

RESEARCH COMMUNICATION

Chinese and Vietnamese Adult Male Smokers' Perspectives Regarding Facilitators of Tobacco Cessation Behavior

Clarence Spigner¹, Mei-Po Yip^{2*}, Bu Huang³, Alison Shigaki⁴, Shin Ping Tu⁵

Abstract

Introduction: National surveys show a low prevalence of tobacco cigarette smoking within the Asian American/Pacific Islander population. However, smoking rates loom higher when data is disaggregated by ethnicity and gender. Nevertheless, few data are available on how smokers in this population quit smoking. The aim of this study was to collect first-hand perspectives from adult male Chinese and Vietnamese current and former smokers who were patients at a community clinic in Seattle, Washington, in order to understand the facilitators toward smoking cessation and the methods that they might use to quit smoking. **Methods:** A telephone survey was administered to age-eligible male Chinese and Vietnamese clinic patients who were current or former smokers. A total of 196 Chinese and 198 Vietnamese (N=394) adult male current and former smokers were contacted from a pool culled from the clinic database. **Results:** Descriptive analysis using SPSS software revealed ethnicity-specific differences between current and former smokers regarding influences on smoking cessation behavior as well as uptake and endorsement of cessation methods. Family encouragement and physician recommendations were significant facilitators on the cessation process. Will power and self-determination were frequently mentioned by both Vietnamese and Chinese smokers as helpful methods to quit smoking. Vietnamese smokers were more resourceful than Chinese smokers in their use of smoking cessation methods. **Conclusion:** Even with access to cessation classes at a health clinic, half of current smokers indicated that they had no intention to quit. Such attitudes underscore the need for promotion of effective smoking cessation programs as well as successful strategies for reaching smokers. These conclusions are particularly important for Chinese smokers, who were comparatively less resourceful in their use of smoking cessation methods. Future studies should explore integrating the concept of will power with current mainstream state-of-the-art smoking cessation programs.

Key Words: Smoking cessation - former smokers - current smokers - Vietnamese Americans - Chinese Americans - Asian Americans

Asian Pacific J Cancer Prev, 8, 429-435

Introduction

Cigarette smoking remains the most preventable cause of disease and death in the U.S. (A US Public Health Service report, 2000). Racial and ethnic minority populations are of particular concern, because many suffer disproportionately from tobacco-related diseases and death rates (Fagan et al., 2004). According to national data, the male smoking prevalence rate for Asian Americans remained steady at 24-25% between 1990 and 2001, (Centers for Disease Control, 1998) compared to a prevalence rate of 21% for the general U.S. population (Centers for Disease Control and Prevention, 2006). The same data also reported distinct variations in smoking rates among various Asian American subgroups. A number of studies have addressed smoking rates or smoking behaviors in Asian Americans, including Koreans, Vietnamese, and Chinese (Wewers et al., 1995;

Moeschberger et al., 1997; Thridandam et al., 1998; Wiecha et al., 1998; Jenkins et al., 1999; Hu et al., 2000; Kim et al., 2000; Lew et al., 2001; Averbach et al., 2002; Yu et al., 2002; Fu et al., 2003; Ma et al., 2003; Juon et al., 2003; Burton et al., 2004; Ferketich et al., 2004; Hofstetter et al., 2004; Xu et al., 2005). However, little is known from the perspective of Asian American smokers about the factors that actually encourage them to quit smoking. Understanding these factors is crucial to the development of smoking cessation programs and to their reception among minority populations.

The purpose of this study is to understand facilitators on cessation behaviors and use of cessation methods within a clinic-based population of adult male Chinese and Vietnamese Americans identified as current or former cigarette smokers. A 28-item telephone survey was administered in the patient's native language (Cantonese, Mandarin, or Vietnamese) to Chinese and Vietnamese

¹Associate Professor in the Department of Health Services ²Research Coordinator ³Associate Professor, Division of General Internal Medicine ⁴Bu Huang, Assistant Professor, Department of Social Work, University of Washington, Seattle, WA, USA ⁵Director of Tobacco Prevention Program, International Community Health Services; Seattle, WA, USA. *For Correspondence: University of Washington Box 359780 325 Ninth Avenue Seattle, WA 98104-2420 Fax: (206)-221-3660 E-mail: yipm@u.washington.edu

