





Public Perception Towards Drug Abuse in South Korea: The Effects of Overconfidence and Affirmation

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Objective The abuse of prescription drugs and over-the-counter medicines has been a major issue addressed as a serious public health problem worldwide. This study explored factors contributing to substance abuse in Korea by examining the status of substance abuse among Korean adults and evaluating their knowledge, attitudes, and intentions toward substance abuse.

Methods Data were collected online from a sample of participants 19 years old or older from May 20 to June 1, 2020 (n=1,020). The survey consisted of questions on demographics, perceptions of drug risk, motives for drug use, and attitudes toward drug addiction treatment. Principal component and multiple logistic regression analyses were used to explore the factors contributing to the perception of drug abuse.

Results In the multivariate regression analysis, overconfidence in handling drug usage, acceptance of addictive substances, and affirmation of public support for drug abuse were associated with opioid abuse (Nagelkerke $R^2=0.486$), and additionally affirmation of legal cannabis usage and motivation to use diet pills were associated with diet pill abuse (Nagelkerke $R^2=0.569$).

Conclusion The findings of this study suggest that the actual situation of substance abuse among Korean adults increases awareness of and attitudes toward drug use related to substance abuse.

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Keywords Drug abuse; Drug addiction; Substance abuse; Prescription drug abuse; Perception.

INTRODUCTION

Narcotics have traditionally been strictly regulated in South Korea. However, as the importance of the excellent pharmacological effects of some narcotics has gradually been recognized, the prescription of cannabis-based drugs for medical

purposes was finally legalized for patients with rare intractable diseases in Korea in 2019. Currently, only limited use of medical narcotics, including cannabis and opioids, is permitted. Nevertheless, considering the cases in the United States and Europe, it is worrisome that the abuse of prescription drugs will negatively impact Korean society.

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Prescription drug abuse, also referred to as abuse or non-medical use, is generally defined as use without a prescription or for a purpose other than prescribed by a physician.¹ It is now regarded as a major public health concern worldwide.² In the United States, with the rapid increase in prescription drug abuse, it has been reported to outpace illicit drug use such as methamphetamine and heroin.³ According to a national survey on addiction in Korean society, it was shown that 17% of the cases of continuous abuse of nine prescription drugs (painkillers, tranquilizers, antihistamines, cough and cold medicines, sleeping pills, weight loss medicines, constipation medi-

cines, erectile dysfunction medicines, and nutritional tonics containing caffeine) with a high risk of addiction over the past year.⁴ Among them, it is worth noting that in addition to the most frequently used narcotic analgesics, appetite suppressants are indiscriminately used due to cultural obsession with having a skinny body in Korea.⁵

Because prescription drug abuse is a national challenge, better public understanding and awareness are required to minimize the risk of substance use. Due to the expanded use and availability of prescription drugs in primary care settings, their abuse could be a more serious problem than illicit drugs.^{6,7} Compared to illicit drugs, prescription drugs provide less legal pressure and are not easily detected by others.⁸ Nevertheless, many individuals still have a common misperception that prescription drug abuse is safe because these drugs are regulated pharmaceuticals with legal and medical uses.⁹ According to data used in this study from the Public Perception Survey of Drug Abuse conducted by the National Academy of Medicine of Korea, a significant number of civilians do not know the risks and symptoms of addiction and dependence on opioid peptides and appetite suppressants, as well as how to cope with these addictive drugs.¹⁰

As such, the public's ignorance, misperception of safety, and permissive attitudes on prescription drug abuse could lead to motives and behaviors toward drugs, resulting in addiction. What is important in the realm of substance use is not only determining prevalence and patterns, but also the general public's perception toward drug abuse, and improving them plays an important role in addressing this concern.¹¹ There is a critical need to better understand the factors defining knowledge, perception, and attitudes that are involved in susceptibility. For example, one finding demonstrates that a factor labeled "drug attitudes" was the most latent to predict lower alcohol, narcotics, and cannabis use.¹² The four variables composing this factor were beliefs about negative consequences, normative beliefs, lifestyle incongruence, and commitments to not use drugs.¹² Other findings have shown that permissive attitudes toward drugs had the greatest effect on drug abuse over the past month, followed by life satisfaction and depression.¹³

However, since the regulation of narcotics has been strict in South Korea, the actual situation of the general public regarding drug abuse has been understudied. Moreover, while most existing studies have only investigated the level of knowledge, perceptions, and attitudes regarding prescription drug abuse in the general population, empirical evidence on the related factors contributing to abuse is still limited. Such investigations could be used to frame appropriate policies, campaigns, education, and interventions to improve public understanding and awareness of prescription drug abuse.

