ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

The Impact of Smoking and Alcohol Consumption on Employees' Physical Health - An Empirical Study Based on CLDS2018

Wentao Xue

The High School Attached to Northwest Normal University, Lanzhou, 730070, China

Abstract: *Smoking and alcohol consumption have profound effects on individual health and public health at large. This paper conducts an empirical analysis of the impact of smoking and alcohol consumption on the health levels of employees using data from the China Labor-force Dynamics Survey (CLDS2018). The results show that passive smoking has a significant negative impact on employees' health: for each one-point increase in the frequency of passive smoking, employees' physical health level decreases by 2.89%. In addition, factors such as gender, age, household registration status, overtime work, exercise, diet, and sleep all show significant effects on employees' health status. Therefore, it is recommended to effectively control smoking behavior and reduce its negative impact on public health through strengthening legislation and law enforcement, increasing tobacco taxes and prices, enhancing health education, promoting smoking cessation services, social co-governance, and multi-departmental collaboration.*

Keywords: *Smoking; Alcohol consumption; Health impact; Tobacco control policy*

1. Introduction

Smoking and alcohol consumption are prevalent behaviors worldwide, exerting profound impacts on individual health and public health at large. In recent years, scholars both domestically and internationally have conducted extensive research on the health effects of smoking and alcohol consumption, covering multiple aspects ranging from molecular mechanisms to social interventions. Domestic and international research has made significant progress in revealing the mechanisms of smoking and drinking on physical health, evaluating policies, and developing intervention measures. However, further attention is still needed regarding special populations and long-term health effects. It is necessary to reduce the burden of smoking and drinking on workers' physical health through the comprehensive application of legal, educational, and social support measures, enabling workers to work efficiently and safely. This paper uses data from the China Labor-force Dynamics Survey (CLDS2018) to empirically analyze the impact of smoking and drinking on workers' physical health.

2. Research Status at Home and Abroad

2.1. Impact of Smoking on Physical Health

2.1.1. Respiratory and Cardiovascular Diseases

Smoking is a leading contributor to chronic obstructive pulmonary disease (COPD), lung cancer, and cardiovascular conditions. According to a study by Chen Sujing et al. (2023), harmful constituents in tobacco smoke, such as tar and nicotine, can directly impair the respiratory tract and alveoli, trigger inflammatory responses and oxidative stress, and, over the long term, contribute to the development of atherosclerosis and myocardial infarction [1].

2.1.2. Oral Health

The harm of smoking to oral health is particularly significant. Chen Shuze et al. (2025) believe that although e-cigarettes are marketed as alternatives to traditional cigarettes, carcinogens such as formaldehyde and acetaldehyde in their aerosols still damage periodontal tissues, promote the development of periodontitis, and cause genetic toxicity to oral mucosal cells [2].

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

2.1.3. Adolescents and Public Health

The problem of adolescent smoking is becoming increasingly serious, and the popularity of flavored e-cigarettes has increased the risk of minors' exposure to nicotine. Research by Wang Wenyuanyue et al. (2024) shows that banning flavored e-cigarettes can reduce usage rates among adolescents, but some users may switch to traditional cigarettes [3].

2.1.4. Tobacco Control Policies and Their Effects

Domestic and international tobacco control policies are mainly implemented through legislation, taxation, and health education. For example, Shanghai significantly improved tobacco control effectiveness by increasing the coverage of no-smoking signs and strengthening publicity (Duan Xuchang et al., 2024)[4]. The *Healthy China 2030* proposes the goal of reducing smoking rates to 20% by 2030, emphasizing the key role of tax policies in tobacco control (Zheng Rong et al., 2022) [5].

2.2. Impact of Alcohol Consumption on Physical Health

2.2.1. Liver and Metabolic Health

Long-term excessive alcohol consumption leads to alcoholic liver disease, cirrhosis, and metabolic disorders. Research by Yang Jierui et al. (2018, 2019) found that patients with alcohol dependence had significantly abnormal thyroid function and sex hormone levels, indicating that alcohol has direct toxicity to the endocrine system [6-7].