Table 1. Demographic and Socioeconomic Characteristics of Survey Respondents

	Chinese n=196		Vietnamese n=198	
	f	%	f	%
Age *				
<35	11	5.6	28	14.1
35-49	41	20.9	68	34.3
50-90	119	60.7	80	40.4
Education*				
0-6	63	32.1	36	18.0
7-12	97	49.5	113	57.0
>13	36	18.3	48	24.2
Proportion of life lived in US*				
<25	97	49.5	82	41.4
25-49	63	32.1	73	36.9
>50	9	4.5	20	10.1
Birth country*				
Vietnam	46	23.4	191	96.5
Mainland China	109	55.6	2	1.0
Hong Kong	32	16.3	0	0.0
Taiwan	3	1.5	0	0.0
Other	5	2.5	2	1.0
Currently employed*				
Yes	92	46.9	138	69.6
No	100	51.0	55	27.7
Housing				
Rented	120	61.2	125	63.1
Owned	76	38.8	73	36.8

* Missing data not included in the analysis

men. Our survey questions focused on specific “social-contextual” influences that motivate smokers to quit (Sorensen et al., 2004). We focused on men because national smoking rates among Asian American men are 4 times higher than among Asian American women (Yu et al., 2002).

Materials and Methods

Our study was based at a community clinic providing primary medical services to Asian Americans and Pacific Islanders in the Seattle metropolitan area. The clinic recorded more than 56,000 medical, dental, and ancillary services visits in 2005, and 66% of patients were of either Chinese or Vietnamese descent (International Community Health Services, 2004). Using the clinic’s medical records system, which contains indicators of tobacco consumption and vital sign stamps, we identified 1,400 adult male patients of Chinese or Vietnamese ethnicity who were current or former smokers. Information on these 1,400 current and former smokers was then recorded in the clinic’s tobacco use database. From this database, a total of 320 Chinese and 290 Vietnamese men were determined to be eligible based on age, ethnicity, language, and smoking status.

Four multilingual interviewers conducted the telephone survey in the spring of 2005. The survey was conducted in Cantonese, Mandarin, or Vietnamese. A half-day training included an introduction to the project, basic interviewing techniques, and the use of tracking systems. A telephone script was also provided to the interviewers. Additional meetings were conducted with the project

Table 2. Difference between Demographic and Socioeconomic Characteristics of Chinese and Vietnamese Current Smokers

	Chinese (n=89)		Vietnamese (n=112)		P-value
	f	%	f	%	
Age *					
<35	9	10.1	25	22.2	<0.001
35-49	23	25.8	43	38.3	
50-90	43	48.3	28	25.0	
Education*					
0-6	29	32.6	20	17.8	NS
7-12	44	49.4	67	59.8	
>13	16	18.0	24	21.4	
Proportion of life lived in US*					
<25	39	43.8	33	29.4	NS
25-49	29	32.5	47	41.9	
>50	7	7.8	16	14.3	
Birth country*					
Vietnam	23	25.8	109	97.3	<0.001
Mainland China	48	53.9	1	1.0	
Hong Kong	15	16.8	0	0.0	
Taiwan	1	1.1	0	0.0	
Other	1	1.1	0	0.0	
Currently employed*					
Yes	43	48.3	83	74.1	<0.001
No	44	49.4	26	23.2	
Housing					
Rented	55	61.8	71	63.4	NS
Owned	34	39.2	41	36.6	

* Missing data not included in the analysis

coordinator to review the questionnaire. Every 2-4 weeks, each interviewer was given an average of 10-50 packets containing potential participants’ contact information. The interviewers used the phone script to contact potential participants. Up to 10 attempts were made to telephone each participant in a 3-week timeframe, with 3 attempts during the day and 3 attempts during the evening on weekdays, and 3 additional attempts on weekends. If potential participants had moved or could not be contacted after 10 attempts, interviewers returned the questionnaire to the project coordinator. Other reasons for returning the questionnaire included incorrect telephone phone numbers and disconnected telephones.

The investigative team designed the 28-item telephone survey on the assumption that first-hand community-level baseline information is an essential first step for health promotion programs (Green et al., 2004; Chen, 2001). Survey items 1-7 reconfirmed smoking and non-smoking status. Participants were asked about their tobacco-related behavior, and their “yes” or “no” responses were evaluated for two survey items: “Have you smoked at least 100 cigarettes in your entire life?” and “Do you now smoke cigarettes every day, some days, or not at all?”

