

NEWS RELEASE

Waterpipe Smoking is Becoming 'Epidemic' Among Young People, Study Concludes

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BUFFALO, N.Y. - Students in schools and universities in the U.S. and around the world are using waterpipes to smoke tobacco at "alarmingly high" rates, according to a study published this month by University at Buffalo researchers.

Published in Biomedical Health Central Public Health, the paper is the first systematic review of the prevalence of waterpipe smoking across countries, age groups and genders. It is available at <http://www.biomedcentral.com/1471-2458/11/244>. Systematic reviews are conducted through an exhaustive and systematic search for, assessment, and analysis of, all relevant, peer-reviewed research ever published on a particular subject.

"Waterpipe smoking is a real epidemic in the world and it's picking up in the U.S. too," says Elie Akl, MD, PhD, lead author and associate professor of medicine, family medicine and social and preventive medicine at the University at Buffalo's School of Medicine and Biomedical Sciences and School of Public Health and Health Professions. Akl also holds a part-time appointment in the Department of Clinical Epidemiology and Biostatistics at McMaster University.

The UB review identified 38 relevant studies conducted in the U.S., the United Kingdom, Australia and Estonia, as well as countries in the Arab Gulf, including Lebanon, Pakistan, Egypt, Syria, Bahrain, Kuwait, Oman, Qatar, the United Arab Emirates and Yemen. Target populations of the studies were middle or high school students as young as 13 years of age, university students, adults and pregnant women.

While the paper reveals the highest rates of waterpipe smoking in Middle Eastern and Asian countries, where the practice has a centuries-long tradition, the researchers also found that it is increasing in the U.S. and other western countries.

"The surveys included in this review found an alarming prevalence of waterpipe smoking among middle and high school students in the U.S.," Akl says. "It was especially true of Arab-American students, who reported waterpipe usage ranging from 12 to 15 per cent."

The surveys included also revealed that current waterpipe smoking among adults is at 6 percent in Pakistan, 4-12 percent in the Arabic Gulf region, at 11 percent in Australia among Arab-speaking adults and 15 percent in Lebanon. Group waterpipe smoking was high in Lebanon, at 5 percent, and in Egypt ranging between 11 and 15 percent. In Lebanon, between 5 and 6 percent of pregnant women also reported waterpipe smoking during pregnancy.

The UB review also found that approximately 10 percent of university students in the U.S. reported waterpipe smoking.

This is Akl's fourth publication on waterpipe smoking. A study he published last year in Chest Journal found that, contrary to popular perceptions, its deleterious effects on pulmonary function are very similar to those of cigarettes. (Listen to the Chest Journal podcast with Dr. Akl about that paper at <http://chestjournal.chestpubs.org/content/139/4/764/suppl/DC1>)

Akl says that the current findings should be a wake-up call to public health agencies that should directly address waterpipe smoking in their tobacco-control strategies.

"Awareness campaigns need to take into account that waterpipe smoking is increasing, especially among youth, and that it may be a gateway to cigarette use in adulthood," he says.

"The problem is that some people are advocating the hookahs, or waterpipes, as safer than cigarettes," he explains. "It's perceived as less addictive. And because in the hookah, the smoke comes through a column of water, which is supposed to filter the smoke, it's been seen as safer than cigarettes and other forms of tobacco consumption."

But a study by Akl and others published in the International Journal of Epidemiology has found that waterpipe tobacco smoking is significantly associated with lung cancer, respiratory illness, low



A systematic review by UB's Elie Akl has found "an alarming prevalence" of waterpipe smoking among middle and high school students in the U.S.

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birth-weight and periodontal disease.

"Waterpipe smoking is seen as a more social, more sophisticated, more fashionable way of smoking tobacco," he says, noting that hookah bars are now opening up in cities throughout the U.S. and western countries as well as in the Middle East.

"This review reveals a need for a better understanding of the epidemiology of this new epidemic, especially concerning how waterpipe smoking may lead to cigarette smoking, so that public health agencies can best address these behaviors, particularly among youth," says Akl.

The research was co-authored by Sameer K. Gunukula, MD, Sohaib Aleem, MD, Philippe Abou Jaoude, MD and Roland Honeine, MD, all of the UB Department of Medicine, Rawad Obeid of Wayne State University and Jihad Irani of the University of Balamand in Beirut.

The University at Buffalo is a premier research-intensive public university, a flagship institution in the State University of New York system and its largest and most comprehensive campus. UB's more than 28,000 students pursue their academic interests through more than 300 undergraduate, graduate and professional degree programs. Founded in 1846, the University at Buffalo is a member of the Association of American Universities.