Thus, the present study aimed to understand the knowledge,

perceptions, and attitudes of the South Korean public regarding prescription drug abuse and to identify the factors that contribute to the risk of prescription drug abuse. The present study unraveled the factors constituting the general public's knowledge, perception, and attitude toward prescription drug abuse and investigated which factors affect prescription drug abuse of opioid analgesics and appetite suppressants. Specifically, this study asked about people's abuse experiences of opioids (narcotic pain relievers) and diet pills, measured their attitudes toward opiates or drugs, and analyzed their relationships to identify risk factors for drug abuse.

METHODS

Participants and procedure

This is an online survey, conducted in May 20 to June 1, 2020. This study conducted a quantitative online survey of the public opinion on substance abuse. The questionnaire was designed and reviewed by an advisory board comprising addiction psychiatrists from multiple centers and tertiary educational hospitals. The sample was drawn by distributing the national population into proportions based on regional sex and age (units of 10 years) and by employing stratified random sampling using the access panel owned by Hankook Research (<https://www.hrc.co.kr>), which comprised voluntary participants. The questionnaire assessed seven topics including participant demographics and backgrounds.

Potential participants were asked to participate in the survey on the online, and those who agreed to participate were moved to the survey page to complete the survey. An email was sent to 1,252 participants for a survey. A total of 232 participants were excluded from the study due to incomplete information. Voluntary participants completed the questionnaire online and were aware of their right to refuse without penalty. Detailed explanation of the survey and compensation was provided, and participants gave written consent with anonymity guaranteed. The survey was completed by a total of 1,020 participants, who were then compensated with a \$7.5 e-gift card in return for their participation. The questionnaire aimed to measure public awareness of drug abuse, knowledge of drug use/misuse, opinions on drug usage, and public policies related to drugs. The questionnaire consisted of six demographic questions, 55 plain questions, and four (validated) scale questions. The scale items were extracted from Barry et al's¹⁴ items regarding stigma or stereotypes against drug addicts and patients with mental illness. In the current study, these items were measured with a five-point Likert scale.¹⁵ In the assessment of the abuse of opioid medications and diet medications, participants were responded on whether they had utilized "opiate (narcotic) analgesics: morphine, nuvain, opioids, fen-

tanyl, oxycontin, etc.” and “diet drugs (phentermine, fendimethazine, marzindol, lorcaserin, belvic, dietamin, saxenda, etc.)” (yes vs. no).

Ethical approval, informed consent and confidentiality

The study design was approved by Hallym University Chuncheon Sacred Heart Hospital Institution Review Board (IRB: 2020-08-008-003). All study participants provided informed consent.

Data analysis

All statistical analysis in this study utilized the IBM SPSS Statistics 26.0 program (IBM Corp., Armonk, NY, USA). To reduce the number of predictors and obtain evidence of validity, principal component analysis (PCA) was conducted for dimension reduction before the main analysis. Multiple logistic regression analyses were conducted to identify the predictive ability of the latent variables for two dependent variables: opioid and diet pill abuse. The dependent variables were dichotomously coded based on the participants' answers as described in the Participants section. All statistical significance was analyzed based on $\alpha=0.05$.

RESULTS

A total of 1,020 participants registered as panel members on the Internet were invited to complete an online questionnaire. The participants comprised 518 men (51%) and 502 women (49%). One hundred eighty-five (18%) were aged 29 years or younger, 188 (18%) were aged 30–39, 226 (22%) were aged 40–49, 243 (24%) were aged 50–59, and 178 (17%) were aged 60 years or older. Regarding educational level, 9 (1%) had finished middle school or less, 205 (20%) had finished secondary school, 99 (10%) had finished college, and 707 (69%) had bachelor's degrees or more. Table 1 presents the demographic characteristics.