Reconfirmation of smoking behavior was achieved when self-reported smoking status was consistent with the smoking status recorded in the medical records system. A “current smoker” was defined as someone who had smoked at least 100 cigarettes in his entire life and was now smoking cigarettes every day or some days. A “former smoker” was defined as someone who had smoked at least 100 cigarettes in his entire life but did not smoke at all at

the time of the survey. If a respondent claimed he never smoke, the interviewer stopped the interview and thanked the participant for his time.

Survey items 8-12 asked former smokers whether 5 pre-selected facilitators of cessation behavior actually helped them quit; (Bandura, 1986) items 14-18 solicited current and former smokers' perceptions of the same 5 facilitators; and items 20-28 requested demographic information. The 5 facilitators included in the survey were family encouragement, physician recommendation, attending smoking cessation classes at the clinic, attending smoking cessation classes in the community, and use of nicotine patches or gum.

The stage of change for current smokers was assessed on the basis of their responses to these questions: "Have you decided to quit smoking in the next 30 days?" and "Have you seriously considered quitting smoking in the next 6 months?" We categorized participants as being in the preparation stage if they intended to quit "in the next 30 days," and in the contemplation stage if they intended to quit "in the next 6 months". Current smokers who stated that they did not want to quit either in the next 30 days or in the next 6 months were categorized as being in the pre-contemplation stage.

The survey was drafted in English and translated into each of the 3 target languages (Cantonese, Mandarin, and Vietnamese). Then each translation was back-translated into English to check for accuracy, and any discrepancies were reconciled by the investigators. Study procedures were approved by the Human Subjects Review Committee of the University of Washington.

Results

A total of 394 adult men (196 Chinese and 198 Vietnamese) responded to the telephone survey, yielding a response rate of 64.6% (394/610). Of these 394 respondents, half (50.3%) were Vietnamese and half (49.7%) were Chinese. Both Vietnamese and Chinese subjects were similar in some key demographic characteristics: most respondents received less than 12 years of education, most were foreign born, and at least 75% had lived in US for less than half of their lives. Table 1 shows details of the demographic and socioeconomic characteristics of the study participants.

Two hundred and one current smokers and 186 former smokers comprised our final analytic sample (N=387). Among the 201 current smokers, 112 were Vietnamese and 89 were Chinese. Table 2 highlights the sociodemographic differences between these two groups. Current Vietnamese smokers were younger than current Chinese smokers (P=0.01) and were more likely to be employed. Among the 186 former smokers, 103 were Chinese and 83 were Vietnamese. Unlike current smokers, Vietnamese and Chinese former smokers shared similar sociodemographic characteristics, as shown in Table 3. They were older and had lived in U.S. for a longer period than the current smokers. Within both tobacco status categories, Vietnamese men consistently had higher employment rates than did Chinese men. With regard to years of smoking, the mean was 22 for Chinese former

Table 3. Difference between Demographic and Socioeconomic Characteristics of Chinese and Vietnamese Former Smokers

	Chinese (n=89)		Vietnamese (n=112)		P-value
	f	%	f	%	
Age *					
<35	2	2.1	3	3.6	NS
35-49	18	17.4	23	37.7	
50-90	74	71.8	51	61.4	
Education*					
0-6	32	31.1	15	18.1	NS
7-12	51	49.5	45	54.2	
>13	20	19.4	23	27.7	
Proportion of life lived in US*					
<25	56	54.3	49	59.0	NS
25-49	34	33.0	24	28.9	
>50	2	1.9	3	3.6	
Birth country*					
Vietnam	22	21.4	79	95.1	<0.001
Mainland China	59	57.3	1	1.2	
Hong Kong	16	15.5	0	0.0	
Taiwan	2	2.0	0	0.0	
Other	4	3.8	2	2.4	
Currently employed*					
Yes	47	45.6	54	65.1	<0.01
No	54	52.4	27	32.5	
Housing					
Rented	62	60.2	51	61.4	NS
Owned	41	39.8	32	38.6	

* Missing data not included in the analysis

smokers and 25 for Vietnamese former smokers. About half of the current smokers whom we surveyed were in the pre-contemplation stage, and the other half were in either the contemplation or the preparation stage. There were no significant differences in stages of change between Chinese and Vietnamese current smokers (Table 4).

