Youth Attitudes towards Water Pipe Smoking in Amman - Jordan

Sana'a K. Malik,[1] Yanal A. Shafagoj,[2] Dana B. Abdeen,[2] Faisal A. Khatib,[2] Loai A. Zghoul,[2] Christian Coles[1]*

Abstract

Aims: To investigate attitudes, beliefs, and perceptions related to water pipe (WP) smoking among school children in Amman, Jordan.

Materials and Methods: A cross-sectional study was conducted in 2006 – 2007 of ten public and private schools in Amman, Jordan and a total of 513 seventh and tenth grade students were interviewed (32.8% males and 67.2% females). Surveys were conducted to assess the attitudes; knowledge, use of, and norms about water pipe use amongst youth, and the data were analyzed using STATA and SPSS.

Results: Two hundred sixty five of the students surveyed (52.2%) had tried water pipe smoking before. About a quarter (26.5%) of the participants had tried a water pipe when they were ≤10 years of age. Smoking mothers had more of an influence in attracting youth towards water pipe smoking.

Conclusions: An anti-smoking campaign should start at early ages. WP hazards must be incorporated into the school curriculum. WP smoking in public places such as restaurants should be restricted.

Keywords: Water pipe, Youth, Jordan.

(J Med J 2013; Vol. 47 (1):35- 43)

Received	***Accepted***
December 7, 2011	*May 10, 2012*

Introduction

Tobacco use is a leading cause of preventable death and is estimated to kill more than 5 million people each year worldwide. Most of these deaths are in low- and middle-income countries. If the current trends persist, tobacco will kill more than 8 million people worldwide each year by the year 2030, with 80% of these premature deaths in low- and middle-income countries. By the end of this century, tobacco may kill a billion people or more unless urgent action is taken. More than one billion men, women, and youth in the world currently use tobacco products, which equates to about 35 percent of men in developed countries and about 50 percent of men in developing countries.[1] Tobacco-use is a major public health problem because it is the second major cause of death in the world, and these deaths are preventable. However, much of the research, treatment plans and prevention programs have been based on cigarette use. In the developing world, a reemerging trend has been to smoke tobacco using water pipes, also referred to as narghile, shisha, hookah, goza, and hubbly-bubbly. In regions such as the Eastern Mediterranean, North Africa, Asia, and the Indian

1. Johns Hopkins University, Baltimore, MD, USA.
2. Department of Physiology and Biochemistry, Faculty of Medicine, University of Jordan, Amman, Jordan.
**** Correspondence should be addressed to:***
Yanal A. Shafagoj, MD, PhD.
P. O. Box: 5400, Amman 11183, Jordan.
E-mail: yanals@ju.edu.jo

subcontinent water pipe smoking use is increasing in popularity, especially among youth.[2] "It has been claimed that over 100 million people worldwide smoke water pipes daily".[3] Water pipes have been used for over four centuries and are seen often as the center of socialization, with multiple people sharing one pipe and smoking sessions that normally last 45 to 60 minutes.

Smoking cigarettes and using other forms of tobacco have been proven to increase risks for heart disease, emphysema, and multiple cancers, including lung, mouth, and lip cancer. Smoking during pregnancy can also increase the risk for miscarriage, ectopic pregnancy, premature birth, and birth defects. In children, secondhand smoke is associated with Sudden Infant Death Syndrome, asthma induction and exacerbation, bronchitis, and pneumonia, middle ear infection, chronic respiratory symptoms, and low birth weight.[4-6] Cigarette smoke has long been known to contain harmful chemicals including irritants and systemic toxicants, mutagens, and reproductive and developmental toxicants.[7]