2.2.2. Mental Health

Alcohol consumption is closely related to mental health. Wan Mian et al. (2023) found that patients with alcohol dependence often experience anxiety and depression, while educational interventions based on behavior change theory can significantly improve their health beliefs and coping strategies [8].

2.2.3. Social and Behavioral Impacts

Drinking behavior is significantly influenced by cultural and socioeconomic factors. Liu et al. (2021) found that alcohol consumption rates in rural China were higher than in urban areas, with higher rates among men [9]. Research by Xu Lirong et al. (2004) showed that health education was significantly effective in reducing relapse rates and improving quality of life among patients with alcohol dependence [10].

2.2.4. Debate Regarding the Potential Upsides of Alcohol Use

Scientists at King's College London found that moderate alcohol consumption (such as red wine) is thought to potentially improve gut microbiota and cardiovascular health through polyphenolic compounds, but its long-term benefits remain controversial. Wang Ying et al. (2019) also believe that certain active components in Chinese liquor (such as pyrazine compounds) may reduce alcohol-induced liver damage [11].

2.3. Interaction Impacts of Smoking and Alcohol Consumption

2.3.1. Synergistic Harms

The combined behavior of smoking and drinking exacerbates health risks. For instance, Kubo et al. (1996) found that individuals who smoke and drink concurrently are at a markedly higher risk of developing cancers of the oral cavity and esophagus. [12]. The research findings of Li et al. (2022) also indicate that the interaction between smoking and drinking has a notable impact on gender differences in heart disease among middle-aged and elderly populations in both the United States and China [13].

2.3.2. Psychological and Social Factors

Smoking and drinking are often used as ways to cope with stress, yet they can further exacerbate psychological burdens. Research by Wang et al. (2023) indicates that adolescents who smoke and drink are more prone to experiencing circadian rhythm disturbances and psychological issues [14].

2.4. Research Trends and Prospects at Home and Abroad

Currently, research efforts both domestically and internationally have shifted their focus from traditional cigarettes to the health impacts of electronic cigarettes and the effectiveness of tobacco

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

control policies. Attention is also being paid to intervention measures for alcohol dependence, its associations with mental health, and regional differences in drinking cultures.

Future directions should focus on reinforcing research on interventions for smoking and drinking among adolescents and special populations (such as pregnant women), exploring the molecular mechanisms underlying smoking and drinking behaviors, developing personalized prevention and treatment plans, promoting interdisciplinary collaboration, and integrating public health policies with technological innovations to mitigate the social harms caused by smoking and drinking.

3. Empirical Analysis

3.1. Research Hypotheses

Based on the analysis of the above studies, the majority of research suggests that smoking has a significant negative impact on physical health, while excessive alcohol consumption also exerts a notable negative impact on physical well-being. However, moderate drinking may potentially have a positive influence on health. Additionally, employees' health status varies according to factors such as gender, occupation, household registration, and daily living conditions (e.g., diet and sleep). Therefore, this paper proposes the following hypotheses:

H1: Smoking has a significant negative impact on physical health.

H2: There is uncertainty regarding the impact of alcohol consumption on physical health. Excessive drinking has a significant negative impact on physical health, while moderate drinking may potentially have a positive influence on it.

H3: Factors such as employees' gender, occupation, household registration, diet, and sleep also affect their health status.

3.2. Sample Selection and Data Source

Using the data from the 2018 China Labor-force Dynamics Survey (CLDS2018), after eliminating invalid and abnormal data, a total of 5,448 valid data samples were obtained, including:

(1) Health status of employees: 0.75% very unhealthy, 6.68% relatively unhealthy, 23.62% average, 47.08% healthy, and 21.86% very healthy.

(2) Gender: Male employees accounted for 56.87%, while female employees accounted for 43.13%.

(3) Age: Employees' ages ranged from 16 to 59 years old, with an average age of 40.42 years.

(4) Household registration: 63.21% with agricultural household registration and 36.79% with non-agricultural household registration.

(5) Education level: 54.67% with junior high school education or below, 19.34% with high school education, 11.99% with junior college education, 12.66% with undergraduate education, 1.15% with master's degrees, and 0.18% with doctoral degrees.