Perceptions of influences on cessation behavior and use of smoking cessation methods

Chinese and Vietnamese former smokers differed significantly in their perceptions of 5 pre-selected facilitators of cessation behavior (see above under Methods). As shown in Table 5, former Vietnamese smokers endorsed each of the five facilitators more than did former Chinese smokers (P<0.001). However, both groups were similar in considering family encouragement to be the most helpful influence on quitting behavior, while surprisingly both groups found nicotine patches or gum to be the least helpful.

Table 4. Stage of Change of Chinese and Vietnamese Current Smokers (n=201)

	Chinese (n=90)		Vietnamese (n=111)		P-value
	f	%	f	%	
Pre- contemplation	46	51.1	58	52.3	NS
Contemplation	28	31.1	28	25.2	
Preparation	16	17.8	25	22.5	

Table 5. Perception of Facilitators on Cessation Behavior and Use of Cessation Methods for Chinese and Vietnamese Former Smokers (n=186)

	Chinese (n=103)		Vietnamese (n= 83)		P-value
	f	%	f	%	
Encouragement from family	39	37.8	48	57.8	<0.001
Recommendation from physician	32	31.0	44	53.0	<0.001
Attending smoking cessation class at the clinic	4	3.8	36	43.3	<0.001
Attending smoking cessation classes in the community	4	3.8	37	44.5	<0.001
Use of nicotine patches or gum	8	7.7	24	28.9	<0.001
Use other methods	94	91.2	81	97.5	NS

Other influences on cessation behavior cited by former smokers

We asked about methods other than the ones suggested in the questionnaire that were actually used by former smokers to quit smoking. Nearly half had used additional methods. Among former smokers who had done so, 109 (60%) cited “self-determination” or “will power” as a helpful cessation method. Subjects noted a variety of contexts in which will power or self-determination was exercised. Some stated that will power was cultivated through an understanding of the negative effects of smoking, an awareness of the financial cost of cigarettes, the experience of surgery, and the desire to be a good role model for children. Will power was reinforced by continuous family support or by contextual factors such as a non-smoking workplace. Other reinforcements included eating candy or chewing gum to stop craving, avoiding social situations with friends who smoked, keeping busy, praying to God, and taking herbal medicine.

Differences between former and current smokers’ perceptions of influences on cessation behavior and use

Table 6. Comparison of Perceived Facilitators on Cessation Behavior and Use of Smoking Cessation Methods for Former and Current Smokers (n=387)

	Former smokers (n=186)		Current smokers (n=201)		P-value
	f	%	f	%	
Encouragement from family	116	62.3	85	42.2	<0.001
Recommendation from physician	111	59.6	97	48.2	<0.05
Attending smoking cessation class at the clinic	94	50.5	72	35.8	<0.001
Attending smoking cessation classes in the community	85	45.6	65	32.3	<0.001
Use of nicotine patches or gum	52	27.9	50	24.8	NS
Use other methods	167	89.7	136	67.6	<0.001

of cessation methods

As shown in Table 6, former smokers endorsed significantly more facilitators and cessation methods than did current smokers (P<0.05), including family encouragement, physician recommendations, and attending smoking cessation classes (whether at the clinic or elsewhere in the community). Family encouragement and physician recommendations were perceived as important by both former and current smokers. However, current smokers considered physician recommendations to be more important, whereas former smokers thought family encouragement was more helpful. Use of nicotine patches or gum was considered unhelpful by both groups.

Reported use of cessation methods

There were significant differences between former smokers with regard to their perceptions of and the actual use of the 5 pre-selected facilitators of cessation behavior (Table 7). We found ethnicity-specific differences regarding facilitators on smoking cessation behavior as well as use of cessation methods. Chinese former smokers who perceived family encouragement and physician recommendation were helpful to them to quit smoking reported using these influences significantly more than those who do not think these facilitators as helpful (P<0.001)(P<0.01). However, majority of the Chinese former smokers thought attending smoking cessation class at the clinic or in the community and use of nicotine patches or gum is not helpful. Only a handful of respondent thought these facilitators actually helped them to successful quit smoking. There was no significant difference on the use of these facilitators for Chinese former smokers whether or not they think these facilitators are helpful or not.

