Recent activities-ongoing research

Randomized clinical trail for the evaluation of non-pharmacological smoking cessation interventions in Syria

Smoking cessation interventions are still not widely available to all smokers, and in many developing countries there are no tested smoking cessation programs that suit the local culture and specificities of smokers. One of the main aims of the Syrian Center for Tobacco Studies (SCTS) is to develop and test a culturally sensitive smoking cessation program based on the knowledge available from other countries as well as accumulating local knowledge on smoking patterns and practices in Syria.

Although evidence suggests that the best cessation rates are achieved with combining counseling with pharmacotherapy, the unavailability of most pharmacological agents used for smoking cessation in Syria, such as nicotine replacement therapy (NRT) and bupropion, dictates the focus on behavioral counseling for the cessation work in this country.

The study includes smokers in Aleppo (≥18 years of age) who are interested in quitting, have been smoking continuously for at least one year, and are smoking at least 10 cigarettes per day. It is conducted in the smoking cessation clinic at SCTS.

Our specific aim is to compare between the brief motivational intervention with self-help materials and intensive behavioral counseling with four sessions, in order to test the efficacy of each of these interventions.

Tobacco dependence and withdrawal among Syrian smokers: methods and procedures validation

It is expected that within the next two decades the annual death toll from tobacco smoking will reach 10 million, with 70% of these deaths occurring in developing countries. Unfortunately, despite the fact that developing countries bear the brunt of tobacco’s lethality, to date most tobacco science has been limited to developed nations.

The need for clinical laboratory resources and infrastructure is great. Clinical laboratory methods is used to understand the acute effects of tobacco use, reveal the extent to which users are dependent upon tobacco, identify treatment strategies, test treatment methods (i.e., nicotine replacement).

The first laboratory study to be conducted at SCTS includes 240 Syrian cigarette smokers (18-55 years old), who have been smoking at least 15 cigarettes per day.

Our specific aims are:
1 - Validate clinical laboratory methods and procedures to be used at the Syrian Center for Tobacco Studies.
2 - Describe tobacco dependence level, smoking behavior, and physiological and subjective effects of smoking in a sample of Syrian smokers.
3 - Characterize the smoking behavior and nicotine intake of Syrian smokers.

Accomplishing each of these aims is important in our long term goal of developing a culturally sensitive smoking cessation intervention for Syrian smokers.

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Assessment of environmental and health problems in informal urban zones in Aleppo

The purpose of this study is to fill the gap in our knowledge about health and environmental problems of communities living in informal zones in Aleppo.

In this study qualitative methods (observations, key informants and door-step interviews), as well as epidemiological survey are used to document the community and individuals characteristics and activities that can reflect on environmental exposures and respiratory health. Factors assessed included relevant neighborhood characteristics, such as
proximity to external sources of air pollution (e.g., factories, rubbish dumping sites). Key informants were chosen for their knowledge of the target population and setting, including physicians from primary care/private clinics, nurses/health workers, and clinics support staff, as well as officials from the Aleppo Directorate of Health and City Council.

Door-step interviews are brief encounters with household members from the studies areas to ascertain the basic features of the households, including internal and external characteristics of the dwelling, fuel sources for cooking and heating, presence and capacity of ventilation, and presence of smokers in the household (both cigarettes and waterpipe). In the next stage a population-based household survey will be conducted among 1000 of adults (18-65 years) living in these areas in Aleppo, to assess their main health problems and exposures.

Recently published studies

**Characteristics of cigarette smoking and quitting among university students in Syria**

No study to date in Syria has documented the smoking and quitting characteristics in a representative sample of university students and this study aims to fill this void. In 2003, a cross-sectional survey was carried out among students at Aleppo University using an interviewer-administered questionnaire. Overall, 587 students participated in the study (278 males, 309 females; mean age 21.8 years; response rate 98.8%).

