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Department of Public Health

**Qualitative Study to Explore Reasons for Smoking
Among Teenage Girls in Yerevan**

(Professionnel Publication)

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Yerevan, 2001

ACKNOWLEDGEMENTS

I am very grateful to my advisor Sosig Salvador, for her valuable comments and helpful suggestions during this project. She carefully reviewed the questionnaire and drafts of the paper making necessary corrections, which helped to improve the content of the work.

I would like to express my deepest gratitude to Susan McMarlin, the second advisor of this project, for her permanent support and encouragement during the period this research was carried out and for comments on all versions of that paper.

I wish to express my appreciation to my classmates, friends and barmen for the provided support during data collection.

I gratefully acknowledge my family for their invaluable support and patience.

ABSTRACT

Introduction: Despite the decrease of adult smoking in some countries the prevalence of teenage smoking continues to rise all over the world. It is noteworthy that the prevalence of adult female smoking is mainly determined by smoking patterns among teenage girls. According to the World Health Organization (WHO) in 1994 the prevalence of teenage girls smoking in Yerevan was 21 percent. For development of a successful prevention program, understanding of the “characteristics and needs of the target population under the particular local set of conditions” is essential. This research aims to explore patterns of smoking initiation among teenage girls and to reveal the main reasons for their current smoking behavior.

Methods. Qualitative research methods such as in-depth interviews with teachers as Key-Informants and with teenage girls were used. Purposive sampling was used for the recruitment of 14-16 year old girls and convenience sampling for teachers. A total of 20 in-depth interviews with teenage smoking girls and 6 key informant interviews with teachers from different schools were conducted in Yerevan in 2001. Data analysis was done using descriptive statistics.

Results. At the present teenage girls smoking is not accepted as a social norm. Concern of reputation and parents’ negative attitude explain smoking avoidance at home and public places. The majority of teenage girls initiate smoking under the influence of their peers. In addition, they begin to smoke out of curiosity and continue due to developed addiction. The ability to control weight and to relieve stress are further reasons for current smoking practices. A boyfriend’s wish appears to significantly influence many of the girls regarding a major reason to quit smoking. Smoking girls’ knowledge about the impact of smoking on their health was incomplete and hypothetical. The key informants discussed the ongoing changes in society. Most of the teachers believed the government should intervene in the smoking problem.

Recommendations. Findings from the study suggest that smoking cessation program for teenage girls should be gender oriented. Further quantitative research should be undertaken to determinate the influence of social and gender specific factors identified in this study.

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INTRODUCTION

1.1 Background

Tobacco is one of the greatest challenges facing the world. Cigarette smoking has been shown through research to cause or to be associated with a large variety of diseases. Tobacco smoking is one of the major risk factors in the development of cardiovascular diseases, particularly coronary heart disease and stroke, which are top causes of death worldwide.¹ In addition, cigarette smoking is a direct cause of lung cancer, including cancer of the trachea and bronchus, which are most common cancer in the world.² According to a recent World Bank report, the three leading causes of morbidity in Armenia, which in turn cause the greatest burden of disease, are cardiovascular diseases, cancer and injuries.³

As the most widespread form of drug dependence and the leading cause of preventable death, cigarette smoking continues to be ranked one of the major public health problems all over the world⁴. The worldwide annual death toll due to tobacco smoking, primarily due to lung cancer, heart diseases, and chronic obstructive pulmonary diseases, amounts to about 4 million a year. Deaths due to smoking are expected to reach 10 million by the year 2025 with 7 million deaths occurring in developing countries.⁵ In the European region each year tobacco is reported to be responsible for approximately 1.2 million deaths.⁶ In the Former Socialist Economy (FSE) countries 14 percent of all deaths in 1990 were due to tobacco use.⁷ In Armenia tobacco was responsible for 3, 200 deaths among men and 300 deaths among women in 1995.⁶

The burden of tobacco smoking is expected to rise. In order to replace declining markets in America and other Western countries, the tobacco industry as an alternative expands tobacco advertising and promotion in Eastern Europe, (which includes the FSE); in Asia; and in the Third World countries. These markets are quite attractive because there is little legislation against the marketing and distribution of tobacco products, and smoking is still socially acceptable.⁸ In

addition, they are attractive in terms of considerable investments in their tobacco-manufacturing sector. Armenia currently is one of the tobacco-producing countries where 70 percent of cigarette market shares domestic manufacture “Grand Tobacco”.⁶ The per capita consumption for the year 1995 was estimated to be 1,095 cigarettes.⁶ Regulation of the tobacco industry in Armenia is restricted to health warnings on the tobacco packaging, while health promotion and education are not nationally legislated, but provided voluntarily by non-governmental organizations.

Smoking prevalence among the adult population in the United States and Western Europe is decreasing. However, in Central and Eastern Europe it continues to rise along with the worldwide increase of teenage smoking since 1991. The increasing trend in smoking among women in Central and Eastern Europe is particularly alarming and has occurred much faster than in Western Europe.^{6,9} Consequently, tobacco related mortality and morbidity rates among women and their children continue to rise.¹⁰ At the present each year half a million women die from tobacco-related diseases, and this number is estimated to double by 2020.¹¹ In Europe, smoking prevalence among women is greater than 20 percent and some cases are as high as 30 percent. Nearly every fourteenth premature death of a woman in the FSE countries is a result of disease caused by tobacco.⁴ The statistics related to smoking are inadequate and limited in Armenia. What data exist show that in 1997 female smoking in Armenia was ranked among the first three countries in Europe. According to the same source, 39 percent of females were smokers and 56.4 percent of that group were 14-16 year old girls.¹²

The trends in smoking by women over the past century are linked to the changing social and economic status of women. Smoking is also linked to tobacco advertisement and promotion. During the last decade adolescent girls who read women’s magazines were increasingly exposed to the image of cigars. Since the prevalence of adult female smoking is mainly determined by

smoking patterns among teenage girls, this group is now the prime target of the tobacco industry.⁶ As a result in many European countries smoking initiation and prevalence is higher among teenage females than males. In Estonia, the prevalence of young female smoking has increased by 13 percent points versus 2 percent among young males¹³.

Teenage smoking is rising worldwide and continues to present a significant health public health problem.¹⁴ It is estimated that in the US, about 5 million young people will eventually die from diseases attributed to smoking if the current trends of smoking initiation and first daily use among 12-17 years old will continue.¹⁵ According to the World Health Organization (WHO), a study conducted in 1994 among 14-16 years old in Yerevan found 56 percent of boys and 21 percent of girls were smokers.¹⁶

Nowadays smoking in adolescent women is a source of concern because of its high prevalence and its particular health risk for breast and cervical cancer, early menopause, unfavorable outcomes of pregnancy, and vulnerability to lung carcinoma.¹⁷ In addition to the aforementioned well-known long-term health consequences of smoking, many studies today have provided strong evidence for causal association of smoking with current pulmonary health problems.^{18,19} There are some findings indicating that adolescent female smokers may be more vulnerable to the problem than males.²⁰

The US Surgeon General's Report from 1994 and WHO have given increasing attention to adolescent health, particularly the prevention of smoking among young people. This is a crucial life stage for preventing tobacco use and its negative consequences. Persons who start to smoke early in life are more likely to become regular smokers and are more likely to experience higher mortality from smoking-related diseases^{21,22} Adolescents often underestimate or don't know about the health consequences of substance use.²³ Therefore, a youth-centered preventive

policy is a crucial part of any coherent antismoking program because this is a time in life when attitudes and behaviors are more susceptible to the development of healthy practices.

