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Gender Differences in Smoking Behaviors in an Asian Population

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Abstract

Background: Gender-sensitive tobacco control policies are being challenged, and new directions are being sought because public health efforts have reduced cigarette consumption more substantially among men than among women. To better target women, it would help to identify the protective cultural factors that promote resiliency in women and discourage them from smoking. Whereas western cultures have generated a great deal of gender-specific research and programs on the prevention of smoking in women, Asian cultures have not. Taking a personal and sociocultural perspective, this study examines the effect of gender on smoking behaviors in Taiwan.

Methods: In a 2004 cross-sectional random-sampled interview survey, 827 adult men and 90 adult women smokers in Taiwan were queried about the time they began smoking, maintenance of their habits, and their readiness to change.

Results: The male/female smoking rate ratio was 9.5 (45.7% vs. 4.8%). Men smoked significantly more cigarettes per day than women (18 vs. 11). We found Taiwanese women started smoking around 20 years old, much later than their western counterparts. We also found that whereas the smoking behavior of the men was very sensitive to social environment and structural factors, that of women revolved around their desire to control their weight and handle their emotions.

Conclusions: Differences in the smoking behavior of men and women are a result of a different sociocultural environment and the life trajectories and social circumstances embedded within it. Comprehensive tobacco control policies need to be tailored to not just smoking behavior alone or one population alone but to the determinants of smoking behavior in specific groups, for example, women. Even when targeting women, some effort may be needed on targeting women of different ethnicities, for instance, Asian women in whom the prevalence is increasing at alarming rates.

Introduction

With the increase in the percentage of women smoking over the past century, more research has focused on smoking behaviors in women.[1–5] Studies from western countries report differences in the effects that society, economics, and culture have on smoking in both men and women.[2,3,6,7] They also report that physiological, psychological, sociodemographic, personal, and sociocultural factors play specific roles in female smoking behavior.[1,8–10] For example, some studies of women in the United States suggest that women with low esteem, social isolation, and gender stereotyping are more likely to smoke then women who do not have these problems and that women are more likely than men to use smoking as a means of controlling weight and coping with stress.[8,10,11]

Almost no research has been done on smoking in women in Asia, where although relatively low, the prevalence is increasing at an alarming rate.[12–15] In many smoking studies of Asian populations, findings were not sex-disaggregated because the prevalence is so low among women that their statistics overcomplicate general tobacco research. Research interest in female smoking is nascent in Asia, and tobacco control advocates are less likely to recognize the determinants of female smoking, and policymakers are less likely to have developed gender-sensitive tobacco control policies.

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As in many other Asian countries, the prevalence of smoking in women and in young people in Taiwan is increasing rapidly, placing the country in the second stage of a four-stage tobacco epidemic model.[16] The smoking rate among women in North American and western Europe has declined steadily in the last 10 years, but it has doubled from 2.32% in 1987 to 4.76% in 2005 in Taiwan.[17]

In this paper, we examine the personal and socialcultural determinants of the decision to start smoking, continue smoking, and quit smoking in men and women in Taiwan.

Materials and Methods

Sampling and subjects

The data for this study were derived from a multistage stratified random sample administered between August and September 2004. First, we used national household census data to randomly stratify in stages by city and township and then individual citizens ≥18 years of age. We then sent out invitation letters to inform them about this project and invite their participation.

The research team followed the list of the potential research subjects to start house-to-house, face-to-face interviews at random times. A subject was considered as a nonresponder if after five attempts, at least once in the morning, afternoon, and evening, we were unable to interview him or her. In total, 3874 (1966 women and 1908 men) of 8104 noninstitutionalized nonstudent subjects completed the interviews, giving us a response rate of 48%.

The survey questionnaire was developed by the research team based on previous research experience and questionnaires used in previous studies.[18] A pilot study was done before the formal survey was administered. Before initiating the survey, each participant signed an informed written consent after being provided details of the study, the benefits and risks associated with participation, and confidentiality.

Measures

All data collected by structured survey questionnaire were self-reported. In addition to gender, we asked participants age, education level, employment, marital status, and personal monthly income. Current cigarette smokers were defined as those having smoked more than 100 cigarettes in their life and having smoked at least 2 days in the past month.

