

Does Exposure to Alcohol Brand Character Marketing Affect Problem Alcohol Use?:

Focusing on the Mediating Effect of Purchase Intention

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Abstract

To examine the effects of exposure to alcohol brand character marketing on problem alcohol use in South Korea, we conducted an online survey of 3,600 Koreans aged 19-69 years in November 2021. From these participants, we selected 2,995 individuals who reported consuming alcohol within the past year. Exposure to alcohol brand character marketing, the independent variable, was measured via a likert scale by asking about exposure to general products featuring alcohol brand characters. Purchase intention, the mediating variable, was measured via a likert scale by assessing likability and willingness to purchase. Exposure to alcohol brand character marketing was measured using a likert scale on general products featuring these characters, while purchase intention was assessed through likability and willingness to buy. Problem alcohol use, the dependent variable, was measured using the AUDIT-K scale. The law must be reformed to ensure that all forms of alcohol industry advertising and marketing are regulated, including alcohol brand characters that collaborate with non-alcoholic products. Additionally, there is a need for education on alcohol marketing literacy. This study lays the groundwork for future research into regulatory revisions on exposure to alcohol brand character marketing.

Keywords: Alcohol Brand Character, Alcohol Marketing, Problem Alcohol, Purchase Intention

알기 쉬운 요약

이 연구는 왜 했을까? 주류업계의 브랜드 캐릭터가 주류제품을 넘어 식품, 장난감 등 다양한 비주류 제품과 협업하며 공격적인 마케팅을 펼치고 있다. 이러한 마케팅은 청소년과 성인에게 무분별하게 노출되어 구매 의도를 높일 뿐만 아니라, 문제 음주로 이어질 가능성이 있다. 이에 본 연구는 주류업계의 캐릭터 마케팅이 구매 의도를 매개로 하여 문제음주 수준에 어떤 영향을 미치는지를 분석하고자 했다.

새롭게 밝혀진 내용은? 주류업계의 브랜드 캐릭터가 주류제품이 아닌 비주류제품 마케팅에 활용되더라도, 마케팅 노출이 증가할수록 성인의 문제음주 수준이 높아진다는 사실을 새롭게 발견했다. 또한, 이러한 마케팅 노출은 브랜드 캐릭터에 대한 구매 의도를 높이고, 결과적으로 문제 음주 수준을 증가시키는 경향이 있다는 점을 확인하였다.

앞으로 무엇을 해야 하나? 따라서, 비주류 제품과 협업하는 알코올 브랜드 캐릭터를 포함한 모든 형태의 주류업계의 마케팅이 규제될 수 있도록 법 개정이 필요하다.

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I. Introduction

Alcohol, the most widely consumed addictive substance, significantly impairs judgment, consciousness, and various functions, causing harm not only to the drinker but also to others (Lee, 2019). Although alcohol is considered one of the most harmful psychoactive substances, its control over alcohol marketing is notably weaker than that of other substances. In particular, Korea has a highly permissive and tolerant drinking culture, characterized by high levels of alcohol consumption and high-risk drinking (Lee, 2019). Despite this, its regulatory policies on alcohol remain relatively lenient (Moon, 2003). According to the WHO's 2018 report on alcohol and health, the per capita alcohol consumption for adults aged 15 and older in Korea is 10.2 liters, which is significantly higher than the WHO average of 6.4 liters. Furthermore, Korea's high-risk drinking rate is 30.5%, which is far above the WHO average of 18.2% (WHO, 2018).

In response to this concern, the World Health Organization (WHO) and its international partners launched the SAFER initiative in 2018. SAFER is an acronym for the five most cost-effective interventions aimed at reducing alcohol-related harm (WHO, 2019). The strategy emphasizes that countries should implement policies to regulate alcohol pricing, advertising, and marketing to limit suppliers. Additionally, it advocates for measures such as drunk-driving prevention, screening, and treatment of alcohol-related problems targeting consumers. According to the WHO, implementing the SAFER strategy could generate over \$9 in economic benefits for every \$1 spent (WHO, 2019). This approach aims to protect billions of people from the socio-economic impacts of harmful drinking and contributes to achieving the United Nations Sustainable Development Goals (SDGs) (WHO, 2019). Among the SAFER interventions, one of the most cost-effective policies for regulating alcohol suppliers is the "enforcement of bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion," as well as pricing policies (WHO, 2019).

While Korea is actively pursuing alcohol harm prevention policies aligned with the SAFER initiative and has incorporated legal regulations on marketing through the National Health Promotion Act, there is still room for improvement, as the current regulations are relatively minimal (Park & Oh, 2021). The National Health Promotion Act currently limits who can advertise liquor to those licensed to manufacture, sell, or import alcohol and imposes restrictions on the content and airing times of such advertisements. However, there are no regulations on age restrictions for advertising models or the use of alcohol brand characters in non-alcoholic product marketing. Additionally, alcohol marketing increasingly permeates daily life in subtle ways, making it more difficult to regulate effectively. This type of marketing influences consumers subconsciously, encouraging higher alcohol consumption. The alcohol industry has shifted from traditional print and TV marketing to digital platforms, leveraging influencers, social media, collaborations with other brands, and embedded advertisements. As a result, monitoring and regulating alcohol marketing has become increasingly challenging (WHO, 2021).