3.3. Variable Definition

Dependent variable: Employee health status. The health status data for each individual j, obtained from the survey questionnaire, is represented by the variable "health" and is dummy-coded as follows: very unhealthy = 1; relatively unhealthy = 2; average = 3; healthy = 4; very healthy = 5.

Core independent variables: Smoking and drinking status. For each individual j, the variables include the number of cigarettes smoked per day (smoking), frequency of passive smoking (p_smoking), and frequency of alcohol consumption (drinking).

Control variables: Province (prov), age (age), age squared / 100 (age2), household registration type (hukou), educational attainment (edu), occupation (lnjob), type of organization (org), industry nature (sector), monthly overtime hours (overtime), frequency of exercise (exercise), poor diet (catering), and poor sleep (sleeping) are used as control variables, all selected from the CLDS2018 questionnaire data.

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

3.4. Descriptive Statistics of Variables

The overall descriptive statistical analysis of relevant variables is presented in Table 1.

Table 1 Descriptive Statistics of Variables

Variable name	Definition	Observation number	Mean value	Standard deviation	Minimum value	Maximum value
health	Very unhealthy = 1; Relatively unhealthy = 2; Average = 3; Healthy = 4; Very healthy = 5	5448	3.82	0.87	1	5
prov	Province	5456	39.42	12.84	11	64
gender	Female = 1, Male = 0	5456	0.43	0.49	0	1
age	Age	5456	40.42	10.28	16	59
age2	Age squared / 100	5456	17.39	8.10	2.56	34.81
hukou	Agricultural household registration = 1; Non-agricultural household registration = 0	5456	0.63	0.48	0	1
edu	No formal education = 1; Primary school/private school = 2; Junior high school = 3; Regular high school = 4; Vocational high school = 5; Technical school = 6; Secondary technical school = 7; Junior college = 8; Undergraduate = 9; Master's degree = 10; Doctoral degree = 11	5456	4.60	2.65	1	11
lnjob	Logarithm of occupational code	5456	10.59	0.41	9.21	11.51
Org[1]	Type of organization	5456	6.97	3.25	1	12
Sector[2]	Industry nature	5456	7.90	5.36	1	16
overtime	Monthly overtime hours	5456	5.85	19.37	0	360
smoking	Number of cigarettes smoked per day	5456	5.37	9.73	0	80
p_smoking	Frequency of passive smoking	5456	2.89	1.82	1	5
drinking	Frequency of alcohol consumption	5456	0.53	1.05	0	3
exeicise	Frequency of exercise	5456	1.72	2.74	0	30
catering	Poor diet	5448	1.47	0.66	1	4
sleeping	Poor sleep	5448	1.55	0.77	1	4

[1]Type of organization (org): organs, people's organizations, military = 1; State-owned/collective public institutions = 2; State-owned enterprises = 3; Collective enterprises = 4; Self-governing organizations such as village and neighborhood committees = 5; Private enterprises and individually-owned businesses = 6; Foreign-funded and joint venture enterprises = 7; Private non-enterprise organizations, social associations, and other social organizations = 8; Self-employed individuals (including registered self-employed individuals or unregistered shop owners of various types) = 9; Farming: Production in agriculture, forestry, animal husbandry, and fishery (such as crop farming, poultry and aquaculture) = 10; Freelancers (mental workers such as online writers, painters, self-media workers, freelance photographers, etc.) = 11; Individuals without fixed employment (casual workers, street vendors, domestic helpers without dispatching agencies, self-employed drivers, artisans, etc.) = 12.

[2]Industry nature (sector): Agriculture, forestry, animal husbandry, and fishery = 1; Mining industry = 2; Manufacturing industry = 3; Production and supply of electricity, gas, and water = 4; Construction industry = 5; Geological prospecting and water conservancy management = 6; Transportation, warehousing, and postal and telecommunications services = 7; Wholesale and retail trade, catering industry = 8; Finance and insurance industry = 9; Real estate industry = 10; Social services = 11; Health, sports, and social welfare services = 12; Education, culture, art, and radio, film, and television industry = 13; Scientific research and comprehensive technical services = 14; organs and social organizations = 15; Other industries = 16.