Smoking initiation was characterized by asking participants at what age and life stage they began smoking, reasons for starting, and beliefs about tobacco use. Reasons were characterized as personal, interpersonal, and environmental. Beliefs were categorized by whether the subject considered smoking advantageous or disadvantageous. A 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) was used to respond to questions about whether they believed smoking alleviated stress, enhanced concentration, lightened mood, established interpersonal relationships, and stimulated thought or questions and whether smoking might adversely affect other people nearby, gave a negative impression/image, affected their own health, affected the health of

Table 1. Selected Sociodemographic Information of Samples in Men and Women

	Men		*Women*	
	n *(% who smoke)*		n *(% who smoke)*	p *value*[a]
Overall	1808 (45.7)		1865 (4.8)	
Age group		<0.0001**		<0.0001**
18–24	186 (44.6)		154 (11.7)	
25–34	327 (48.6)		378 (6.1)	
35–44	381 (56.7)		399 (6.3)	
45–54	351 (49.0)		385 (3.9)	
≥55	502 (34.5)		435 (1.8)	
Education		<0.0001**		<0.0001**
Primary school and below	465 (48.0)		676 (3.4)	
High school	807 (54.2)		716 (8.1)	
College/university and above	529 (31.2)		471 (1.9)	
Employment		<0.0001**		<0.4318**
Employed	1278 (49.61)		1047 (4.49)	
Unemployed	528 (36.36)		818 (5.26)	
Monthly income (NT dollars)[b]		0.0004**		0.3675
None	137 (33.6)		343 (6.1)	
≤20,000 (US$606)	462 (43.9)		676 (4.4)	
≤40,000 (US$1,212)	555 (51.4)		542 (4.6)	
≤60,000 (US$1,818)	320 (50.3)		161 (3.7)	
>60,000 (US$1,818)	223 (39.0)		74 (8.1)	
Marital status		<0.0001**		<0.0001**
Currently married	1287 (45.1)		1285 (3.5)	
Currently not married	520 (47.3)		577 (7.8)	

[a]Chi-square test.
[b]The exchange rate: NT$32.9 per U.S. dollar or NT$44.8 per Euro.
**<0.001.

family members, or increased the likelihood of lung cancer and impotence. The score range for advantageous beliefs was between 5 and 25 points, and the score range for disadvantageous beliefs was between 6 and 30 points. This measurement of beliefs about tobacco use was employed in another survey in which it yielded a Cronbach's alpha of 0.79.[18] In the present study, psychometric data indicated the internal consistency for this measure to be 0.78.

Smoking maintenance was measured by asking questions about degree of dependence on tobacco, cigarette brand preference, and cues triggering smoking behavior. Dependence on tobacco was measured by reported average daily consumption and time between waking and first cigarette of the day. Triggers were explored using 10 questions about what might trigger smoking behavior (e.g., social activities, stress). The participant indicated how much he or she craved a cigarette in response to each trigger. Item responses ranged from 1 (not at all) to 5 (very much). Internal consistency for this measure was reported to be 0.80 in a previous study.[18] In this study, it yielded an overall Cronbach's alpha of 0.83.

Readiness to reduce, change, or quit smoking, henceforth referred to as readiness to change, was measured in two parts. The first part assessed participants' thoughts and attempts to reduce consumption of cigarettes, change to light/low-tar cigarettes, or quit during the 6 months prior to the interview. Second, potential readiness to quit was measured by asking participants if they had planned to try to quit in advance of the interview. Smokers were classified as preparers if they reported such a plan within the next month, as contemplators if they reported a plan to quit within the next 6 months, and as precontemplators if they reported such a plan for the future or reported they had no plan to quit at the moment.

Statistical analyses

Smoking behaviors (initiation, maintenance, and readiness to change) were analyzed by gender. In our univariate analyses, continuous variables were compared using chi-square, and categorical variables were compared by *t* tests. Variables

