

Quitting smoking in China: findings from the ITC China Survey

Yuan Jiang,¹ Tara Elton-Marshall,² Geoffrey T Fong,^{2,3} Qiang Li¹

¹National Tobacco Control Office of the Chinese Center for Disease Control and Prevention, Beijing, China

²University of Waterloo, Waterloo, Canada

³Ontario Institute for Cancer Research, Toronto, Canada

Correspondence to

Tara Elton-Marshall, Department of Psychology, PAS Building, University of Waterloo, 200 University Avenue West, Waterloo, Ontario, Canada N2L 3G1; teelton@uwaterloo.ca

Received 30 April 2009

Accepted 14 December 2009

ABSTRACT

Background Few studies have examined interest in quitting smoking and factors associated with quitting in mainland China.

Objective To characterise interest in quitting, quitting behaviour, the use of cessation methods and reasons for thinking about quitting among adult urban smokers in six cities in China.

Methods Data is from Wave 1 of the ITC China Survey, a face-to-face household survey of 4732 adult smokers randomly selected from six cities in China in 2006. Households were sampled using a stratified multistage design.

Findings The majority of smokers had no plan to quit smoking (75.6%). Over half (52.7%) of respondents had ever tried to quit smoking. Few respondents thought that they could successfully quit smoking (26.5%). Smokers were aware of stop-smoking medications (73.5%) but few had used these medications (5.6%). Only 48.2% had received advice from a physician to quit smoking. The number one reason for thinking about quitting smoking in the last 6 months was concern for personal health (55.0%). Most smokers also believed that the government should do more to control smoking (75.2%).

Conclusion These findings demonstrate the need to: (1) increase awareness of the dangers of smoking; (2) provide cessation support for smokers; (3) have physicians encourage smokers to quit; (4) denormalise tobacco use so that smokers feel pressured to quit; (5) implement smoke-free laws to encourage quitting; (6) develop stronger warning labels about the specific dangers of smoking and provide resources for obtaining further cessation assistance; and (7) increase taxes and raise the price of cigarettes.

INTRODUCTION

China is facing a public health crisis with current smoking rates estimated at 320 million people.¹ The majority of adult males (57%), and 3% of adult females in China are current smokers.² Given these smoking rates, it is estimated that one million smokers in China die from tobacco-related illnesses each year¹ and this number is expected to rise to 2.2 million deaths by 2020.³ Smoking also poses an enormous health risk to non-smokers in China as it is estimated that 52% of non-smokers are exposed to tobacco smoke pollution for at least 15 minutes daily for more than 1 day every week.⁴

To reduce the health burden of smoking, smokers in China need to be prevented from smoking and encouraged to quit smoking. Recent studies have demonstrated that quitting even after many years of smoking can greatly reduce the risk of cancer, stroke and cardiovascular diseases.^{5 6} However, research conducted in 1996 and 2002 suggests that

the majority of smokers in China (71.8% and 74%, respectively) have no intention of quitting smoking.^{4 7} Further studies examining intentions to quit smoking in China have not been conducted. It is unclear whether interest in quitting smoking has changed since this time.

The goal of this paper is to examine whether smokers in China are interested in quitting smoking, whether they have attempted to quit smoking and whether they have been successful. We will examine how smokers have attempted to quit smoking and whether smokers in China have received encouragement and support to successfully quit smoking. A recent study in China suggests that only 48% of physicians ask their patients about their smoking status and only 64% offer cessation advice to these smoking patients.⁸ Research evidence suggests that physicians' advice is a powerful motivator to encourage quitting.^{9–11} This study will therefore examine, from the smokers' perspective, whether smokers in China have received advice about quitting smoking from their physician or healthcare providers.

The use of other cessation methods that have proved to be effective will also be explored. For example, how many smokers in China have heard about and how many have used nicotine replacement therapy? Studies have demonstrated that this is one of the most effective cessation aids available.¹² However, it is not known how common these medications are in China.

Another effective cessation strategy is the use of "quit and win" competitions to encourage smokers to quit. The Chinese International Quit and Win competition is currently one of the largest cessation activities in China. This strategy began in 1996 in Beijing, Shanghai and Tianjin. By 2006 the quit and win service had expanded to 31 provinces with approximately 130 000 smokers participating.^{13 14} No studies to date have examined whether the majority of urban smokers in China are aware of the programme and how many have used this service.

Finally, this paper will explore smokers' reasons for thinking about quitting smoking. These reasons will provide important insights into which factors are salient to Chinese smokers and which policies/programmes need to be strengthened in order to increase smokers' motivation to quit smoking.

METHOD

The following is a brief outline of the methods employed in the ITC China Survey. Additional detail is provided by Wu *et al*¹⁵ and in the ITC China Survey Wave 1 Technical Report, which can be found at <http://www.itcproject.org>.¹⁶



This paper is freely available online under the BMJ Journals unlocked scheme, see <http://tobaccocontrol.bmj.com/site/about/unlocked.xhtml>

Participants

The ITC China Survey is a prospective cohort survey of 800 adult smokers and 200 adult non-smokers in each of six cities in China: Beijing, Shanghai, Guangzhou, Shenyang, Changsha and Yinchuan. A seventh city (Zhengzhou) was originally included in Wave 1 and Wave 2 of the ITC China Survey; however, the data from this city were later discarded after data quality testing suggested that the information was not reliable and therefore suspect. The overall sample size of the survey is 4800 for adult smokers and 1200 for adult non-smokers. This paper examines quitting behaviour of current smokers (defined as having smoked at least 100 cigarettes in a lifetime and currently smoking at least once a week). The Wave 1 survey was conducted in February–April 2006.

Sampling design

The six cities in the ITC China Survey do not constitute a random sample of the entire population of China. They were judiciously selected based on geographical representations and levels of economic development.

In each city, the ITC China Survey employed a multistage cluster sampling design. In each of the six cities, 10 street districts (Jie Dao) were randomly selected, with probability of selection proportional to the population size of the Jie Dao. Within each of these Jie Dao, two residential blocks (Ju Wei Hui) were selected, again with probability proportional to the population size of the Ju Wei Hui. Within each selected Ju Wei Hui, a complete list of addresses of the dwelling units (households) was first compiled, and then a sample of 300 households were drawn from the list by simple random sampling without replacement. In this way, the sampling frame was constructed in each city.

Information on age, gender and smoking status for all adults living in these 300 households was collected in the enumeration process. The enumerated 300 households were then randomly ordered, and adult smokers and non-smokers were then approached following the randomised order until 40 adult smokers and 10 adult non-smokers were surveyed. Because of low smoking prevalence among women, one male smoker and one female smoker from every selected household were surveyed whenever possible to increase the sample size for women. At most one non-smoker was interviewed per household. Where there was more than one person in a sampling category to choose from in a household, the next birthday method¹⁷ was used to select the individual to be interviewed.

A table demonstrating the sample characteristics for the Wave 1 respondents in this study can be found in the paper by Elton-Marshall *et al* (this issue).¹⁸

Procedure

The enumerators and survey interviewers were organised and trained by the CDC staff in each city, with support and supervision from the ITC China team members both at the China National CDC and at the ITC Project Data Management Centre at the University of Waterloo.

The ITC China Survey was conducted through face-to-face interviews. The average time to complete a survey was 31.4 minutes for smokers (interquartile range around 10 minutes and 5 minutes). Interviewers followed a strict protocol in their interview session with each respondent. Up to four visits to a household were made in order to interview the target person(s) within that household.

All materials and procedures used in the ITC China Survey were reviewed and cleared for ethics by the research ethics board

at the University of Waterloo and by the institutional review boards at the Chinese National Center for Disease Control and Prevention.

The Wave 1 cooperation rates were: 80.0% in Beijing (estimated), 80.0% in Guangzhou (estimated), 81.2% in Shenyang (exact), 84.2% in Shanghai (exact), 80.0% in Changsha (estimated) and 90.3% in Yinchuan (exact). The response rates range from 39.4% in Yinchuan to 66.0% in Guangzhou.

