PROJECT OVERVIEW

This community-based program is being conducted in collaboration with Dr. Adnan Hammad and his colleagues at ACCESS. The aims of this theorydriven research are to examine cultural, personal, social, and environmental forces operating in Arab-American youth who are at risk for becoming habitual tobacco users and to test the effects of a cessation intervention on smoking behavior at 3, 6, and 12 months post-intervention in teen clinic participants. The second aim was broadened to include testing a combined tailored prevention/cessation intervention (Project TNT-2) in Arab-American 9th grade students as well as the teen clinic patients.1 Lastly, prevalence data were sought from 9th-12th graders as a third aim. Arab-American adolescents in two high schools and the local teen health clinic provided data.

Cigarette smoking is the chief avoidable cause of death and disease in the United States, Michigan, and the world.2-4 In 2000, 25.9% of the Michigan adult population smoked cigarettes. Michigan has the 10th highest smoking ratio in the nation3 (Michigan Critical Health Indicators, 2000). However, cigarette smoking among adolescents as a whole has been falling since the mid-1990s. The Monitoring the Future annual series of national surveys revealed a 24% smoking ratio for 12th graders.⁴ As expected, smoking continues to increase with age: 10% for 8th graders, 17% for 10th graders, and 24% for 12th graders. Not considered among these data were ethnic differences.

Contributing to tobacco use statistics in Michigan is a rapidly growing Arab-American immigrant population. Arab Americans, descended from the Arabs of the Middle East, North Africa, and the Arabian Peninsula, share a similar cultural identity, basic values, and traditions, as well as the Muslim religion and the Arabic language.^{5–7} They are considered to be one of the fastest growing cultural minorities. Arab migration to the United States occurred in two distinct waves: the first in the late 19th century, for those seeking employment in industry, and the second in the mid-20th century, for those wanting to escape the political unrest of the Middle East. The immigration wave continues today, with approximately 40% of all Arab Americans having arrived since 1975.^{5,7}

During the 1980s, 3%–5% of the total number of US naturalized citizens were of Arab descent.⁷ In the year 2000 census,⁸ 1.2 million adults reported having Arab ancestry. This number is believed to have been grossly under-reported. The Arab-American Institute in Washington, DC reports almost 5 million Arab Americans.

The highest concentrations of Arab Americans, with an estimated population of almost 490,000, live in Michigan; Michigan ranks second in the number of Americans of Middle-Eastern descent.8 More than 36% of the Michigan Arab Americans were born outside the United States; approximately 10% live in Dearborn, a suburb of Detroit. They are predominantly male and single, coming from Lebanon, Palestine, and Yemen. Twenty-five percent of the population is 25 years of age or younger. Most are poor, under-educated, live in extended families of 3-5 adults, immigrants, and approximately one third speaks no English.9,10

Many Arab Americans emigrate from countries where tobacco use is an integral part of the culture and a means to show hospitality; in these countries, health promotion in terms of smoking prevention and cessation is virtually

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nonexistent.¹¹ In the Detroit area, Rice and Kulwicki found a 40.6% smoking ratio in Arab-American adult men and 38.2% among women. Most current smokers in their study were Lebanese and Palestinian; 97% had been born in the Middle East.¹² A survey two years later in the same geographic area found a 35% smoking ratio for Arab-American adult men and a 31.5% ratio for women.¹³

A recent Global Youth Tobacco Survey reported tobacco use in the Gaza Strip and West Bank to range from 10% to 17% and 20% in Jordan.14 State of Michigan smoking data by Arab-American identity are not available. A 1997 Dearborn survey of 751 Arab-American middle and high school students indicated that 15% had used tobacco in the previous 30 days. Although 78% of this sample was younger than 15 years of age, the highest tobacco use ratio (23.2%) was found among 16- to 18year-olds.¹⁵ A 1998 Wayne County Teen Health Needs Assessment Survey revealed overall tobacco use to be 28%; the smoking ratio for Arab-American youths was 34.3%.16

Since smoking rates in Arab-American adults are among the highest in this country and in the world, and survey data suggest relatively high tobacco use in Arab-American teens, determining definitive tobacco use patterns is important. In addition, identifying forces thought to contribute to tobacco use is necessary in this rapidly growing immigrant population; we must also evaluate the effectiveness of tobacco-cessation intervention.