Table 2. Smoking Initiation and Beliefs in Men and Women

	Men (n = *827*)	*Women* (n = *90*)	p *value*[a]
Age of initiation, (years, mean ± SD)	19.3 ± 5.4	20.6 ± 8.0	0.1403
Life stage of initiation (*n*, %)			<0.0001[b]**
Primary school period	38 (4.6)	4 (4.4)	
Junior high school period	165 (20.0)	18 (20.0)	
Senior high school period	111 (13.4)	19 (21.1)	
College/university period	42 (5.1)	3 (3.3)	
Military period[c]	182 (22.0)	0 (0.0)	
Labor force period	288 (34.9)	46 (51.1)	
Motivation of initiation (*n*, %)[d]			
Satisfy initial curiosity	433 (52.4)	47 (52.2)	1.0000[b]
Stimulate and maintain vitality	57 (6.9)	4 (4.4)	0.5052[b]
Enhance positive sensations	28 (3.4)	2 (2.2)	0.7600[b]
Control body weight	3 (0.4)	4 (4.4)	0.0024[b]*
Tobacco advertiserment	2 (0.2)	0 (0.0)	1.0000[b]
Alleviate stress	92 (11.1)	26 (28.9)	<0.0001[b]**
Participate in social activity	180 (21.8)	14 (15.6)	0.2206[b]
Feel bored	145 (17.6)	12 (13.3)	0.3775[b]
Others	56 (6.8)	8 (8.9)	0.51076[b]
For no reason	69 (8.4)	3 (3.3)	0.1010[b]
Beliefs of tobacco use (mean ± SD)			
Alleviate stress	3.5 ± 1.0	3.7 ± 0.9	0.0138*
Enhance concentration	3.1 ± 1.0	2.9 ± 1.1	0.0510
Lighten mood	3.2 ± 0.9	3.2 ± 1.0	0.7687
Establish interpersonal relationships	3.6 ± 0.9	2.7 ± 1.0	<0.0001**
Stimulate thought	3.2 ± 1.0	3.0 ± 1.1	0.0671
Adversely affect other people nearby	4.2 ± 0.7	4.2 ± 0.8	0.8907
Give a negative impression/image	3.6 ± 0.9	3.9 ± 0.9	0.0014*
Affect own health	4.1 ± 0.8	4.4 ± 0.7	0.0003**
Affect the health of family members	4.2 ± 0.7	4.3 ± 0.8	0.0758
Increase likelihood of lung cancer	3.8 ± 0.9	4.0 ± 0.9	0.0285*
Increase likelihood of impotence	2.9 ± 0.8	2.9 ± 0.7	0.9208
Beliefs of tobacco use (sum, mean ± SD)			
Advantageous beliefs	16.5 ± 3.2	15.5 ± 3.4	0.0033*
Disadvantageous beliefs	22.8 ± 3.2	23.7 ± 3.1	0.0077*

[a]*t* test.
[b]Chi-square test.
[c]In Taiwan, to be a soldier is a duty for a man but not for a woman.
[d]Not mutually exclusive.
*<0.05; **<0.001.

associated with gender in univariate analyses were entered into multivariate statistical analysis. Multiple liner regression was used to estimate the parameters, and logistic regression was used to estimate the odds ratio (OR). Five models were constructed for each smoking initiation and maintenance behavior. Model 1 simply examined the effect of gender on smoking behaviors, model 2 studied the effect of gender on smoking behaviors after controlling for some sociodemographic factors, model 3 examined the effect of gender on smoking behaviors after adjusting for some sociodemographic factors and one covariate, model 4 observed the effect of gender on smoking behaviors after adjusting for some sociodemographic factors and two covariates, and model 5 examined the effect of gender on smoking behaviors after adjusting for all other covariates. $p < 0.05$ was considered significant. All statistical operations were conducted using SAS version 9.1.3 (SAS Institute Inc, Cary, NC).

Results

Sociodemographic characteristics

Prevalence was analyzed by age, education, income, employment, and marital status in men and women (Table 1). Of 1808 men, 827 (45.7%), and of 1865 women, 90 (4.8%) were current smokers. In men, the smoking rate increased stepwise by age from 18 until 45 years old; in women, it decreased steadily after 25 years old. Smoking rate was associated with employment status and income in men but not in women. It was more prevalent in both unmarried men and women than in their married counterparts (47.31% vs. 45.14% for men, $p < 0.001$; 7.8% vs. 3.5% for women, $p < 0.001$).

Smoking behaviors in men and women

As can been seen in Table 2, men and women reported having their first cigarette around 19 and 21 years old, respectively, an insignificant difference between the sexes. However, men reported the most tempting stages of life as when beginning to work, followed by high school, then compulsory military service (34.87%, 33.42%, and 22.03%, respectively), whereas women were more tempted when beginning to work and during high school (51.11 % and 41.11%, respectively).

Most men (52.4%) and women (52.2%) reported having their first cigarette to satisfy curiosity. Women were more likely than men to begin smoking to control weight (4.4% vs. 0.4%, $p = 0.002$) and alleviate stress (28.9% vs. 11.1%, $p < 0.001$). Overall, men believed that smoking was more advantageous than did women ($p = 0.003$). The greatest advantage they noted was enhancement of interpersonal relationships ($p < 0.01$). Women believed smoking to be more disadvantageous than men ($p = 0.008$). The greatest disadvantages they noted were negative impression/image ($p = 0.001$), poor health ($p < 0.01$), and likelihood of lung cancer ($p = 0.03$).

