

Original Article

Smoking Knowledge, Attitude and Behavior of Child Labor Who Live in Tehran during 2013-2014

Mahshid Aryanpur, Ali Ramezankhani, Hooman Sharifi, Zahra Hessami*, Gholam Reza Heydari, Mohammad Reza Aryan, Hamid Reza Jamaati

Tobacco Prevention and Control Research Center, National Research Institute of Tuberculosis and Lung Diseases (NRITLD), Shahid Beheshti University of Medical Sciences, Tehran, Iran

Abstract

Background: Children and adolescent smoking is one of the most important health problems in the world. There is a major concern that child labor may generate a pseudo maturity syndrome, including smoking. The current survey focus on smoking behavior, knowledge and attitude of child labor are working in Tehran.

Materials and Methods: The study adopted a cross-sectional design, based on a primary pilot descriptive cross sectional study, using GYTS self-administered questionnaire. 816 child labor, which were student of work labor schools or worked as child labor on Tehran parks and crossing roads, were randomly selected using multi stage cluster sampling. DATA analyzed using SPSS v.22 (IBM statistic) software and chi square test to compare the frequency of variables in different groups.

Results: 50.6% of our participants were boy and child laboring age varied from 11 to 17 years old. 18.6% of child labor had smoking experience (Confident Interval 95%=17.3-20.1). 9.8% of them were current smoker (CI 95%=8.6-10.9) and 1.2% were current regular smoker (CI 95%=0.9-2.1). Child labor smoking hazard knowledge was evaluated by considering the minimum and maximum score of 10 to 30. Results demonstrated that the mean score of knowledge, attitude and behavior were 17.1 ± 6.2 , 36.5 ± 16.1 (range 15-45) and 46.1 ± 3.0 (range 25-75), respectively.

Conclusion: Considering to our findings, planning tobacco control program for these specific groups is required, aiming at preventing cigarette smoking by increasing the knowledge and correcting their attitude.

Keywords: Smoking, child labor, adolescent, knowledge, attitude

*Corresponding Author: Zahra Hessami, Tobacco Prevention and Control Research Center, National Research Institute of Tuberculosis and Lung Diseases (NRITLD), Shahid Beheshti University of Medical Sciences, Tehran, Iran. Email: Zahra_Hessami@yahoo.com

Please cite this article as: Aryanpur M, Ramezankhani A, Sharifi H, Hessami Z, Heydari GH, Aryan MR, Jamaati HM. Smoking Knowledge, Attitude and Behavior of Child Labor Who Live in Tehran during 2013-2014. Novel Biomed. 2014;2(4):137-41.

Introduction

Smoking is one of the leading preventable causes of death in the world¹. According to the World Health Organization (WHO), three million smoking related death occurs annually², which will arrive to ten million death in 2030³. 80% of adult smokers start smoking when they are under 18 years old, by this pattern, more than 250 million children living today, will die in future, because of smoking decision in

adolescent⁴. Children and adolescent smoking is one of the most important health problems in the world⁵. It seems that persons who start to smoke early, it will change to regular smokers in late of their life, more than other smokers. Usually adolescent will become a regular smoker by simple smoking experience (1 or 2 puff)⁸. Among adolescent, smoking prevalence rate is going to increase⁷⁻⁹.

Some study in Canada and the United State shows that 17 to 36% of adolescent are smokers^{10,11}. Result of

Table 1: Tobacco consumption advertisement exposure in study cases.

		Smoker		nonsmoker		p-value	Total
		n	%	n	%		
Age of smoking initiation	<7	8	5.9	--	--		8
	8-9	8	5.9	--	--		8
	10-11	48	35.3	--	--		48
	12-13	32	23.5	--	--		32
	>14	40	29.4	--	--		40
Seeing antismoking message on media, sport or community event during last month		59	64.8	504	69.5	<0.06	563
Seeing actors smoking on media during last month		76	83.5	572	78.9	<0.05	648
Seeing cigarette brand name on TV or sport event during last month		64	70.3	391	53.9	<0.01	455
Seeing cigarette advertisement on billboard, community event and shops		72	79.1	75	10.4	<0.001	147
Smoking at home in present of youth		76	83.5	195	26.9	<0.001	271
Smoking out doors in present of youth		46	50.5	275	37.9	<0.01	321