Vietnamese former smokers considered all 5 survey options (family encouragement, physician recommendation, attending smoking cessation class at the clinic or in the community, and use of nicotine patches or gum) to be helpful in smoking cessation. The use these facilitators are significantly more in former smokers who think is helpful than those who do not think is helpful.

Discussion

Our results indicate that family encouragement and physician recommendation were the main facilitators on cessation behavior for both Vietnamese and Chinese smokers. None of the survey participants mentioned using evidence-based smoking cessation methods such as behavioral counseling, quitlines, or self-help education materials. In general, we found a lack of awareness of evidence-based cessation methods and under-use of smoking cessation treatments. Our results are consistent with previous findings that smoking cessation treatments shown to be effective and recommended to the general population (Fiore, 2000; Kim et al., 2007) have seldom been evaluated in Asian American populations.

Given the availability (e.g. over-the-counter) and effectiveness of nicotine replacement therapy (NRT), the disapproval of nicotine patches noted in this population is a source of concern. Vietnamese and Chinese former

Table 7. Perceived Facilitators on Cessation Behavior and Use of Smoking Cessation Methods and Their Actual Impact on Quit Smoking for Former Smokers (n=186)

	Total (n=186)				P-value	Chinese (n=103)				P-value	Vietnamese (n=83)				
	Subjects think helpful		Subjects do not think helpful			Subjects think helpful		Subjects do not think helpful			Subjects think helpful		Subjects do not think helpful		
	f	%	f	%		f	%	f	%		f	%	f	%	
Family encouragement actually helped															
Yes	76	97.4	2	2.6	<0.001	31	93.9	2	6.1	<0.001	45	100	0	0	<0.001
No	35	41.7	49	58.3		34	58.6	24	41.4		1	3.8	25	96.2	
Recommendation physician actually helped															
Yes	66	95.7	3	4.3	<0.001	27	93.1	2	6.9	<0.05	39	97.5	1	2.5	<0.001
No	39	41.9	54	58.1		39	60.9	25	39.1		0	0	29	100	
Attending smoking cessation classes in the clinic actually helped															
Yes	36	100	0	0	<0.001	2	100	0	0	NS	34	100	0	0	<0.001
No	51	57.3	38	42.7		50	72.5	19	27.5		1	5.0	19	95.0	
Attending smoking cessation classes in the community actually helped															
Yes	32	100	0	0	<0.001	2	100	0	0	NS	30	100	0	30	<0.001
No	47	59.5	32	40.5		47	73.4	17	26.6		0	0	15	100	
Use of nicotine patches or gum actually helped															
Yes	26	96.3	1	3.7	<0.001	3	75	1	25	NS	23	100	0	0	<0.001
No	21	29.6	50	70.4		20	46.5	23	53.5		1	3.5	27	96.5	

* Missing data not included in the analysis

smokers did not consider nicotine patches or gum to be useful. We found two studies targeting Chinese Americans that reported use of smoking cessation products such as nicotine gum or patches, but the percentage of smokers using this method was small (Averbach et al., 2002; Yu et al., 2002). Lam and colleagues also found that adherence to NRT was low in a population of 1186 Chinese smokers in Hong Kong (Lam et al., 2005). Similarly, Fu reported that Vietnamese smokers had little knowledge and poor understanding of the benefits of pharmacotherapy (Fu et al., 2007). By contrast, in a sample of 1601 current smokers, Fu and colleagues found that only 34% of African Americans and only 26% of Hispanics had never used NRT (Fu et al., 2005). Further investigation is needed to establish how NRT is perceived in culture-specific terms, and whether it has been appropriately introduced and promoted to Chinese and Vietnamese Americans. Of interest, several study participants reported using gum, but not NRT gum, to support their quitting. Still others reported using traditional medicine to quit smoking. It might be particularly significant that Lee and colleagues found drinking green tea to be somewhat effective in blocking the negative effects of tobacco consumption. In conjunction, perhaps the availability of traditional pharmacotherapy may disincline smokers in these populations to use NRT. Further research is needed.