Weight construction

Sampling weights were constructed separately for male adult smokers, female adult smokers and adult non-smokers. Wave 1 weights were constructed by taking into account the four levels of sample selection: Jie Dao, Ju Wei Hui, household and individual. The final Wave 1 weight for a sampled individual was the number of people in the city population and the sampling category represented by that individual.

Measures

Quitting behaviour and attitudes towards quitting

Quit intentions were measured by asking respondents: “Are you planning to quit smoking?” (within the next month, within the next 6 months, sometime in the future beyond 6 months, not planning to quit/don’t know). History of quitting was assessed by asking respondents whether they had ever tried to quit smoking (yes/no) and for those who had tried to quit smoking, the number of previous quit attempts (1, 2–5, 6–10, >10). Self-efficacy was measured by asking respondents “how sure are you that you would succeed at quitting?” (not at all sure, somewhat sure, very sure, extremely sure).

To assess attitudes towards quitting smoking we asked: “how much do you think you would benefit from health and other gains if you were to quit smoking?” To determine whether smokers thought that the government should be more involved with tobacco control we asked whether respondents thought that: “the government should do more to control smoking”.

Awareness and use of cessation aids and services

We assessed whether respondents were aware of smoking cessation aids, including stop smoking medications, Chinese traditional stop-smoking medications and stop-smoking acupuncture. We also asked respondents whether they had ever used stop-smoking medications. For those respondents who had used stop-smoking medications, we asked which medications they had used (nicotine gum, nicotine lozenges, nicotine nasal spray, Chinese traditional medicine, acupuncture, other).

To assess whether respondents had access to stop-smoking services, we asked those respondents who had visited a doctor or health professional in the last 6 months, whether they had received: Advice to quit smoking, additional help or referral to another service to help quit, a pamphlet or brochures on how to quit. In addition, we asked respondents whether they had received advice or information about quitting smoking in the last 6 months from: Telephone or quit line services, and local stop-smoking services (ie, hospitals or clinics). Finally, we asked respondents whether they were aware of the International Quit and Win contest in China.

Reasons for thinking about quitting

We asked respondents whether any of the following reasons had made them think about quitting in the last 6 months: Concern for personal health, concern about the effect of your cigarette smoke on non-smokers, China society disapproves of smoking, the price of cigarettes, smoking restrictions in public and work

places, advertisements or information about the health risks of smoking, health warning labels on cigarette packages, setting an example for children, family disapproves of smoking. Response options were: not at all, a little, very much, don't know.

Statistical analyses

Weighted frequencies were conducted using Complex Samples in SPSS version 17.0.

RESULTS

Table 1 presents the weighted frequencies for quitting and attitudes towards quitting. The majority of smokers had no plan to quit smoking now or in the future (75.6%). Over half (52.7%) of respondents had ever tried to quit smoking and had attempted to quit 2–5 times (53.2%). A minority of respondents felt that they could successfully quit smoking (26.5% were 'very sure' or 'extremely sure'). There was some acknowledgement that the respondent would benefit from health and other gains if they were to quit smoking in the next 6 months (35.1% said 'very much'). Most smokers also believed that the government should do more to control smoking (75.2%).

Smokers in China were aware of stop-smoking medications (73.5%) (table 2); however, less than half were aware of Chinese traditional stop-smoking medications (37.9%) and stop-smoking acupuncture (27.6%). Despite an awareness of stop-smoking

Table 1 Quitting behaviour and attitudes towards quitting

	n	Weighted %	95% CI
Quit intention			
Within the next month	377	8.0%	7.0% to 9.0%
Within the next 6 months	297	6.7%	5.3% to 8.5%
Sometime in the future beyond 6 months	437	9.7%	7.9% to 12.0%
Not planning to quit/don't know	3602	75.6%	71.9% to 79.5%
Ever tried to quit smoking?			
Yes	2512	52.7%	50.7% to 54.7%
No	2219	47.3%	45.2% to 49.3%
Number of previous quit attempts			
NA/Don't know/can't say	45	1.8%	1.2% to 3.0%
1	810	32.3%	30.2% to 34.5%
2–5	1368	53.2%	50.2% to 56.1%
6–10	151	6.8%	5.0% to 9.1%
>10	149	5.9%	4.8% to 7.1%
How sure are you that you would succeed at quitting?			
Don't know/can't say	334	6.5%	5.4% to 7.9%
Not at all sure	2004	42.9%	40.3% to 45.5%
Somewhat sure	1158	24.1%	22.4% to 25.9%
Very sure	622	13.9%	12.1% to 15.9%
Extremely sure	612	12.6%	11.2% to 14.1%
How much do you think you would benefit from health and other gains if you were to quit smoking permanently in the next 6 months?			
Not at all	944	19.4%	17.6% to 21.4%
A little	1532	32.0%	29.1% to 35.1%
Very much	1613	35.1%	31.8% to 38.6%
Don't know/can't say	639	13.4%	11.7% to 15.4%
The government should do more to control smoking			
Strongly agree/agree	3539	75.2%	69.9% to 80.9%
Strongly disagree/disagree/neutral/don't know	1193	24.8%	21.0% to 29.5%

Table 2 Awareness and use of cessation aids and services

	n	Weighted %	95% CI
Aware of stop smoking medications			
Yes	3509	73.5%	71.1% to 75.9%
No	1221	26.5%	24.0% to 28.9%
Aware of Chinese traditional stop-smoking medications			
Yes	1830	37.9%	35.7% to 40.0%
No	2883	62.1%	60.0% to 64.3%
Aware of stop-smoking acupuncture			
Yes	1363	27.6%	25.1% to 30.2%
No	3354	72.4%	69.8% to 74.9%
Ever used stop-smoking medications?			
Yes	274	5.6%	4.8% to 6.6%
No	4444	94.3%	93.2% to 95.1%
Cannot remember	8	0.1%	0.1% to 0.4%
Among those who used cessation aids,* medications/treatments ever used:			
Nicotine gum	68	33.2%	20.3% to 52.3%
Nicotine lozenges	18	11.4%	4.6% to 28.3%
Nicotine nasal spray	21	15.3%	6.4% to 35.1%
Chinese traditional medicine	50	24.4%	16.4% to 36.2%
Acupuncture	15	10.1%	3.8% to 25.4%
Other	106	50.9%	33.0% to 74.1%
Among those who visited a doctor or other health professional in the last 6 months, percentage who received:			
Advice to quit smoking	583	48.2%	45.0% to 51.4%
Additional help or referral to another service to help quit	51	4.3%	2.9% to 6.3%
Pamphlet or brochures on how to quit	26	1.6%	1.0% to 2.7%
Received advice or information about quitting smoking in the last 6 months from:			
Telephone or quit line services	53	1.2%	0.9% to 1.7%
Local stop-smoking services (ie, hospitals or clinics)	389	8.4%	7.4% to 9.6%
Aware of the International Quit and Win contest in China			
Yes	597	13.2%	11.7% to 14.9%
No	4117	86.8%	85.1% to 88.3%
Of those who were aware, % participated	18†	3.3%	1.8% to 5.8%

*Not every respondent who had ever used a cessation aid answered each question. There was some variability in the number of respondents who answered each question so the denominator for the percentage who used each could be different.

†47 respondents who were aware of the International Quit and Win contest did not answer this question.

medications, few smokers in China had actually used these medications (5.6%). Among those who had ever used stop-smoking medications, nicotine gum was the most popular (33.2%).

The majority of smokers in China had not received any advice to help them quit smoking. Among those who visited a doctor or other healthcare professional in the last 6 months, only 48.2% had received advice to quit smoking. Almost no one had received additional help or a referral to another service to help quit (4.3%). Smokers were also not given pamphlets or brochures on how to quit (1.6%). In the last 6 months, most smokers (1.2%) did not contact telephone or quit line services to get advice or information about quitting. Smokers were also unlikely (8.4%) to have received advice or information to quit smoking from local stop-smoking services (ie, hospitals or clinics). In all, 13.2% of the smokers were aware of the International Quit and Win

contest in China, but only 3.3% had participated in this programme.