global youth tobacco survey (GYTS) in 43 countries (1999-2001) on 13-15 year-old adolescent showed that 33% of adolescent had smoking experience and 14% of them are current smoker¹². Iranian studies showed that 29% of high school students who lived in Tehran and 25.4% high school students who lived in Shiraz were occasional smokers^{13,14}, while daily use rate of smoking was reported between 4.4 to 12.8%¹⁵. Other study in Tehran on 4500 adolescent students reported that prevalence of smoking experience; current smoking and current regular smoking among them were 25.5, 7.4 and 1.9%, respectively¹⁶.

There is a major concern that child labor may generate a pseudo maturity syndrome and also stimulating behaviors propel them to the adult world, including smoking^{17,18}. However, few studies have investigated the influence of child labor on smoking. The current article focuses on smoking behavior, knowledge and attitude of child labor in Tehran.

Methods

The study adopted a cross-sectional design, based on a primary descriptive cross sectional study conducted on child labor population in Tehran in 2013. Also we used GYTS questionnaire. 816 child labors randomly were selected using multi stage cluster sampling. Our participants were lived and worked in Tehran. At

first stage we selected 5 regions from north, south, east, west and center of the city. In second step from each region, 5 parks and 10 crossroads was selected randomly. In determined date and time of sampling, all cases who agree to participate in the survey were interviewed. Also all agreed students of 5 randomly selected class of child labor school were selected, too. GYTS questionnaire was completed for each interviewed cases.

GYTS was first design by the World Health Organization and Center for Disease Control aiming to evaluate tobacco consumption among all world countries adolescents and youth¹⁹. The questionnaire contain demographic characteristics, smoking experience, smoking initiation age, hookah consumption history, smoking knowledge attitude and practice also exposure to parents as peers smoking and second hand smoking as role of media and cigarette advertisements on tobacco consumption were evaluated.

The analysis used SPSS version 22 (IBM statistic) software and chi square test to compare the frequency of variables in different groups and X(2) test.

Results

A In this study 816 child labor participated which 49.4% were girl and 50.6% were boy. Labor children varied from 11 to 17 years old and their mean age was

Table 2: Tobacco control prevention behaviors in study Cases.

Behavior factors	Smoker		nonsmoker		p.v
	n	%	n	%	
Smoking followed by best friends cigarette smoking offer	83	91.2	2	0.003	p<0.001
Talking with others about smoking hazard	38	41.7	450	62	p<0.05
Encourage smokers to quit smoking	17	18.6	384	53.1	p<0.01
Recommend smokers to reduce the number of cigarette smoke	31	34.0	468	64.5	p<0.01
Advice not to start smoking to nonsmokers	46	50.5	531	73.2	p<0.01
Having close friend who smoke	84	92.3	91	12.5	p<0.001

13.9±2.01 years. 18.6% of child labor had smoking experience (CI 95%=17.3-20.1). Smoking prevalence analysis showed that 9.8% of them were current smoker (CI 95%=8.6-10.9) and 1.3% were current regular smoker (CI 95%=0.9-2.1). Smoker child usually smoked 1.66±1.11 cigarette per day. Most frequent smoking initiation (35.3%) in age ranged between 10 to 11 years (Table 1).

19.8% of children labor reported peer's smoking. During the last week, 40% of children labor had been exposing to second hand smoke at home and 39% of them had been exposed to tobacco smoke outdoors. 59% of children had been exposing to tobacco consumption and advertisement in films, shopping centers & media (Table 2). Hookah experience rate, current daily hookah consummation, occasionally hookah consumption in determined time and occasionally hookah consumption in undetermined time was 32% (CI 95%=28.5-35.4), 2.9% (CI 95%=2.1-3.7), 16.7% (CI 95%=13.2-19.6), and 8.8% (CI 95%=4.1-10.3), respectively.

Student knowledge of smoking hazard and its related disease was evaluated considering ten knowledge questions with the minimum score of 10 to maximum score of 30. Result demonstrated that the mean of knowledge score was 17.1±6.2. Means of nonsmoker's tobacco knowledge was significantly more than smoker tobacco knowledge (p<0.001) (19.3±2.6 V.S 15.1±2.2).