3.4.1. Construction of Econometric Model

Using employees' health status as the dependent variable, with the number of cigarettes smoked per day, frequency of passive smoking, and frequency of alcohol consumption serving as the core independent variables, and incorporating provincial, gender, age, household registration, educational attainment, occupation, type of organization, industry, monthly overtime hours, exercise frequency, dietary conditions, and sleep quality as control variables, along with gender interaction terms, the following econometric model is constructed:

$$Health_j = \alpha_0 + \alpha_1 C_j + \alpha_2 C_j * Gender + \beta X_j' + \gamma X_j'' + \mu_j \quad (1)$$

The subscript j represents the individual; $Health_j$ denotes the health status of individual j. Gender is a dummy variable for sex, where female = 1 and male = 0. C_j respectively represents the number of cigarettes smoked per day, the frequency of passive smoking, and the frequency of alcohol consumption for individual j. C_j *Gender represents the interaction terms between the number of cigarettes smoked per day/frequency of passive smoking/frequency of alcohol consumption and gender. If the coefficient α_2 of these interaction terms is greater than zero, it indicates that the variable has a more positive impact on the health status of females; if it is negative, the variable has a more positive impact on the health status of males. X′ represents personal characteristics that influence health status, X″ represents the squared age characteristic variable that affects health status, and μ_j represents the

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

random error term.

3.4.2. Empirical Results

(1) The Impact of the Number of Cigarettes Smoked Per Day on Employees' Health Status

The empirical results are shown in Table 2: Model (1) solely includes the variable representing the number of cigarettes smoked per day. Model (2) builds upon Model (1) by incorporating an interaction term between the number of cigarettes smoked per day and gender, while controlling for personal characteristics and the squared age characteristic. The results reveal that neither the number of cigarettes smoked per day nor its interaction with gender has a statistically significant impact on employees' health status.

Table 2 The Impact of Smoking on Employees' Health Status

	(1)	(2)
Number of cigarettes smoked per day	-0.0002	-0.0001
	(-0.1651)	(-0.1068)
Smoking * gender		-0.0063
		(-0.5610)
Province	-0.0051***	-0.0052***
	(-5.8752)	(-5.8892)
Female	-0.1000***	-0.0982***
	(-3.7793)	(-3.6881)
Age	0.0137	0.0137
	(1.6133)	(1.6148)
Agricultural household registration	0.0778***	0.0777***
	(2.7998)	(2.7962)
Education level	0.0103*	0.0103*
	(1.6883)	(1.6864)
Occupation	-0.0681**	-0.0680**
	(-2.1076)	(-2.1021)
Type of organization	-0.0158***	-0.0158***
	(-3.7644)	(-3.7690)
Industry type	0.0042*	0.0042*
	(1.8153)	(1.8052)
Monthly overtime hours	-0.0023***	-0.0023***
	(-3.9422)	(-3.9503)
Frequency of passive smoking	-0.0289***	-0.0289***
	(-4.4817)	(-4.4747)
Frequency of alcohol consumption	-0.0143	-0.0141
	(-1.2655)	(-1.2439)
Frequency of exercise	0.0104**	0.0105**
	(2.5287)	(2.5363)
Poor diet	-0.1818***	-0.1816***
	(-9.9351)	(-9.9171)
Poor sleep	-0.1842***	-0.1841***
	(-11.7840)	(-11.7773)
Sample size	5.4e+03	5.4e+03
Adjusted R^2	0.1378	0.1377

*Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively; robust standard errors are given in parentheses.*

(2) The Impact of Passive Smoking on Employees' Health Status

The empirical results are shown in Table 3: Model (1) includes only the variable representing the frequency of passive smoking, while controlling for personal characteristics and the squared age characteristic. The results indicate that, at the 1% significance level, the frequency of passive smoking has a significantly negative impact on employees' health status. Model (2) adds the interaction term between the frequency of passive smoking and gender to Model (1). The results show that the

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

interaction term between the frequency of passive smoking and gender has no significant impact on employees' health status. The overall health status of female employees relative to male employees changes from a significantly negative impact at the 1% level to being insignificant. Compared with Model (1), the significance and coefficient changes of other variables are relatively minor.