The number one reason for thinking about quitting smoking in the last 6 months was concern for personal health with 55.0% of respondents endorsing this belief (see table 3). The next most important reasons were: the impact of smoking on others, the effect of smoke on non-smokers (44.5%), normative reasons, such as family disapproval (42.0%) and concern for setting an example for children (40.5%). A minority of respondents identified health information campaigns designed to deter smoking such as advertisements (28.3%) and warning labels (22.2%) as reasons to think about quitting. Smokers were least likely to say that price was a reason for thinking about quitting smoking in the last 6 months (21.8%).

DISCUSSION

The majority of smokers in China do not intend to quit smoking (75.6%). This finding is consistent with a 1996 national prevalence study and a 2002 study in which the majority of smokers had no intention of quitting.^{4 7} Clearly the smoking situation in China has not improved and may have even got worse. Over half of smokers had made one or more quit attempts but continue to smoke. It is possible that smokers are not able to quit successfully because cessation services and medications are not widely available in China. Alternatively, smokers may not feel pressured to remain smoke-free because they are not as concerned about the health effects of smoking. Indeed, few smokers reported that they would benefit from health or other gains if they were to quit. Increasing knowledge about the health effects of smoking could therefore increase interest in quitting and remaining smoke-free.

In addition to increasing public awareness about the risks of smoking, it is also important to increase smokers' confidence that they can quit smoking.¹⁹ These findings demonstrate that smokers lack the self-efficacy to be able to quit smoking. This may be due in part to a perceived lack of support in quitting.

One method that has been demonstrated to help smokers quit smoking is the use of stop-smoking medications.¹² While smokers in China are aware of stop-smoking medications, few smokers have actually used them. Anecdotal evidence suggests that smokers are aware of these medications because of news stories about stop-smoking medications. Despite the fact that nicotine replacement therapy (NRT) does not require a prescription, few pharmacies actually sell these products and access is therefore limited. Additionally, as this study has demonstrated, few smokers in China are interested in quitting smoking and therefore wouldn't need to use these medications. Indeed, NRT has been available in China for about 10 years; however, there was little

interest in this product and it was removed from the Chinese market. NRT was later reintroduced to the market in 2007. Future research should explore the potential reasons why Chinese smokers are not interested in stop-smoking medications, and barriers to using these medications.

Awareness of Chinese traditional medicine to aid in smoking cessation was very low particularly compared to smoking cessation medications. Anecdotal evidence suggests that this is because there is little dissemination about the use of Chinese traditional medicine to aid in smoking cessation.

Physicians can provide smokers with the knowledge that smoking is harmful as well as assist smoker cessation. In fact, research in other countries has demonstrated that physicians' advice is an effective strategy to motivate smokers to quit.⁹ However, this research demonstrates that physicians are not advising smokers to quit, providing smokers with information about how to quit (pamphlets/brochures) and referring smokers to other stop-smoking services to help them quit. The reason why physicians are not providing cessation advice may include a lack of cessation training in medical schools, and a lack of knowledge about the harmful effects of smoking.⁸ Future research could attempt to identify ways to encourage physicians to become more involved in encouraging smokers to quit.

Other cessation resources such as the Chinese International Quit and Win Campaign could also focus on educating smokers about the dangers of smoking while also providing support for quitting. This campaign was not well known among respondents in our survey, which therefore indicates that increased promotion of this service may increase smokers' participation. Telephone or quit services were also rarely used; however, this is not surprising given that these services were only available in Beijing in a limited scale at the time of our survey. Health information campaigns warning smokers about the dangers of smoking will soon be implemented in China in accordance with the Framework Convention on Tobacco Control (FCTC). Consequently, it is expected that more smokers in China will consider quitting smoking. It is therefore imperative that programmes to encourage smoking cessation are immediately developed and implemented in China to assist the anticipated increase in the number of health-concerned smokers.

The majority of smokers in China were not interested in quitting; however, it is important to examine which factors influence thinking about quitting. Understanding which factors are associated with thinking about quitting can inform how quitting campaigns should be targeted and which policies/programmes need to be improved to encourage quitting.

The most popular reason for thinking about quitting smoking (in the next 6 months) was concern for personal health. This

Table 3 Reasons for thinking about quitting in the last 6 months

Reason	Not at all	A little	Very much	Don't know	n
Concern for personal health	42.9% (40.3% to 45.5%)	35.4% (33.1% to 37.8%)	19.6% (17.8% to 21.5%)	2.1% (1.4% to 3.1%)	4723
Concern about the effect of your cigarette smoke on non-smokers	52.8% (49.7% to 55.9%)	32.7% (30.2% to 35.4%)	11.8% (10.3% to 13.4%)	2.7% (2.0% to 3.7%)	4723
China society disapproves of smoking	66.2% (63.3% to 69.0%)	25.3% (22.9% to 27.9%)	6.2% (5.2% to 7.3%)	2.3% (1.6% to 3.2%)	4723
The price of cigarettes	76.7% (74.5% to 78.8%)	17.2% (15.5% to 19.1%)	4.6% (3.9% to 5.5%)	1.5% (1.0% to 2.4%)	4722
Smoking restrictions in public and work places	56.3% (52.1% to 60.5%)	30.9% (27.7% to 34.3%)	9.8% (8.4% to 11.4%)	2.9% (2.2% to 3.9%)	4720
Advertisements or information about the health risks of smoking	68.9% (65.5% to 72.1%)	24.4% (21.5% to 27.5%)	3.9% (3.1% to 4.9%)	2.8% (2.1% to 3.8%)	4723
Health warning labels on cigarette packages	75.3% (72.6% to 77.7%)	19.5% (17.3% to 22.0%)	2.7% (2.1% to 3.4%)	2.5% (1.9% to 3.4%)	4722
Setting an example for children	55.8% (52.4% to 59.1%)	27.9% (25.6% to 30.4%)	12.6% (11.0% to 14.4%)	3.7% (2.9% to 4.8%)	4722
Family disapproves of smoking	55.7% (53.0% to 58.3%)	28.7% (26.9% to 30.6%)	13.3% (11.6% to 15.1%)	2.3% (1.7% to 3.1%)	4721

finding is consistent with a 1996 study demonstrating that 47% of smokers reported being sick as a reason to quit smoking and 34% reported that worrying about their health in the future was a reason to quit.⁷ Compared to other countries, however, endorsement of this belief was low in China (55.0%) compared to respondents in our ITC South Korea project (80.5%), for example. Again this suggests that further education about the health risks of smoking could increase the likelihood that Chinese smokers will quit smoking.

Concern for close friends and relatives seems to be another important motivator for smokers to quit. This is consistent with China as a collectivistic culture where, culturally, people in China tend to place more importance on the norms of their in-group.²⁰ If the norm is that you shouldn't smoke, the smoker would therefore feel more pressure to quit smoking. The finding also demonstrates that tobacco control policies in China could be improved to increase interest in quitting. Smoking restrictions,²¹ ads warning about the dangers of smoking,²² warning labels on cigarette packages^{23 24} and the price of cigarettes²⁵ are all policies that have been effective in encouraging quitting in other countries. However, these policies are not listed as reasons to think about quitting smoking in China.

These findings are not surprising given that China does not have strong anti-smoking advertising. Few places in China are smoke-free and warning labels are text-only with the vague message 'smoking harms your health'. The price of cigarettes in China is also very low; the cigarette tax rate in China is about 40% of the retail price (compared to 79% in Thailand, another developing country in Asia). The China Tobacco Monopoly actually subsidises tobacco factories for their production of less expensive cigarettes, which guarantees a supply of less expensive cigarettes.