However, limited studies of water pipe smoke constituents demonstrate high concentrations of carbon monoxide, nicotine, tar, and heavy metals.[8] Nicotine levels in water pipes are estimated to be 2-4% compared to 1-3% in cigarettes,[9] with the smoke produced from a single water pipe use contains approximately the same amount of nicotine-free, dry particulate matter (tar) as 20 cigarettes.[10] Other estimates suggest that one water pipe smoking session can expose individuals to 100 times the amount of smoke as would be consumed by smoking a cigarette.[11] Also, sharing water pipe mouthpieces poses a serious risk of transmitting communicable diseases, such as hepatitis and tuberculosis. A study in Egypt further demonstrated that in patients with Helicobacter pylori, "water pipe smokers who smoked in groups had increased rates of infection when compared with nonsmokers".[12] Additionally, secondhand smoke is also a health concern associated with water pipe smoking. This is particularly true because many heavy water pipe users do so mainly in the home, where children and other vulnerable populations are present.[10] The World Health Organization Study Group on Tobacco Product Regulation recently released an advisory note about water pipe tobacco smoking, calling for greater research about water pipe smoking and its health effects. The severity of this reemerging epidemic has yet to be studied, and greater efforts are needed to curb water pipe smoking amongst youth.

In Jordan, the tobacco epidemic is particularly alarming. Although only six percent of women in recent years smoked tobacco products in Jordan, half (50%) of all men smoked these products.[13] Among current smokers, men smoked approximately 23 cigarettes per day, compared with 12 cigarettes a day among women, and very few people had received counseling from a healthcare provider about the harms of smoking. Another serious indicator of the severity of this behavioral risk factor is the prevalence of smoking in about 20% of school children 13-15 years of age.[14] More males in this age category (25%) smoke than females (15%). Additionally, the Global Youth Tobacco Survey found that 34.3% of Jordanian youth tried smoking and that 26.1% smoked their first cigarettes before they were 10 years old.[15] This shows that the initiation of smoking occurs at an early age, exposure time is much longer, and therefore an increase in the prevalence and severity of chronic disease is expected. Though particular statistics are not available about the prevalence of water pipe smoking, this number is expected to be high. Already, cardiovascular diseases, including ischemic heart disease, and cancers are among the top causes of DALY's lost in Jordan, and this number is only projected to increase.[16] Furthermore, because little has yet been done to curb the water pipe smoking problem, there is a big need in terms of prevention, education, and treatment in Jordan.

This study was designed to investigate the attitudes, beliefs, and perceptions related to water pipe usage among families and children in Amman, Jordan. Because few studies have examined the use of water pipes in Jordan, this research was critically important to understanding the tobacco epidemic in this country and aid in

the development of effective strategies for preventing early tobacco initiation among children in the Middle East and South Asia.

Methods

The study utilized a qualitative exploratory cross-sectional study design. This design allowed us to describe and assess local understandings about the harms and social norms surrounding water pipe use. Surveys were conducted on two different levels. First, a survey was used to assess the attitudes, knowledge, use of, and norms about water pipe use amongst youth. Next, surveys were sent to parents to assess similar questions.

Approval to conduct the current study was obtained from the local authorities (Ministry of Education and University of Jordan) and with the assistance of school administration. Potential study participants were recruited through a convenience sample of 10 schools in Amman, Jordan by trained interviewers. The schools approached in Amman represented public and private schools. The study was designed to be representative of teenagers enrolled in school in Amman, Jordan's capital. The parents of the students in seventh and tenthtenth grades were contacted through a letter from the school prior to survey implementation, explaining the study and seeking consent for the child and parent to participate in the study. After obtaining parental consent, the study staff went to the selected schools and spoke briefly to designated classes to explain the purpose and the procedures of the project.

From the schools accepted to participate, all students from seventh and tenth grades were asked to take part in the study. Students who elected to participate in the study were asked to review the IRB approved consent form and they received a copy of this form for their records. Informed consent was sought prior to each survey in Arabic or English. During the consent process, confidentiality and the voluntary nature of the study were emphasized. They were then given the questionnaire, which took less than 30 minutes to complete. All participating students were also given a survey to be taken home to their parents. A cover sheet and consent form were included to explain the purpose of the study and ensure the participant's confidentiality. If the parent/guardian chose to participate, they were required to sign or mark the consent form and then sent the survey back with their child to the school, where a research associate collected the forms.