Experiences and attitudes related to smoking and quitting were assessed for two popular forms of tobacco use in Syria – cigarettes and waterpipe. Current cigarette smoking was reported by 30.9% of male and 7.4% of female students and daily smoking by 24.8% of male and 5.2% of female students. Narghile smoking was seen among 25.5% of men and 4.9% of female students and daily smoking by 24.8% of male and 5.2% of female students. Narghile smoking was reported by 30.9% of male and 7.4% of female students and daily smoking by 24.8% of male and 5.2% of female students. Narghile smoking was seen among 25.5% of men and 4.9% of women, mostly on an occasional basis. More than half of current smokers (56%) believe they could quit cigarettes, 75.2% were interested in quitting, and 78% of those had made a quit attempt in the past year.

Important correlates of cigarette smoking among students were being older, male, and smoking narghile, while being older and from a poorer family were associated with increased interest in quitting. Interestingly, smoking by peers was associated with current smoking among students, but inversely correlated with a willingness to quit. Cigarette smoking is mainly a problem of male students, whose narghile smoking is likely to be dramatically increasing as well, sometimes practiced as a substitute for cigarette. The findings that most smokers in this sample are interested in quitting smoking and have tried unsuccessfully to do so indicate that cessation support for youths in this country is urgently needed.


**Gender and smoking status-based analysis of views regarding waterpipe and cigarette smoking in Aleppo, Syria**

Narghile (waterpipe) smoking is an increasing across the Eastern Mediterranean region (EMR). Little is known about the social attitudes and perceptions related to this method of tobacco use, and how those attitudes and perceptions are influenced by gender. Data from two cross-sectional surveys conducted in 2003 in Aleppo, Syria were used to examine these issues. Overall, 855 participants were included (439 men, 416 women; mean age 24.4 years; response rate 97%).

The analysis focused on responses to four similar nine-item questions tapping perceptions related to narghile smoking by women versus men, and cigarette smoking by women versus men. Scores on the nine items were summed to yield a total score to gauge participants’ perceptions about narghile and cigarette smoking. Generally, participants were less positive about women smoking relative to men smoking, and cigarette smoking relative to narghile smoking. Cigarette smoking by women was the behavior least associated with positive perceptions. Individuals who resided in the city, were economically better-off, and were Christians had higher perception scores (i.e., more positive attitudes) toward all forms of smoking, whereas older and married participants had higher perception scores for narghile only. The smoking status of participants, especially narghile smoking, was also associated with more positive perceptions toward smoking in general.

We conclude that preliminary analysis shows that views on different forms of smoking in Syria differ by gender and smoking status.

Beliefs and attitudes related to narghile (waterpipe) smoking among university students in Syria

The beliefs and attitudes related to narghile (waterpipe) smoking are likely to contribute to its increased popularity among young people in Syria. In 2003, a cross-sectional survey was administered to university students in Aleppo using an interviewer administered questionnaire. Overall, 587 student participated in the study (278 males, 309 females; mean age 21.8 years; response rate 98.8%). The most common positive perceptions of narghile were related to its smell and taste. Negative perceptions of narghile included the smoke produced, pollution, and perceived adverse health effects. Students believed the popularity of narghile to be part of a rising regional trend in its use, due to its perception as an appealing way to spend leisure time socializing with friends. More students (49.7%) believed narghile to be more harmful to health than cigarettes, compared with 30% who believed the opposite. Respiratory disease was the most commonly cited health effect of narghile smoking. Family attitudes regarding tobacco use by younger members were more permissive about narghile compared with cigarettes and surprisingly, were more permissive about females smoking narghile than males doing so.

The rise in narghile smoking as a trendy social habit appears to be occurring despite considerable appreciation of its potential health risks. Permissiveness of adult family members towards narghile use by young female members, especially in the presence of a strong taboo against female cigarette smoking in Arab societies, may contribute to the continuous spread of narghile smoking among women in Syria.