Implications

Overall, these findings demonstrate the need to: (1) increase awareness of the dangers of smoking in China; (2) provide cessation support for smokers; (3) encourage physicians and other health professionals in China to become involved in encouraging and supporting smokers to quit; (4) denormalise tobacco use so that smokers feel increasing pressure to quit smoking particularly from close friends and family; (5) implement smoke-free laws to encourage quitting; (6) develop stronger warning labels about the specific dangers of smoking and provide resources for obtaining further cessation assistance;

What this paper adds

Few studies have examined interest in, and factors associated with quitting smoking among Chinese smokers. Those studies that have been conducted were completed 6 years or more ago. Therefore, it is important to examine up-to-date findings on whether: (1) smokers in China are interested in quitting; (2) whether smokers are accessing cessation support services and, if so, which services; (3) whether physicians and other healthcare professionals are encouraging smokers to quit; and (4) what factors are associated with thinking about quitting smoking in China. These findings will have implications for how tobacco control policies can be implemented in China to support and encourage smokers to quit smoking. It is imperative that China starts to implement effective cessation strategies because China currently has the highest smoking rate in the world and the potential loss of life if smokers continue to smoke is enormous.

(7) increase the price of cigarettes in China by increasing taxes on cigarettes.

Finally, some have argued that China is not ready for strong tobacco control policies. However, this study found that the majority of smokers agreed that the government should do more to control tobacco. Clearly it is time to implement stronger tobacco control policies that will encourage smokers to quit.

Acknowledgements The authors would like to acknowledge the Chinese Center for Disease Control and Prevention and the local CDC representatives in each city for their role in data collection.

Funding Chinese Center for Disease Control and Prevention, Canadian Institutes of Health Research, Canada (#79551), National Cancer Institute (NCI)/National Institute of Health (NIH R01 CA125116-01A1), Roswell Park Transdisciplinary Tobacco Use Research Center (TTURC- P50 CA111236), funded by the U.S. National Cancer Institute, with additional support from a Canadian Institutes of Health Research Canada Graduate Scholarship Master's Award, a Canadian Institutes of Health Research Doctoral Research Award, and the Canadian Institutes of Health Research Strategic Training Program in Tobacco Research.

Competing interests None.

Patient consent Obtained.

Ethics approval Ethics approval was obtained from the Office of Research at the University of Waterloo (Waterloo Canada), and the internal review boards at: Roswell Park Cancer Institute (Buffalo, USA), the Cancer Council Victoria (Victoria, Australia), and the Chinese Center for Disease Control and Prevention National Center for AIDS/STD Control and Prevention (Beijing, China).

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

1. **World Health Organization.** *Towards a tobacco-free China*. Geneva, Switzerland: World Health Organization, 2007. <http://www.wpro.who.int/china/sites/ftf/> (accessed 15 Aug 2007).
2. **World Health Organization.** *Report on the Global Tobacco Epidemic, 2008: the MPOWER package*. Geneva, Switzerland: World Health Organization, 2008a. http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf (accessed 20 Jun 2008).
3. **Murray CJL, Lopez AD.** Alternative projections of mortality and disability by cause 1990–2020: global burden of disease study. *Lancet* 1997;**349**:1498–504.
4. **Yang G, Ma J, Liu N, et al.** Smoking and passive smoking in China, 2002. *Chin J Epidemiol* 2005;**26**:77–83.
5. **Lam TH, Li ZB, Ho SY, et al.** Smoking, quitting and mortality in an elderly cohort of 56,000 Hong Kong Chinese. *Tob Control* 2007;**16**:182–9.
6. **Godtfredsen NS, Lam TH, Hansel TT, et al.** COPD-related morbidity and mortality after smoking cessation: status of the evidence. *Eur Respir J* 2008;**32**:844–53.
7. **Yang G, Ma J, Chen A, et al.** Smoking cessation in China: findings from the 1996 national prevalence survey. *Tob Control* 2001;**10**:170–4.
8. **Yuan J, Ong MK, Tong EK, et al.** Chinese physicians and their smoking knowledge, attitudes, and practices. *Am J Prev Med* 2007;**33**:15–22.
9. **Stead LF, Bergson G, Lancaster T.** Physician advice for smoking cessation. *Cochrane Database Syst Rev* 2008a;**16**(2):CD00165.
10. **Schroeder SA.** What to do with a patient who smokes. *JAMA* 2005;**294**:482–7.
11. **Tobacco Use and Dependence Clinical Practice Guideline Panel, Staff, and Consortium Representatives.** A clinical practice guideline for treating tobacco use and dependence: a US Public Health Service report. *JAMA* 2000;**283**:3244–54.
12. **Stead LF, Perera R, Bullen C, et al.** Nicotine replacement therapy for smoking cessation. *Cochrane Database Syst Rev* 2008b;**1**:CD000146.
13. **Yang Y, Nan Y, Wei XS, et al.** Analysis on 2004 China international quit & win and its follow-up survey after one month. *Chin J Prev Control Chron NonCommun Dis* 2005;**13**(2):54–56.
14. **Zhu XM, Yang Y, Jiang Y, et al.** The effect factors of 2004 Chinese quit and win and its sustaining developing policy. *Chin J Prev Control Chron NonCommun Dis* 2006;**14**(1):53–54.
15. **Wu C, Thompson ME, Fong GT, et al.** Methods of the International Tobacco Control (ITC) China Survey. *Tob Control* 2010;**19**:1–5.
16. **International Tobacco Control China Survey Team.** *Wave 1 ITC China Technical Report*. Waterloo, Canada, International Tobacco Control China Survey Team, 2008. <http://www.itcproject.org/library/countries/itcchina/reports/finalitcch> (accessed 17 Jun 2009).
17. **Binson D, Canchola JA, Catania JA.** Random selection in a national telephone survey: a comparison of the Kish, next-birthday, and last birthday methods. *J Off Stat* 2000;**16**:53–60.
18. **Elton-Marshall T, Fong GT, Zanna MP, et al.** Beliefs about the relative harm of "light" and "low tar" cigarettes: findings from the International Tobacco Control China survey. *Tob Control* 2010;**19**:54–62.

19. **Ockene JK**, Emmons KM, Mermelstein RJ, *et al.* Relapse and maintenance issues for smoking cessation. *Health Psychol* 2000;**19**(Suppl 1):17–31.
20. **Triandis HC**. The self and social behavior in differing cultural contexts. *Psychol Rev* 1989;**96**:506–20.
21. **Farkas AJ**, Gilpin EA, Distefan JM, *et al.* The effects of household and workplace smoking restrictions on quitting behaviours. *Tob Control* 1999;**8**:261–5.
22. **Hyland A**, Wakefield M, Higbee C, *et al.* Anti-tobacco television advertising and indicators of smoking cessation in adults: a cohort study. *Health Educ Res* 2006;**21**:296–302.
23. **Borland R**, Yong H-H, Wilson N, *et al.* How reactions to cigarette packet health warnings influence quitting: findings from the ITC four country survey. *Addiction* 2009;**104**:669–75.
24. **Hammond D**, Fong GT, Borland R, *et al.* Text and graphic warnings on cigarette packages: findings from the International Tobacco Control Four Country Survey. *Am J Prev Med* 2007;**32**:202–9.
25. **Innes M**, Barling J, Rogers K, *et al.* De-marketing tobacco through price changes and consumer attempts to quit smoking. *J Bus Ethics* 2008;**77**: 405–16.