Demographic information was collected about the students participating in the survey, including their age, gender, and amount of money received per week. Questions on the survey addressed social influences, attitudes of students, knowledge of the youth, and information on behaviors.

Statistical Analysis

Data was analyzed using STATA (Version #9, College Station, TX) and SPSS (Version 16). Data was tabulated to examine the descriptive statistics for categorical variable questions and data was summarized to examine the descriptive statistics for continuous variable questions. A chi-square test was then conducted to examine the odds ratio comparing gender and school-class with the pattern of water pipe use. The pattern of water pipe use was categorized into four groups, including none, one time per month, one time per week, and one time per day. The association between the prevalence of water pipe smoking in children and several potential risk factors was evaluated using binary logistic regression. The odds ratio for the individual factors was obtained as a measure of this association. Significant factors were then subjected to a multivariate logistic regression analysis to assess the independent effect of each factor after controlling for potential confounders. P value of < 0.05 was considered statistically significant.

Results

A total of 513 seventh and tenth grade students were interviewed. Students ranged from ages 11 to 17 and the average age of participants was 14.4 years. Seventh grade students were 225 (95 boys and 130 girls, mean age 12.70 y, STD 0.52, range

12-14 y) and tenth grade students were 265 (65 boys and 200 girls, mean age 15.85 y, STD 0.44, range 15-17 y). One hundred and sixty eight participants were male (32.8%) and 345 participants were female (67.3%). Ten public and private schools were sampled from different regions in Amman. Two hundred and six of the participants were from private schools and 307 participants were from public schools.

Two hundred and sixty five of the students surveyed (52.2%) had tried water pipe smoking before (even one or two inhalations). A large number of participants (73%) had smoked the water pipe before first trying smoking when they were older than 10 years of age. However, 26.5% of participants had tried the water pipe when they were 10 years of age or younger. The majority of participants (64.9%) stated that they first smoked the water pipe in order to taste it, and 11.6% of participants stated that they tried the water pipe because "everyone smokes arghileh." A smaller percentage (6.8%) stated they smoked the water pipe to "look cool." Further, 29.3% of the participants said they were with a parent when they first tried the water pipe, and 20.2% of participants said they were with a friend the first time they tried the water pipe. A number of the students (63.0%) who had smoked before reported that they currently use the water pipe (had smoked in the past month).

The majority of participants, who are currently smokers, smoked a water pipe at home (31.7%) and in public spaces, including restaurants (32.9%). Additionally, most of the participants reported that they used a water pipe at least one time per month (71.0%), with 19.8% reporting weekly use, and 9.3% reporting daily use. In correspondence to this, 69.8% of participants who are currently smokers classified themselves as light smokers, while 19.8% classified themselves as average smokers and 10.4% classified themselves as heavy smokers. Most of the smokers (67.5%) shared the same water pipe with others and they reported sharing the water pipe with one, two, or more than three people. The most frequent drive (40.2%) for smoking water pipe was to have a good time.

Additionally, 65.2% of the smokers stated that there was no reason for them to stop smoking the water pipe and many were not thinking of stopping or wanting to stop. Also, 68.7% of the participants stated that they could stop smoking the water pipe whenever they wanted and 73.8% said that they were not addicted to the water pipe. Over a third of the smokers (38.4%) stated that they paid for their water pipe smoking themselves and 24.4% stated that their parents paid for it.

Amongst the students who had never tried the water pipe before, 66.7% said that they did not think they would smoke the water pipe when they got older. However, the remainder stated that they would or were unsure if they would. Also, 85.4% of these students stated that their friends did not put pressure on them to smoke a water pipe.

