

F. COLLABORATIVE RESEARCH OF TOBACCO USE AND ITS PREDICTORS IN ARAB AND NON-ARAB AMERICAN 9TH GRADERS

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INTRODUCTION

This presentation documents the development of a collaborative research effort between the university and an ethnic community center to determine tobacco use and its predictors in Arab and non-Arab American 9th graders. Tobacco use, primarily cigarette smoking, is a major preventable public health risk in most of the developing countries of the world¹ even as rates have declined in developed countries like the United States.² The WHO reports smoking as the second cause of death and disability worldwide; it responsible for the death of one in ten adults. There are approximately 1.1 billion smokers in the world; about one-third of the global population aged 15 years and over.³ Worldwide more than half of the adolescents 18 years and under have experimented with smoking.¹ In America, 23% of all high school students reported smoking in the past month with almost equal numbers of boys and girls⁴; this is slightly higher than the 21% reported in 2003.⁵ More than half began smoking before the age of 14 and 90% before the age of 19. Twenty-seven percent (27%) of 12th graders are current users; one in four is a regular smoker by the time he or she leaves high school.⁶

Cigarette smoking rates among teens declined during the 1970s and 1980s, but increased in the early to mid-1990s among White, African American and Hispanic high school students, especially girls.⁶ On the whole, Hispanic high school students were higher tobacco users (18.4%) in the previous month than African American (15.1%) or Asian-American youth (12.8%).⁵ In 2006, the overall rate increased from 22.9% to 23%; the only significant

subgroup change was a reduction in current smoking among Black males from 19.3% to 14%.⁴ Few smoking behavior data are available for other ethnic groups such as Arab Americans who number almost four million and are one of the fastest growing immigrant groups in America.⁷ They live in all 50 states; 66% reside in 10 of them. One-third of the total live in Michigan, California and New York, and approximately 94% live in large metropolitan areas including Detroit, Los Angeles, New York City, Chicago, Washington, D.C. and northeastern New Jersey. Almost 490,000 Arab Americans live in Michigan.⁸ As they migrate around the world, Arabs bring with them their cultural traditions and behaviors, one of which is tobacco use. On average, 45% of the men and 5% of the women in the Middle East smoke. Traditionally, tobacco use by women in the Middle East has been very low; it is now on the rise.⁹

Estimated cigarette smoking among 13- to 15-year-old boys and girls in the Eastern Mediterranean region is 35% and 4%, respectively; 25% had smoked their first cigarette before the age of 10.³ While much is known about cigarette smoking and its dangers,^{2,10} less is known about another form of tobacco use commonly used by those in the Middle East (ME), narghile smoking, as described earlier in this section. Today, more than 100 million people of all age groups worldwide smoke a water pipe on a daily basis.¹¹⁻¹²

Researchers in the Middle East are just beginning to evaluate narghile smoking by the young. Tamim and others¹³ reported an overall smoking rate of 40% in 2000 university students in Lebanon; 21.1% indicated using only the narghile; 12% smoked both cigarettes and narghile. In a cross-sectional

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study of university students in Syria, Maziak et al¹⁴ found 62.6% and 29.8% narghile use, respectively, for young men and women. Cigarette-smoking rates were 25.5% for men and 4.9% for women. Seven percent (7%) of the male students reported using the narghile daily. Although the World Health Organization has documented cigarette smoking on a regular basis for a long period of time,^{1,3} it has just begun to monitor narghile use. Few data were found for narghile smoking among high school students and those younger in either the Middle East or the United States. As cigarette and narghile smoking rates for Arab adults and college-aged students¹⁵ appear to be high, it is important to examine the patterns and predictors in adolescents of all tobacco use so that effective prevention and/or cessation programs can be initiated early.

METHODS

Participants in this adolescent tobacco use were 1455 9th grade students attending two community high schools and able to read and write in English or Arabic and willing to participate. The average age was 14.54 (SD=0.83); 55% were male and 89% self-identified as Arab American. Information letters describing the study were mailed to parents by the school administration. Those who did not wish their child to participate were instructed to contact the school; there were no parental refusals. In addition, students were given a choice for participation in the classroom and received a Human Investigative Committee (HIC) approved Information Sheet; no students refused to participate. Fifty-seven percent (57%) of the youths reported being born in the Middle East with a mean time in the United States of 6.0 years (SD = 4.3). Reliable and valid bilingual tools^{14,15} measured demographic and cultural information (DCI), family and peer tobacco use, Rosenberg's self-

esteem, CESD-Depression, adolescent stress, and tobacco use history were completed in a single session.

RESULTS

Regular, last 30 days, and experimental use of cigarettes by Arab American youth were 1%, 2% and 9%, respectively compared to 5%, 9% and 27%, respectively, for non-Arab youth. In contrast, narghile use was 8%, 12% and 36% for regular, last 30 days, and experimental use, respectively, by Arab American 9th graders compared to 3%, 4% and 11%, respectively, for non-Arab youths. Logistic regressions revealed having three or more close friends who smoked (OR=5.72), brother(s) who smoked (OR=3.52), being US-born (OR=5.08), receiving offers to smoke (OR=3.82) and English not spoken at home (OR=3.21) all contributed to cigarette smoking in last 30 days. Variables predictive of experimenting with cigarettes included having one or more close friends who smoked (OR=3.42), brother(s) smoking (OR=1.48), receiving offers to smoke (OR=1.66), being depressed (OR=1.77), exposed to smoking at home (OR=1.42) and easy access to cigarettes (OR=1.73). For experimental narghile use, being Middle Eastern (OR=8.55), male (OR=1.90), mother smoking (OR=1.82), sister(s) smoking (OR=2.04), having one or more close friends who smoked (OR=1.99), being stressed (OR=1.73) and having easy access (OR=1.58) were all significant predictors. Ethnicity, parents and peers were all significant predictors of the two forms of tobacco use by 9th graders.

DISCUSSION

Tobacco use in the form of experimentation and/or last-30-day use was prevalent for both Arab and non-Arab Americans in the 9th grade. However, the type of tobacco smoked differed. One

reason for this may be because narghile use is a cultural form of hospitality among adults of the Middle East. As a youth approaches adulthood, this behavior becomes more and more acceptable.¹⁶ Narghile use was also a strong predictor of current cigarette smoking. This raises serious concerns about the role of this commonly accepted cultural practice in the Arab American community. First, it may be the narghile smoking is a gateway tobacco product leading to higher rates of cigarette use in the long term. It is also possible that narghile smoking may be a substitute for cigarette smoking, but with as yet unrecognized and unstudied health risks. These risks may be equal to, or more harmful than, those related to cigarette smoking. Clearly, further research is needed into this form of tobacco use that is spreading rapidly into the non-Arab community. Finally, tobacco use among friends and family members appeared to have a sustaining effect for current cigarette smoking, while cultural factors, offers and availability of tobacco (in addition to friends' use) contributed more to experimentation. These findings suggest further exploration and direction for the development of community prevention and cessation programs in the very young.

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