1.2 Teenage Girl Smoking and its Risk Factors: Analysis of the Reviewed Literature

Multiple studies worldwide have been conducted to identify risk factors that influence adolescent risk behavior, including teenage smoking. These factors are complex and numerous and comprise such domains as social environment, family background, perceived environment, personality and behavior. The complexity of adolescent risk behavior is conditioned by the reciprocal relation between these domains and by the dynamics that changes with time.²⁴ However, in order to understand the female smoking phenomenon these factors need to be viewed in the light of the dynamics in groups of girls identified as “never”, “experimental” (smoking initiation), “occasional users” and “regular” smokers.^{25,26} (Appendix 1)

Various research studies have shown that risk factors for smoking initiation and regular smoking may be different between boys and girls. Gender differences were found for socio-demographic, attitude, social bonding, psychosocial and weight gain concern factors.²⁷⁻³³ Female smokers are reported to be self-confident, outgoing and socially skilled in contrast to their nonsmoking peer and male smokers, who are more socially insecure. Peer group structure among girls is described as hierarchical and girls at the top of the social pecking order who projected an image of high self-esteem were identified as mostly like to smoke.³⁰ At the same time, cigarette advertisements that target women emphasize the weight reducing properties. It is not surprising that dieting and weight concerns are prospectively related with increased smoking initiation.³⁴ In addition smoking is powerfully linked with vomiting as an inducement for weight control, which may be further reinforced as a behavior by it.²⁷

Social and developmental Context of Adolescence. Girls initiate smoking for diverse reasons in order to attain desired self-image.³⁵ This includes feelings of maturity, independence, sexuality and sociality, which are associated with physical maturation and represent development aspects of adolescents. Relaxation and pleasure, stress, self-assertiveness, and rebelliousness have all been cited as contributory to smoking initiation. In a prospective survey of nonsmoking secondary school children, curiosity was found to be the strongest predictor of smoking initiation.³⁶ In addition to experimentation peer influence, such as smoking status of best friends, is the most significant and consistent reason for starting to smoke. Moreover, data from another longitudinal study indicate that peer influence becomes the important predictor for the transition from trial to occasional smoking.^{37,38} At the same time, conflicting views exist related to the parental influence on adolescent smoking, suggesting that parents have a little impact on adolescents smoking initiation rather than protects against smoking.^{38,39} However, data indicate that girls appear to be more influenced by family background than boys. It also appears the association of smoking with their parents were stronger between mother and daughters.³²

If at the stage of smoking initiation, the role of the parents seems to be doubtful in a period of transition from occasional to regular use parental smoking and family conflicts become significant predictors.⁴⁰

Psychiatric Factors. The primary causal or secondary (consequential) nature between smoking and psychiatric morbidity is debated. However, self-medication for stress reduction and relaxation seems to be the prevailing hypothesis.⁴¹ Stress reduction in recent studies are mentioned as a main reason for regular smoking among adolescent girls.^{41,42} Stress-inducing situations include the family environment, social relations with classmates, and schoolwork.²⁷

Epidemiological studies have shown that the existing association of cigarette smoking with anxiety and depression among adults has also been demonstrated in adolescence, especially for teenage girls. Adolescents who smoke regularly report more symptoms of depression than those who don't smoke or smoke occasionally.¹⁷ In addition, adolescents with depressive and anxiety symptoms showed higher risk for smoking initiation than adolescents without these symptoms.¹⁷ Moreover, girls are twice as likely as males to be found in the high-psychiatric morbidity group.¹⁷ It is noteworthy that disruptive disorders like attention-deficit/hyperactivity disorder (ADHD), particularly when accompanied with depression or anxiety, predicted early smoking initiation.⁴³ Finally, a longitudinal study found that a history of major depression predicts the severity of nicotine dependence.⁴⁴

Although adult smokers have been dependent on their cigarettes for years, many adolescents are in the process of developing dependence to tobacco. Tobacco Dependence Syndrome is defined as a “cluster of physiological, behavioral, and cognitive symptoms indicating that the individual continues the use of the substance despite significant substance-related problems”.⁴⁴ Three important clinical phases precede tobacco dependence: trial, occasional use, and daily use. No formal criteria have been adopted to define adolescent nicotine dependence; and currently, they are based on experience with adult smokers.⁴³

The National Teenage Attitude and Practice Survey found that the cessation rate is determined by the frequency of smoking, self-estimation of likelihood of continuing smoking, mother's smoking status, and depressive symptoms.⁴³ Recent survey data have indicated that school performance is a key factor in predicting attempts to quit smoking.⁴⁵ Overall, adolescent smoking cessation programs have low success rates regardless of various types of treatment interventions in terms of methodological design, length of intervention, theoretical foundation,

age group, entry criteria and treatment follow-up.⁴³ Once cessation is initiated little is known about the reasons for smoking relapse in adolescence.

However, in order to tailor successful interventions program the social role of smoking in the lives and self-image of adolescents needs to be addressed. Moreover, as far as the particular meaning of some issues may vary with group membership and value, interventions are best targeted at specific groups.⁴⁶

1.3 Research questions

Prevention of teenage smoking is a critical topic for public health. Despite substantial efforts undertaken worldwide in designing and implementing antismoking prevention and intervention programs in schools, the prevalence of teenage smoking continues to rise in developed and developing countries. These increases represent a significant public health problem. “In order to be successful, any antismoking program should be modified and tailored in accordance with the characteristics and needs of the target population under the particular local set of conditions”.⁴⁷

To determine the situation in Armenia, an ethnographic study was planned to understand knowledge, beliefs and attitudes of the teenage girls who smoke. Information from this study will provide preliminary foundation to design further quantities studies and than after interventions for this target group. Thus, the research questions of this study are the following:

1. What are the main reasons for smoking among 14-16 year old teenage girls in Yerevan?
2. What are the patterns of smoking initiation; knowledge about the smoking impact on health and addictive nature of smoking; attitudes toward nonsmoking peers and peer-pressure; parents' attitudes; school policies toward smoking; and intentions to quit smoking?

METHODS

An exploratory qualitative study was chosen as the research design. This approach will gain preliminary insight and understanding of teenage smoking girls as an example of hidden population, which is rare, isolate, and hard to reach. Qualitative research is helpful in obtaining sensitive and valid information from an otherwise “closed” population. Qualitative research methods, such as semi-structured in-depth interviews with teachers as key-informants and with teenage smoking girls, were selected to describe existing patterns of smoking experimentation among 14-16 years old girls and to provide depth understanding of people’s opinions, feelings, attitudes, beliefs and experiences for better understanding of their motivation. In addition, these methods will help reveal from an insider’s view how the motives are related to one another and also linked to their behavior.

2.1 Sampling and Recruitment Procedure

The research protocol was reviewed and approved by the Institutional Review Board of the American University of Armenia for compliance with accepted standards and safeguards of human subjects. Assurance was provided that the confidentiality and anonymity of the subjects would be protected.

Purposive sampling was used to identify 14-16 year old smoking girls through direct observation of their smoking behavior, evidence of cigarettes in their pockets, and asking about their smoking behavior. The recruitment of 14-16 year old girls was conducted in disco clubs and bars of Yerevan such as the “Nostalgie”, “Cascade”, “Relax”, “Michele”, “Erebuni” and “Green bar”. In addition, they were recruited through fiends and locations where teenaged smoking girls socialize. Overall, 24 potential participants were approached from July to September 2001. Four

teenage girls refused to participate in the study. A sample of 20 teenage girls who smoke was recruited. The eligibility criteria for participation in the study were the following: 1) 14-16 years old girls currently smoking (born within period of time starting after August 1985 until July 1987); 2) residency in Yerevan; 3) willingness to participate in the study; and 4) a person not familiar with the interviewer.

Key informants were recruited through convenience sampling. Preliminary contacts with possible participants were obtained through a chain of friends and familiar schoolteachers. Key informants were recruited from the following schools: school #8 named after Pushkin, school academy named after Mushegh Ishkhan, school #149, school # 24 named after Spandaryan, full day private school named after Mesrop Mashtots, and school # 89 named after Varujan. From 9 potential participants six teachers were recruited from August to September 2001. The other three teachers were excluded from participation because they did not correspond to the eligibility criteria. The eligibility criteria for participation in the study were following: 1) currently working class-manager teacher for 8-10 grade pupils; 2) work experience no less than 5 years; 3) residency in Yerevan; 4) willingness to participate in the study; and 5) person not familiar to the interviewer. Teachers were assured their information will be kept confidential and their identities would be anonymous.

Difficulties encountered during recruitment could be explained by following: 1) sensitivity of the issue and 2) open public places are rarely used for smoking by teenage girls. Despite the difficulties encountered during the study, a heterogeneous composition of participants was recruited.

2.2 Data Collection Instrument

In-depth Ethnographic Interview

A total of 20 ethnographic interviews were conducted during the period from 26 July until 10 September 2001 in Yerevan among 14-16 year old girls who smoke. All potential participants were informed about the purpose and the procedures of the study. Anonymous and voluntary participation were guaranteed to all participants because no personal information regarding their identities was collected. Oral consent was obtained before the interviews from all interviewees (Appendix 2). An ethnographic field guide was developed to conduct in-depth interviews with the participants, which started with a disclosure statement. Topics covered during the interview included the following domains: warm-up questions, history of smoking, current smoking practices, knowledge about impact of smoking on health, personal risk perception issues, family attitudes, peer-pressure, and school policies related to smoking issue. (Appendix 3)

Three ethnographic pilot interviews were conducted to pretest the sequence and wording of the questions in the developed field guide. After these interviews the field guide was revised, and incomprehensible questions were reworded. New questions and probes were added.