Among the participants, 99 respondents said they had been prescribed narcotic pain relievers, and 60 said they had been prescribed dietary pills. Fifteen patients were prescribed both drugs. Among the 99 patients who had been prescribed narcotic pain relievers, 13 answered that they had arbitrarily increased the dose compared to the prescribed dose (i.e., abused opioids). Among the 60 who had been prescribed diet pills, nine answered that they had abused pills. Five participants answered that they had abused both. No statistically significant differences in sex, age, or educational level were observed between those who abused opioids/diet pills and those who did not. However, women had significantly more experience with dietary pill prescriptions than men ($\chi^2=7.77$, $p=0.007$). Also, younger people were slightly more likely to be prescribed

Table 1. Demographic and characteristics of the participants (N=1,020)

Variable	N (%)
Gender	
Male	518 (50.8)
Female	502 (49.2)
Age (yr)	
19–29	185 (18.1)
30–39	188 (18.4)
40–49	226 (22.2)
50–59	243 (23.8)
≥60	178 (17.5)
Education	
Middle school or less	9 (0.9)
High school	205 (20.1)
College	99 (9.7)
Post-graduate	707 (69.3)
Experience with drug usage	
Narcotic pain relievers	99 (9.7)
Diet pills	60 (5.9)

diet pills ($r=-0.07$, $p=0.031$). No other demographic differences were observed in opioid/diet pill prescriptions.

Table 2 presents the rotated component matrix for the PCA. Based on the listwise missing value deletion, 898 individuals were analyzed for dimension reduction. Although 10 components with eigenvalues greater than one were observed, both the scree plot and parallel analysis recommended a seven-component solution. The seven extracted factors were rotated using the varimax orthogonal rotation method. The rotated components reported sums of squared loadings of 1.55–3.83.

According to this result, the items included in the same components were aggregated and considered a single latent variable. Table 3 shows the latent variables used in the main regression analysis and their interpretations. All the initially analyzed items were included in and only one latent variable. The values of the reverse-coded items were subtracted instead of added.

See Table 4 for the logistic regression models of the two dependent variables. In the initial models, the effects of L2 (overconfidence in handling drug usage), L5 (acceptance of addictive substances), and L6 (affirmation of public support for drug abuse) on opioid abuse were significant. Figure 1 shows the response percentages of the participants to the main items of the L2, L5, and L6 factors. However, for diet pill abuse, none of the six entered latent variables were significant despite their high explanatory power and odds ratios. This may have stemmed from the small sample size and concomitant low

Table 2. The rotated component matrix for the principal components analysis (N=898)

Item/variable	L1	L2	L3	L4	L5	L6	L7
Intention of asking for narcotic pain relievers*							0.587
Agreeing to use narcotic pain relievers							0.648
Using opioids outside of the clinician's control			0.233			-0.247	0.571
Experiences with opioids*							0.525
Overconfidence in one's knowledge of opiate abuse		0.727					
Overconfidence in one's coping skills with opiate abuse		0.836					
Dissatisfaction with one's body shape			-0.223	0.487	0.237	0.268	
Diet experiences*†				-0.551			
Preference for using diet pills*				0.620			
Intention to use diet pills after failing to lose weight				0.673			
Experiences with diet pills*				0.581			0.249
Overconfidence in one's knowledge of diet pill abuse		0.816					
Overconfidence in one's coping skills with diet pill abuse		0.871					
Being aware of medical cannabis*		0.247	0.328			0.240	
Agreeing to use cannabis for medical care			0.674			0.241	
Agreeing to the legalization of cannabis use for general purposes			0.705				
Agreeing to use medical cannabis			0.702				
Agreeing to include cannabis drugs into medical insurance							0.397
Belief in the improvement of drug abuse symptoms through medical treatment							0.440
Dispositional attribution of drug abuse‡				-0.235		-0.319	
Intention of getting medical treatment for drug abuse							0.519
Awareness of the risk of drinking	0.723						
Awareness of the risk of cigarettes	0.715						
Awareness of the risk of cannabis	0.809		-0.227				
Awareness of the risk of (medical) narcotics	0.832						
Awareness of the risk of opioids	0.858						
Awareness of the risk of diet pills	0.769						
Approving government support for drug abuse							0.578
Alcohol consumption					0.629		
Cigarette consumption					0.774		
Energy drink consumption			0.286	0.233	0.385		
Caffeine consumption					0.454	0.218	
Stereotypes about drug usage†‡			-0.213		-0.319	0.237	

Loadings with absolute values less than 0.2 were omitted. *dichotomous variable; †composite (average) of scale items; ‡reverse-coded item

statistical power. Therefore, backward regression models were adopted to better extract significant predictors.