Effective smoking cessation programs are available

but not widely used by these Asian American men who have access to the health care system. If smokers have not been informed of the availability of cessation programs, they are unlikely to try them. In our study, current smokers considered physician recommendations to be a more significant facilitator of cessation than former smokers did. This is encouraging, as current treatment guidelines strongly recommend offering tobacco-dependence treatment at the primary care level. We also found that Vietnamese former smokers endorsed more of the facilitators listed in our survey than did Chinese former smokers. Among Chinese former smokers, there was no difference between the perceived helpfulness and actual use of smoking cessation classes (in the clinic or the community) and NRT. Chinese former smokers were less likely than Vietnamese former smokers to attend smoking cessation classes at the clinic or elsewhere in the community. This may suggest that these smoking cessation approaches were either unfamiliar or lacking in cultural relevance to Chinese smokers. Family encouragement and physician recommendation were the strongest facilitators for Chinese and Vietnamese smokers. Yet it remains uncertain how these facilitators affect the quitting process.

Since smokers considered them helpful, efforts should be directed towards incorporating these facilitators into smoking cessation programs. For example, doctors could connect smokers to state quitlines, or to quitting resources

targeted at smokers' families as well as smokers themselves. Asian smokers are less likely to seek help than White smokers. Consistent with the literature, will power and self-determination constituted the cessation method most frequently endorsed by both Chinese and Vietnamese smokers (Ma et al., 2004). In our study, some former smokers experienced situations (e.g., non-smoking workplace, need for surgery) that initiated their desire to quit. Whether such smokers can quit successfully seems to depend on maintaining self-determination throughout the quitting process. Will power was constantly enhanced by modifying behavior (e.g., eating candy or chewing gum, cutting down the number of cigarette smoked) and cognitive process (e.g. "Quitting smoking is a responsible behavior with health benefits for family members").

Our findings also indicate that former smokers, regardless of their ethnicity, tend to be older and more educated, and to have lived in the U.S. longer, than current smokers. This is similar to previous findings that Asian smokers tend to consider quitting only when they get older (> 40 years of age) (Moeschberger et al., 1997; Juon et al., 2003; Hofstetter et al., 2004). We note several other similarities between our study and previous research. "Cold turkey" was previously found to be the most common cessation method used among Korean and Chinese Americans (Kim et al., 2000; Yu et al., 2000). Presence of symptoms (e.g., cough) or health problems often triggered smoking cessation attempts (Wiecha et al., 1998; Hu et al., 2000; Juon et al., 2003). Pressure from family and friends, concern over future health, and cost were cited as motivating factors for Korean and Vietnamese smokers to consider quitting (Wiecha et al., 1998; Kim et al., 2000). Future smoking cessation research should therefore investigate possible relationships between reliance on will power, age, health, and self-quitting behavior among Asian American smokers. Furthermore, the concepts of will power and self-quitting require additional examination. Their relevance to currently recommended smoking cessation methods should be investigated, and the question of whether these concepts might undermine the use of evidenced-based cessation methods by Asian American smokers deserves further study.

We borrowed concepts from the transtheoretical model (see Table 4) to assess the basis of participants' responses to some of the survey questions. The transtheoretical model has been applied at the community level to assess readiness to conduct tobacco control (Lew et al., 2001). Our non-significant result related to stage of change (see Table 4) indicated that Chinese and Vietnamese current smokers are similar in terms of readiness to quit smoking, since only about one-fifth of study participants indicated a desire to quit smoking in the next 30 days, while most current smokers have not considered quitting smoking at all. Given these results, future research should examine how tobacco control resources, training, and assistance can be better delivered to these populations to promote smoking cessation.

To our knowledge, this is the first study of Asian American male smokers' self-reported perceptions of influences on smoking cessation behavior and use of

smoking cessation methods. However, the responses of our clinic sample should not be considered representative of the general population of adult Chinese and Vietnamese former and current tobacco smokers. Our pre-selected survey items focusing on facilitators of quitting behavior were limited in scope. We did not consider a myriad of other reasons why former smokers might have quit or current smokers might consider quitting.

Although we assessed immigrant status indirectly, this factor should be investigated more thoroughly in measuring possible associations between immigrant status, smoking, and quitting (Baluja et al., 2003). Nearly 99% of the study subjects were born in Asia and nearly half of them have lived in the U.S. less than 25% of their lifetimes. Therefore, a key question for our clinic sample could have been when they started smoking, in order to see if the effect of immigrant status on tobacco behavior (Shelley et al., 2004).