We used male smokers as a reference group in the logistic regression and multiple regressions in all five models exploring possible gender differences in reasons to start smoking. The results of the final model are presented in Table 3. Women started smoking at a later age and were more likely to start smoking to control weight (OR 16.5, 95% CI 2.6-105.0) and alleviate stress (OR 3.4, 95% CI 1.9-6.0). Although women considered weight control and stress alleviation as advantages of smoking, which they used as reason to start smoking, they generally believed smoking to have fewer advantages than did the men ($p = 0.03$).

Table 4, a summary of smoking maintenance behaviors, shows that male smokers consumed significantly more cigarettes than women (18 vs. 11 cigarettes per day, $p < 0.001$), although the time from waking to the first cigarette of the day was similar for both sexes.

The triggers that men and women reported to cue their smoking behavior were very different (Table 5). The men craved cigarettes in social gatherings ($p = 0.007$) and with friends ($p = 0.003$), whereas women craved them when anxious ($p < 0.001$), angry ($p < 0.001$), or frustrated ($p = 0.001$). Men were more likely to use tobacco in socially relevant sit-

Table 3. Multivariate Analysis of Smoking Initiation[a]

	Linear regression						*Logistic regression*			
			Beliefs of tobacco use				*Motivation of initiation*			
	Age of initiation		*Pros of smoking*		*Cons of smoking*		*Control body weight*		*Alleviate stress*	
	Estimate	p *value*	*Estimate*	p *value*	*Estimate*	p *value*	*Odds ratio*	*95% CI*	*Odds ratio*	*95% CI*
Final model	2.2444	0.0003	−0.8353	0.0305	0.6893	0.0653	16.464	2.582, 104.963	3.360	1.868, 6.042

[a]Independent variables.
Model 1: Gender.
Model 3: Age of initiation: gender, education, occupation, marital, income, motivation of initiation.
Motivation of initiation: gender, education, occupation, marital, income, age of initiation.
Beliefs of tobacco use: gender, education, occupation, marital, income, age of initiation.
Model 4: Age of initiation: gender, education, occupation, marital, income, beliefs of tobacco use.
Motivation of initiation: gender, education, occupation, marital, income, beliefs of tobacco use.
Beliefs of tobacco use: gender, education, occupation, marital, income, beliefs of tobacco use.
Final model (Model 5): Age of initiation: gender, education, occupation, marital, income, motivation of initiation, beliefs of tobacco use.
Motivation of initiation: gender, education, occupation, marital, income, age of initiation, beliefs of tobacco use.
Beliefs of tobacco use: gender, education, occupation, marital, income, age of initiation, beliefs of tobacco use.

Table 4. Smoking Maintenance Behavior in Men and Women

	Men (n = *827*)	*Women* (n = *90*)	p *value*[a]
Quantity of cigarettes smoked (cigarette/day, mean ± SD)	17.6 ± 10.5	11.0 ± 7.4	<0.0001**
Time to first cigarette smoked on awaking (*n*, %)			0.5072[b]
Within 30 minutes	407 (49.5)	48 (53.3)	
After 30 minutes	415 (50.5)	42 (46.7)	
Cigarette brand preference (*n*, %)			0.0010[b]**
Domestic	381 (46.4)	25 (28.1)	
Imported	440 (53.6)	64 (71.9)	
Nicotine per cigarette (mg, mean ± SD)	0.8 ± 0.3	0.8 ± 0.3	0.4758
Smoking triggers[c] (single item, mean ± SD)			
In social gatherings	2.8 ± 1.1	2.4 ± 1.2	0.0065**
With friend	3.4 ± 0.9	3.0 ± 1.1	0.0032**
Feel anxious	3.0 ± 1.3	3.5 ± 1.3	<0.0001**
Feel anger	2.7 ± 1.3	3.5 ± 1.4	<0.0001**
Feel frustrated	3.0 ± 1.3	3.4 ± 1.2	0.0014**
Smoking triggers (sum, mean ± SD)			
Social participations	6.2 ± 1.7	5.5 ± 1.8	0.0006**
Emotions	8.7 ± 3.2	10.5 ± 3.4	<0.0001**

[a]*t* test.
[b]Chi-square test.
[c]Lists only 5 of 10 questions that show a statistical difference between two groups.
*<0.05; **<0.01.

uations ($p < 0.001$) and women in emotionally relevant ones ($p < 0.001$). Furthermore, after controlling for other covariates, women were significantly more likely than men to respond to emotion triggers by smoking and maintaining their smoking behavior ($p < 0.001$) (Table 5). We also analyzed readiness to change by readiness to reduce the number of cigarettes, readiness to change to light/low-tar cigarettes, and readiness to quit and found no significant gender difference in these measures (Table 6).