The backward models for each dependent variable started with the initial models and were based on the Wald test. In each step, the predictor with the smallest Wald value was excluded until all predictors had a Wald value of at least 1. For the opioid abuse model, L1 (drug risk awareness), L7 (motivation to use opioids), and L3 (affirmation of legal cannabis usage) were excluded at each step, and the final result indicated the same information as the initial model. Looking at the

interaction effects, adding the product of L2 and L5 (L2×L5) resulted in a marginally significant increase in the proportion of the variance explained compared with the final (additive) model (Nagelkerke $R^2=0.064$, $p=0.063$). L5 and L1 were excluded from the diet pill abuse model, leaving only L2, L3 (affirmation of legal cannabis usage), L4 (motivation to use diet pills), and L6. No significant interaction effects were detected among predictors of dietary pill abuse.

In conclusion, both types of drug abuse were predicted by the following factors: first, overconfidence in one's own knowl-

Table 3. Latent variables for the main analysis

Component	Interpretations
L1: drug risk awareness	The degree to which one believes a series of additive drugs are harmful
L2: overconfidence in handling drug usage	Overconfidence in one's own knowledge and coping skills about drug abuse
L3: affirmation of legal cannabis usage	The degree to which one is familiar with drugs (especially, cannabis) and supportive of legal or medical cannabis usage
L4: motivation to use diet pills	Having previous experiences or current dissatisfaction that motivates or accelerates diet pill usage
L5: acceptance of addictive substances	Routinely intaking or not resistant to everyday addictive substances
L6: affirmation of public support for drug abuse	Approving government support or public healthcare for drug abuse treatment (low score indicates the belief that drug abuse is the responsibility of individuals)
L7: motivation to use opioids	Having the motivation to request or overdose on opioids or narcotics

Table 4. Logistic backward regression models for the two dependent variables

Variable	DV: opioid abuse			DV: diet pill abuse		
	B (SE)	Wald	OR (95% CI)	B (SE)	Wald	OR (95% CI)
Initial						
L1	-0.01 (0.09)	0.01	0.99 (0.84–1.18)	-0.14 (0.19)	0.54	0.87 (0.60–1.26)
L2	0.32 (0.14)	5.37*	1.38 (1.05–1.81)	0.72 (0.39)	3.46†	2.06 (0.96–4.41)
L3	0.10 (0.21)	0.20	1.10 (0.73–1.67)	1.13 (0.65)	2.99†	3.09 (0.86–11.11)
L4				0.85 (0.54)	2.47	2.35 (0.81–6.79)
L5	0.36 (0.14)	6.36*	1.43 (1.08–1.90)	-0.10 (0.23)	0.17	0.91 (0.57–1.43)
L6	-0.36 (0.16)	5.01*	0.70 (0.51–0.96)	-0.58 (0.39)	2.21	0.56 (0.26–1.20)
L7	-0.05 (0.30)	0.02	0.96 (0.54–1.71)			
Nagelkerke R ² =0.490				Nagelkerke R ² =0.584		
Step 2						
L1				-0.12 (0.18)	0.43	0.89 (0.63–1.26)
L2	0.32 (0.14)	5.34*	1.38 (1.05–1.81)	0.62 (0.26)	5.69*	1.85 (1.12–3.07)
L3	0.10 (0.21)	0.22	1.10 (0.73–1.66)	0.94 (0.44)	4.52*	2.57 (1.08–6.13)
L4				0.76 (0.48)	2.50	2.14 (0.83–5.49)
L5	0.36 (0.14)	6.47*	1.44 (1.09–1.90)			
L6	-0.36 (0.16)	5.39*	0.70 (0.51–0.95)	-0.54 (0.38)	2.01	0.58 (0.28–1.23)
L7	-0.05 (0.30)	0.02	0.95 (0.54–1.70)			
Nagelkerke R ² =0.490				Nagelkerke R ² =0.580		
Step 3						
L2	0.31 (0.13)	5.68*	1.37 (1.06–1.77)	0.60 (0.26)	5.46*	1.82 (1.10–3.00)
L3	0.10 (0.21)	0.22	1.10 (0.73–1.66)	1.01 (0.45)	4.96*	2.74 (1.13–6.66)
L4				0.82 (0.48)	2.95†	2.27 (0.89–5.81)
L5	0.35 (0.13)	7.25*	1.42 (1.10–1.84)			
L6	-0.36 (0.16)	5.36*	0.70 (0.51–0.95)	-0.68 (0.34)	4.00*	0.51 (0.26–0.99)
Nagelkerke R ² =0.489				Nagelkerke R ² =0.569		
Step 4						
L2	0.31 (0.13)	5.56*	1.37 (1.05–1.77)			
L5	0.38 (0.12)	10.26*	1.46 (1.16–1.85)			
L6	-0.36 (0.16)	5.30*	0.70 (0.52–0.95)			
Nagelkerke R ² =0.486						