Unique identification numbers were assigned to each interviewee. All interviews were conducted face-to-face in separate rooms or in the balcony of the bars. In some cases an appointment for next day was arranged. These interviews were conducted in a café chosen by the interviewee. On the average interviews lasted about 50 minutes. All interviews were conducted in Armenian.

Extensive notes were made either during the interview or immediately after it (in case when the interviewee did not feel comfortable). Field notes were expanded after each interview.

Key Informant interview

In a qualitative study, key informants are considered important sources of information because they are particularly knowledgeable about the topic under investigation, and their insights and experience can be useful in understanding and explaining behaviors.

In this study six teachers were chosen as key informants to obtain in-depth information. Preliminary contacts and meeting arrangements were made by phone. The key informant interviews were conducted from 15 August to 5 September. Subjects were informed about the topic and their role in the study. Oral consent was obtained (Appendix 2). A guide for the key informant interviews was developed in accordance with the guide for the in-depth interviews with the teenage girls. This provided different perspectives about the same issues. The main topics covered were the following: perceptions of the current generation of teens; causes for their smoking initiation; current school policies, and actions needed to address the smoking issue. (Appendix 4)

Interviews with key informants took place in their homes. Each interview lasted about 40 minutes. Interviews were conducted in Armenian and then translated into English. In order to retain information, the note-taking approach was used. Field notes were expanded after each interview.

2.3 Data Analysis

Expanded field notes of both ethnographic and key informant interviews were translated into a word-processing format. Preliminary analysis was made to find major themes during the initial stage. The data analysis was done by hand.

RESULTS

This section presents separately the results from the key-informants and from the in-depth ethnographic interviews. The direct quotes from the interviews are used to reflect the specificity of the answers and to confirm the summarized information.

3.1 In-depth interviews with 14-16 year old smoking girls

Overall 20 in-depth interviews with 14-16 year old smoking girls were conducted in Yerevan. The anonymity of the respondents was assured by providing an identification number for each individual and using the number during future references. The results of interviews were presented with regard to the main domains of the research questions including 1) perception of the image of an ideal woman and boyfriend; 2) "first trial age, place and occasion"; 3) reasons for smoking initiation; 4) current smoking practices; 5) knowledge related to the impact of smoking on health, addictive nature of smoking, and risk perception; 6) reputation concerns and intentions to quit; 7) attitude toward nonsmoking peers and boyfriends; 8) family; 9) school; 10) advertisements; and 11) suggestions for smoking cessation programs.

The majority of the respondents were 16 years old with both parents present in the household. In most of the families, the mother did not smoke, but the father was a smoker.

1. Perception of the image of an ideal woman and boyfriend

Opinions related to the perception of the image of ideal women or women they would like emulate were divided. Half of the respondents considered that the ideal woman should be the mother of the family, kind and obedient; whereas, the rest thought the ideal woman should be self-confident, physically and spiritually strong, independent, and have her own money.

"I want to be a business-women, because they are independent, they have their own money and are physically and spiritually strong.

Participant 1

"I want to do my career in design, a great one. I think the ideal woman should be smart, creative, active and practical. Ideal woman should have an aim, high education and good job."

Participant 6

I think the ideal woman should devote her life to family, to be obedient and a good housekeeper, and should not have problems. A woman should love and be loved.

Participant 8

The majority of respondents were consistent in their perception of the ideal boyfriend. The issues of mutual understanding and support were top priority for all respondents. Faithfulness was mentioned as the important feature for the ideal boyfriend. Half of participants expressed the wish that their boyfriends would not smoke. At the same time, some respondents considering their boyfriends' unrestrained character when they don't smoke and preferred they smoked. A few respondents reported that would like their boyfriends to smoke because they think that smoking represents the principle feature of "real men".

"The most important issue for me is mutual understanding. He should not be concerned only about himself. He says that when he does not smoke, he is angry and irritated. It is better he smoke."

Participant 19

"I need to feel his support that he understands me, but I don't like the guys who don't smoke. Smoking makes them more like real men. I like that smell."

Participant 15

"I wish he were kind, modest and had an appropriate approach to women, take care of me. And I don't want my boyfriend smokes."

Participant 8

2. First trial age, place and occasion

The overwhelming majority of respondents started to smoke between ages 14-15 years. There were three girls out of the 20 who smoked their first cigarette between 8-9 years of age. One of them started to smoke in Ukraine, when her parents sent her to camp. Two others were alone at home in Yerevan, impressed by the image of their smoking mothers.

The majority of respondents tried cigarettes for the first time in the company of their girl friends, in their neighborhoods, and in discos or bars. Some of respondents who smoked their first cigarette at home were in the company of an older sister, but others were alone. Sports stadium, behind theater wings, a gas station, and a classroom setting were mentioned as other places for their first experience. In the last two situations respondents were in the company of numerous boys. One of the respondents initiated smoking practice in the Ukraine in the camp where all the girls smoked.

"Half year ago, I was 15 years old; I tried my first cigarette and continued to smoke until now. It happens when with my girl friends we were in disco. I started to cough but afterward, I used to it "

Participant 14

"I worked at a gas station, where I tried my first cigarette. We were seating with other male workers who were older than me. I didn't feel bad. I smoked automatically."

Participant 5

"I was an 8 years old girl when my parents sent me to the camp in Ukraine. All the girls of my age smoked there. I asked them why you do it, and they answered that it's cool and asked me whether I want to try."

Participant 8

3. Reasons of smoking initiation

"It was interesting". The majority of respondents reported that main reason for smoking initiation was the interest. The fact that all peers and adults around them smoked provoked them, and they wanted "just to try".

"Company effect". Most respondents started to smoke under the influence of others. Friends, sisters, or neighbors offered them a cigarette, except a few started to smoke on their own initiation. Smoking is accepted as fashionable and "the norm of nowadays", and they do not want to be different from other teens. At the same time, none of the respondents mentioned overt pressure or persistency from others. It's noteworthy that almost all respondents recognized that reason they started smoking was because of peer influence. Moreover, even those who started to smoke because of stress indirectly associated their smoking initiation with peer influence.

“Stress”. Some respondents reported that they smoked their first cigarette in order to deal with stress such as the death of a trainer, parents’ or their own divorces. The point that smoking helps to relief stress was influenced by their environment.

“ I can do it”. A desire for self-assertiveness was mentioned by some of respondents when they were asked about reasons for smoking initiation.

“ I was in a disco with girl friends. They asked whether I wanted to smoke. I thought nothing would happen if I would tried one cigarette. It was interesting to me and besides it’s a fashion now, it’s a “norm of the life”

Participant 20

“ We were with friends and were sitting at a table. They were smoking and looked at them with envy, and I took the cigarette and smoked. It was very easy. I did not want to differ from them”

Participant 1

“ We lost a young trainer. He passed away. This was a shock for me. There were boys about 10 year old. I came up to them and just took out from their hand cigarettes. Maybe, I’ve heard that it helps to relief the stress, this was their influence, but they didn’t suggest for me to smoke. “

Participant 7

“ From 15 years old I became a regular smoker. After 8 grades I went to college. The boys were smoking and drinking wine in the classroom. And suddenly, I recalled how I’d tried cigarettes when I was small.”

Participant 3

4. Current smoking practice

Dosage and Duration. Almost all respondents became regular user right away after their first trials. On the average regular users smoked about 1 pack of cigarette per day for the period of one year. Occasional smokers who smoked from time to time on the average smoked about 10 cigarettes mainly during a party. For the beginners the average daily use was between 3 to 5 cigarettes.

“ Right after first cigarette I started to smoke about 3 packs per day. As if I was hungry for smoking. Later, I felt myself very bad and started to smoke 1 pack per day. This is usual norm for me.”

Participant 3

“ I smoke regularly for about 3 years. But, I smoke when with friends when we gather together, and I smoke no more than 5-6 cigarettes during parties or in discos. It is more like playing a game.”

Participant 16

Smoking environment & Avoidance. All participants reported that discos and bars were the main places where they smoked more. In addition, no mood, anxiety, and depression were mentioned by all respondents as the main precondition for smoking more cigarettes. The majority of respondents avoided smoking in school, at home, and in the presence of adults because of parents' negative attitudes or their respect toward them. Only a few respondents mentioned that smoked everywhere. Nonetheless, some of them do not smoke at friends' houses considering further complications related with their parents' attitudes.

"I smoke more in café, discos, in the company of other youth, when I am sure there are no adults. You know, parents never will accept that their daughter smokes."

Participant 10

"Most of all I smoke when I become nervous or angry. It helps me to relief stress. I smoke everywhere except at my friends' houses because of their parents' attitude. I don't want my friend to be in troublesome situations because of me."

Participant 17

"I don't smoke in the presence of relatives although they are aware about my smoking practice. Actually, this is because of respect toward them. I know that they don't like it and don't accept my smoking."