中国戒烟状况：ITC中国调查结果

姜垣,¹Tara Elton-Marshall,² Geoffrey T Fong,^{2,3} 李强¹

¹中国疾病预防控制中心
控烟办公室, 中国北京
²滑铁卢大学, 加拿大
滑铁卢
³安大略癌症研究所, 加
拿大多伦多

通讯作者:

Tara Elton-Marshall, 加
拿大滑铁卢大学心理
学系, 200 University
Avenue West, Waterloo,
Ontario, Canada N2L3G1;
teelton@uwaterloo.ca

收稿日期:

2009年4月30日

接受日期:

2009年12月14日

摘要

背景: 目前鲜有研究考察中国大陆地区吸烟者的戒烟意愿及其相关因素。

目的: 了解中国6城市中成年吸烟者在戒烟意愿、戒烟行为、戒烟方法使用以及戒烟原因等方面的特点。

方法: 研究数据来自全球烟草控制政策评估项目 (ITC) 中国调查第一轮调查结果。本轮调查采用分层多阶段抽样方法, 于2006年在中国六个城市随机选择4732名成年吸烟者, 开展面对面入户调查。

结果: 大多数吸烟者不打算戒烟 (75.6%)。半数以上 (52.7%) 调查对象曾经尝试戒烟。只有少部分调查对象认为自己能够成功戒烟 (26.5%)。很多吸烟者都听说过戒烟药物 (73.5%), 但是很少有人使用过药物治疗 (5.6%)。仅有48.2%的调查对象表示获得过医生的戒烟建议。过去半年内考虑戒烟的最主要原因是对个人健康的担忧 (55.0%)。大多数吸烟者都认为政府应当采取更多措施控制吸烟 (75.2%)。

结论: 这些结果显示有必要: (1) 提高对吸烟危害的认识; (2) 为吸烟者提供戒烟支持; (3) 要求医生鼓励吸烟者戒烟; (4) 使烟草使用非正常化, 迫使吸烟者感觉有压力, 促使其戒烟; (5) 实施无烟法律, 鼓励戒烟; (6) 开发更加有力的宣传吸烟具体危害的警示标识, 并提供资源让吸烟者可以获得进一步的戒烟帮助; 以及 (7) 提高烟税和烟草价格。

背景

中国目前有3.2亿烟民, 正面临着一场严峻的公共卫生危机。¹现在中国大部分成年男性 (57%) 和3%的成年女性都吸烟。²根据这个数字估计中国每年有100万吸烟者死于各种烟草相关疾病¹, 并且这一数字预计到2020年将增加到220万。³与此同时, 吸烟还给中国的非吸烟者带来了严重的健康风险——52%的非吸烟者每周有一天以上每天暴露于烟草烟雾超过15分钟。⁴

为了降低吸烟导致的疾病负担, 需要避免中国的吸烟者吸烟, 鼓励他们戒烟。近期的几项研究表明, 即便有多年吸烟历史, 戒烟之后也可以大大降低癌症、中风和心血管疾病的风险。^{5,6} 不过, 1996年和2002年开展的两项研究

显示, 中国大多数吸烟者 (比例分别为71.8%和74%) 都没有戒烟意愿。^{4,7} 目前中国尚未开展进一步的研究, 考察中国吸烟者的戒烟意愿, 因此尚不明确从之前的研究至今中国吸烟者戒烟意愿是否发生了改变。

本文的目的是为了考察中国吸烟者是否有意愿戒烟, 是否曾尝试戒烟, 以及是否戒烟成功。我们将考察中国吸烟者是否做过戒烟的尝试, 是否获得过戒烟鼓励和支持, 从而成功戒烟。中国近期的一项研究表明, 仅有48%的医生向自己的病人询问吸烟情况, 其中仅有64%向吸烟病人提供戒烟建议。⁸研究证据显示, 医生的建议对于鼓励戒烟是一个十分有力的促进因素。⁹⁻¹¹ 因此, 本研究将从吸烟者的角度探讨中国吸烟者是否从医生或者其他医疗服务提供者那里获得过戒烟建议。

此外, 本文还将讨论其它经证实有效的戒烟方法, 譬如中国多少吸烟者听说过尼古丁替代治疗? 多少吸烟者使用过这种治疗? 多项研究表明, 尼古丁替代治疗是现有的最有效的戒烟帮助措施之一。¹²但是对于这些药物治疗方法在中国的普遍性仍不清楚。

另一项有效的戒烟策略是利用“Quit & Win”戒烟大赛促使吸烟者戒烟。中国国际“Quit & Win”大赛目前是全中国最大的戒烟活动之一。这一策略始于1996年, 参赛的有北京、上海和天津三个城市。到2006年, Quit & Win赛事已经扩大到全国31个省, 参赛吸烟者多达130000。^{13,14} 目前尚没有研究考察是否中国大多数吸烟者都已经知道了这一活动, 以及多少吸烟者曾利用过这一服务。

最后, 本文还将探讨吸烟者考虑戒烟的各种原因。这些原因将帮助我们深入认识哪些因素对中国吸烟者具有显著影响, 哪些政策/项目需要加强, 以便提高吸烟者戒烟的动力。

方法

下面简要介绍一下ITC中国调查采用的方法。详细信息可以参考Wu等人¹⁵的文章和《ITC中国调查第一轮技术报告》, 报告网址是: <http://www.itcproject.org>。¹⁶

调查对象

ITC中国调查是一项对中国六个城市每城市800名成年吸烟者和200名成年非吸烟者开展的前瞻性人群调查, 包括北京、上海、广州、沈阳、长沙和银川。最初第一轮和第二轮调查还包括了另外一个城市 (郑州), 但由于该城市



本论文按照BMJ杂志解锁办法可在网上免费下载, 详见: <http://tobaccocontrol.bmj.com/site/about/unlocked.xhtml>

数据质量检验显示其信息不可靠,存在疑问,因此最终被剔除。调查的总样本规模为4800名成年吸烟者和1200名成年非吸烟者。本文讨论的是当前吸烟者的戒烟行为(当前吸烟者是指曾吸烟超过100支并现在每周至少吸烟一次的人)。第一轮调查时间是2006年2月至4月。

抽样设计

ITC中国调查当中的六个城市不能构建中国人口的随机样本,其选择依据是根据各城市的地理代表性和经济发展水平。在每个城市,ITC中国调查都使用是多阶段整群抽样设计。其中每个城市分别随机抽取10个街道,入选概率与街道人口规模成正比。在每个街道内再抽取两个居委会,同理入选概率与各居委会人口规模成正比。对每个入选居委会首先编制居住单位(家庭)地址全表,然后采用不放回简单随机抽样的方法从名单中抽出300户家庭。以这种方式建立每个城市的抽样框架。

在家庭成员信息收集阶段,收集这300户家庭所有成年人的年龄、性别和吸烟状况信息。然后对300户家庭随机排序,按照顺序对每个家庭中的成年吸烟者和非吸烟者进行调查,直到完成40名成年吸烟者和10名成年非吸烟者的调查为止。由于女性当中烟草流行率低,如果被调查家庭中有女性吸烟者,那么则调查一名男性吸烟者和一名女性吸烟者,以增加女性的样本量。每户家庭最多访问一名非吸烟者。如果一户家庭中某一抽样类型有不止一名满足调查条件的对象,则采取“下次生日法”选择调查对象。¹⁷

Elton-Marshall等人(本期)的文章当中有一个表格,其中包含了本研究第一轮调查对象的样本特征信息。¹⁸

调查过程

各城市疾病预防控制中心(CDC)人员负责对家庭信息收集人员和调查员进行组织和培训,中国CDC和滑铁卢大学ITC项目数据管理中心人员组成的ITC中国工作小组负责提供支持和监督。

ITC中国调查采用的是面对面访谈形式。吸烟者调查平均完成时间是31.4分钟(四分位区间约为10分钟到5分钟)。访谈者在每次调查过程中都严格遵守调查程序。为调查到家庭内的目标个人(抽中的调查对象),入户4次都不能完成调查才能放弃。

ITC中国调查中所有的材料和程序都经过滑铁卢大学伦理委员会以及中国疾病预防控制中心伦理审查委员会进行伦理审批。

第一轮调查的合作率为:北京80.0%(估计值);广州80.0%(估计值);沈阳81.2%(精确值);上海84.2%(精确值);长沙80.0%(估计值);银川90.3%(精确值)。应答率从39.4%(银川)到66.0%(广州)不等。