Empty cells were excluded from the model. *p<0.05; †p<0.10. DV, dependent variable; SE, standard error; OR, odds ratio; CI, confidence interval

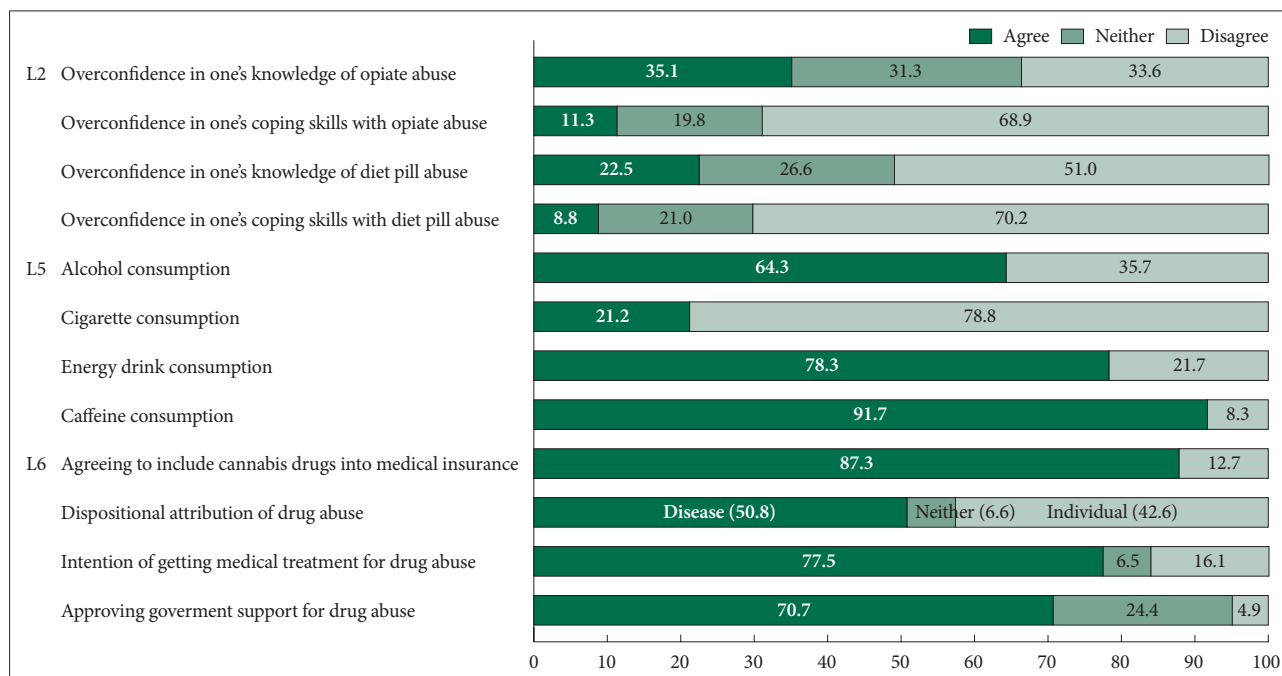


Figure 1. Response of the total participants to the main items of the L2 (overconfidence in handling drug usage), L5 (acceptance of addictive substances), and L6 (affirmation of public support for drug abuse) factors.