Specifically, the alcohol industry in Korea is shifting its marketing methods to align with current trends, moving away from conventional advertising which primarily features celebrities as models (KHPI, 2021). The emerging core consumer group, Generation Z—comprised of individuals in their late teens to early twenties—tends to use emojis to express their emotions on social media and shows a strong interest in character-related products as a form of self-expression (Lee, 2022). According to a survey conducted last year, 62.4% of

consumers were influenced by characters in their purchasing decisions, and 53% expressed a willingness to pay more for character-related products (KCCA, 2022). Characters possess inherent commercial value, and when combined with brands, they generate new synergies, playing a crucial role in sales promotion, much like a salesman (Lee, 2013). Reflecting this trend, the alcohol industry in Korea is actively developing and branding its own characters, incorporating them into its overall marketing strategies. In other words, brand character marketing refers to the use of characters by alcohol brands to promote and market their products.

Recently, Hite-Jinro's Toad has become one of the most iconic alcohol brand characters in Korea. Hite-Jinro was the first in the Korean alcohol industry to introduce a corporate character, and Toad played a pivotal role in establishing the brand's identity. This move proved highly successful, as Hite-Jinro sold an impressive 100 million bottles within just seven months, resonating with consumers across all age groups. Hite-Jinro Toad, with its retro aesthetic, became a nationwide sensation, appearing prominently in alcoholic beverage advertisements, merchandise, and pop-up stores. Going beyond traditional advertisements, the Toad character gained immense popularity, leading to the opening of the first-ever alcoholic beverage character shop in Korea. Additionally, Hite-Jinro leveraged the Toad character to produce various lifestyle goods, including refrigerators, dolls, and figures, which maximized brand exposure and fostered consumer engagement through collaborations with fashion and convenience stores (Choi, 2022). For example, the Hite-Jinro Toad-shaped refrigerators achieved sales of more than 100 million won within the first 10 minutes of their release and exceeded 250 million won in sales within three days (Choi, 2022).

One major concern with brand character marketing, especially when targeting Generation Z, is that it exposes consumers to alcohol marketing without time or place restrictions. Alcohol brand character marketing subtly integrates into daily life beyond alcoholic beverages, which appear on items such as refrigerators, dolls, and pajamas. For example, Hite-Jinro Toad dolls are available for children aged four and older, and products like gum and snacks featuring the Hite-Jinro Toad character are openly displayed in convenience stores. The issue arises when alcohol brand characters are used in products outside the alcoholic beverage category. In such cases, they are not classified as promotions or advertisements for alcoholic products, rendering even the minimal regulations of the National Health Promotion Act ineffective. The use of such alcohol brand characters in non-alcoholic products negatively impacts not only potential customers, including teenagers but also, adult drinking behavior, highlighting the need for regulation.

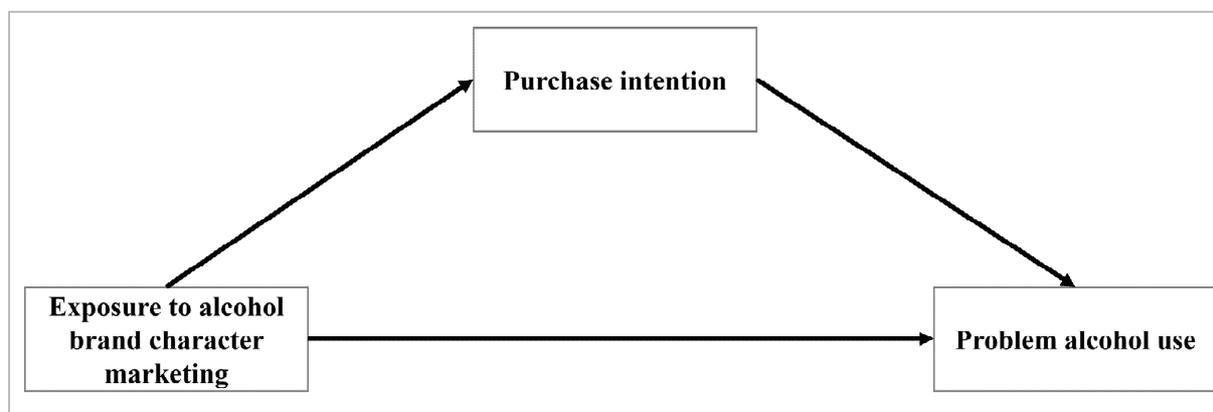
Moreover, marketing that utilizes alcohol brand characters is a relatively new strategy, resulting in limited research on the subject. However, numerous previous studies have revealed the impact of alcohol marketing on adult drinking behavior. This impact is explained by various theories, with Robert Zajonc's Mere Exposure Effect being particularly notable. According to this theory, an individual's simple and repetitive exposure to a stimulus is enough to develop a more favorable attitude toward it (Zajonc, 1968). Alcohol marketing contributes to the development of permissive perceptions of drinking (Fleming et al., 2004; McClure et al., 2013). As a societal environmental factor encouraging drinking, alcohol marketing fosters positive attitudes and affinity toward alcohol by presenting it in an idealized and appealing manner. Moreover, it shapes expectations and intentions regarding alcohol consumption (Alhabash et al., 2016; Bain et al., 2022; Carah & Brodmerkel, 2021; Fleming et al., 2004; Room & O'Brien, 2021). Affinity for alcohol marketing is a significant factor influencing future alcohol consumption and drinking behavior (Chen et al., 2005; Smith & Foxcroft, 2009).