权重计算

对男性成年吸烟者、女性成年吸烟者和成年非吸烟者分别计算抽样权重。第一轮的权重计算考虑了样本抽取的四个层面:街道、居委会、家庭和个人。每个样本个人最终的第一轮权重是该个人所代表的该市此抽样类别中的人数。

测量指标

戒烟行为和对戒烟的态度

测定戒烟意愿的问题是:“你是否打算戒烟?”(“打算下个月之内戒烟”、“打算在接下来的6个月中戒烟”、“打算在6个月之后的某一天戒烟”,和“没打算戒烟/不知道”)。为了评

估调查对象的戒烟史,调查员询问调查对象是否曾经尝试戒烟(是/否)。对于曾经尝试戒烟的调查对象继续询问他们尝试的次数(1次、2-5次、6-10次、>10次),并对戒烟自我效能进行评估:“如果你想在接下来的6个月里彻底戒烟,你对戒烟成功的信心有多大?”(一点也没有、有一点信心、有信心、非常有信心)。

我们在评估调查对象对戒烟的态度时使用的问题是:“如果你在接下来的6个月中彻底戒烟,你认为在健康及其它方面会有多大收益?”为了解吸烟者是否认为政府应当更多地参与烟草控制,我们询问调查对象是否认为:“政府应该采取更多的措施进行控烟”?

对戒烟帮助和服务的知晓与利用

我们对调查对象对于戒烟帮助措施的知晓程度进行了评估,包括戒烟药物治疗、中医戒烟药物治疗和针灸戒烟。此外,我们还询问了调查对象是否曾经使用过戒烟药物,如果用,再询问他们使用的是哪种药物(尼古丁口胶剂、尼古丁硬糖、尼古丁鼻喷剂、中药、针灸或其它方式)。

为了评估调查对象是否能够获得戒烟服务,我们询问调查对象是否在过去六个月内看过医生或者其他医务工作者,是否获得过:戒烟建议、进一步的戒烟帮助或转诊到专业戒烟服务机构,以及关于戒烟知识的宣传册或活页。此外,我们询问了调查对象是否在过去六个月内通过下列方式获得过戒烟建议或信息:电话或戒烟热线,当地戒烟服务(医院或诊所)等。最后,我们询问调查对象是否知道中国的“Quit & Win”戒烟大赛。

考虑戒烟的原因

我们询问调查对象是否在过去六个月内因为下列原因考虑过戒烟:担心个人健康、担忧自己吸烟对非吸烟者造成影响、中国社会反对吸烟、烟草价格、公共场所和工作场所禁止吸烟的规定、吸烟对健康危害的广告和宣传信息、烟盒包装上的健康警示信息、为儿童做榜样,以及家人反对吸烟。答案选项包括:完全不、有一点、非常、不知道。

统计分析

采用SPSS 17.0版的“复杂抽样”模块计算加权频率。

结果

表1是戒烟和对戒烟态度的加权频率结果。大多数吸烟者现在和将来都不打算戒烟(75.6%)。半数以上(52.7%)调查对象曾经尝试过戒烟,超过一半尝试过2-5次(53.2%)。少数调查对象觉得自己可以成功戒烟(26.5%“有信心”或者“非常有信心”)。很多调查对象认为半年内戒烟可以为自己带来健康和其它方面的益处(35.1%表示“非常”)。此外,大多数吸烟者都认为政府应该采取更多措施控制吸烟(75.2%)。

中国吸烟者大部分都知道戒烟药物(73.5%)(表2),但是只有不到一半的人知道中医戒烟药物(37.9%)和针灸戒烟(27.6%)。

中国大多数吸烟者都没有获得过任何帮助戒烟的建议。在过去六个月内看过医生或者其他医务人员的吸烟者当中,仅有48.2%获得过戒烟建议。几乎没有人得到过进一步帮助或者转诊到其他专业戒烟机构(4.3%)。同时,吸烟者也很少得到关于如何戒烟的宣传册或者活页(1.6%)。在过去六个月内,大多数吸烟者没有使用过电话或者戒烟

热线获取戒烟建议或信息(1.2%)。此外,吸烟者也很少从当地戒烟服务机构(医院或诊所)获得戒烟建议或者信息(8.4%)。总体来说,13.2%的吸烟者知道中国国际“Quit & Win”戒烟竞赛,但只有3.3%参加过这个比赛。

过去六个月内促使吸烟者考虑戒烟的首要原因是对个人健康的担心,其中55.0%的调查对象都有这种担忧(见表3)。其次是:自己吸烟影响他人,吸烟对非吸烟者的影响(44.5%);社会规范原因,比如家人反对吸烟(42.0%)和担心对儿童造成不良榜样(40.5%)。只有少数调查对象表示针对吸烟危害的健康宣传活动,如广告(28.3%)和健康警示标识(22.2%)是自己考虑戒烟的原因。烟草价格在影响吸烟者考虑戒烟的作用中最小(21.8%)。

表1. 戒烟行为与对戒烟的态度

	N	% (加权)	95%置信 区间
戒烟意愿			
下个月之内	377	8.0%	7.0%-9.0%
接下来的6个月中	297	6.7%	5.3%-8.5%
6个月以后的某一天	437	9.7%	7.9%-12.0%
没打算戒烟/不知道	3602	75.6%	71.9%-79.5%
是否曾经尝试戒烟?			
是	2512	52.7%	50.7%-54.7%
否	2219	47.3%	45.2%-49.3%
既往尝试戒烟的次数			
无信息/不知道/无法回答	45	1.8%	1.2%-3.0%
1	810	32.3%	30.2%-34.5%
2-5	1368	53.2%	50.2%-56.1%
6-10	151	6.8%	5.0%-9.1%
>10	149	5.9%	4.8%-7.1%
如果你想在接下来的6个月里彻底戒烟,你对戒烟成功的信心有多大?			
不知道/无法回答	334	6.5%	5.4%-7.9%
一点也没有	2004	42.9%	40.3%-45.5%
有一点信心	1158	24.1%	22.4%-25.9%
有信心	622	13.9%	12.1%-15.9%
非常有信心	612	12.6%	11.2%-14.1%
如果你在接下来的6个月中彻底戒烟,你认为在健康及其它方面会有多大收益?			
一点也不	944	19.4%	17.6%-21.4%
有点	1532	32.0%	29.1%-35.1%
很大	1613	35.1%	31.8%-38.6%
不知道/无法回答	639	13.4%	11.7%-15.4%
政府应该采取更多的措施进行控烟			
非常同意/同意	3539	75.2%	69.9%-80.9%
非常反对/反对/无所谓/不知道	1193	24.8%	21.0%-29.5%

表2. 对戒烟帮助和服务的认识与使用

	N	权重%	95%置信 区间
知晓戒烟药物			
知道	3509	73.5%	71.1%-75.9%
不知道	1221	26.5%	24.0%-28.9%
知晓中医戒烟药物			
知道	1830	37.9%	35.7%-40.0%
不知道	2883	62.1%	60.0%-64.3%
知晓针灸戒烟			
知道	1363	27.6%	25.1%-30.2%
不知道	3354	72.4%	69.8%-74.9%
是否曾经使用过戒烟药物?			
使用过	274	5.6%	4.8%-6.6%
没有使用过	4444	94.3%	93.2%-95.1%
不记得了	8	0.1%	0.1%-0.4%
在使用过戒烟帮助措施的人当中,*曾使用过的药物/治疗措施包括:			
尼古丁口香糖	68	33.2%	20.3%-52.3%
尼古丁硬糖	18	11.4%	4.6%-28.3%
尼古丁鼻喷剂	21	15.3%	6.4%-35.1%
中药	50	24.4%	16.4%-36.2%
针灸	15	10.1%	3.8%-25.4%
其它	106	50.9%	33.0%-74.1%
过去六个月内曾经看过医生或者其他医务工作者的人当中,获得过下列服务的比例为:			
戒烟建议	583	48.2%	45.0%-51.4%
进一步帮助或转诊到其他戒烟专业机构	51	4.3%	2.9%-6.3%
关于戒烟方法的宣传册或者活页	26	1.6%	1.0%-2.7%
在过去六个月内通过下列方式获得过戒烟建议或者信息的比例:			
电话或戒烟热线	53	1.2%	0.9%-1.7%
当地戒烟服务机构(医院或诊所)	389	8.4%	7.4%-9.6%
是否知晓中国国际“Quit & Win”戒烟大赛			
知晓	597	13.2%	11.7%-14.9%
不知晓	4117	86.8%	85.1%-88.3%
在知晓的人当中,参加过比赛的比例	18†	3.3%	1.8%-5.8%