edge or coping skills regarding drug abuse; second, the tendency to disapprove of government support or public care for drug abuse (or the belief that drug abuse is the responsibility of individuals). Opioid abuse was also predicted by the tendency to consume other everyday addictive substances or not to be resistant to drugs or addictive substances. This tendency also had a marginally significant interaction effect on the overconfidence component (L2). Diet pill abuse was predicted by the tendency to be conscious of or supportive of legal drug (cannabis) usage. In addition, social-cognitive motivation to use opioids/diet pills did not significantly affect drug abuse, motivation to (much more) use opioids did not affect opioid abuse, and motivation to use diet pills only marginally significantly affected diet pill abuse. This indicates that drug abuse is associated with individual traits or attitudes rather than social-cognitive factors.

DISCUSSION

Prescription and over-the-counter drugs can be easily abused because of their exposure to daily life and the perception that they are safe. The abuse of prescription and over-the-counter medicines has been a major problem treated as a serious public health problem worldwide. The purpose of this study is to explore the factors contributing to substance abuse in Korea by examining the actual situation of substance abuse among Korean adults and evaluating their knowledge, attitudes, and intentions about substance abuse. PCA revealed the presence

of seven factors: drug risk awareness, overconfidence in handling drug usage, affirmation of legal drug usage, motivation to use diet pills, acceptance of addictive substances, affirmation of public support for drug abuse, and motivation to use opioids.

It is particularly interesting that the more overconfidence in addiction coping methods in this study result in a stronger tendency to abuse drugs. The second factor, which we named “overconfidence in handling drug usage” is to do with overconfidence in their knowledge and coping skills about drug abuse. Previous researchers have found that people with high self-efficacy are overconfident in their abilities, less motivated, and less contributing to task completion.^{16,17} Although there is a high belief among some drug users that substance abuse can be controlled, the results are that some people lack the motivation to refrain from using drugs.¹⁸ It suggests that acknowledging that people are addicted to drug addiction and helplessness should be a priority.

“Affirmation of public support for drug abuse,” designated as the sixth factor in this study, represents an attitude toward government support or public health approval for the treatment of substance abuse, with a lower score indicating a belief that substance abuse is an individual’s responsibility. The results of this study showed that the tendency for substance abuse was low when it was recognized that the treatment of drug addiction should be the responsibility of the government or public responsibility and the higher the individual’s view of substance abuse as the individual’s responsibility, the higher the substance

abuse tendency. According to the guidelines for the treatment of opioid dependence by the World Health Organization, if treatment is provided outside the health care system (e.g., in prisons) and is not primarily under the responsibility of health authorities, there should still be a documented chain of responsibility for health outcomes, and even in a variety of settings, it is best to have primary responsibility for care within the healthcare system.¹⁹ Just as there are guidelines for managing drug dependence under the responsibility of public institutions, emphasizing public responsibility for substance abuse is thought to be helpful in prevention.

Several studies have shown that attribution of responsibility for the causes of substance abuse and treatment contributes to the psychosocial context in which substance use and abuse occur, and that responsibility for substance use and recovery is related to treatment processes and outcomes.²⁰⁻²³

These findings will contribute to understanding the importance of attribution of responsibility through the initiation, continuation, and recovery phases of drug use. The importance of awareness of responsibility in substance abuse is suggested, and further investigation into the behavioral implications of responsibility attribution for substance abuse is necessary to better understand the clinical relevance of responsibility attribution, in particular, substance type factors and race. It may affect this perception, so more extensive-scale studies are needed.

The “acceptance of addictive substances” factor was found to affect opioid abuse. This factor means routinely taking or not being resistant to everyday addictive substances, and attitudes toward alcohol, cigarette, energy drink, and caffeine use and stereotypes about drug usage are included. According to the results, the higher the acceptance of addictive substances, the higher the opiate abuse tendency. Multi-substance use, which includes periodic, repeated, and habitual use of multiple substances, is associated with poor treatment outcomes.^{24,25} Smoking and drinking more frequently are known to be associated with inappropriate drug use. Although most people with substances use multiple substances, polysubstance use has been recognized, and consequently, the presence of multiple substance abuse is associated with worse treatment outcomes.²⁶⁻²⁸

In the results of this study, the “affirmation of legal drug usage” factor means the degree to which one is familiar with drugs and supportive of legal or medical drug usage appeared to increase. In Korea, there are many abuse cases of psychoactive appetite suppressants, especially under the influence of social pressure in favor of a slim body. Phentermine, phendimetrazine, and diethylpropion have been withdrawn in most countries due to side effects such as drug abuse and cardiotoxicity, which were not addressed in the existing clinical guidelines for the pharmacological management of obesity in adults

in Korea.²⁹ Therefore, this suggests that the drug may be perceived by Korean adults as close to legal drugs.