Table 3 The Impact of Passive Smoking on Employees' Health Status

	(1)	(2)
Frequency of passive smoking	-0.0289***	-0.0203**
	(-4.4817)	(-2.3545)
Passive smoking * gender		-0.0192
		(-1.5043)
Province	-0.0051***	-0.0051***
	(-5.8752)	(-5.8808)
Female	-0.1000***	-0.0505
	(-3.7793)	(-1.1979)
Age	0.0137	0.0135
	(1.6133)	(1.5953)
Agricultural household registration	0.0778***	0.0775***
	(2.7998)	(2.7872)
Education level	0.0103*	0.0103*
	(1.6883)	(1.6839)
Occupation	-0.0681**	-0.0675**
	(-2.1076)	(-2.0870)
Type of organization	-0.0158***	-0.0158***
	(-3.7644)	(-3.7634)
Industry type	0.0042*	0.0041*
	(1.8153)	(1.7852)
Monthly overtime hours	-0.0023***	-0.0023***
	(-3.9422)	(-3.9365)
Number of cigarettes smoked per day	-0.0002	-0.0006
	(-0.1651)	(-0.4597)
Frequency of alcohol consumption	-0.0143	-0.0155
	(-1.2655)	(-1.3670)
Frequency of exercise	0.0104**	0.0104**
	(2.5287)	(2.5144)
Poor diet	-0.1818***	-0.1817***
	(-9.9351)	(-9.9293)
Poor sleep	-0.1842***	-0.1842***
	(-11.7840)	(-11.7849)
Sample size	5.4e+03	5.4e+03
Adjusted R^2	0.1378	0.1380

*Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively; robust standard errors are given in parentheses.*

(3) The Impact of Alcohol Consumption on Employees' Health Status

The empirical results are shown in Table 4: Model (1) includes only the variable representing the frequency of alcohol consumption. Model (2) adds the interaction term between the frequency of alcohol consumption and gender to Model (1), while controlling for personal characteristics and the squared age characteristic. The results indicate that neither the frequency of alcohol consumption nor its interaction with gender has a significant impact on employees' health status.

Table 4 The Impact of Alcohol Consumption on Employees' Health Status

	(1)	(2)
Frequency of alcohol consumption	-0.0143	-0.0180
	(-1.2655)	(-1.4915)
Alcohol consumption * gender		0.0287
		(0.8672)

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

Province	-0.0051***	-0.0051***
	(-5.8752)	(-5.8555)
Female	-0.1000***	-0.1055***
	(-3.7793)	(-3.8771)
Age	0.0137	0.0138
	(1.6133)	(1.6252)
Agricultural household registration	0.0778***	0.0785***
	(2.7998)	(2.8226)
Education level	0.0103*	0.0104*
	(1.6883)	(1.7027)
Occupation	-0.0681**	-0.0682**
	(-2.1076)	(-2.1083)
Type of organization	-0.0158***	-0.0158***
	(-3.7644)	(-3.7708)
Industry type	0.0042*	0.0042*
	(1.8153)	(1.8139)
Monthly overtime hours	-0.0023***	-0.0023***
	(-3.9422)	(-3.9493)
Number of cigarettes smoked per day	-0.0002	-0.0002
	(-0.1651)	(-0.1325)
Frequency of passive smoking	-0.0289***	-0.0289***
	(-4.4817)	(-4.4808)
Frequency of exercise	0.0104**	0.0104**
	(2.5287)	(2.5227)
Poor diet	-0.1818***	-0.1823***
	(-9.9351)	(-9.9551)
Poor sleep	-0.1842***	-0.1840***
	(-11.7840)	(-11.7703)
Sample size	5.4e+03	5.4e+03
Adjusted R^2	0.1378	0.1378

*Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively; robust standard errors are given in parentheses.*

(4) The Impact of Concurrent Smoking and Alcohol Consumption on Employees' Health Status

The empirical results are shown in Table 5: The model solely includes the variable representing concurrent smoking and alcohol consumption, while controlling for personal characteristics and the squared age characteristic. The results indicate that concurrent smoking and alcohol consumption does not have a significant impact on the overall health status of employees. However, it exerts a significantly negative impact on the health status of employees who are exposed to passive smoking.