In summary, repeated exposure to alcohol through alcohol marketing can foster positive attitudes and affinity toward alcohol among consumers, ultimately leading to an increase in purchase intention. Recently, emerged alcohol brand character marketers often collaborate with various non-alcoholic products and frequently fall into regulatory blind spots. As a result, it is expected to have greater exposure than traditional alcohol marketing and a more significant impact. Survey results have indicated that 80.8% of adults hold highly favorable views of alcohol brand characters (KHPI, 2021). In other words, exposure to alcohol brand character marketing is likely to foster a positive image not only of the brand character but also of the brand and the alcoholic beverages themselves, ultimately increasing purchase intention. Therefore, this study aims to examine the influence of exposure to alcohol brand character marketing on problem alcohol use, focusing on the mediating role of purchase intention. Our research model and corresponding hypotheses are presented below.

Hypothesis 1. Alcohol brand character marketing increases the risk of problem alcohol use.

Hypothesis 2. Purchase intention mediates the relationship between alcohol brand character marketing and problem alcohol use.

Figure 1. Research model



II. Method

1. Data sources and the sample

This study utilizes data from the 2021 Public Survey on Preventing Alcohol-related Harm, an online cross-sectional survey conducted nationwide by the Korea Health Promotion Institute. The survey targeted a representative sample of 3,600 adults, both men and women, aged 20 - 70 years. The sample was stratified by age, gender, and region, on the basis of population statistics from the Korean Census Data of the Ministry of the Interior and Safety as of November 2021, ensuring proportional allocation. For this analysis, we focused on the responses of 2,995 individuals who reported consuming alcohol in the past 12 months, as indicated by their affirmative response to the question, "Have you consumed alcohol in the past 12 months?". The survey received approval from the Institutional Review Board (IRB) under the code 2111-HR-059-01.

2. Measures

1) Independent variable: Exposure to alcohol brand character marketing

'Exposure to alcohol brand character marketing' refers to promotional activities using alcohol brand characters in merchandise, food, and related products (Choi, 2022). Examples of exposure to alcohol brand character marketing include the use of alcohol characters for food marketing, dolls and toys, home and living, and clothing. To measure this, participants were asked, 'How often have you experienced alcohol character marketing (excluding alcohol product sales marketing) in the last year?' In addition, related images of alcohol brand characters marketing goods, such as Hite-Jinro's Toad, were shown to the participants. The responses were scored as follows: 'Never' (1), '3–4 times a year' (2), '1–2 times a month' (3), '1–2 times a week' (4), and 'Almost daily' (5). While this variable is ordinal, previous research has treated Likert scales as continuous for analytical purposes (Norman, 2010). Higher scores reflected greater exposure to alcohol brand character marketing, excluding direct alcohol sales marketing.

2) Dependent variable: Problem alcohol use

To measure problem alcohol use, we utilized the Korean version of the Alcohol Use Disorders Identification Test (AUDIT-K), developed by the World Health Organization (WHO) and validated by Lee et al. (2000). The AUDIT-K consists of a total of 10 items, covering hazardous alcohol use, dependence symptoms, and harmful alcohol use. Higher scores are interpreted as indicating a higher level of problem alcohol use. The Cronbach's α for the scale in this study was .890.

3) Mediate variables: Purchase intention

"Purchase intention" refers to participants' liking and intention to purchase alcohol brand characters, measured through two items. Purchase intention was assessed via a 4-point Likert scale, which was based on the likability measurement items from the study by Ajzen and Fishbein (2000). After viewing the same character marketing image used as the independent variable question, such as Hite-Jinro's Toad, the participants were asked, 'Do you like this marketing?' and 'Do you intend to purchase the product?'. Responses were recorded on a 4-point Likert scale ranging from 1 to 4, with higher scores indicating a stronger preference for alcohol brand characters. The response options for each item were: "Strongly disagree" (1), "Disagree" (2), "Agree" (3), and "Strongly agree" (4).

4) Control Variables

On the basis of the literature review findings (Lee, 2006; Lee & Roh, 2011; Park & Lee, 2021), we identified sociodemographic variables and alcohol-related variables as potential factors influencing the relationships between variables, which were treated as control variables. The sociodemographic variables are gender, age, education level, occupation status, and household income. Gender was recorded as a dummy variable (0 for 'male' and 1 for 'female'). Age and household income were measured as continuous variables. Educational level and occupation status were treated as dummy variables on the basis of the assumption that differences in work

environment and economic stability could influence specific patterns and attitudes. Education level was recorded as a dummy variable (0 for 'college graduate or above' and 1 for 'high school graduate or below'), following the method used by Park & Lee (2021). Occupation status was recorded as a dummy variable (0 for 'white-collar' and 1 for 'others'), on the basis of the approach of Kang (2015). For income, participants were asked to select from six categories: less than 200 ten thousand won, 200–400 ten thousand won, 400–600 ten thousand won, 600–800 ten thousand won, 800–1,000 ten thousand won, or more than 1000 ten thousand won. The alcohol-related variable is alcohol advertising exposure (Fleming et al., 2004; McClure et al., 2013), measured on a 5-point Likert scale to assess the extent of exposure to alcohol advertising in the past year.

3. Data Analysis

The data were analyzed via SPSS 27.0 and the PROCESS macro v 4.1 (Hayes, 2017). Descriptive statistics were calculated to identify the participants' general characteristics, and Spearman correlation analysis was carried out to examine the relationships between variables. The bootstrap method, implemented through the SPSS Macro Process Program, was applied to verify the mediating effect of purchase intention in the process of exposure to alcohol brand character marketing and problem alcohol use. Our study was analyzed at a 95% confidence level, and 5,000 bootstrapping iterations were performed.