Odds ratios were then calculated using a chi-squared test to determine the odds of the level of smoking in males vs. the odds of smoking in females and the odds of smoking in the tenth grade group vs. the odds of smoking in the seventh grade group. No significant differences were seen between females and males on any of the smoking levels (see table 1). This is a very important finding because females have historically had very low tobacco usage rates in Jordan.

Additionally, when a chi-squared test was calculated to determine the effects of age (seventh grade vs. tenth grade) on smoking activity, the results suggest a relationship, though not significant. Individuals in the tenth grade had 1.33 times the odds of individuals in the seventh grade to smoke at least one time per month ($p = 0.220$, 95% CI: 0.84, 2.08), had 2.26 times the odds of individuals in the seventh grade to smoke at least one time per week ($p = 0.045$, 95% CI: 0.996, 5.12), and had 3.53 times the odds of individuals in the seventh grade to smoke at least one time per day ($p = 0.0426$, 95% CI: 0.96, 13.01) (table 1). These results suggest that age is a critical factor in determining the initiation of water pipe smoking.

Table (1): The association between gender and school class and water pipe smoking in children.

Frequency of water pipe smoking	*N*	*Odds ratio*	*95% C.I*	*P*
Once/month	*115*			
Gender		*1.366*	*0.853 – 2.188*	*0.192*
Class		*1.326*	*0.844 – 2.083*	*0.220*
Once/week	*32*			
Gender		*0.929*	*0.409 – 2.110*	*0.861*
Class		*2.258*	*0.996 – 5.119*	*0.045*
Once/day	*15*			
Gender		*1.583*	*0.542 – 4.628*	*0.397*
Class		*3.535*	*0.961 – 13.009*	*0.043*

Reference for gender is female and reference for the class is seventh grade.

In addition, the association between the prevalence of water pipe smoking in children and several potential risk factors was evaluated using binary logistic regression. The odds ratio for the individual factors was obtained as a measure of this association.

Table (2) shows the association between water pipe smoking and several risk factors when examined one factor at a time. A significant association was observed between water pipe smoking in children and cigarettes and water pipe smoking in parents and also in persons, other than the parents, living in the same house. In addition, greater weekly allowance and the class, tenth versus seventh, were associated with a higher percentage of smoking children. No association was found between water pipe smoking and gender or type of school, private versus public (see table 2).

Significant factors were then subjected to a multivariate logistic regression analysis to assess the independent effect of each factor after controlling for potential confounders.

Table 3 shows the odds ratio for the risk factors that remained significant using multivariate logistic regression analysis. The class and the weekly allowance lost their significance after controlling for smoking in parents and persons living in the same house (see table 3).

Discussion

From the above results it is apparent that water pipe smoking is a large public health concern in Jordan. Children in both the seventh and tenth grades had not only been exposed to water pipes, but over 50% also had tried smoking a water pipe at some time prior to the survey. Additionally, this study showed that water pipe smoking begins at young ages and often begins in the presence of family or friends. It has also been shown by others that addiction to smoking starts in childhood for most smokers. Naddaf reported that 65% of cigarette smokers started smoking before the age of 18 years.[17] In Jordan, a recent study indicated that WP smoking is as common as cigarette smoking among Jordanian university students.[18] In the review paper of Akl et al., 38 studies among different countries were analyzed, and they found that the highest prevalence of current water pipe smoking was among school students.[19] It is becoming a fact that even if WP smoking starts as a luxury social habit in childhood, it will end as nicotine addiction in adulthood. Since smoking begins in youth, preventive and cessation efforts should also start in youth and not be restricted to adult smokers only. Actually, it is more beneficial to prevent youth from starting to smoking than encourage adults to quit smoking. Hence, we must start to launch an early campaign against WP smoking. On the other side, students that belong to non-smoking parents were less likely to smoke. This finding again stresses the importance of environment on promoting WP smoking for both males and females. Friends were considered the major reason for starting smoking, followed by parents, stress and curiosity, etc.