Table 5 The Impact of Concurrent Smoking and Alcohol Consumption on Employees' Health Status

	(1)
Smoking * alcohol consumption	-0.0010
	(-1.4116)
Province	-0.0051***
	(-5.8420)
Female	-0.0963***
	(-4.0007)
Age	0.0136
	(1.6056)
Agricultural household registration	0.0786***
	(2.8285)
Education level	0.0102*
	(1.6744)
Occupation	-0.0681**
	(-2.1072)
Type of organization	-0.0159***

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

	(-3.7798)
Industry type	0.0043*
	(1.8671)
Monthly overtime hours	-0.0023***
	(-3.9732)
Frequency of passive smoking	-0.0287***
	(-4.5540)
Frequency of exercise	0.0103**
	(2.5011)
Poor diet	-0.1822***
	(-9.9553)
Poor sleep	-0.1841***
	(-11.7834)
Sample size	5.4e+03
Adjusted R^2	0.1381

*Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively; robust standard errors are given in parentheses.*

4. Conclusions and Implications

4.1. Conclusions

Based on the data from the 2018 China Labor-force Dynamics Survey (CLDS2018), an empirical analysis was conducted to examine the impact of smoking and alcohol consumption on employees' health status. The results reveal that smoking and alcohol consumption do not have a significant impact on the overall health status of employees. However, they exert a notably negative impact on the health status of employees exposed to passive smoking. Specifically, for each one-point increase in the frequency of passive smoking, employees' physical health level decreases by 2.89%.

In addition, factors such as province, gender, age, household registration status, education level, occupation, type of organization, industry nature, monthly overtime hours, frequency of exercise, diet, and sleep all demonstrate a certain degree of significance in influencing employees' health status.

Therefore, the hypothesis "H1: Smoking has a significant negative impact on physical health" has not been validated. The hypothesis "H2: There is uncertainty regarding the impact of alcohol consumption on physical health. Excessive drinking has a significant negative impact on physical health, while moderate drinking may potentially have a positive influence on it" has been partially validated. The hypothesis "H3: Factors such as employees' gender, occupation, household registration, diet, and sleep also affect their health status" has been validated.

4.2. Implications

In general, smoking has a certain negative impact on employees' physical health, particularly posing health threats to those exposed to passive smoking. Therefore, it is essential to effectively control smoking behaviors to mitigate their negative impacts on public health.

First, it shall strengthen legislation and enforcement. improve tobacco control regulations, formulate national tobacco control laws, clearly prohibit smoking in public places, workplaces, and transportation vehicles, and expand the coverage of smoke-free environments. It shall strictly enforce laws, increase penalties for illegal smoking behavior, and ensure effective implementation of tobacco control regulations. It shall strengthen supervision of emerging tobacco products such as e-cigarettes, prohibit sales to minors, and conduct tobacco control publicity through schools and educational institutions.

Second, it shall increase tobacco taxes and prices. Reduce tobacco affordability, especially for adolescents and economically disadvantaged groups, by raising tobacco consumption taxes and retail prices. It shall include e-cigarettes in tobacco consumption tax collection and regulate their market circulation to prevent e-cigarettes from becoming substitutes for traditional cigarettes.

Third, it shall strengthen health education and promote smoking cessation services, and conduct differentiated health education targeting different populations (such as adolescents, medical students,

ISSN 2616-5791 Vol. 6, Issue 7: 37-45, DOI: 10.25236/AJMHS.2025.060706

and smokers). It shall use central media and social platforms to disseminate information about smoking hazards and enhance public awareness. It shall provide professional support by establishing smoking cessation clinics in medical institutions and communities, offering comprehensive services including psychological counseling and pharmacological treatment. It shall train medical personnel to enhance their capabilities in smoking cessation counseling and skills training, making them an important force in tobacco control.