Discussion

There has been a rapid increase in the rate of smoking among women in Asia but little research into their smoking behaviors. In this study, we compared the personal and sociocultural determinants of the decision to start smoking, continue smoking, and quit smoking in men and women in Taiwan and found gender differences in the individual and environmental determinants of this behavior. Our most no-

Table 5. Multivariate Analysis of Smoking Maintenance[a]

	Linear regression						*Logistic regression*	
	Quantity of cigarettes smoked		*Smoking triggers*				*Time to first cigarette smoked on awakening*	
			Social participation		*Emotions*			
	Estimate	p *value*	*Estimate*	p *value*	*Estimate*	p *value*	*Odds ratio*	*95% CI*
Final model	−6.5141	<0.0001	−0.4436	0.0221	2.0586	<0.0001	0.552	0.322, 0.944

[a]Independent variables.
Model 1: Gender.
Model 2: Gender, education, occupation, marital, income.
Model 3: Quantity of cigarettes smoked: gender, education, occupation, marital, income, time to first cigarette smoked on awaking.
Time to first cigarette smoked on awaking: gender, education, occupation, marital, income, quantity of cigarettes smoked.
Smoking triggers: gender, education, occupation, marital, income, quantity of cigarettes smoked.
Model 4: Quantity of cigarettes smoked: gender, education, occupation, marital, income, smoking triggers.
Time to first cigarette smoked on awaking: gender, education, occupation, marital, income, smoking triggers.
Smoking triggers: gender, education, occupation, marital, income, time to first cigarette smoked on awaking.
Final model (Model 5): Quantity of cigarettes smoked: gender, education, occupation, marital, income, time to first cigarette smoked on awaking, smoking triggers.
Time to first cigarette smoked on awaking: gender, education, occupation, marital, income, quantity of cigarettes smoked, smoking triggers.
Smoking triggers: gender, education, occupation, marital, income, quantity of cigarettes smoked, time to first cigarette smoked on awaking.

Table 6. Readiness of Change in Men and Women Smoking

	Male n = *827*	*Female* n = *90*	p *value*[a]
Had thought of cutting down/changing brand/quitting in previous 6 months	511 (61.8)	62 (68.9)	0.2080
Had made a cutting-down/changing brand/quitting attempt in the previous 6 months	401 (48.5)	47 (52.2)	0.5077
Stage of change			0.1321
Precontemplator	798 (96.6)	83 (93.3)	
Contemplator	28 (3.4)	6 (6.7)	

[a]Chi-square test.

table finding was that whereas Taiwanese women continue this habit for emotional reasons, Taiwanese men continue for social reasons.

Our study found that unlike western societies but like other Asian societies, a much larger percent of men than women smoked.[13,19] The overall prevalence of smoking was nine times higher among men than women, but the gap is closing rapidly because of the dramatic increase in smoking rate among younger women. The smoking rates for men were 19.2, 12.6, 9, 8, and 3.8 times higher than for women at ≥ 55 years, 45–55, 35–44, 25–34, and 18–24 year old, respectively (Table 1). A similar prevalence has been observed in more industrialized Asian countries, such as Japan,[14] and developed western countries.[8,11] We found the prevalence of smoking to have sharply increased among women aged 18–24 years, born between 1980 and 1986. This increase raises concerns about the long-term impact of the liberalization of cigarette imports that occurred in Taiwan in 1987, which resulted from global economic pressure as Taiwan made its bid to join the World Trade Organization.

The link between the increase in female smoking rates and the opening of the tobacco market to foreign cigarette companies has been documented in other Asian countries.[13,14,20] In addition, earlier studies have shown that the tobacco industry intentionally targeted women by focusing on female-identified needs, preferences, and positive images of smoking,[21–23] although there are no conclusive studies of how the tobacco industry targets women and teenage consumers in Taiwan. More work should be done to monitor and decrease the impact of the trade liberalization and cigarette marketing on smoking in these minority groups. Meanwhile, we need more legislative supports to deal with the tobacco industry's marketing and promotional activities.