III. Result

1. Sociodemographic profile

Table 1 presents the descriptive statistics of the major sociodemographic characteristics of the survey participants in this study, which consisted of 2,955 adults aged 19–69 years. The analysis results for gender, age group, marital status, education level, occupation status, and house income are as follows: Male (54.1%), Female (45.9%); Married (64.6%), Unmarried (35.4%); College graduate or above (79.7%), High school graduate (20.3%); White-collar (50.7%), Others (49.3%). Income was highest in the 200 - 400 ten thousand won category (30.0%) and the 400 - 600 ten thousand won category (28.8%).

Table 1. General characteristics of the participants

Variable	Total		Male		Female		
	N	(%)	N	(%)	N	(%)	
Total	2,955	(100)	1,619	(54.1)	1,376	(45.9)	
Age group	20 - 29	553	(18.5)	294	(9.8)	259	(8.6)
	30 - 39	563	(18.8)	300	(10.0)	263	(8.8)
	40 - 49	677	(22.6)	365	(12.2)	312	(10.4)
	50 - 59	689	(23.0)	373	(12.5)	316	(10.6)
	60 or over	513	(17.1)	287	(9.6)	226	(7.5)

Variable		Total		Male		Female	
		N	(%)	N	(%)	N	(%)
Marital status	Unmarried	1061	(35.4)	579	(19.3)	482	(16.1)
	Married	1934	(64.6)	1040	(34.7)	894	(29.8)
Educational level	High school graduate	608	(20.3)	1368	(45.7)	1019	(34.0)
	College graduate or over	2387	(79.7)	251	(8.4)	357	(11.9)
Occupation status	White collar	1519	(50.7)	955	(31.9)	564	(18.8)
	others	1476	(49.3)	664	(22.2)	812	(27.1)
Income (Unit : thousand won, month)	less than 200	241	(8.0)	111	(3.7)	130	(4.3)
	200 - 400	899	(30.0)	469	(15.7)	430	(14.4)
	400 - 600	864	(28.8)	488	(16.3)	376	(12.6)
	600 - 800	545	(18.2)	291	(9.7)	254	(8.5)
	800 - 1,000	275	(9.2)	154	(5.1)	121	(4.0)
	over 1,000	171	(5.7)	106	(3.5)	65	(2.2)

Table 2 presents the general characteristics of the participants on basis of their exposure to alcohol brand character marketing. The table provides descriptive statistics for various socio-demographic variables such as gender, age group, marital status, education level, job status, and monthly income.

In terms of gender, men (54.1%) and women (45.9%) presented varying levels of exposure to alcohol brand character marketing. Among men, 33.4% reported exposure '1-2 times a month', and 22.2% reported exposure '1-2 times a week'. Similarly, among women, 30.3% reported exposure '1-2 times a month', and 23.6% reported exposure '1-2 times a week'. In terms of age group, 37.5% of the participants aged 30 - 39 years reported exposure '1-2 times a month', and 30.4% reported exposure '1-2 times a week', indicating the highest exposure rates. The participants aged 20 - 29 years reported similar levels of exposure, with 37.3% exposed '1-2 times a month' and 26.9% exposed '1-2 times a week.'

With respect to education level, 32.1% of high school graduates reported exposure '1-2 times a month', and 23.3% reported exposure '1-2 times a week'. College graduates or participants with higher education reported similar levels of exposure, with 31.6% reporting '1-2 times a month' and 21.2% reporting '1-2 times a week'. To job status, 33.8% of white-collar workers reported exposure '1-2 times a month', and 24.3% reported exposure '1-2 times a week.' The participants in other occupations reported similar exposure levels, with 30.1% exposed '1-2 times a month' and 21.4% exposed '1-2 times a week.' Finally, income data revealed that 33.7% of the participants earning between 2 and 4 million won monthly were exposed '1-2 times a month', and 22.5% were exposed '1-2 times a week'. The participants earning between 4 and 6 million won were closely followed, with 31.8% exposed '1-2 times a month' and 24.7% exposed '1-2 times a week.'

Table 2. General characteristics of participants based on exposure to alcohol brand character marketing

Variable		Never		3-4 times a year		1-2 times a month		1-2 times a week		Almost daily	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Gender	Male	362	(22.4)	278	(17.2)	541	(33.4)	360	(22.2)	78	(4.8)
	Female	296	(21.5)	232	(16.9)	417	(30.3)	325	(23.6)	106	(7.7)