A number of mediating and moderating forces have been implicated in the initiation and maintenance of tobacco use in adolescents in earlier studies.^{17,18} Personal variables evaluated in this study of Arab-American youth included demographics (age, gender, socioeconomic status), tobacco use behavior (intention to use tobacco, tobacco use history, stage of change, strength of addiction), school grades, non-classroom activities, stress, self-esteem, selfefficacy, perceived health, depression, and barriers to not using tobacco. Sociocultural influences assessed were country of origin, family and peer tobacco use and pressure, and social support and environmental conditions, including availability of and advertising exposure to tobacco products. Based on an assessment of the above factors, a relative risk for habitual tobacco use was generated to locate adolescents on a continuum from "never a tobacco user" to "tobacco use dependency."

STUDY MEASURES

The following study measures were translated, back translated, and pilot tested by using established procedures to determine cross-cultural reliability and validity.¹⁹ This process was monitored throughout the study.

• The Demographic and Cultural Information (DCI) scale asked about age, sex, school, school grades, school and community activities, occupation of parent(s), annual income, country of origin, and primary language spoken. This scale also asked about receiving tobacco mail and promotional items.

• The Rosenberg Self-Esteem Scale (RSES)²⁰ is a 10-item tool that asked subjects about their self-worth. The tool has been used widely with adolescents and ethnic populations.

• The Health Perception Ladder (HPL) is a modified tool by Norton-Broda from the Child's Health Assessed by Self Ladder (CHASL).²¹ The Ladder was used to obtain a self-assessment of health on a five-rung Cantril format. The HPL is self-anchored in that it is relative to each adolescent's perception of maximum and minimum health. Students were asked to indicate which point on the ladder showed how healthy he or she was, and then they wrote why they choose that step in the area below. The HPL was designed for ease of use with young populations and diverse ethnic groups.

• The Center for Epidemiological Studies—Depression Scale (CES-D) is a 20-item self-report scale used in both general and clinical populations to determine frequency and severity of depression symptoms.²² Adolescents were asked to rate each depressive symptom experienced in the past week on a 4-point Likert scale ranging from 0 (none of the time) to 3 (most or all of the time). Summative scores ranged from 0 to 60.²²

• The Adolescent Hassle Scales (AHS) is a 28-item measure specifically developed to determine stress in adolescents' lives. It includes stressors of family, school, friends, and leisure.²³

• The Family & Friends Tobacco Use Survey (FF-TUS) is an eight-item measure that assessed tobacco use of family members and friends and the hours of exposure to secondhand smoke both inside and outside the home.

The Tobacco Use Questionnaire (TUQ) is a 21-item questionnaire that asked about smoking history and smokeless tobacco use. The first 10 items were adopted from the Smoking Behaviors Subscale of the Youth Health Survey. An additional question asked about narghile use. Narghile smoking, also known as hookah, sheesha, shisha, chicha, pipe, pipa, waterpipe, or hubble-bubble, is inhaling burning tobacco through a water filter and straw system. The next four TUQ items were taken from the Smoking Habits Questionnaire; these focused on attempts at quitting smoking. Question 15 inquired about means for getting cigarettes and question 16 asked about the desire to quit. The last four questions measured Stage of Change.

• The modified Fagerstrom Tobacco Nicotine Dependency (FTND) is a sixitem measure to determine level of nicotine dependency or addiction. It asked how soon tobacco use began each day, which cigarettes a person could do without, how smokers cope in places where

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they cannot smoke, and how much and how deeply they smoke. $^{\rm 24}$

• The 21-item Barriers to Cessation (BC) scale was developed by McNee and Talsma.²⁵ Smokers were asked to rate circumstances or feelings that they thought might make it more difficult for them to stop smoking. Three categories (internal, external, addictive) of barriers have seven to eight items each.

The abstracts and papers (all of which include some or many of the above factors) following this article were presented at the conference and provided data on Arab-American adolescent (14–18 years of age) tobacco use that were collected over the past four years. In addition, these papers look at cultural subgroups' smoking behavior.

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