Participant 9

Reasons for current smoking & what it represents. When asked about the reasons for current smoking, most of the participants primarily mentioned their smoking habit and addiction. These points were rationalized as conditions in which they can't cope. Only a few respondents reported that they smoked for pleasure. When asked what smoking represents to them, there was a split in the answers among the teen girls. Several respondents were consistent that it was just a need, while others viewed it as a self-medication tool, and the rest of respondents perceived it as a source for pleasure.

"It became a habit, although if I will want I can quit smoking. When I don't smoke, it seems to me that something is less in my life. It a pleasure, entertainment, desire, and very nice process at the same time."

Participant 13

"Smoking is like a food for me. I am able not to eat, but I am not able not to smoke. It is like when you are

hungry you have to it. I feel I need it. It helps me to calm down, to relief stress. Permanent problems and stress always are present and smoking helps me."

Participant 18

"It helps me to calm down, to relief stress. I would like to quit smoking, but I can't. It is a habit."

Participant 5

5. Knowledge related to the impact of smoking on health, addictive nature of smoking & Risk perception. Almost all respondents were aware of the harmful impact of smoking and expressed negative attitudes toward smoking in general. The majority mentioned lung and heart diseases as a consequence of smoking, as well as its potential threat on the reproductive system and the fetus during pregnancy. However, their knowledge appears to be more hypothetical because they didn't know the exact mechanism of influence. The majority of the respondents mentioned that smoking helped them to control their weight, and created a change in their voice.

"Smoking is a very bad thing. It influences all organs. Lungs become darker. I am a woman. It influences my reproductive organs".

Participant 4

"Everybody knows that smoking is harmful. Currently I have a heart problem because there was a time when I smoked 3 packs of cigarette per day."

Participant 3

"I have heard that it negatively impacts health. It could influence the reproductive system, the lungs becomes covered by black sediment, and it affects the heart."

Participant 12

When asked about the impact of smoking on physical growth, only a few respondents reported that it has a negative influence and that currently they have health problems because of smoking. Most of the respondents considered that they were at low risk and that a smoking hazard is a "fairly story". In order to be convinced they need concrete and obvious signs that smoking is a problem. The majority of the respondents mentioned a positive role of smoking was stress-relief feature of smoking. Most of the respondents were consistent that people quit smoking because of health concerns, financial constraints, or the persistence from an intimate

person. Moreover, the majority of respondents were well informed about the addictive nature of nicotine, withdrawal symptoms and the dose-response relationship.

"Of course, everybody says that it is harmful. However, there is no harm up to now. Only pleasure I get from smoking a cigarette. I don't believe these fairy stories".

Participant 2

"They told me that it is dangerous, harmful, but I don't know exactly why it is so. I think that in the case of concrete or obvious signs, or changing of external qualities, there are distortions".

Participant 18

"Some people quit smoking because of worsened health condition or the influence of an intimate person, either they stop like it. Some people cannot completely quite smoking. It depends how long they smoked, if they start to smoke too early they cannot easily and immediately quit smoking. They again start it when somebody beside them smokes."

Participant 11

6. Reputation concerns & Intention to quit smoking. The issue appears to be sensitive for girls, and their opinions related to the influence of smoking on their reputations differed. However, a slim majority of the participants considered that smoking influences substantially on a girl's reputation leaving the impression that a girl similarly could be a prostitute or use drugs. Other respondents mentioned that smoking does not influence one's reputation, reasoning that only primitive and old-fashioned people can have such opinions based only on smoking evidence. Only one girl stated that she didn't care what people think about her.

I think smoking has a significant influence on a girl's reputation and I am concerned about it. Besides, adults think if you smoke that means that you are promiscuous. I changed my school and now my school is in "3-mas". There are no smoking girls, may be they don't smoke in school, and they don't wear short skirts, They will think that you are a prostitute if they see that you smoke.

Participant 1

I don't think that my smoking practice can influence my reputation and people will have other thoughts based only on the evidence of smoking. One has not to judge other only considering smoking practice of that person. Predominantly, those are old-fashioned people.

Participant 2

I don't care what people think about me. My relatives or familiar people can advise me not to smoke but it won't affect their opinion about me.

Participant 20

When asked about their intention to quit smoking half of the respondents reported that they already have tried it, but unsuccessfully. The respondents mainly explained their failure because of permanent smoking in their surroundings. Some of the respondents mentioned that they haven't thought about quitting smoking. Only one respondent said that she was not going to quit smoking. When asked what will make the respondent quit smoking almost all agreed that if it were a boyfriend's wish or if there was a pregnancy. However, they mentioned that these processes should be accompanied by family support. Only two respondents mentioned that would quit smoking only because of very serious health problems. It is noteworthy that one of the respondents was in the process of cessation with the boyfriend's help and support.

I have tried to quit smoking a few times. But when people smoke beside me, I can't control myself. By spirit the cigarette is very close to me. It seems that I betray my close friend. If the person whom I love will say that I need to quit smoking, it will be very difficult, but I'll do it. I hope he won't say it.

Participant 2

Yes, I think about it. Only because of a loved boyfriend and a pregnancy would I will quit smoking. Now my boyfriend helps me to quit. Once he decided I should do it, I can't ignore his careful attitude toward me. Now I am in the process of it, now he let me smoke only 5 cigarettes per day and I do it gradually.

Participant 17

I smoke and I am not going to quit although I can quit if I wanted. This is pleasure and I don't want to restrict myself. I think something should be done when I will be pregnant because I know that pregnant woman should not smoke for the baby.

Participant 1

7. Attitude to nonsmoking peers & boyfriend. Almost all respondents expressed positive attitudes toward their nonsmoking peers. Moreover, they mentioned they would like to be like them and they respect them more for their consistency. Some respondents along with the positive attitude toward nonsmokers reported that those who smoke nonetheless better understand each other. When asked about the influence of the cigarette's smell in their relationships, the majority

of respondents agreed that it might be a problem. However, several respondents do not consider it as a barrier.

"I think that they are right that they don't smoke. It does influence neither their reputation nor health. I have many friends who don't smoke, and it does not impact on relations."

Participant 3

"Honestly, I respect them more than those who smoke. They are stronger. I am categorically against those who teach others to smoke."

Participant 4

' Sometimes I envy them and want to be like them. Sometimes I think they are freer or maybe there is something wrong with me, that I am out of the limit. I've many girlfriends who don't smoke, but those who smoke better understand me."

Participant 14

"I think that it can negatively effect relations with a man. This is very ugly when a man does not smoke, but woman smokes. No boys or men would like their girlfriend to smoke. Besides, they said that it is like " kissing an ashtray, but not a girl." Actually I wash my mouth after smoking."

Participant 17

8. Family. Most of the respondents reported that their parents have severely negative attitudes toward smoking in general regardless of their own smoking status and especially toward their child. Only one respondent said that in general her parents had a positive attitude toward smoking. When asked whether the parents were aware of their smoking practice, a slim majority of respondents said "yes". Of those only few respondents mentioned that they did not have problems and that their parents have tried friendly to discourage them. Whereas, others said that they went through scandals, and their parents applied different ways of punishment from financial restraints to physical abuse. The majority of respondents whose parents were unaware of their smoking practices were prone to anticipate that they will not have conflicts with the parents on this issue.

"They can't tolerate smoking phenomenon, although my father smokes, but tries to quit. My father does not like it at all and has very negative attitude toward it. They think that it is very harmful. When they found out that I smoke she got angry very much, even hurt me. Our neighbors said to my brother that I smoke. He answered that this money are spent not from their pocket. However, he became angry, but spoke with me quietly and restrained."

Participant 10

" They both have a positive attitude toward smoking. As my mother is rather young, she is 32 years old, she likes clubs, discos and she is modern. She doesn't consider this as a big issue. They know that I smoke now. There were no conflicts with them regarding my smoking behavior. When they found out about it they asked, "Why am I doing it?" I said that I like it. That is set"

Participant 15

"My mother currently smokes. Overall she has positive attitude toward smoking. But, particularly, with respect to me she has very negative attitude. She thinks that I am too young for smoking and in my age it is particularly harmful. At the moment she is aware that I smoke. We have no conflicts and try to resolve our disagreement kindly. The fact, that I smoke she figured out because of the smell of cigarette in the room. She asked me, and I admitted that I smoke. She tries to discourage me. Even now she leaves a pack of cigarette at home and she knows in advance how many cigarettes are there. When she returns she calculate how many is left and said that I smoke. We have no scandals; we constantly speak about it."