Variable		Never		3-4 times a year		1-2 times a month		1-2 times a week		Almost daily	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Age group	20 – 29	73	(13.2)	86	(15.6)	206	(37.3)	149	(26.9)	39	(7.1)
	30 – 39	63	(11.2)	76	(13.5)	211	(37.5)	171	(30.4)	42	(7.5)
	40 – 49	130	(19.2)	121	(17.9)	217	(32.1)	155	(22.9)	54	(8.0)
	50 – 59	207	(30.0)	137	(19.9)	196	(28.4)	122	(17.7)	27	(3.9)
	60 or over	185	(36.1)	90	(17.5)	128	(25.0)	88	(17.2)	22	(4.3)
Marital status	Unmarried	166	(15.6)	173	(16.3)	396	(37.3)	249	(23.5)	77	(7.3)
	Married	492	(25.4)	337	(17.4)	562	(29.1)	436	(22.5)	107	(5.5)
Education level	High school graduate	504	(21.1)	421	(17.6)	766	(32.1)	556	(23.3)	140	(5.9)
	College graduate or over	154	(25.3)	89	(14.6)	192	(31.6)	129	(21.2)	44	(7.2)
Occupation status	White collar	283	(18.6)	262	(17.2)	513	(33.8)	369	(24.3)	92	(6.1)
	others	375	(25.4)	248	(16.8)	445	(30.1)	316	(21.4)	92	(6.2)
Income (Unit : thousand won, month)	less than 200	74	(30.7)	33	(13.7)	73	(30.3)	45	(18.7)	16	(6.6)
	200 – 400	189	(21.0)	142	(15.8)	303	(33.7)	202	(22.5)	63	(7.0)
	400 – 600	190	(22.0)	157	(18.2)	266	(30.8)	213	(24.7)	38	(4.4)
	600 – 800	105	(19.3)	103	(18.9)	180	(33.0)	123	(22.6)	34	(6.2)
	800 – 1,000	58	(21.1)	50	(18.2)	82	(29.8)	67	(24.4)	18	(6.5)
	over 1,000	42	(24.6)	25	(14.6)	54	(31.6)	35	(20.5)	15	(8.8)

2. Relationship between the main variables

Table 3 presents the results of the normality evaluation for three key variables: exposure to alcohol brand character marketing, purchase intention, and problem alcohol use. A statistically significant difference was observed in the frequency of exposure to alcohol brand character marketing between males ($M = 2.70$, $SD = 1.18$) and females ($M = 2.79$, $SD = 1.24$) ($t = -2.07$, $p < .05$). For purchase intention, however, the means for males ($M = 4.78$, $SD = 0.79$) and females ($M = 4.98$, $SD = 0.80$) did not significantly differ ($t = -1.12$, $p > .05$). Finally, problem alcohol use was significantly different between males ($M = 22.13$, $SD = 8.38$) and females ($M = 18.08$, $SD = 8.69$), with a highly substantial t-test result ($t = 12.95$, $p < .001$).

Overall, the skewness and kurtosis values for all the variables fall within acceptable ranges, suggesting that the assumption of normality is not severely violated. Specifically, the absolute values of skewness are all less than 3, and the absolute values of kurtosis are all less than 8, indicating that the data meet the criteria for normality.

Table 3. Evaluation of normal distribution

Variables		<i>M</i>	<i>SD</i>	<i>T</i>	Min-Max	Skewness	Kurtosis
Exposure to alcohol brand character marketing	Male	2.70	1.18	-2.07*	1-5	-.04	-.99
	Female	2.79	1.24				
Purchase intention	Male	4.78	.79	-1.12	1-8	-.31	-.71
	Female	4.98	.80				
Problem alcohol use	Male	22.13	8.38	12.95***	0-30	.54	-.62
	Female	18.08	8.69				

p*<.05, *p*<.001.

Table 4 presents the results of the correlation analysis between the main variables. The correlation coefficients among the main variables did not exceed the threshold of 0.8, with absolute values ranging from .311 - .417. Similarly, the variance inflation factor (VIF) values ranged from 1.040 - 2.203, well below the threshold of 10, indicating no issues with multicollinearity.

Table 4. Correlation analysis and multicollinearity between the main variables

Variables	Exposure to alcohol brand character marketing	Purchase intention	Problem alcohol use
Exposure to alcohol brand character marketing	1		
Purchase intention	.417***	1	
Problem alcohol use	.311**	.319**	1

p*<.01, *p*<.001.

3. Multiple regression analyses

Multiple regression analysis was conducted via SPSS, employing Model 4 of PROCESS for bootstrapping. The study examined the pathway from alcohol brand character marketing to problem alcohol use through purchase intention. The results of the analysis are presented in Table 5.

In our study, multicollinearity was not an issue, as the variance inflation factor (VIF) values were below 10 (Belsley et al., 1980). The model's adjusted R-squared is 0.205. In Step 1, we investigated the direct influence of alcohol brand character marketing on purchase intention. Alcohol brand character marketing had a significant positive effect on purchase intention ($\beta = .381, p <.001$), indicating an increased likelihood of purchase intention. Among the sociodemographic variables, being male ($\beta = -.036, p <.05$), having a higher education level ($\beta = -.052, p <.01$), and working in a white-collar occupation ($\beta = -.047, p <.01$) were associated with a greater level of purchase intention. Additionally, greater exposure to alcohol advertising ($\beta = -.065, p <.001$) increased the likelihood of purchase intention.

In Step 2, we examined the direct influence of alcohol brand character marketing on problem alcohol use. Alcohol brand character marketing had a significant positive effect on problem alcohol use ($\beta = .270, p <$

.001), indicating an increased likelihood of problem alcohol use. Among the sociodemographic variables, being male ($\beta = -.237$, $p < .001$), being younger ($\beta = -.100$, $p < .001$), having a higher education level ($\beta = -.075$, $p < .001$), and working in a white-collar occupation ($\beta = -.047$, $p < .01$) were associated with a higher level of problem alcohol use. Additionally, among alcohol-related variables, alcohol advertising exposure was positively associated with a greater likelihood of problem alcohol use ($\beta = .053$, $p < .001$).

In Step 3, both the independent and mediating variables were included to examine their influence on problem alcohol use. Alcohol brand character marketing ($\beta = .190$, $p < .001$) and purchase intention ($\beta = .211$, $p < .001$) each had a significant positive effect on problem alcohol use, indicating that both factors increase the likelihood of problem alcohol use. Among the sociodemographic variables, being male, being younger, having a higher education level, and working in a white-collar occupation were associated with a higher level of problem alcohol use. Additionally, among the alcohol-related variables, alcohol advertising exposure demonstrated a positive association with problem alcohol use.

