($R^2=0.29$, $p < 0.001$).

Among social drinkers, gender, education status, and personal motives were significantly associated with drinking frequency ($R^2=0.09$, $p < 0.001$). Regarding the quantity of alcohol consumption, gender, age, job status, smoking status, drinking norms, and personal drinking motives were significant among social drinkers ($R^2=0.28$, $p < 0.001$).

The variables of job status and social norms of drinking were significantly associated with drinking frequency only among solitary drinkers. Education was significantly associated with drinking frequency and consumption quantity among social drinkers but not among solitary drinkers. Regression analysis revealed that personal drinking motives were the most important factor influencing the frequency and quantity of alcohol consumption among both solitary and social drinkers, while other drinking motives did not influence consumption behavior as much (Table 4). Additionally, social norms were significantly associated with the frequency and quantity of alcohol consumption among solitary drinkers. Among social drinkers, social norms were significantly associated with the quantity of alcohol consumption only.

Discussion

This study compared the social norms, motives, frequencies, and quantities of alcohol consumption among people who reported different drinking types. On comparing solitary and social drinkers, solitary drinkers were more likely to be divorced or separated, less educated, and marginally employed (people with temporary rather than regular jobs, self-employed, or in service/sales-related jobs, and smoking). It was speculated that solitary drinkers often resort to alcohol and experience alcohol-related problems owing to a lack of alternative resources when faced with hardships [15].

There was a distinct difference in the type of drinking (solitary or social) in terms of social norms and motives for drinking. Solitary drinkers had weaker social norms and were more permissive toward drinking behaviors in response to all survey questions, including those regarding public drinking, daytime drinking, and drunkenness, compared with social drinkers. Social norms for drinking were an important factor for predicting the frequency and quantity of alcohol consumption among solitary drinkers. Among social drinkers, social norms for drinking only affected the quantity of alcohol consumption. The findings of the present study support development of alcohol prevention interventions that target group-based social norms rather than individuals' beliefs.

Regarding their drinking motives, solitary drinkers had a higher level of motivation to drink to enhance positive

emotions and cope with negative ones, compared with social drinkers. However, these results conflict with those of previous studies where solitary drinkers experienced higher levels of negative effect management and lower levels of positive effect enhancement [7-9], while others showed that they exhibited higher levels of positive and negative expectancies [8,9]. The findings of the present study support the inference that solitary drinkers had higher levels of motives for drinking for both positive and negative reinforcements. This indicated that solitary drinkers were less confident in their ability to control their drinking in positive and negative situations. There were no significant differences between the 2 groups concerning social drinking motives. This finding was consistent with the results of previous studies showing that solitary drinkers are alone to cope with their emotions, and not because they have fewer social interaction motives, or are in a situation in which they have no choice but to drink alone [7,11]. However, there were a lack of associations between social motives and consumption behavior among both solitary and social drinkers. Since social motives in both groups were high, as a result, the lack of variation in social motives may not explain the association and further research is needed to identify the association.

Lastly, solitary drinkers had higher levels of environmental drinking motives. This finding showed that solitary drinkers were tempted more by their surroundings to buy and drink alcohol compared with social drinkers. The number of stores and bars in South Korea may therefore constitute a threat to public health. This can change through alcohol policy reform.

The study findings indicate that solitary drinkers tend to consume more alcohol and drink more frequently compared with social drinkers (6.1 times versus 3.6 times per month on average, respectively). More frequent drinking by solitary drinkers leads to a higher amount of alcohol consumption (70 g a week compared with 47 g for social drinkers). These findings provide support for the hypothesis that the frequency and quantity of alcohol consumption are associated with drinking patterns.

Solitary drinking is a public health issue that should be afforded more attention. Solitary drinkers tend to drink regularly, which may lead to alcoholism, while social drinkers do not tend to drink regularly [4]. According to previous studies, solitary drinkers experience stress and depression more often than social drinkers do, and this is a problem that requires more attention [7,11,16]. Accordingly, an intervention is needed to help solitary drinkers cope with negative life events or stressful situations, and to provide them with social support [11].

Meaningful findings in this study have been observed in solitary drinkers in South Korea however, there are some limitations concerning the measures of solitary drinking.

Participants were asked to categorize themselves as solitary or social drinkers, however, this may not be a good measure because solitary drinking can be under-reported owing to generalized social disapproval. Therefore, more research is needed to develop valid measures of solitary drinking behavior.

Conclusion

By identifying the differences between social and solitary drinking, which has become increasingly widespread in recent years, the findings of this study may help towards future strategies to prevent drinking problems. Understanding people's reasons to drink alone is essential for the development of effective intervention programs. Solitary drinking is linked to individual motives (positive and negative reinforcement) and environmental motives.

Contrary to the findings of the study conducted by the Korean Food and Drug Administration in 2016 [12], which showed that solitary drinkers drank a smaller quantity of alcohol compared with social drinkers, this study showed that solitary drinkers drank more in terms of both frequency and quantity of consumption. This observation suggests that this group requires more attention. Drinking to relieve depression and other negative emotions cannot be a long-term solution, despite the temporary relief it offers. In the long term, it can worsen the feelings of depression and negative emotions, which can lead to a vicious cycle of continued excess. In particular, solitary drinking can induce more frequent and more regular drinking, which can eventually lead to alcohol dependence. Appropriate interventions for solitary drinkers who drink to deal with emotional problems are urgently needed.

Conflicts of Interest

The authors have no conflicts of interest to declare.

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