Participant 1

9. School policy. According to the participants their schools' smoking policies vary from a careless attitude to following pupils out of school. The majority of respondents stated that teachers are limited to stating their prohibition about smoking. Some of the respondents reported that teachers in their schools are concerned and explained the influence of smoking on organisms during biology course. Only one respondent said that she even smoked a couple of times with her teachers.

"The school policy prohibits smoking, and their teachers' attitude are the following-" do whatever you want but do it out of school, it is banned to smoke in the school". They carry out their duty. "

Participant 16

"They don't care about the smoking phenomenon in the school. Besides, I am in close relationships with the director of school, and there were a couple of times when I smoked in her presence. She didn't tell anything, just mentioned that nobody will understand me here, it would be better if I go out of this country."

Participant 4

'Teachers explain about the impact of smoking during biology classes. Teachers are very attentive. They follow smokers, smell the odor of smoke on hands, or refer you the director of school."

Participant 5

10. Advertisements. Mixed opinions were expressed regarding tobacco advertisements. While some of the respondents liked the "cool" women or cartoons in these ads, the others were categorically against it. They reasoned that they stimulated smoking behavior. At the same time, several respondents consider smoking advertisement a business and the decision about smoking

should be made by people themselves. A few respondents consider it a controversial issue motivating that people who are involved in business of advertisements however do not want their children to smoke.

<i>"This is very controversial issue. They advertise the cigarettes, but do not want their children to smoke. I see those ads very often and feel that I want to smoke when I see them."</i>	<i>Participant 12</i>
<i>"The ads should not be on TV. The good product does not need to be in ads. The children are prone to the influence of ads and try all things."</i>	<i>Participant 7</i>
<i>"I like these ads, it nice to look at these cool women, ladies"</i>	<i>Participant 11</i>
<i>"The ads of cigarettes is a normal phenomenon. It is a business and money. The customers should be more concerned about their health. These ads warn about the harm of smoking."</i>	<i>Participant 19</i>

11. Smoking cessation suggestions. Respondents were very enthusiastic while answering this question. In general almost all respondents regardless of the differences in approach agreed that an antismoking program should be included in the educational curriculum. While some of the respondents mentioned that fear should be the key-point of these programs, others said fear should not be created in the minds of children. Several respondents emphasized that such programs should use a psychological approach and treat adolescents as adults by providing realistic information. In addition, many participants agreed that parents' banning strategies would only stimulate children's smoking behaviors. Only one respondent mentioned the meaninglessness of any antismoking program.

<i>"Such kind of program should be necessarily involved in school program. There should be organized special classes for very small children, even for 1 and 2 grade pupils, so that to prevent them from smoking initiation. Moreover, the attendance of those classes should be mandatory. It very important to explain how it affects the health. Fear should not be intensified in their psychology."</i>	<i>Participant 14</i>
<i>"There was such program in Ukraine. It helps a lot. Many girls quit smoking after that program. They illustrated very visibly what will happen with your lungs, what you will think about those person who smoked and knowing such things. It is necessary to present the problem backward"</i>	<i>Participant 8</i>
<i>"First of all parents should not ban children to smoke or to go to discos. When they ban something children are more interesting to do it. This program should use a psychological approach. Fear should motivate them not to smoke."</i>	<i>Participant 2</i>

3.2 Key Informant Interview

Interviews with the six class-manager teachers provided information about risk factors, which play a role in teenage girls smoking. The key informants referred to the assigned numbers. The results are presented according to main important domains: 1) socio-demographic characteristic of key informants; 2) teachers' attitude towards the current population of teens; 3) teachers' attitude and knowledge toward smoking in general; 4) teachers' attitude and knowledge about teenage girls smoking; 5) school policy about smoking issue; 6) role of parents; 7) government & ads on teenage smoking issues; and 8) suggestions to confront the issue.

1. Socio-demographic characteristic of key informants. Ages ranged from 35 to 65 years of age. All of the teachers were married women and had two children. On the average per year they have in their classes approximately from thirty to forty 14-16 years old teenage girls. The teachers did not smoke, except for one. Their work experience ranged from 7 to 40 years.

2. Teachers' attitude toward current population of teens. All of the key informants agreed that overall the behavior of current teenaged girls has shifted more to the negative side. Most of the respondents reported a decrease in the intelligence levels and in their desire towards studying, increased impudence toward teachers, and difficulties in maintaining relationships. The majority of key informants explained the behaviors by a lack of appropriate family upbringing. In addition to the common opinion that current teen girls have more freedom, two key informants mentioned that their expression of opinions are a positive side of current behaviors. Only one respondent reported that boundaries between teacher and pupils need to be removed, but respect should be

maintained. However, all teachers reported that their pupils (teen girls) trust them, and they are in good and friendly relationships.

"The behavior of current population of teens differs very much from ones for example 5 years ago. They stopped their wish to study, to learn something new. I can say that they don't read almost. There is tendency toward impudence". It is very hard to maintain relationships. They can allow themselves to say "I will buy your school". Last year graduates even don't greet the teachers when see. In my opinion it mostly depends on family and up bringing. Today they are more free and open than years ago. A pupil may not like studying, but he can respect the teacher."

KI 2

"In our school, nothing is changed in field of studying. Now they are more free (open) which is not bad and has its positive effect: they express their opinions. We try to remove boundaries, but respect should exist always".

KI 1

"Basically, we are friends. My previous graduates visit me. They trust me, may be I am younger then other teachers. However, they share their secrets, which have predominantly gender specific character".

KI 3

With regard to teenage girls' smoking behaviors the opinions of the key informants split. While some of key informants reported that in their schools, there weren't teenage smoking girls, the other respondents mentioned that smoking among teen girls although rarely is present in their schools. Only one key informant mentioned that it is noticeably widespread behavior and rationalized that teenage girls simply avoid smoking in schools but do it in discos and bars, where they are free of control. She indicated that 10 years ago, girls were dismissed from school for smoking, now it is restricted only to informing parents that their is daughter is a smoker. The majority of the respondents consider that smoking is more spread among teen girls from high-income families.

"This is not a widespread phenomenon at this age. Maybe 2 or 3 cases were in our school. They tried to hide the fact that they smoke. It resulted in their wrong behavior. They became more aggressive. They were afraid that teacher are aware and will tell their parents".

KI 3

"I think that there is not teenage smoking girl in our school. But they're too many teachers who smoke."

KI 2

"The girls smoked even 10 years ago. The school administration dismissed them from the school. I am more than sure that the girls smoke, maybe mostly from well-being families. Our teens smoke mostly in bars, restaurants, and discos. There was a case. My familiar congressman phoned me and said that he was shocked when he saw that 14-year-old girls in restaurant smoke the most expensive cigarettes."

KI 5

3. Teachers' attitude and knowledge toward smoking in general. All teachers reported that smoking has harmful effects on health, but nowadays it is conventionally accepted and a usual phenomenon among teachers. However, the respondents' attitude toward smoking in general differed. Some of the teachers categorically didn't tolerate smoking, whereas, the others have neutral views about it. It is worth mentioning that two informants didn't consider it a big issue if a person is not addicted and gets pleasure from smoking. Moreover, they mentioned that it is preferable to smoke in stressful situations then to do other things. All respondents reported that adult smoking is primarily conditioned by stressful life experience because of financial and personal problems.

"I don't accept the smoking phenomenon. It has very harmful effect on health. This is very "bitter fruit". Currently approximately all teachers, I mean women, smoke. Generally, I can understand that some times people smoke a cigarette with cup of coffee for pleasure, but in the long run they become addicted to it and they get less pleasure and become hard smokers. Currently main reasons for adults smoking initiation are predominantly financial crisis and physiologic problems".

KI 3

"I don't like it (smoking). It has very harmful effect on health. My husband smokes, but I never think to try. It was not so years before. Now is commonly accepted usual phenomenon. I can't understand how people tolerate it. How, being a conscious mature person, an adult can smoke, being aware of its harmful impact."

KI 6

"I don't see any thing in that phenomenon. All teachers in our school smoke. This is like a game. Once you try it for pleasure, next time when you are nervous. I smoke very rare when I am very excited, in case of stress. I've not smoke for several months, but when stress happens I was looking for a cigarette at home. Then I went and bought a pack. I smoked that pack during 2 days."

KI 5

3. Teachers' attitude and knowledge on teenage girls smoking. Despite the variations in attitude toward smoking in general, all of the teachers emphasized that smoking among teenage girls is unacceptable and even amoral. All of the teachers consistently reported that girls initiate smoking because of smoking environment created by adults and peers. Besides, the majority of the teachers mentioned that smoking for teen girls is a part of an image. Parents' attitude, stress, and weakness of character were mentioned as other reasons for smoking initiation.