The gender finding in Step 3 is particularly noteworthy. In Steps 1 and 2, the gender coefficient is negative, indicating that males exhibit greater purchase intentions and a greater tendency toward problem alcohol use than females do. However, in Step 3, where purchase intention is included as a mediator, the gender coefficient becomes positive. This shift suggests that purchase intention mediates the relationship between gender and problem alcohol use. Specifically, while males show a stronger direct association with problem alcohol use, the inclusion of purchase intention reveals an indirect pathway through which females, with higher levels of purchase intention, may be more likely to engage in problem alcohol use. This finding implies that purchase intention associated with alcohol brand character marketing partially explains and even reverses the effect of gender on problem alcohol use, underscoring its role as a critical mediator in this relationship.

This study identified the effects of alcohol brand character marketing on problem alcohol use through a preference for alcohol brand marketing. Table 6 displays the significant total effect ($B = 1.860$, $p < .001$) and direct effect ($B = 1.307$, $p < .001$) of alcohol brand character marketing on problem alcohol use. Thus, it can be concluded that purchase intentions partially mediate the path from alcohol brand character marketing to problem alcohol use. To statistically confirm the mediation effect, 5,000 rounds of bootstrap analysis were conducted, as shown in Table 6. In bootstrap analysis, a mediating effect is considered statistically significant if the confidence interval for the mediation effect does not include 0. In our model, the mediating effect was .553, with a confidence interval of [0.445, 0.666], which was significant at the 95% confidence level. Figure 2 shows the effect size.

Table 5. Multiple regression

Variables	Step 1.			Step 2.			Step 3.		
	Purchase intention			Problem alcohol use			The mediated model		
	β	SE	t	β	SE	t	β	SE	t
(constant)	-	.086	19.335	-	.906	13.294	-	.940	8.923
Exposure to alcohol brand character marketing	.381***	.013	19.940	.270***	.133	14.012	.190***	.138	9.460
Purchase intention	-	-	-	-	-	-	.211***	.188	11.663
Gender (ref.=Male)	-.036*	.027	-2.146	-.237***	.285	13.862	.229***	.279	-13.703

Variables	Step 1.			Step 2.			Step 3.		
	Purchase intention			Problem alcohol use			The mediated model		
	β	SE	t	β	SE	t	β	SE	t
Age	-.014	.001	-0.789	-.100***	.011	-5.669	.097***	.011	-5.627
Educational attainment (ref.= College graduate or over)	-.052**	.035	-2.943	-.075***	.369	-4.188	.064***	.361	-3.649
Occupation status (ref.=White collar)	-.043*	.028	-2.414	-.047**	.296	-2.642	.038*	.290	-2.184
Income	.026	.011	1.531	.025	.112	1.452	.020	.109	1.157
Alcohol advertising	.065***	.013	3.430	.053***	.139	2.740	.039*	.137	2.065
R ²	18.25			16.83			20.45		
F(sig.)	95.247***			86.344***			95.968***		
N	2,996								

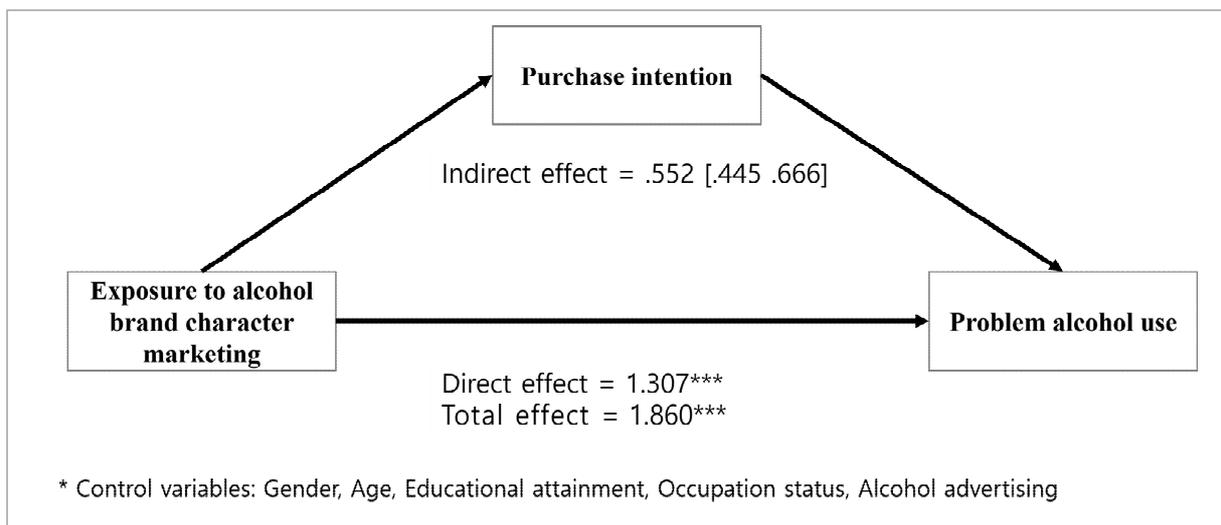
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 6. Total effect, Direct effect and Mediation effect