In the past, males have traditionally had a higher rate of cigarette consumption in Jordan than females.

Table (2): The association between water pipe smoking and several risk factors when examined one factor at a time.

Factors	*% of Smokers*	*Odds ratio*	*95% C.I*	*P*
Class				
Seventh grade	*(27.6)*	*1*		
Tenth grade	*(37.3)*	*1.57*	*1.06 - 2.30*	*0.023*
Parents smoking WP				
No	*(24.5)*	*1*		
Both	*(54.2)*	*3.63*	*1.95 - 6.76*	*0.000*
Father	*(41.2)*	*2.21*	*1.38 - 3.55*	*0.001*
Mother	*(65.2)*	*5.76*	*2.36 - 14.09*	*0.000*
Parents smoking cigarettes				
No	*(25.4)*	*1*		
Both	*(55.6)*	*3.67*	*2.11 - 6.36*	*0.000*
Father	*(31.5)*	*1.35*	*0.88 - 2.07*	*0.171*
Mother	*(53.3)*	*3.35*	*1.17 – 9.64*	*0.025*
Living with WP smoker (other than parents)				
No	*(19.5)*	*1*		
Yes	*(57.1)*	*5.48*	*3.64 - 8.26*	*0.000*
Living with cigarette smoker (other than parents)				
No	*(27.8)*	*1*		
Yes	*(40.9)*	*1.79*	*1.202 - 2.68*	*0.004*
Allowance JD*/Week				
0.5	*13.8*	*1*		
0.51-1	*24.4*	*2.02*	*0.58 - 7.10*	*0.272*
1.01-1.5	*22.1*	*1.77*	*0.53 - 5.88*	*0.35*
> 1.5	*37.5*	*3.74*	*1.27 - 10.98*	*0.016*

One JD ≈ $1.4

Table (3): Results of multivariate analysis of factors associated with water pipe smoking in children.

Factors	*Odds ratio*	*95% C.I*	*P*
Parents smoking WP			
No	*1*		
Both	*2.114*	*0.935 – 4.780*	*0.072*
Father	*1.867*	*1.035 – 3.368*	*0.038*
Mother	*2.815*	*0.921 – 8.597*	*0.069*
Parents smoking cigarettes			
No	*1*		
Both	*2.799*	*1.371 – 5.714*	*0.005*
Father	*1.299*	*0.758 – 2.227*	*0.341*
Mother	*2.550*	*0.603 – 10.780*	*0.203*
Living with WP smoker (other than parents)			
No	*1*		
Yes	*5.437*	*3.087 – 9.577*	*0.000*

This difference can be partially explained in social terms where men have more dominant roles in society and where cigarette smoking is considered acceptable for males but not for females. However, with the westernization of Arab countries and with the increasing empowerment of women, traditional trends in tobacco consumption are slowly changing. This is the case with water pipe smoking, as gender differences are much less pronounced, due to the social acceptability of water pipe smoking applying to both males and females. This survey also found that there was no significant difference between the patterns and amount of water pipes

used and gender. This factor will be critically important in determining appropriate intervention strategies as both males and females are at risk for developing the habit of water pipe smoking.

A number of strengths and limitations were present in this study. First, a strength of this study is that it provides a first glimpse of the patterns of water pipe use amongst youth in Jordan. No other studies have been conducted in Jordan regarding youth water pipe smoking, and therefore this knowledge is essential to curb the use of tobacco amongst this population. Additionally, this survey looked at two distinctive age groups, including those in seventh grades and tenth grades, and both male and female students, which allowed for a wider understanding of the patterns of use. Additionally, because a number of schools spread around East and West Amman were sampled, this allowed a more random sample with children of differing socioeconomic statuses.