The mean score of attitude toward tobacco was 36.5±16.1 (scoring ranged was 15-45 evaluated through 15 attitude questions) which the differences between smokers as nonsmokers attitudes reported that smokers has more positive attitude toward tobacco consumption (p<0.01) (37.2±15.5 vs. 30.8±17.3).

Behaviors factor varied significantly in smokers

compare nonsmokers (p<0.001). As preventative means score (behavior score ranged 25-75 which was evaluated through 25 questions) was 46.1±3.0, 47.5±2.7, 34.7±3.4, for all labor children, nonsmokers as smokers respectively (Table 2).

Discussion

Although child labor tobacco consumption has not been largely investigated in the world, but the available investigations showed that child labor was associated with smoking in children and adolescents, maintaining its effect after adjusting for the children's and family characteristics. It seems that smoking is more frequent among working teens comparing to general population teens^{18,20-22}.

This study demonstrated that prevalence of Tehran's child labor in tobacco consumption was approximately 9.8% which this rate is much higher than those reported in Tehran's adolescent students (7.4%)¹⁸. Consumption in Bahrain was 4.5%, 2.2% in Jordan, 2% in Lebanon and 1.4% in Moscow^{23,24}.

It should be considered that child labor is in special situation. They are highly exposed in society risks and usually gets much less society and family supports. Easier access of tobacco products and child labored less knowledge and skills to prevent their selves, these higher rates of tobacco consumption will be predictable.

Although it should be considered that majority of child hood smoking study was school base, so it is probable that prevalence of this outcome had been under estimated.

In study findings, 40% of child labors had been exposed to second hand smoke at home and 39% of them had been exposed to outdoors smoking, during last weeks. Comparing to report of 32.2% exposure to

home smoking and 46.3% exposure to outdoors smoking in Tehran adolescent student¹⁸, it seems that home smoking is more frequent in this group. Although all GYTS study had reported high exposure to second hand smoking²⁵⁻²⁸.

According to our study, nonsmokers showed high awareness of smoking hazards and more correct attitude compare to smokers. This matter propose this probability that teens who had less knowledge or not correct attitude to smoking are more high risk for experiencing and consuming tobacco use.

Considering the study finding, planning of educational tobacco control program for these specific groups is required, to prevent cigarette smoking by increasing knowledge and correcting their attitude.

Acknowledgment

The authors are thankful to people who have been of help during the project especially faculty of epidemiology department for providing the necessary facilities during the preparation of the paper. The research for this paper was financially supported by National Research Institute of Tuberculosis and Lung Diseases (NRITLD).