Pathway		Effect	SE	t	
Total effect	Exposure to alcohol brand character marketing → Purchase intention → Problem alcohol use	1.860	.133	14.012***	
Direct effect	Exposure to alcohol brand character marketing → Problem alcohol use	1.307	.138	9.460***	
Mediation effect (indirect effect)		Effect	BootSE	BootLLCI	BootULCI
Exposure to alcohol brand character marketing → Purchase intention → Problem alcohol use		.553	.056	.445	.666

*** $p < .001$.

Figure 2. Effects of alcohol brand character marketing on problem alcohol use: the mediating effect of Purchase intention



IV. Discussion

In Korea, where high-risk drinking is prevalent and alcohol marketing regulations are relatively lax, the alcohol industry has adapted by incorporating brand characters into the marketing of non-alcoholic products, such as food and toys. This strategy operates within a legal gray area, effectively bypassing current regulations on alcohol advertising. Individuals who develop a strong preference for alcohol brand characters in food and toy marketing may begin associating these characters with drinking behaviors, potentially leading to problems with alcohol use. Our study contributes to the literature by examining how adult drinkers respond to alcohol brand character marketing. Specifically, we explored whether alcohol brand character marketing, which is distinct from traditional alcohol advertising, significantly influences problem alcohol use, with a focus on verifying the mediating effect of purchase intention. Our key findings are as follows.

First, this study revealed a significant impact of alcohol brand character marketing on problem alcohol use, which is consistent with previous research identifying alcohol marketing as a risk factor for increased problem drinking (Alhabash et al., 2016; Fleming et al., 2004; Gordon et al., 2010; Grenard et al., 2013). While extensive research has examined the influence of conventional alcohol marketing, investigations into the effects of newer marketing methods, such as alcohol brand character marketing, have been limited (Gordon et al., 2010; Grenard et al., 2013). This study is therefore particularly significant in exploring the impact of alcohol brand character marketing on problem alcohol use and identifying the specific pathway by which this marketing strategy influences problem drinking behavior. In South Korea, regulations currently apply only to traditional alcohol marketing (Park & Oh, 2021), leaving alcohol brand character marketing unregulated. This study underscores the need not only to strengthen marketing regulations for alcohol products to help reduce and prevent problem alcohol use but also to establish systematic laws and institutional regulations specifically targeting alcohol brand character marketing.

Second, we verified the mediating effect of purchase intention on the relationship between alcohol brand character marketing and problem alcohol use. This finding aligns with the theory of mere exposure, which suggests that preference and intention increase with repeated exposure (Bain et al., 2022; Stokols, 1996). In our study, we confirmed that exposure to alcohol brand character marketing, which is distinct from general alcohol advertising, increases purchase intention. Similarly, Weintraub and Knaus (2000) reported that increased exposure to alcohol marketing leads to greater preference, indicating that such marketing fosters positive perceptions and attitudes toward drinking. Furthermore, purchase intention was significantly associated with problem alcohol use—higher purchase intention was correlated with increased problem drinking. This result aligns with prior research showing that a positive perception of a brand contributes to heightened alcohol-related issues (Critchlow et al., 2019; McClure et al., 2013; Purves et al., 2018). Preference and purchase intentions are critical in marketing, as industries widely acknowledge that increasing these factors increases the likelihood of product purchase (Park et al., 2023). While alcohol product preference has previously been viewed as a contributor to problem alcohol use, our study confirms that alcohol brand character marketing can heighten purchase intention and, in turn, contribute to problem alcohol use.

Third, beyond marketing that uses alcohol brand characters, general exposure to alcohol advertising has also been shown to increase the likelihood of problem alcohol use. This highlights the importance of reviewing

the effectiveness of current alcohol marketing regulations and exploring strategies to reduce excessive exposure. This underscores the need for stricter regulations and increased vigilance toward alcohol marketing aimed at younger generations. Additionally, younger individuals were found to be more vulnerable to problem alcohol use. This could reflect the alcohol industry's targeted marketing strategies, which increase exposure and, consequently, the likelihood of problem drinking in younger demographics. Educational attainment and occupational status also had significant effects on both purchase intention and problem alcohol use. Individuals with higher educational attainment, especially those in white-collar occupations, were more likely to show higher purchase intention and problem alcohol use. These findings may suggest that these groups experience a greater degree of social and cultural acceptance of alcohol consumption or may use alcohol as a form of stress relief.

Fourth, while males demonstrate a stronger direct connection to problem alcohol use, the inclusion of purchase intention uncovers an indirect pathway where females exhibit greater purchase intention and may be more likely to experience problem alcohol use. This finding suggests that purchase intention related to alcohol brand character marketing partially accounts for and even reverses the impact of gender on problem alcohol use, highlighting its important role as a mediator in this relationship. This means that the effect of exposure to alcohol brand character marketing, mediated by purchase intent, leads to problem drinking more significantly in women than in men. Alcohol brands target women through their character marketing, which has been identified as a factor contributing to increased problem drinking among women. Therefore, stricter regulations on alcohol marketing targeting women are necessary. Without proper regulation, it is predicted that the level of problem drinking among women will rise, creating a vicious cycle.

On the basis of our research findings, we propose the following empirical and policy interventions for alcohol brand character marketing. First, regulations should extend beyond traditional alcohol marketing to include alcohol brand character marketing, given its potential to heighten purchase intention and contribute to the problem of alcohol use. Exposure to alcohol brand characters increases preferences and purchase intention for alcohol, fostering a positive perception of alcohol consumption that can exacerbate problem drinking behaviors and lead to broader societal issues. Given the increased likelihood of alcohol purchases associated with brand character preference, efforts should focus on limiting marketing content that promotes favorable attitudes toward alcohol or evokes empathy for alcohol brands. Such measures could help reduce the appeal and promotional impact of alcohol marketing. Additionally, it is crucial to implement and strengthen laws and guidelines that enable at least minimal oversight of all marketing activities conducted by the alcohol industry.