Factor 1 “drug risk awareness,” factor 4, “motivation to use diet pills,” and factor 7 “motivation to use opioids” had no significant effect on drug abuse in this study. We expected that the more we believed that the drug was not harmful, the more likely we were to request or overdose on an opioid or narcotic or diet pills, and the more likely we were to be prone to substance abuse, but this was not the case. However, in previous studies, the negative effects of habitual drug use^{30,31} and caffeine, energy drink consumption,^{32,33} purchasing and using without checking the drug label and ingredients,^{34,35} and indiscriminate use of drugs for weight loss^{36,37} on physical and mental health were reported. Therefore, additional research is needed to explore the influence of motives for drug abuse and when the risks of drugs are recognized.

In conclusion, it suggests that substance abuse is influenced by overconfidence in handling drug use rather than social cognitive effects such as the degree of pain and dissatisfaction with body shape, or psychological prejudice that the responsibility of substance abuse lies with individuals rather than the government or the public. In a previous study, overconfident participants of a compulsory detention center underestimated their level of addiction, overestimated their self-control, and held external attributions and motivations about addiction.¹⁸ Apart from that, the attitude of being aware of the medications being taken and being able to determine the dosage for oneself influences the frequency and amount of medication taken when making decisions about medicine intake.³⁸ Overconfidence in the knowledge of drugs can lead people to self-diagnose symptoms and take drugs without any valid prescription, which increases the risk of dependency and drug abuse in the future.³⁹ This tendency of drug abuse seems to be a common characteristic that appears in both those who have experienced opioid abuse and those who have abused diet drugs. In addition to these common characteristics, there are also unique characteristics that appear only in certain misuse and abuse. Opium abuse was stronger as the tendency to enjoy alcohol, tobacco, caffeine, etc. was stronger, but this difference did not appear in diet drug abuse. On the other hand, diet drug abuse was stronger as the tendency to support legal drug use was stronger. This suggests that opioids are perceived by people as extensions of addictive substances such as alcohol and tobacco, and on the contrary, diet drug is perceived by people as close to legal drugs.

We explained that the discussion of accountability in the problem of substance abuse is a meaningful approach to addressing this substance abuse problem. This study found that the two fundamental perspectives of public responsibility and individual responsibility have different effects on substance

abuse. We may ask whether the responsibility for creating a problem lies with the public or with the individual, and may shift the responsibility to the problem-maker to solve the problem. We need professional advice and suggestions to provide people with professional help and inform the public and private about the factors that influence this issue. This study's findings suggest the possibility that a problem may arise that the more people believed they were responsible for their substance abuse problem, and they have confidence they were able to solve the problem and the more they thought it was okay to use any legal drug although it could be harmful to their health. In Korea, specifically, there is a widespread and indiscriminate use of psychotropic appetite suppressants due to an intense preoccupation with attaining a slim figure. Moreover, the illicit consumption of marijuana and illegal drugs has led to an escalation in social problems. As a result, it becomes imperative to allocate considerable attention to this matter. Therefore, it remains imperative to acknowledge the gravity of the drug abuse issue, necessitating the implementation of comprehensive drug abuse education as a viable means to address this matter. The efficacy of drug abuse education hinges upon the elucidation of the psychological mechanisms underlying drug abuse. A comprehensive and methodical monitoring system, initiated at the national level, is indispensable to assess the extent of drug abuse. Consequently, it is crucial to emphasize the necessity of implementing systematic and regular surveys to identify issues about drug abuse.

Availability of Data and Material

The datasets generated or analyzed during the study are available from the corresponding author on reasonable request.

Conflicts of Interest

Daeyoung Roh, a contributing editor of the *Psychiatry Investigation*, was not involved in the editorial evaluation or decision to publish this article. All remaining authors have declared no conflicts of interest.

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