Fourthly, Social co-governance and multi-sectoral collaboration are essential. The government, enterprises, communities, and families should engage in cross-departmental cooperation to jointly participate in tobacco control initiatives. This involves promoting the establishment of smoke-free households, smoke-free schools, and smoke-free workplaces, reinforcing the development of smoke-free environments, and creating a tobacco control atmosphere throughout society.

References

[1] Chen Sujing, Guo Yi, Li Shoufeng, Li Chenmin, Zhong Guoping. Research Progress on the Effects of Electronic Cigarettes on the Respiratory Health [J]. Chinese Journal of Health Education, 2023, 39(02): 152-156.

[2] Chen Shuze, Zhao Lei. Research Progress on the Impact of Electronic Cigarette on Oral Health [J]. Chinese Journal of Practical Stomatology, 2025, 18(03): 336-342.

[3] Wang Wenyuanyue, Ni Changyu, Cai Yuyang, Feng Nannan, Shi Lili. A Literature-Based Research on Public Health Impacts of Flavored Electronic Cigarettes [J]. Chinese Journal of Health Education, 2024, 40(07): 608-614+656.

[4] Duan Xuchang, Jia Xiaoxian, Wu Ping, Luo Li, Chen De. Effect Evaluation on Tobacco Control in Health Care Institutions by Unannounced Visits in Shanghai,2022 [J]. Chinese Journal of Health Education, 2024, 40(10): 953-956.

[5] Zheng Rong, Cui Feng. On the Realization of Tobacco Control Goals of Healthy China 2030 and the Reform Path of Excise Tax on Tobacco [J]. International Taxation in China, 2022, (09): 57-64.

[6] Yang Jierui, Du Xu, Cheng Dong. A Comparative Study on Gonadal Hormone Index between Alcohol Dependent Patients and Non-drinking Healthy People [J]. Chinese Journal of Drug Dependence, 2018, 27(06): 421-424.

[7] Yang Jierui, Du Xu. A Comparative Study on the Thyroid Function Index between Patients with Alcohol Dependence and Those with Non-drinking Healthy Individuals [J]. Chinese Journal of Drug Dependence, 2019, 28(01): 65-68.

[8] Wan Mian, Xu Shiyang. Effects of Educational Intervention Based on Behavioral Change Theory on Health Beliefs and Coping Styles of Alcohol-dependent Patients [J]. China Journal of Health Psychology, 2023,31(11): 1612-1617.

[9] Liu, KH; Ding, Y; (...); Wang, ZH. Trends and Socioeconomic Factors in Smoking and Alcohol Consumption among Chinese People: Evidence from the 2008-2018 National Health Service Surveys in Jiangsu Province [J]. Archives of Public Health, 2021,79 (1).

[10] Xu Lirong, Xu Congfang, Zhao Qinglian. Effect of Health Education on Patients with Alcohol Dependence and Their Relatives [J]. Chinese Journal of Clinical Rehabilitation, 2004,(33): 7376-7377.

[11] Wang Ying, Sun Jinyuan, Meng Qin. Comparison of Chinese Liquor and Vodka on Liver Health Using a Hepatic Spheroid Model [J]. Journal of Chemical Engineering Colleges and Universities, 2019,33(05): 1141-1147.

[12] Kubo, N; Sakata, K; (...); Yanagawa, H. A Study on the Relationship between Sources of Health Information concerning Smoking and Drinking, and Health Behavior [J]. Japanese journal of hygiene, 1996,51 (2), pp.579-587.

[13] Li Yifei; Lu Yuanan; (...); Wu Yanyan. Gender Disparities of Heart Disease and the Association with Smoking and Drinking Behavior among Middle-aged and Older Adults, a Cross-sectional Study of Data from the US Health and Retirement Study and the China Health and Retirement Longitudinal Study [J]. International Journal of Environmental Research and Public Health, 2022,19 (4), pp.2188.

[14] Wang, JJ; Xie, Y; (...); Tao, FB. Moderating Effects of Smoking and Drinking on the Relationship between Biological Rhythm and Psychological Health and Gender Differences among Adolescents [J]. BMC Psychiatry, 2023,23(1).