References

- Centers for Disease Control and Prevention. State laws on tobacco control-United States. *MMWR* 1999;48:21-62.
- World Health Organization website-tobacco 2004. Available at: <http://www.who.int/tobacco/about/en/>.
- Yeh ML, Chen HH, Chang HF. The effect of the Internet assisted smoking cessation program among adolescents. *Formosan Journal of Medicine* 2002;6:648-660.
- Torabi M R, Yang J, Li J. Comparison of tobacco use knowledge, attitude and practice among college students in China and the United States. *Health Promot. Int.* 2002;17(3):247-53.
- World Health Organization. Growing up without tobacco: World No-Tobacco Day 1998. Geneva: World Health Organization; 1998.
- Centers for Disease Control and Prevention (CDC). Selected cigarette smoking initiation and quitting behaviors among high school students--United States, 1997. *MMWR Morb Mortal Wkly Rep.* 1998;47(19):386-9.
- Warren CW, Jones NR, Peruga A, Chauvin J, Baptiste J-P, Costa de Silva V, et al. Global youth tobacco surveillance, 2000-2007. *MMWR Surveill Summ* 2008;57:1-28.
- Pan American Health Organization. Youth and tobacco in Latin America and the Caribbean: results from the Global Youth Tobacco Survey. www.paho.org/English/AD/SDE/RA/emtj_eng_06062006.pdf (accessed on 30/Jan/2010).
- Menezes AMB, Minten GC, Hallal PC, Victora CG, Horta BL, Gigante DP. Tabagismo na coorte de nascimentos de 1982: da adolescência à vida adulta, Pelotas, RS. *Rev Saúde Pública* 2008;42:78-85.
- Amos A, Wiltshire S, Haw S, McNeill A. Ambivalence and uncertainty: experiences of and attitudes towards addiction and smoking cessation in the mid-to-late teens. *Health Educ Res.* 2006;21:181-91.
- Turner L, Mermelstein R, Flay B. Individual and contextual influences on adolescent smoking. *Ann N Y Acad Sci.* 2004;1021:175-97.
- Global Youth Tobacco Survey Collaborative Group. Tobacco use among youth: a cross country comparison. *Tob Control.* 2002;11(3):252-70.
- Heydari G, Sharifi H, Hosseini M, Masjedi MR. Prevalence of smoking among high-school students of Tehran in 2003. *East Mediterr Health J.* 2007;13(5):1017-21.
- Ahmadi J, Hasani M. Prevalence of substance use among Iranian high school students. *Addict Behav.* 2003;28(2):375-9.
- Momtazi S1, Rawson R. Substance abuse among Iranian high school students. *Curr Opin Psychiatry.* 2010;23(3):221-6.
- Ali Ramezankhani, Fatemeh Sarbandi Zabol, Afsaneh Zarghi, Mohammad Reza Masjedi, Gholam Reza Heydari, Smoking Habits of Adolescent Students in Tehran. *Tanaffos* 2010;9(2):33-42.
- Institute of Medicine. Protecting youth at work: health, safety, and development of working children and adolescents in the United States. Washington DC: National Academy Press; 1998.
- Dall'Agnol MM, Gastal Fassa AI, Facchini AL. Child and adolescent labor and smoking: a cross-sectional study in southern Brazil. *Cad. Saúde Pública.* 2011;27(1):24-30.
- C. Warren W, Riley L, Asma S, Eriksen M.P, Green L. Tobacco use by youth: a surveillance report from the Global Youth Tobacco Survey project. *Bull World Health Organ.* 2000;78(7):868-86.
- Carriere G. Weekly work hours and health-related behaviours in full-time students. *Health Rep.* 2005;16:11-22.
- Wu LT, Schlenger WE, Galvin DM. The relationship between employment and substance use among students aged 12 to 17. *J Adolesc Health.* 2003;32:5-15.
- Wakai K, Miura H, Umenai T. Effect of working status on tobacco, alcohol, and drug use among adolescents in an urban area of Thailand. *Addict Behav.* 2005;30:457-64.
- Global Youth Tobacco Survey Collaborating Group. Differences in worldwide tobacco use by gender: findings from the Global Youth Tobacco Survey. *J Sch Health.* 2003;73(6):207-15.
- Warren CW, Jones NR, Eriksen MP, Asma S. Global Tobacco Surveillance System (GTSS) collaborative group. Patterns of global tobacco use in young people and implications for future chronic disease burden in adults. *Lancet.* 2006;367(9512):749-53.
- Baska T, Sovinová H, Németh A, Prewozniak K, Warren CW, Baskova M, Czech Republic, Hungary, Poland and Slovakia GYTS Collaborative Group. Environmental tobacco smoke of youngsters in Czech Republic, Hungary, Poland and Slovakia--findings from the Global Youth Tobacco Survey (GYTS). *Int J Public Health.* 2007;52(1):62-6.
- Kelishadi R, Hashamipour M, Sarafzadegan N, Sadri Gh, Bashardoust N. The effect of some environmental factors on smoking among adolescents and the effect of smoking on major cardiovascular

risk factors among them: Isfahan healthy heart program, Project of improving heart health from childhood. Journal of Gilan University of Medical Sciences. 2004;13(50):62-73.

27. Kyrlesi A, Soteriades ES, Warren CW, Kremastinou J, Papastergiou P, Jones NR. Tobacco use among students aged 13-15

years in Greece: the GYTS project. BMC Public Health. 2007;7:3.

28. Christophi CA, Kolokotroni O, Alpert HR, Warren CW, Jones NR, Demokritou P. Prevalence and social environment of cigarette smoking in Cyprus youth. BMC Public Health. 2008;8:190.