Second, at the national, educational, and community levels, it is crucial to enhance alcohol marketing literacy to equip consumers with the skills to recognize and critically interpret marketing strategies. Literacy involves the ability to understand and apply essential information (Baker, 2006; DeWalt et al., 2004). Alcohol marketing literacy specifically refers to individuals' ability to comprehend how alcohol brands use various marketing tactics—including traditional advertisements, sponsorships, and increasingly, brand characters—to shape perceptions and behaviors related to drinking. Building alcohol marketing literacy empowers individuals to critically analyze the messages embedded within alcohol brand marketing. This is especially important, as alcohol brands integrate their brand characters into everyday contexts, making the marketing less overt yet equally, if not more, influential. Enhancing marketing literacy will require comprehensive educational programs in schools and communities, and public health campaigns. Additionally, coordinated efforts among government policies, school

curricula, and public health initiatives are essential to make alcohol marketing literacy accessible to all segments of the population.

Third, the results indicate that, for men, there is a strong direct relationship between brand character marketing and problem alcohol use. In contrast, for women, purchase intention driven by brand character marketing is more likely to lead to problems with alcohol use. This suggests that brand character marketing may significantly influence women's purchase intentions, potentially leading to problems with alcohol use. Moreover, the alcohol industry uses brand characters, such as dolls, collectibles, and household items, to produce and sell non-alcoholic merchandise. This strategy can create a positive image of drinking and may indirectly promote alcohol consumption. Therefore, a strict regulatory and monitoring system is essential to prevent the alcohol industry from promoting drinking culture through non-alcoholic marketing tactics, such as the use of brand characters. In particular, further research exploring the social and psychological effects of brand characters on female consumers' purchase intent and alcohol use problems is needed to develop effective regulatory measures. Ultimately, these efforts are expected to play a critical role in preventing problem alcohol use among women and fostering a healthy drinking culture.

However, this study has several limitations, as it used cross-sectional data and measured alcohol brand character marketing on the basis of participants' recollections of past drinking and their subjective perceptions. Therefore, a longitudinal study should be conducted to clarify causal relationships more accurately, and it is necessary to collect objective data in addition to participants' subjective responses. Furthermore, future studies should analyze whether the impact of alcohol brand character marketing on problem drinking varies by age group and gender.

V. Conclusion

Despite these limitations, this study has significant implications for Korea, where alcohol brand character marketing has recently emerged without regulation. While previous research has focused mainly on the impact of marketing restricted to alcoholic products, this study is distinguished by its focus on marketing that incorporates alcohol brand characters alongside non-alcoholic products. This study represents the first comprehensive examination of the effects of alcohol brand character marketing on problem alcohol use and the mediating role of purchase intention. The results emphasize the importance of regulating brand characters and extending marketing regulations beyond just alcoholic products as a means to effectively reduce problem alcohol use. Additionally, the inclusion of alcohol advertising exposure as a control variable to analyze the unique effects of alcohol brand character marketing is particularly noteworthy. We hope that the findings of this study will inspire further research in this area.

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주류업계의 캐릭터 마케팅 노출이 성인 음주문제 수준에 영향을 미치는가?:

캐릭터 구매의도의 매개효과

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| 초 록 |

최근 주류업계의 마케팅은 Z세대를 겨냥하여 자사 주류캐릭터를 개발하여 주류광고, 인형, 식품 등 다양한 방향으로 활용하고 있다. 이런 공격적인 마케팅은 청소년뿐만 아니라 주류제품의 주 소비자인 성인 음주문제 수준에도 영향을 미치며 결과적으로 음주로 인한 폐해를 발생시킨다. 본 연구는 주류업계의 캐릭터 마케팅 노출이 성인 음주문제 수준에 미치는 영향을 살펴보고, 그 관계에서 주류캐릭터 구매 의도의 매개효과를 검증하였다. 이를 위해 2021년 11월 전국 17개 시도 20세 이상 70세 미만 성인 3,600명을 대상으로 온라인 설문조사를 실시하였으며, 본 연구에서는 최근 12개월 내 음주한 경험이 있다고 응답한 2,995명의 자료만 분석하였다. 독립변수인 주류캐릭터 마케팅 노출은 최근 1년간 주류 제품을 제외한 식품, 장난감 등 비주류 제품에서 노출된 주류캐릭터 마케팅 수준을 측정하였으며, 음주문제 수준은 AUDIT-K 척도, 주류캐릭터 구매 의도는 캐릭터 자체의 호감도와 구매 의도를 합산하여 측정하였다.

주요 분석 결과 주류캐릭터 마케팅 노출은 음주문제 수준에 정적 영향을 끼치는 것으로 밝혀졌으며, 캐릭터 구매 의도는 주류캐릭터 마케팅 노출과 음주문제 수준을 부분매개하는 것으로 나타났다. 연구 결과, 주류광고뿐만 아니라 최근 급증하고 있는 주류업계의 비주류제품 캐릭터 마케팅 또한 음주조장환경의 요인이며 음주폐해예방을 위해 규제가 필요함을 제안하였다.

주요 용어: 주류캐릭터, 주류 마케팅, 음주문제, 주류캐릭터 구매의도