*并非所有使用过某种戒烟帮助的调查对象都回答了每个问题。

†47个知道国际“Quit & Win”大赛的调查对象没有回答这个问题。

讨论

中国大多数吸烟者都没有打算戒烟 (75.6%)。这个结果和1996年全国烟草流行调查以及2002年的另一项研究结果是一致的。^{4 7} 很明显,中国的吸烟状况不但没有得到改善,甚至还可能变得更加严重了。超过一半的吸烟者曾经至少一次尝试过戒烟,但是仍然在吸烟。可能吸烟者未能成功戒烟的原因是中国没有普遍的戒烟服务和药物治疗。此外,有些吸烟者可能对吸烟的危害认识不清,戒烟的动力不足。实际上,只有较少吸烟者报告称自己如果戒烟将会在健康等方面受益。因此,提高关于吸烟健康危害的知识可以增加吸烟者的戒烟意愿并维持戒烟状态。

除了提高公众对吸烟危害的认识外,提高吸烟者成功戒烟的信心也是很重要的。¹⁹ 本研究结果显示,吸烟者缺乏成功戒烟的自我效能,其中部分原因可能是由于大家感到缺乏戒烟支持。

已经证实有效的戒烟辅助手段之一是使用戒烟药物。¹² 尽管中国吸烟者很多都知道戒烟药物,但是实际使用过的人却很少。有证据表明,吸烟者知道这些药物治疗是因为关于这些治疗的新闻报道。虽然尼古丁替代治疗(NRT)并不需要处方,但是很少有药房在销售这些产品,因此其可及性也就相当有限。此外,正如本研究指出,中国的吸烟者中有戒烟意愿的人很少,因此也就用不到这些药物治疗。事实上,NRT早在大约十年前就进入过中国市场,但是由于大家对这种产品几乎毫无兴趣,它也就被撤出了中国市场。NRT再次被引入中国市场是在2007年。今后的研究需要讨论中国吸烟者对戒烟药物不感兴趣可能的原因有哪些,以及使用这些药物治疗存在哪些障碍。

和戒烟药物治疗相比,中国吸烟者对于中医戒烟的知晓水平更低。有证据显示,造成这种状况的原因是因为对中医戒烟的宣传太少。

医生可以为吸烟者提供吸烟危害的知识,并帮助他们戒烟。实际上,其他国家的研究表明,医生建议戒烟是促使吸烟者戒烟的一种有效策略。⁹ 不过,本研究却发现,医生们并没有建议吸烟者戒烟,也没有为吸烟者提有关供戒烟方法的信息(宣传册/活页)或者帮助吸烟者向其他戒烟服务机构转诊,以帮助他们戒烟。究其原因,可能是因为医生们在医学院学习过程中缺乏戒烟方面的训练,以及缺乏对吸烟害处的认识。⁸ 今后的研究应该关注如何鼓励医生更多地参与劝导吸烟者戒烟。

中国国际“Quit & Win”戒烟大赛等其它戒烟资源也可以

着力为吸烟者提供关于吸烟危害的教育宣传,同时提供戒烟支持。这一赛事在本次研究调查对象当中的知晓率并不高,这就意味着进一步推广这一赛事将能够提高吸烟者的参与。调查显示戒烟热线的使用水平不高,不过鉴于在调查时戒烟热线服务还仅限于北京地区,同时规模也相当有限,得出这样的结果也就不足为奇。根据《烟草控制框架公约》(FCTC)要求,中国将很快开展面向吸烟者的针对吸烟危害的宣传活动,相信今后将有更多的吸烟者考虑戒烟。因此,尽快开发实施鼓励戒烟的项目,帮助提高吸烟者当中担心自身健康的比例是十分必要的。

中国大部分吸烟者都没有戒烟意愿,不过,我们必须考察是哪些因素在影响吸烟者对戒烟的考虑。了解这些因素可以帮助确定针对于戒烟的活动的目标,同时发现哪些鼓励戒烟的政策/项目仍有待改进。

促使吸烟者考虑(未来六个月内)戒烟最常见的一个原因是担心自己的个人健康。这一结果同1996年的一项研究结果是一致的,1996年研究发现,47%的吸烟者报告称生病是其戒烟的原因,34%的吸烟者报告称担心以后的健康问题是自己戒烟的一个原因。⁷ 不过,与其他国家相比,在中国持有这种观点的吸烟者比例相对较低(55.0%),譬如ITC韩国项目发现该国有此看法的吸烟者比例达到80.5%。这又一次表示对吸烟健康危害的进一步宣传教育将可以提高中国吸烟者戒烟的可能性。

担心自己吸烟会影响到朋友和亲人也是吸烟者戒烟的一个重要动机。这是符合中国的集体主义文化背景的,在这一文化背景下,中国人更加倾向于重视自己所在人际圈内的规范。²⁰ 如果这一规范要求不能吸烟,那么吸烟者就会感到更大的压力要戒烟。这一结果表示中国还可以进一步改善其控烟政策,从而提高吸烟者戒烟的意愿。诸如吸烟限制²¹,针对吸烟危害的警示广告²²,烟盒包装上的警示标识^{23 24},和卷烟价格²⁵等政策在其他国家都有效起到了鼓励戒烟的效果,但是这些政策在中国却没有成为促使吸烟者戒烟的原因。

鉴于中国尚没有强有力的反烟广告宣传,这些结果的出现也并不出人意外。中国目前只有少数场所实现了无烟化,而烟草警示标识内容也仅仅局限于文字性的、语义含糊的“吸烟有害健康”这么一句话。中国的卷烟价格很低,卷烟税率仅仅是零售价格的大约40%(相形之下,在同是发展中国家的泰国,这个比例高达79%)。实际上,中国烟草总公司对烟草厂家生产低价烟提供补贴,这也就保证了低价烟的供应。

表3. 过去6个月内考虑戒烟的原因

原因	一点也不	有点	很大	不知道	N
担心个人健康	42.9% (40.3%-45.5%)	35.4% (33.1%-37.8%)	19.6% (17.8%-21.5%)	2.1% (1.4%-3.1%)	4723
二手烟对非吸烟者的影响	52.8% (49.7%-55.9%)	32.7% (30.2%-35.4%)	11.8% (10.3%-13.4%)	2.7% (2.0%-3.7%)	4723
中国社会舆论反对吸烟	66.2% (63.3%-69.0%)	25.3% (22.9%-27.9%)	6.2% (5.2%-7.3%)	2.3% (1.6%-3.2%)	4723
卷烟价格	76.7% (74.5%-78.8%)	17.2% (15.5%-19.1%)	4.6% (3.9%-5.5%)	1.5% (1.0%-2.4%)	4722
公共场所/工作场所禁烟	56.3% (52.1%-60.5%)	30.9% (27.7%-34.3%)	9.8% (8.4%-11.4%)	2.9% (2.2%-3.9%)	4720
吸烟危害宣传信息	68.9% (65.5%-72.1%)	24.4% (21.5%-27.5%)	3.9% (3.1%-4.9%)	2.8% (2.1%-3.8%)	4723
烟盒包装上的健康警示	75.3% (72.6%-77.7%)	19.5% (17.3%-22.0%)	2.7% (2.1%-3.4%)	2.5% (1.9%-3.4%)	4722
为儿童做榜样	55.8% (52.4%-59.1%)	27.9% (25.6%-30.4%)	12.6% (11.0%-14.4%)	3.7% (2.9%-4.8%)	4722
家人反对	55.7% (53.0%-58.3%)	28.7% (26.9%-30.6%)	13.3 (11.6%-15.1%)	2.3% (1.7%-3.1%)	4721