"There are many factors contributing to it. Besides, it is very complex. For teenagers this is interest, showiness. In addition, this is influence by the environment; regardless these are their peers or adults. For this age, smoking is like a "forbidden fruit". Today almost all teachers smoke. And the situation is difficult and controversial. They see that almost all teachers smoke and think why I can't smoke"

KI 4

"At this age smoking is amoral. There was a case; we were at cafe with foreigners and also the girls with them. They were smoking and spoke with each other in Armenian thinking that I am from Russia and don't understand them. "What do you think how much we can force them to spent on us. It was a right decision to tell them that we are 18 year old. If they knew that we were 9 grade pupils they never will agree to go with us. Thereafter I could not tolerate anymore and asked them from what school they are. They were from "N" schools. They beg me not to tell anything to anyone." Shame on you. How you can do such kind of things". The girls don't smoke in schools or universities. This phenomenon is hidden."

KI5

5. School policy on smoking issue. According to the teachers' interviews, schools differ in terms of current policies about the smoking issue. Some of the teachers reported that they utilize all possible methods to prevent smoking among adolescents, which include special classes, personal conversations, pocket checking and the mechanical separation of high grades pupils from low ones. However, the others mentioned that there is no integrated approach to the smoking problem in their schools and teachers consider it a personal problem. One teacher mentioned that there is a school where pupils smoke openly in the hall. The split also was revealed with regards to the respondents' view on the role of school policies on the smoking issue. While some teachers devoted significant role to the school in the antismoking campaign, others emphasized that the problem is much deeper in society and in this context, the role of school is insignificant.

"Class managers regularly supervise the pupils' behavior. There are special classes when children speak about the problem that concerns them. It seems that this policy work. There was an occasion in one of the city schools. Two high-class pupils smoke beside the director's cabinet and none said anything. This incidence would be considered an emergency in our school. There are no such obvious ignoring attitudes in our school. Children at this age mostly play with cigarette. This is a very hard period and it is necessary permanently to control the children that is why the parents are being informed about children' every action in 5 minutes. When, for example, a pupil is absent for one day or two they must bring some references from parents."

KI 1

"If I would not spend my own time on conversation on propaganda, nothing will be done. Today there is no special programs or classes in the school regarding the smoking. Nowadays it works just because teachers consider it as their pedagogical duty. Today almost all teachers smoke. And the situation is difficult and controversial. They see that almost all teachers smoke and think why I cant smoke."

KI 3

"We have no problems with smoking girls. We constantly check the boys' pockets. They already are used to it. We have permanent conversations, classes devoted to harm of smoking. Better you smoke one expensive cigarette than a whole pack of cheap ones. The most part of women can quit smoking. They are stronger than men".

KI 5

6. Role of parents. All teachers reported that the role of parents is important, but not sufficient. It was explained that because of parents inattentive attitude, adolescents spend most of the time outside the home, and are more prone to the influence of environment. Moreover, all respondents were coherent that joined work of teachers with parents is required to successfully combat the problem of teenage smoking.

"The influence of parents on teenaged girls today composes only 5 percent. The rest is due to friends of the girls, sisters".

KI 3

"The role of parents is significant but not sufficient. The children say to their parents that your time is over, we are more open. They don't think that adults also are in step with time. Youths cut their trousers. Everyone wears what he wants. People want to live more easy."

KI 4

7. Government & ads on teenage smoking issue. With regard to the role of government on teenage smoking problems all teachers reported at the present time they "just don't care about it". Moreover, they all mentioned that government has the most decisive role and could do a lot such as placing a ban on cigarettes' to forbidding the sale to adolescents. They could also ban the advertisement on TV, which to large extent motivate teenage smoking. All of the teachers express indignation on the passive role of the state in the question of teenage smoking.

"They just don't care about it. They must forbid for example selling of cigarettes until 21y.o. The rules are violated in more important fields, so this is very small issue for them. Today the government can ban the cigarette selling to 14-16 year old adolescents. But this not enough. We can't isolate adolescents from the society where they live. They see what adults do, and they follow them. In order to have healthy generation we should act on and treat our current smokers."

KI 2

"Have you ever try "Cigarron", they are so slim. Try it ". What is it for 14-16 year old girls? Of course, the influence of the ads is very huge. All people want and try to smoke expensive cigarettes. It depends on the level of education. Cigarette is part of the image. On the other hand this is business. If there are ads on "Always", why cigarettes should not be advertised.. The children should not see "Always" too."

KI 5

8. Suggestions. Finally, all teachers came to the conclusion that the teenage smoking phenomenon cannot be viewed apart from the whole society. To be successful in this endeavor, all forces need to be integrated and directed simultaneously both to challenge adult and teenage smoking. The majority of the teachers mentioned the necessity of a psychologist in an antismoking program and a variety of approaches to children from different socio-economic and educational levels. One teacher said that only fear can prevent girls from smoking. All teachers suggested to combine this program with the family hygiene classes and insisted on voluntary attendance of these classes.

"Teenage smoking cannot be view apart fro the whole society. An integrated approach needs to combat the problem. Today government can ban the cigarette sailing to 14-16 year old adolescents. But this not enough. We can't isolate adolescents from the society where they live. They see what adults do, and they follow them. In order to have healthy generation we should act instantly and treat our current smokers."

KI 2

"Today we have an ill unhealthy environment. For example, Grand Tobacco, all those ads .It is a shame. It is propaganda. In other countries people fight against smoking. Now when you come in to the chefs, they all smoke. Community attitude should be created. Now you can see how adolescent ask for 40-year-old man to light a cigarette. Only fear can make teenaged girls not to smoke. They should see the impact of cigarette on lungs before and after. We had such programs during Soviet Union period. Now they can combine with classes of family hygiene. This program should not be mandatory. It is impossible to deal with all pupils in the same way. They are from different socioeconomic and educational levels and they need to be treated differently."

KI 1

"Teachers, parents and much broad masses should be involved in this. How they organized such a movement devoted to the 1700 year of establishment Christianity."

KI 4

DISCUSSION

The purpose of this study was to describe the patterns of smoking behavior and to explore the reasons for smoking among 14-16 year old girls in Yerevan. In order to have comprehensive understanding it was planned to integrate the findings from key informant interviews with

teachers and in-depth interviews with teenage smoking girls. The majority of teenage girls were 16 years old girls from families, where the mother does not smoke, but the father is a smoker.

Most of the teachers perceive the current generation of teens more negatively compared to the previous ones. Particularly, they mentioned an increased impudence and the lack of desire to study. This coincided with findings that almost none of the teenage girls perceived the ideal woman as an educated one. Teachers and teenage smoking girls as very widespread described the smoking phenomenon to the extent that it is perceived as “the norm of life”.

The findings from this study were that most of the respondents initiated smoking at 15 years of age under the influence of their peers. In addition, they begin to smoke out of curiosity, and continue to smoke due to their developed addiction. The disco clubs and bars were stated as the main places for smoking initiation and smoking because there they feel free of adults' control. Weight control appears to be another reason consistently mentioned by teenage girls for regular smoking. Moreover, no mood, anxiety and stress were mentioned as main preconditions for extra smoking and under these conditions stress-relief quality of smoking is defined as positive role. All these findings are in accordance with findings from multiple studies conducted abroad.

The avoidance of smoking in schools and at home because of parents' negative attitude mentioned by teenage girls, corresponds to what the key informants focused the investigator. The teachers said that there is no problem with girls' smoking in schools. In addition, reputation concerns expressed by the majority of the girls contribute to avoidance of smoking even in discos and the intention to quit smoking. It appears that regardless of wide spread smoking behaviors in society and that it may seem justifiable for adults, smoking is a “forbidden fruit” for teenage girls. This is an explanation why the behavior is hidden. This strong-minded and

unweaving attitude could be explained by the actuality that they will become mothers with expectations to provide the next healthy generation and that at this age smoking is an indicator of amoral behavior.

The data obtained from this study revealed that teen smoking girls have incomplete and hypothetical knowledge about the impact of smoking on their health. In addition to lung diseases, the reproductive system was frequently mentioned as potential target for smoking influence. Lack of knowledge about smoking and its harmful impact and the extent of its hazard are being resulted in low risk perception among the girls. Almost all of the teen girls perceived the smoking hazard as being a “fairy story” and were convinced that it does not influence their health nor their physical growth. These finding were similar to those from similar studies. However, all respondent were well informed about the addictive nature of smoking.

With regards to the impression about nonsmoking peers, all respondents expressed positive attitudes and respect. Furthermore, they expressed the desire to be like them because of their strength and the consistency of their character. Half of the respondents mentioned that that their heavy smoking prompted them to quit, although unsuccessfully because of smoking culture in their surroundings. Almost universal agreement was achieved about what will force them to quit smoking. The major reasons for quitting smoking were the following: boyfriend’s wish and the concern for having a healthy baby.