Factors related to frequency of narghile (waterpipe) use: the first insights on tobacco dependence in narghile users

The aims of this study were to evaluate factors related to level of narghile (waterpipe) use as a first step toward modeling tobacco dependence among narghile users. A cross-sectional survey was carried out in 2003 using interviewer-administered anonymous questionnaires in cafes/restaurants serving narghiles in Aleppo, Syria. Narghile smokers (161 men and 107 women; mean age 30.1 years; age range 18-68 years; response rate 95.4%) were randomly selected from the 17 cafes/restaurants sampled. The frequency of narghile use (daily, weekly, monthly) was assessed as a function of several factors potentially indicative of dependence, including situational characteristics (where, when, and with whom smoking occurs; seasonality of use, and sharing of narghile), attitudes and experience with quitting narghile use, escalation of use over time, future intentions regarding use, perception of being “hooked” on narghile, and cognitions/behaviors engaged in to support use (carrying one’s own narghile; think of narghile when it is not available; considering narghile for selection of cafe/restaurant). We found that the frequency of narghile use was strongly correlated with participant’s subjective judgment of how hooked they are on narghile (coefficient 0.5). Predictors of narghile use frequency according to multinomial logistic regression were: male gender, smoking mainly alone vs. with others; smoking mainly at home vs. outside; smoking more frequently since initiation, being hooked on narghile, carrying narghile, and considering it for cafe/restaurant choice.

Our data reveal two main domains of a tobacco dependence syndrome likely to be relevant to narghile. The first reflects effects of nicotine contained in narghile tobacco, and is not very different from what is seen with other tobacco products. However, the second aspect unique to narghile is related mainly to its social dimension, with more intensive smokers showing an increasingly individual pattern of narghile smoking.


Prevalence and characteristics of narghile smoking among university students in Syria

Narghile (waterpipe) smoking is increasing in all Arab societies, but little is known about its pattern of use. In 2003, we conducted a cross-sectional survey among students at Aleppo University, using an interviewer-administered questionnaire. A representative sample of 587...
students participated (278 males, 309 females; mean age 21.8 years; response rate 98.8%). Narghile smoking was reported by 62.6% of men and 29.8% of women, while current cigarette smoking was reported by 25.5% of men and 4.9% of women. Only 7.0% of the men interviewed used narghile daily. Age of initiation was 19.2 and 21.7 years for men and women, respectively ($P<0.001$). The salient feature of narghile smoking was its social pattern, where users initiated and currently smoke narghile in the company of friends. Narghile and cigarette smoking were correlated behaviors among students, with narghile smoking most prevalent among daily cigarette smokers. Multivariate correlates of narghile smoking consisted of older age, male gender, city origins, current cigarette smoking, having friends who smoke narghile, and residing a household where a greater number of narghiles are smoked daily. Narghile smoking is prevalent among university students in Syria, where it is mainly practiced by men, intermittently, and in the context of social activities with friends.

**Adapting smoking cessation interventions for developing countries: a model for the Middle East:**

The aim of this study is to describe the rationale and methods for the development of culturally-sensitive smoking cessation interventions for primary care settings in developing countries. Smokers in the Middle East have great difficulty quitting. Effective smoking cessation programs are currently lacking in the Middle East, and the development of culturally sensitive programs is hindered by the dearth of standardized information regarding tobacco use and dependence in this region.

Epidemiological and clinical laboratory methods are needed to determine the prevalence and patterns of tobacco use and nicotine dependence. One strategy is to adapt smoking cessation methods widely used in industrialized countries to the Syrian and Middle Eastern environment. In a recently initiated project, the Syrian Center for Tobacco Studies has been established to address these issues. Initial work is focusing on collecting formative data including key informant interviews, focus groups, and epidemiological surveys to assess smokers’ use patterns, needs, and resources. Clinical laboratory techniques are also being applied to assess the physiological, behavioral, and subjective effects of local tobacco use methods, such as narghile (water pipe) smoking. These data will be used to help adapt existing smoking cessation interventions from industrialized Countries, to be evaluated in a randomized controlled trial.

There is a great need to develop and disseminate effective cessation interventions in low-income countries. Successful interventions will contribute to a culturally sensitive and sustainable regional tobacco control infrastructure. This paper describes one approach to the development of such an infrastructure that is currently underway in the Middle East.


**Website:**

To know more about the center’s activities and setup, please visit us at: [www.scts-sy.org](http://www.scts-sy.org)