意义

总的来讲, 本研究结果表明有必要: (1) 提高中国公众对于吸烟危害的认识; (2) 为吸烟者提供戒烟帮助; (3) 鼓励医生和其他医务工作者参与鼓励和支持吸烟者戒烟; (4) 逆转关于吸烟的社会规范, 增加吸烟者戒烟的压力, 促使吸烟者戒烟, 特别是不在好友和家人身边吸烟; (5) 实施无烟法律, 鼓励戒烟; (6) 开发更有力的警示标识, 宣传具体的吸烟危害, 提供资源, 帮助吸烟者获得进一步的戒烟帮助; (7) 提高卷烟税率, 从而提高卷烟价格。

最后, 有些人认为中国还没有做好准备, 接受强有力的控烟政策。然而本研究发现, 大多数吸烟者都同意政府应该采取更多措施, 控制烟草使用。很明显, 实施更加有力的控烟政策, 鼓励吸烟者戒烟的时机已然成熟。

本文贡献

目前鲜有研究探讨中国吸烟者的戒烟意愿问题以及相关的各种因素。现有的研究也是六年前甚至更早开展的。因此, 考察下列领域最新的研究成果具有十分重要的意义: (1) 中国吸烟者是否有戒烟意愿; (2) 吸烟者是否在使用戒烟支持服务, 如果在使用, 使用的是哪些服务; (3) 医生和其他医务工作者是否在鼓励吸烟者戒烟; (4) 哪些因素与促使中国吸烟者戒烟有关。这些研究结果将对烟草控制政策在中国如何实施, 以支持和鼓励吸烟者戒烟具有重大影响。中国开始实施有效的戒烟策略已是迫在眉睫, 因为目前中国是世界上吸烟率最高的国家之一, 同时也意味着如果吸烟者继续吸烟, 其潜在损失将十分巨大。

鸣谢: 本文作者感谢中国疾病预防控制中心及各城市疾病预防控制中心工作人员在数据收集过程中的重要作用。

资金来源: 中国疾病预防控制中心、加拿大卫生研究院 (#79551)、国家癌症研究所/国立卫生研究所 (NIH R01 CA125116-01A1)、罗斯韦尔帕克跨学科烟草使用研究中心 (TTURC-P50 CA111236)、美国国家癌症研究所、加拿大卫生研究院加拿大研究生奖学金、加拿大卫生研究院博士研究奖、加拿大卫生研究院烟草研究战略培训项目。

竞争利益: 无。

知情同意: 已获得。

伦理批准: 本研究已获得滑铁卢大学 (加拿大滑铁卢) 研究伦理办公室、罗斯韦尔帕克癌症学会 (美国布法罗)、维多利亚癌症委员会 (澳大利亚维多利亚省)、中国疾病预防控制中心艾滋病性病预防控制中心 (中国北京) 伦理委员会批准。

来源及同行评价: 未开展; 经外部同行评价。

参考文献

- World Health Organization. *Towards a tobacco-free China*. Geneva, Switzerland: World Health Organization, 2007. <http://www.wpro.who.int/china/sites/tfi/> (accessed 15 Aug 2007).
- World Health Organization. *Report on the Global Tobacco Epidemic, 2008: the MPOWER package*. Geneva, Switzerland: World Health Organization, 2008a. http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf (accessed 20 Jun 2008).
- Murray CJL, Lopez AD. Alternative projections of mortality and disability by cause 1990e2020: global burden of disease study. *Lancet* 1997;**349**:1498–504.
- Yang G, Ma J, Liu N, et al. Smoking and passive smoking in China, 2002. *Chin J Epidemiol* 2005;**26**:77–83.
- Lam TH, Li ZB, Ho SY, et al. Smoking, quitting and mortality in an elderly cohort of 56,000 Hong Kong Chinese. *Tob Control* 2007;**16**:182–9.
- Godtfredsen NS, Lam TH, Hansel TT, et al. COPD-related morbidity and mortality after smoking cessation: status of the evidence. *Eur Respir J* 2008;**32**:844–53.
- Yang G, Ma J, Chen A, et al. Smoking cessation in China: findings from the 1996 national prevalence survey. *Tob Control* 2001;**10**:170–4.
- Yuan J, Ong MK, Tong EK, et al. Chinese physicians and their smoking knowledge, attitudes, and practices. *Am J Prev Med* 2007;**33**:15–22.
- Stead LF, Bergson G, Lancaster T. Physician advice for smoking cessation. *Cochrane Database Syst Rev* 2008a;**16**(2):CD00165.
- Schroeder SA. What to do with a patient who smokes. *JAMA* 2005;**294**:482–7.
- Tobacco Use and Dependence Clinical Practice Guideline Panel, Staff, and Consortium Representatives. A clinical practice guideline for treating tobacco use and dependence: a US Public Health Service report. *JAMA* 2000;**283**:3244–54.
- Stead LF, Perera R, Bullen C, et al. Nicotine replacement therapy for smoking cessation. *Cochrane Database Syst Rev* 2008b;**1**:CD000146.
- Yang Y, Nan Y, Wei XS, et al. Analysis on 2004 China international quit & win and its follow-up survey after one month. *Chin J Prev Control Chron NonCommun Dis* 2005;**13**(2):54–56.
- Zhu XM, Yang Y, Jiang Y, et al. The effect factors of 2004 Chinese quit and win and its sustaining developing policy. *Chin J Prev Control Chron NonCommun Dis* 2006;**14**(1):53–54.
- Wu C, Thompson ME, Fong GT, et al. Methods of the International Tobacco Control (ITC) China Survey. *Tob Control* 2010;**19**:1–5.
- International Tobacco Control China Survey Team. *Wave 1 ITC China Technical Report*. Waterloo, Canada, International Tobacco Control China Survey Team, 2008. <http://www.itcproject.org/library/countries/itcchina/reports/finalitcch> (accessed 17 Jun 2009).
- Binson D, Canchola JA, Catania JA. Random selection in a national telephone survey: a comparison of the Kish, next-birthday, and last birthday methods. *J Off Stat* 2000;**16**:53–60.
- Elton-Marshall T, Fong GT, Zanna MP, et al. Beliefs about the relative harm of “light” and “low tar” cigarettes: findings from the International Tobacco Control China survey. *Tob Control* 2010;**19**:54–62.
- Ockene JK, Emmons KM, Mermelstein RJ, et al. Relapse and maintenance issues for smoking cessation. *Health Psychol* 2000;**19**(Suppl 1):17–31.
- Triandis HC. The self and social behavior in differing cultural contexts. *Psychol Rev* 1989;**96**:506–20.
- Farkas AJ, Gilpin EA, Distefan JM, et al. The effects of household and workplace smoking restrictions on quitting behaviours. *Tob Control* 1999;**8**:261–5.
- Hyland A, Wakefield M, Higgs C, et al. Anti-tobacco television advertising and indicators of smoking cessation in adults: a cohort study. *Health Educ Res* 2006;**21**:296–302.

23. **Borland R**, Yong H-H, Wilson N, *et al.* How reactions to cigarette packet health warnings influence quitting: findings from the ITC four country survey. *Addiction* 2009;**104**:669–75.
24. **Hammond D**, Fong GT, Borland R, *et al.* Text and graphic warnings on cigarette packages: findings from the International Tobacco Control Four Country Survey. *Am J Prev Med* 2007;**32**:202–9.
25. **Innes M**, Barling J, Rogers K, *et al.* De-marketing tobacco through price changes and consumer attempts to quit smoking. *J Bus Ethics* 2008;**77**: 405–16.