Findings from this study suggest that regardless of the parents’ behavior regarding their daughter’s smoking practice, the girls continue to smoke. Both teachers and teenage girls reported wide diversity of the schools’ policies. Some schools have careless attitude, while others do everything to prevent teenage smoking. Despite different attitudes to cigarette

advertisement on television among teachers and teenage girls, all believe that it substantially stimulates smoking.

The main emphasis in this program should be the use of psychological approach and a variation of strategies for children from families from different socio-economic and educational level. To prevent teenage smoking all teachers underlined the need for all forces to be integrated and directed simultaneously to adult and teenage smoking. This is because the teenage smoking phenomenon cannot be viewed apart from the whole society. Especially, under these circumstances they give significant responsibility to the government. Finally, all teachers and teenage girls came to the conclusion that it is extremely important to implement an antismoking program in the school

Limitations

Limitations of the study relate the limitations of qualitative research in general, considering the subjectivity of the data and that the analysis was done by one researcher. Purposive selection method is one of non-probability sampling technique and thus data cannot be generalized beyond the sample. However, it provides desired diversity for the issue under exploration and is appropriate for qualitative research. Taking into consideration that respondents were recruited predominantly from discos and bars during summer vacations the data are mainly limited to that population.

CONCLUSIONS and RECOMMENDATIONS

The following preliminary conclusions are made based on data analysis:

- 1) Despite the fact that smoking is a widespread phenomenon and socially accepted among adults, at the present it is not accepted as appropriate behavior for teenage girls. It is considered as amoral behavior. There are concerns about girls' reputation and parents' negative attitude. This explains why teenage girls avoid smoking at home and public places, and predominantly, smoke in discos.
- 2) The main age for smoking initiation among interviewed teenage girls in Yerevan was 15 year old. Peer influence and curiosity reasons identified for smoking initiation among teenage girls.
- 3) In addition, the developed addiction, sensitivity to the body shape and the psychological vulnerability at this age prompt teenage girls to persist in smoking, which help them to control weight and to relief stress.
- 4) Teenage smoking girls seem to be carefree with regard to their health and the risk created by smoking. Perceiving smoking hazard as a "fairy story" could be explained by the lack of knowledge or hypothetical character of it.
- 5) Teenage girls give a major role to the influence of a boyfriend and consider their wish as the most significant factor that could force them to quit smoking.
- 6) Parents appear to have little influence on teenage girls' smoking practice, in view of the fact that regardless their behavior regarding daughter's smoking practice, the girls continue to smoke.
- 7) Teachers and teenage smoking girls consider antismoking prevention programs as a vital necessity and in the schools.

Recommendations for smoking cessation and prevention program

Finding from the study suggest that smoking cessation program for teenage girls should be gender oriented. For that reason the following are preliminary recommendations:

- 1) An antismoking cessation program for 14-16 years old smoking girls should use a psychological approach to help them better to cope with stressful situations.
- 2) Because smoking helps the majority of teenage girls to control weight; therefor a cessation program for teenage girls should be also focus on healthy way for weight control.
- 3) Since the boyfriend's wish could play significant role in process of smoking cessation, young males could be trained to have an appropriate role in the educational program.
- 4) Concerns about reputations and having a healthy baby as a negative consequence of smoking need to be intensified to reinforce teenage girls' desire to quit smoking.
- 5) Further quantitative research should be undertaken to determine the influences of such factors as social, economic, and gender specific factors as psychological, weight control and social support regarding the smoking behavior of teenage girls.
- 6) This report should be sent to the Ministry of Education for their information and possible consideration for actions regarding smoking policies.

REFERENCES

1. Report of the Director General. The World Health Report 1997. World Health Organization. Geneva, 1997
2. Shopland DR, Burns DM. Medical and public health implications of tobacco addiction. In Nicotine addiction: principles and management. New York: Oxford Univ Press;1993. p105-128.
3. Costa C., Gouveia M. Estimates of the Burden of Disease in Armenia. Report of International Workshop, Yerevan 1996 in Substance Use Prevention School Project: Development, Implementation & Evaluation. In Markosyan . A report to the United Methodist Committee on Relief; Center For Health Services Research. AUA. Yerevan Armenia, Oct 2000.
4. Guidelines for controlling and onitoring the Tobacco Epidemic. Geneva, Switzerland: World Health Organization; 1998 in Morello P, Duggan A, Adger H, Anthony JC, Joffe A. Tobacco use Among High School Students in Buenos Aires Argentina. Am J Public Health 2001 Feb;91(2):219-23.
5. D. Satcher. Why we need International agreement on Tobacco Control. Am J Public Health 2001 feb;91(2):191-3.
6. Haglung M. Regional summary for the European region. National Institute of Public Health, Sweeden [cited 2001 Aug]. Available from URL: <http://tobacco.who.int/en/statistics/EURO/Armenia>.
7. The Tobacco Epidemic Rages on in Eastern and Central Europe, Fact sheet #1156, May, 1977 in Substance Use Prevention School Project: Development, Implementation & Evaluation. In Markosyan K. A report to the United Methodist Committee on Relief. Center For Health Services Research, AUA. Yerevan, Armenia, Oct 2000.
8. Stanton A Glantz. Tobacco: Biology and politics. Health EDCO, 1992. In Markosyan K A report to the United Methodist Committee on Relief. Center For Health Services Research; AUA. Yerevan Armenia, Oct 2000.
9. Nam CB, Rogers RG, Hammer RA, Roger RG. Impact of future cigarette smoking scenarios on mortality of the adult population in the United States, 2000-50. Sos Biol 1996 Fall-Winter;43(3-4):155-68.
10. Britton JA. A review of women and tobacco: have we come such a long way? J Obstet Gynecol Neonatal Nurs 1998 May-Jun;27(3):241-9.
11. Miller GT. Living in Environment. 8th ed. Belmont , CA: Wadsworth Publishing Company; 1994
12. United Methodist Committee on Relief (UMCOR). Final Report. in Round Table Conference on Women's Issue: Focus on Breast and Cervical Cancer. Yerevan, Armenia; October 1997.
13. Nurk E, Mittelmark MB, Suurorg L, Tur I, Luiga E. Trends in tobacco use among Estonian and Russian youth in Tallin. Scand J Public Health 1999 Dec;27(4):301-5.
14. Alcohol and other drug abuse among high school students – United States, 1990, Morbidity and CDC, Mortality Weekly Report (MMWR),11/91, p776 in Substance Use Prevention School Project: Development, Implementation & Evaluation. In Markosyan