However, a number of limitations were present in this study. First, there may be a response bias, in which certain parents were more likely to give permission to their child to take part in this study. For example, parents who smoke the water pipe in their homes may have been more hesitant to allow their child to answer questions about this behavior. Also, an unequal number of males and females were interviewed, with a much larger number of females taking part in the survey. By having fewer males involved, the comparisons between groups may not be accurate. Also, because few students actually used the water pipe daily or weekly, the power in the comparisons between groups was relatively weak. Additionally, a weakness in this study was that cigarette consumption was not asked about. Previous studies have found that cigarette use and water pipe use are often interconnected. This piece of information may be useful in determining who is choosing to use the water pipe and who would need to be targeted for interventions.

In Jordan, anti-smoking legislation already exists. Tobacco advertising is fairly restricted. For instance, political leaders and social figures do not smoke during television interviews. Hospitals and schools are smoke-free areas. Public campaigns on smoking-related health hazards have been launched, but not adequately covered. To what extent the local authorities are willing to implement these legislations is not exactly known. Because efforts are measured by their results, disappointing results mean inadequate efforts. It is by law that each restaurant must provide a smoke-free area. Almost none of the restaurants in Amman have smoke-free areas. On the contrary, most of them serve WP to attract customers. Therefore, enforcement of legislation will be critically important.

In summary, of the students in seventh and tenth grades who were surveyed, 52.2% had tried water pipe smoking before, with 26.5% of participants having tried the water pipe when they were ≤10 years of age. Smoking mothers had more influence in attracting youth towards water pipe smoking. These results suggest that anti-smoking campaigns should start at early ages. WP hazards must be incorporated into the school curriculum. WP smoking in public places such as restaurants should be restricted. Further legislation will need to be formulated to serve as effective prevention and intervention strategies. Stakeholders will need to be recognized and effective policy changes will need to be proposed and implemented.

References

1. Report on the Global Tobacco Epidemic. Implementing smoke-free environments. World Health Organization, 2009. URL:http://www.who.int/tobacco/mpower/en/. Accessed: 2011-02-10. (Archived by WebCite® at http://www.webcitation.org/5wOO9FIcc).
2. Al-Mohamed HI, Amin TT. Pattern and prevalence of smoking among students at King Faisal University, Al Hassa, Saudi Arabia. Eastern Mediterranean Health Journal. 2010; 16(1): 56-64.
3. The Sacred Narghile. http://www.sacrednarghile.com/en/index.php. Accessed: 2011-02-10. (Archived by WebCite® at http://www.webcitation.org/5wORhsuoT).