Nevertheless, we believe our study has major strengths, especially in its findings on Chinese men. Though preliminary and baseline, our results generally support other studies that show Chinese men at higher risk for tobacco-related behavior (Yu et al., 2002; Shelley et al., 2004). Moreover, our finding that neither Vietnamese nor Chinese American men tend to use NRT is striking. No harmful effects from using NRT have been found (Hubbard et al., 2005). Thus, the reluctance to employ NRT, especially among Chinese men, is crucial and in need of further study (Lam et al., 2005).

Conclusions

The major strength of this study, we believe, is its community-based participatory approach. Collecting information on tobacco-related behavior from a population as vast and diverse as Asian American and Pacific Islanders remains a top priority (Zane et al., 1994; Lew and Tanjasiri, 2003) and the approach reported here opens the door to additional viewpoints. (Fagan et al., 2004) As the U.S. continues to grow in racial and ethnic diversity, the community-level perspectives revealed in this small study can help meet the challenge of providing a more grass-roots (A US Public Health Service report, 2000) and culturally appropriate approach to tobacco cessation.

References

- A clinical practice guideline for treating tobacco use and dependence: A US Public Health Service report (2000). The Tobacco Use and Dependence Clinical Practice Guideline Panel, Staff, and Consortium Representatives. *Jama*, **283**, 3244-54.
- Averbach AR, Lam D, Lam LP, et al (2002). Smoking behaviours and attitudes among male restaurant workers in Boston's Chinatown: a pilot study. *Tob Control*, **11** (Suppl 2), 34-37.
- Baluja KF, Park J, Myers D (2003). Inclusion of immigrant status in smoking prevalence statistics. *Am J Public Health*, **93**, 642-6.
- Bandura A (1986). *Social Foundation of Thought and Action: a Cognitive Theory*: Prentice-Hall, Inc.
- Burton D, Fahs M, Chang JL, et al (2004). Community-based