Apart from trade liberalization and tobacco marketing, modernization, liberalization, changes in women's role in society, and social interests have added to the higher prevalence of smoking in women.[8,10,11,13,14,20] Traditional values and normative gender expectations may be becoming less of a protective factor against smoking in women in Asia. Therefore, it is crucial to gain a deeper understanding of the normative gender roles and social values of modern Asian women and identify the effects of sociocultural influences on cigarette diffusion and behaviors. More ethnographic studies and qualitative information are needed to add to our understanding of this issue.

This study found the age and life stage of people beginning to smoke in Taiwan to differ from those reported for western societies. In western studies, the average age that women begin smoking is reported to be about 15 years, almost pediatric behavior. Fewer than half of our participants began at that age, the difference probably a result of sociocultural beliefs and family roles. In the United States, for example, Chinese and Taiwanese American students report that they refuse to smoke or quit smoking to show they are dutiful and to avoid family quarrels.[24] In this study, on average, men and women started smoking at 19 and 21 years old, respectively, which is more in line with early adulthood and leaving home, joining the workforce, or entering the military. These findings suggest reallocating antitobacco resources in Taiwan, which are currently aimed at high school students and might be better spent in universities, the workplace, and the military.

We also found that women tended to start smoking to control weight and cope with psychological distress, a finding that has also been reported by studies in western countries.[1,8,11] We found that on a daily basis what triggers the desire to smoke in men is distinct from that in women. Men were more compelled to smoke as a means of responding to social stimuli, whereas women were more compelled to smoke as a means of coping with stress, sadness, anger, or depression. Others have also found this in women, especially in environments where there are few other resources available to them.[25–27] Of all the possible determinants, we found the need for a means of coping with psychological distress to be the most solid determinant of tobacco use in women.

Additionally, our findings show that although women perceived cigarettes to be more disadvantageous than did men, they did not report a higher percentage of attempts to quit. This finding might be surprising except that similar finding have been reported in the United States, where women have been reported to be less successful at quitting because they are less confident about their ability to quit smoking, are more interested in preventing weight gain, and have a greater psychological need for cigarettes.[11] Women have also been found to be much less responsive to taxation and clean indoor air laws then men.[11] Our findings consistently demonstrate that psychological dependence is the most important predictor of the decision to start smoking, beliefs about smoking, types of triggers women respond to, and decision to continue smoking. These results may pro-

vide a potential explanation for the unexpected association between the perceived harms of smoking and the quit thought/attempt. This is unfortunate, for according the report of the Surgeon General,[11] people who smoke to satisfy an emotional need are less likely to be affected by price, taxation, nicotine replacement therapy, and restrictions of smoking in public places.

What do these findings mean to tobacco control efforts? Considering the major differences in the reasons men and women start to smoke and continue to smoke, the sharp increases in smoking in women, and the difficulties in persuading smokers with an emotional need for cigarettes to quit, there is a great need for gender-sensitive tobacco control policies in Asia. More effort is needed to break down the stereotype of the link between smoking as relief of psychological distress shaped by the tobacco industry.[28] Furthermore, antitobacco education programs targeting women might spend less effort educating women on the harmful effects of cigarettes and more effort on educating them about better strategies for coping with psychological distress. Effort should be made to counter tobacco's portrayal of women smokers as being slim and confident, especially because it is the lack of control and confidence that keeps them addicted to this harmful habit.

The limitations of this study include its dependence on self-reported smoking behavior and the comparatively few women who are smokers. A strength of this study is that it follows a national population-based random recruitment procedure, so the rate of smoking in women in the study is representative of the general population.

Conclusions

This study and previous studies show that men and women start smoking and maintain their smoking behavior for different reasons. Although many of our findings were similar to those from other countries, some of our findings were not. Thus, this study contributes to our understanding of specific socioculturally constructed gender differences in smoking behaviors not just in Taiwan but in other Asian countries as well. Because different sociocultural embedded life trajectories and social circumstances in both men and women have a powerful effect on their smoking behaviors, it is necessary to develop smoking prevention and cessation strategies and policies not only based on gender differences but also within a specific sociocultural context. Public health policies and strategies may need to use multidisciplinary gender-tailored approaches more appropriate to local cultures. Finally, the region in general may need to broaden its tobacco control network and strengthen its guardline through international collaboration.

Disclosure Statement

No competing financial interests exist.

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