4. Tamim H et al. Exposure of children to environmental tobacco smoke (ETS) and its association with respiratory ailments. J Asthma. 2003; 40(5): 571-6.
5. DiFranza JR, Lew RA. Morbidity and mortality in children associated with the use of tobacco products by other people. Pediatrics1996; 97: 560–8.
6. DiFranza JR, Lew RA. Effect of maternal cigarette smoking on pregnancy complications and sudden infant death syndrome. J Fam Pract. Apr 1995; 40(4): 385-94.
7. National Cancer Institute (2005). (http://www.cancer.gov. Accessed: 2011-02-10. (Archived by WebCite® at http://www.webcitation.org/5wOPwmfAr))
8. Daher N et al. Comparison of carcinogen, carbon monoxide, and ultrafine particle emissions from narghile water pipe and cigarette smoking: Sidestream smoke measurements and assessment of second-hand smoke emission factors. Atmos Environ. 2010; 44(1): 8-14.
9. Shihadeh A, Saleh R. Polycyclic aromatic hydrocarbons, carbon monoxide, "tar", and nicotine in the mainstream smoke aerosol of the narghile water pipe. Food Chem Toxicol. 2005; 43(5): 655-61.
10. Maziak W et al. Tobacco smoking using a water pipe: a re-emerging strain in a global epidemic. Tob Control, 2004; 13(4): 327-33.
11. Study group on tobacco product regulation. Advisory Note (2005). Water pipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators. World Health Organization. (http://www.who.int/tobacco/global_interaction/tobreg/Waterpipe%20recommendation_Final.pdf. Accessed: 2011-02-10. (Archived by WebCite® at http://www.webcitation.org/5wOSqj4yO).
12. El-Barrawy MA, Morad MI, Gaber M. Role of Helicobacter pylori in the genesis of gastric ulcerations among smokers and nonsmokers. Eastern Mediterranean Health Journal. 1997; 3(2): 316-21.
13. World Health Organization. Regional Office for the Eastern Mediterranean. Country Profile. (http://www.emro.who.int/emrinfo/index.aspx. Accessed: 2011-02-10. (Archived by WebCite® at http://www.webcitation.org/5wOQD7KxZ))
14. Hijazi S. Major health issues in Jordan. Ethn Dis, 2005; 15(1 Suppl 1): S1-77-82.
15. Warren CW et al. Tobacco use by youth: a surveillance report from the Global Youth Tobacco Survey project. Bull World Health Organ, 2000; 78(7): 868-76.
16. Belbeisi A et al. Assessing risk factors for chronic disease - Jordan, 2004. Morbidity and Mortality Weekly Report 2006; 55: 653-5.
17. Naddaf A. The social factors implicated in cigarette smoking in a Jordanian community. Pak J Biol Sci. 2007; 1, 10(5): 741-4.
18. Khabour OF, Alzoubi KH, Eissenberg T, Mehrotra P, Azab M, Carroll MV, Afifi RA, Primack BA. Water pipe tobacco and cigarette smoking among university students in Jordan. Int J Tuberc Lung Dis. 2012 Apr 16. [Epub ahead of print]
19. Akl EA, Gunukula SK, Aleem S, Obeid R, Jaoude PA, Honeine R, Irani J. The prevalence of water pipe tobacco smoking among the general and specific populations: a systematic review. BMC Public Health. 2011 Apr 19; 11: 244.

التوجهات عند اليافعين نحو تدخين الأرجيلة في الأردن

سناء مالك، [1]ينال شفاقوج، [2] دانا عابدين، [2] فيصل الخطيب، [2] لؤي الزغول، [2] كريستيان كولز[1]

1–جامعة جونز هوبكنز، بالتمور، مريلاند، الولايات المتحدة الأمريكية؛ 2–قسم الفسيولوجيا والكيمياء الحيوية، كلية الطب، الجامعة الأردنية، عمان، الأردن

الملخص

تهدف الدراسة الحالية إلى التحري عن التوجهات والقناعات والمفاهيم المتعلقة بتدخين الأرجيلة بين طلبة المدارس في عمان – الأردن. ولتحقيق هذه الغاية تم تصميم وإجراء دراسة عرضية في عمان/الأردن في ربيع عام 2007،حيث تم أخذ عينة من عشر مدارس حكومية وخاصة في العاصمة. وتم توزيع استبانات باللغة العربية على 513 طالباً من الصفين السابع والعاشر (32.8 % ذكور و 67.2 % إناث) وتم تحليل البيانات باستخدام تطبيقي الـ STATA والـ SPSS، حيث أشارت النتائج إلى أن 265 بنسبة (52.2 %) طالباً من الذين أجابوا عن الاستبانات قاموا بتجريب الأرجيلة (حتى ولو لمرة واحدة أو مرتين)، وأن 26.5 % من المشاركين بالدراسة قاموا بتجريب الأرجيلة عندما كانوا في العاشرة من العمر أو أقل. وبالمقارنة مع الآباء المدخنين كان للأمهات المدخنات تأثير أكبر في جذب اليافعين نحو تدخين الأرجيلة. وتوصلت هذه النتائج إلى أن حملة محاربة التدخين يجب أن تبدأ في سن مبكرة، ويجب شمل مخاطر تدخين الأرجيلة في المناهج التعليمية في المدارس.، كما أنه يجب منع تدخين الأرجيلة في الأماكن العامة كالمطاعم.

الكلمات الدالة: الأرجيلة، اليافعين، التدخين.