- participatory research on smoking cessation among Chinese Americans in Flushing, Queens, New York City. *J Interprof Care*, **18**, 443-5.
- Centers for Disease Control and Prevention. Smoking & Tobacco Use Fact Sheet. Health effects of cigarette smoking. http://www.cdc.gov/tobacco/data_statistics/Factsheets/health_effects.htm. Accessed March, 2006.
- Centers for Disease Control (1998). Tobacco use among U.S. racial/ethnic minority groups--African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, Hispanics. A Report of the Surgeon General. Executive summary. *MMWR Recomm Rep*. **47(RR-18)**, 1-16.
- Chen MS Jr (2001). The status of tobacco cessation research for Asian Americans and Pacific Islanders. *Asian Am Pac Isl J Health*, **9**, 61-5.
- Fagan P, King G, Lawrence D, et al (2004). Eliminating tobacco-related health disparities: directions for future research. *Am J Public Health*, **94**, 211-7.
- Ferketich A, Wewers ME, Kwong K, et al (2004). Smoking cessation interventions among Chinese Americans: the role of families, physicians, and the media. *Nicotine Tob Res*, **6**, 241-8.
- Fiore MC (2000). US public health service clinical practice guideline: treating tobacco use and dependence. *Respir Care*, **45**, 1200-62.
- Fu SS, Ma GX, Tu XM, et al (2003). Cigarette smoking among Chinese Americans and the influence of linguistic acculturation. *Nicotine Tob Res*, **5**, 803-11.
- Fu SS, Burgess D, van Ryn M, et al (2007). Views on smoking cessation methods in ethnic minority communities: a qualitative investigation. *Prev Med*, **44**, 235-40.
- Fu SS, Sherman SE, Yano EM, et al (2005). Ethnic disparities in the use of nicotine replacement therapy for smoking cessation in an equal access health care system. *Am J Health Promot*, **20**, 108-16.
- Green L, Kreuter M (2004). Health Promotion Planning: An Educational and Ecological Approach. Vol 3rd edition: McGraw-Hill, Boston, MA.
- Prevalence of cigarette use among 14 racial/ethnic populations--United States, 1999-2001(2004). *MMWR Morb Mortal Wkly Rep*, **53(3)**, 49-52.
- Hofstetter CR, Hovell MF, Lee J, et al (2004). Tobacco use and acculturation among Californians of Korean descent: a behavioral epidemiological analysis. *Nicotine Tob Res*, **6**, 481-9.
- Hu KK, Woodall ED, Do HH, et al (2006). Tobacco knowledge and beliefs in Chinese American men. *Asian Pac J Cancer Prev*, **7**, 434-8.
- Hubbard R, Lewis S, Smith C, et al (2005). Use of nicotine replacement therapy and the risk of acute myocardial infarction, stroke, and death. *Tob Control*, **14**, 416-21.
- International Community Health Services (2005). ICHS 2005 Annual Report. Seattle: ICHS.
- Jenkins CN, McPhee SJ, Bird JA, et al (1990). Cancer risks and prevention practices among Vietnamese refugees. *West J Med*, **153**, 34-9.
- Juon HS, Kim M, Han H, et al (2003). Acculturation and cigarette smoking among Korean American men. *Yonsei Med J*, **44(5)**, 875-82.
- Kim KK, Yu ES, Chen EH, et al (2000). Smoking behavior, knowledge, and beliefs among Korean Americans. *Cancer Pract*, **8**, 223-30.
- Kim SS, Ziedonis D, Chen KW (2007). Tobacco use and dependence in Asian Americans: a review of the literature. *Nicotine Tob Res*, **9**, 169-84.
- Lam TH, Abdullah AS, Chan SS, et al (2005). Adherence to nicotine replacement therapy versus quitting smoking among Chinese smokers: a preliminary investigation. *Psychopharmacology (Berl)*, **177**, 400-8.
- Lew R, Moskowitz JM, Wismer BA, et al. Correlates of cigarette smoking among Korean American adults in Alameda County, California. *Asian Am Pac Isl J Health*.
- Lew R, Tanjasiri SP. Slowing the epidemic of tobacco use among Asian Americans and Pacific Islanders. *Am J Public Health*, **93**, 764-8.
- Lew R, Tanjasiri SP, Kagawa-Singer M, et al (2001). Using a stages of readiness model to address community capacity on tobacco control in the Asian American and Pacific Islander community. *Asian Am Pac Isl J Health*, **9**, 66-73.
- Ma GX, Tan Y, Toubbeh J, et al (2003). Differences in stages of change of smoking behavior among current smokers of four Asian American subgroups. *Addict Behav*, **28**, 1431-9.
- Ma GX, Shive SE, Tan Y, et al (2004). Development of a culturally appropriate smoking cessation program for Chinese-American youth. *J Adolesc Health*, **35**, 206-16.
- Moeschberger ML, Anderson J, Kuo YF, et al (1997). Multivariate profile of smoking in Southeast Asian men: a biochemically verified analysis. *Prev Med*, **26**, 53-8.
- Sorensen G, Barbeau E, Hunt MK, et al (2004). Reducing social disparities in tobacco use: a social-contextual model for reducing tobacco use among blue-collar workers. *Am J Public Health*, **94**, 230-9.
- Shelley D, Fahs M, Scheinmann R, et al (2004). Acculturation and tobacco use among Chinese Americans. *Am J Public Health*, **94**, 300-307.
- Thridandam M, Fong W, Jang M, et al (1998). A tobacco and alcohol use profile of San Francisco's Chinese community. *J Drug Educ*, **28**, 377-93.
- Wiecha JM, Lee V, Hodgkins J (1998). Patterns of smoking, risk factors for smoking, and smoking cessation among Vietnamese men in Massachusetts (United States). *Tob Control*, **7**, 27-34.
- Wewers ME, Dhatt RK, Moeschberger ML, et al (1995). Misclassification of smoking status among Southeast Asian adult immigrants. *Am J Respir Crit Care Med*, **152**, 1917-21.
- Xu Y, Ross C, Ryan R, et al (2005). Cancer risks factors of Vietnamese Americans in Rural South Alabama. *J Nursing Schol*, **37**, 237-44.
- Yu ES, Chen EH, Kim KK, et al (2002). Smoking among Chinese Americans: behavior, knowledge, and beliefs. *Am J Public Health*, **92**, 1007-12.
- Zane N, Takeuchi DT, Young KNJ (1994). *Confronting Critical Health Issues of Asian and Pacific Islander Americans*. California: Sage Publications.