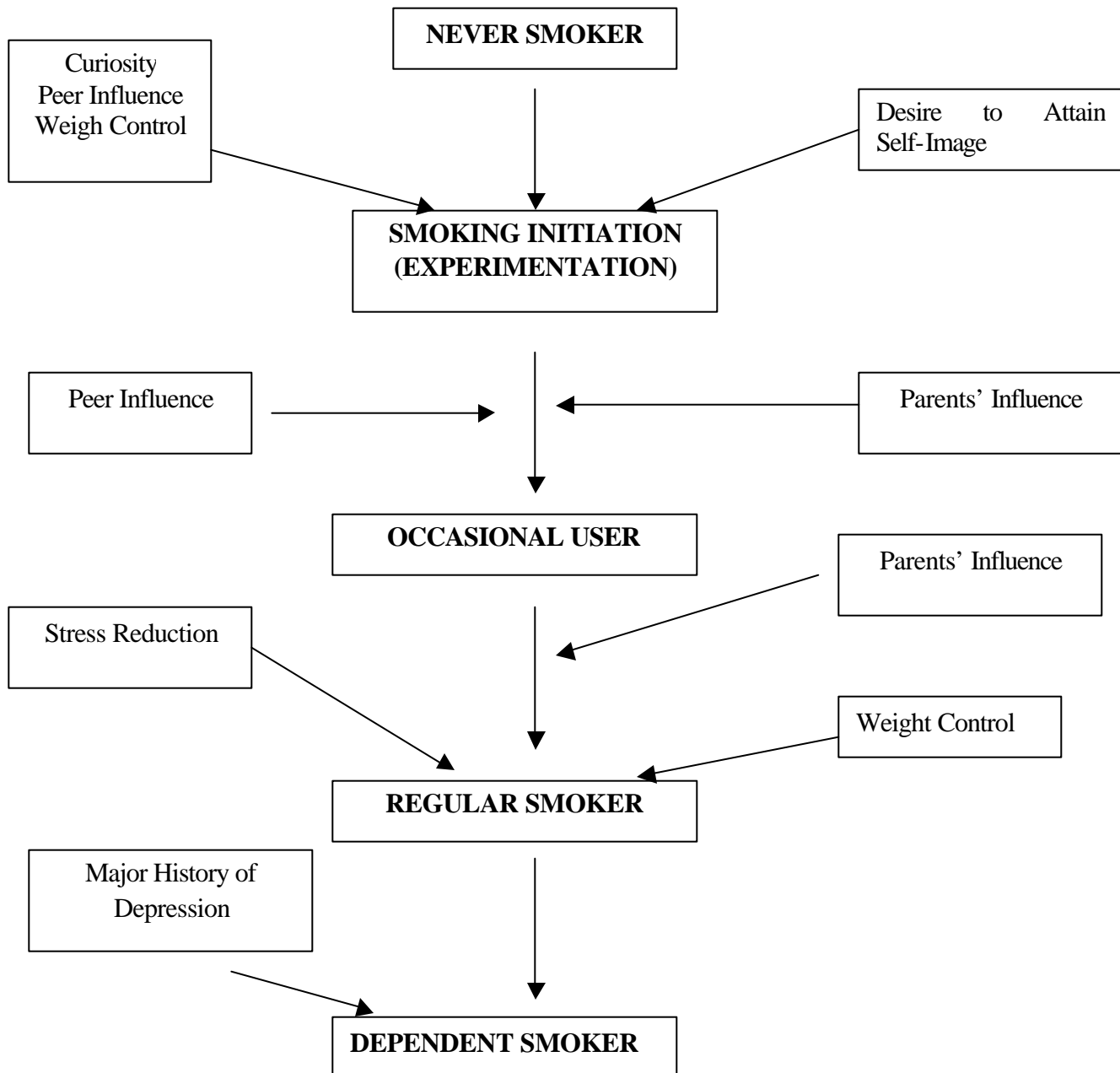
- K. A report to the United Methodist Committee on Relief. Center For Health Services Research; AUA. Yerevan, Armenia, Oct 2000.
15. American Heart Association. Fighting Heart Disease and Stroke. <http://www.americanheart.org/08rskfct.html>
 16. WHO. (1997). Tobacco or health: a global status report. Geneva
 17. Patton GC, Hibbert M, Rosier MJ, Carliun JB, Caust J, Bowes G. Is smoking associated with depression and anxiety in teenagers? *Am J Public Health* 1996 Feb;86(2):225-30.
 18. Holmen TL, Barrett-Connor E, Holmen J, Bjermer L. Health problems in teenage daily smokers versus nonsmokers, Norway, 1995-1997: the Nord-Trondelag Health Study. *Am J Epidemiol* 2000 Jan 15;151(2)148-55.
 19. Fernandez E, Schiaffino A, Rajumil L, Garcia M, Herdman M, Segura A. Re : Health problems in teenage daily smokers versus nonsmokers, Norway, 1995-1997: the Nord-Trondelag Health Study. *Am J Epidemiol* 2000 Jan 15;152(4)393s.
 20. Gold DR, Wang X, Wypij D, Speizer FE, Ware JH, Dockery DW. Effects of cigarette smoking on lung function in adolescent boys and girls. *N Engl J Med* 1996 Sep 26;335(13)931-7.
 21. Reducing the Health Consequences of Smoking: 25 Years of Progress - A Report of the Surgeon General. Washington, DC: US Department of Health and Human Services. Public Health Services, CDC, 1989; DHHS publication no.(PHS) 64-1103 in Substance Use Prevention School Project: Development, Implementation & Evaluation. In Markosyan K. A report to the United Methodist Committee on Relief. Center For Health Services Research; AUA. Yerevan, Armenia, Oct 2000
 22. Adolescent Health Program, Division of Family Health, WHO and Health Promotion Unit Program Division, UNICEF, - A Picture of Health, UNICEF, New-York and WHO, Geneva, 1995, pp. 1-74.
 23. Goldbeck-Wood S. Teenage smokers fail to recognize health risks [news]. *BMJ* 1996 Jun 15;312(7045):1501.
 24. Jessor R. Successful adolescent development among youth in high-risk setting. *Am Psychol* 1993;48(2):117-126
 25. Shopland D. Problem Solving in Public Health course. July 26, 1994.
 26. Lucas K, Lloid B. Starting smoking girls' explanation of the influence of peers. *J Adolesc* 1999 Oct;22(5):647-55
 27. Crisp A, Sedgwick P, Halek C, Joughin N, Humphrey H. Why teenage girls persist in smoking? *J Adolesc* 1999 Oct;22(5):657-72
 28. Killen JD, Robinson TN, Haydel KF, Hayward C, Wilson DM, Hammer LD et al. Prospective study of risk factors for the initiation of cigarette smoking. *J Consult Clin Psychol* 1997 Dec;65(6)1011-6.
 29. Rienzi BM, McMillin JD, Dickson CL, Crauthers D, McNeill KF, Pesina MD et al. Gender differences regarding peer-pressure and attitude toward substance abuse. *J Drug Educ* 1996;26(4):339-47
 30. Michell L, Amos A. Girls, pecking order and smoking. *Soc Sci Med* 1997 Jun;44(12):1861-9.
 31. Pederson LL, Koval JJ, O'Connor K. Are psychosocial factors related to smoking in grade-6-students? *Addict Behav* 1997 Mar-Apr;22(2):169-81.
 32. Baska T, Ballova M, Mad'ar R, Straka S. Epidemiology of smoking habit in adolescents. Suggestion for prevention. *Cent Eur J Public Health* 1999 Feb; 7(ss1): 31-4.

33. Simons-Morton B, Crump AD, Haynie DL, Saylor KE, Eitel SP. Psychosocial, school, and parent factors associated with recent smoking among early adolescent boys and girls. *Prev Med* 1999 Feb;28(2):138-48.
34. Austin SB, Gortmarker SL. Dieting and smoking initiation in early adolescent girls and boys: a prospective study. *Am J of Public Health* 2001 Mar;91(3):446-50.
35. French SA, Perry CL. Smoking among adolescent girls: prevalence and etiology. *J Am Med Womens Assos* 1996 Jan-Apr;51(1-2):25-8.
36. McNeil AD, Jarvis MJ, Stapleton JA et al. Prospective study of risk factors predicting uptake of smoking in adolescence. *J Epidemiol Community Health* 1989;44:72-78
37. Robinson N,LA, Klesges RC, Zbikowski S, Gasler R. Predictors of risk for different stages of adolescent smoking in biracial sample. *J Consult Clinic Psychol* 1997;65:653-662
38. Wang MQ, Fitzhugh EC, Westerfield RC, Eddy JM. Family and peer influence on smoking behavior among American adolescents: an age trend. *J Adolesc Health* 1995 Mar;16(3):200-3.
39. Simons-Morton B, Haynie DL, Crump Ad, Eitel SP, Saylor KE. Peer and parents influence on smoking and drinking among early adolescents. *Health Educ Behav* 2001 Feb;28(1):95-107.
40. Distefan Jm, Gilpin EA, Choi WS, Pierce JP. Parental influence predicts adolescent smoking in the United States, 1989-1993. *J Adolesc Health* 1998 Jun;22(6):466-74.
41. Sieminaka A, Damps I, Jassem E, Konnopa K, Slminki JM. Analysis of motivation fro cigarette smoking by teenagers based on a questionnaire distributed among school pupils staying in summer camp. *Pneumonol Alorgol Pol* 1999;67(11-12)
42. Nitchter M, Nitchter M, Vucovic N, Quintero G, Ritenbaugh C. Smoking experimentation and initiation among adolescent girls: qualitative and quantitative findings. *Tob Control* 1997 Winter;6(4):285-95.
43. Moolchan EWT, Ernst M, Henningfield JE. A review of tobacco smoking in adolescents: treatment implications. *J Am Acad Child Adolesc Psychiatry* 2000 Jun;39(6):682-93.
44. Givino GA, Hennigfield JE, Tomar SL, Escobedo LG, Slade J. Epidemiology of tobacco use and dependence. *Epidemiologic review*.1995;17(1):48-65
45. Hu TW, Lin Z, Keeler TE. Teenage smoking, attempts to quit, and school performance. *Am J Public Health* 1998 Jun;88(6):940-3.
46. Loid B, Lucas K, Fernbach M. Adolescent girls' constructions of smoking identities: implication for health promotion. *J Adolesc Health* 1997 Feb;20(1):43s-56.
47. Zoller U. and Maymon T. Smoking behaviour of High School Students in Israel. *J-Sch-Health* 1983; 53(10): 613-7

APPENDIX 1

Figure 1.

**FACTORS INFLUENCING SMOKING PROGRESSION
AMONG ADOLESCENT FEMALE**



APPENDIX 2

American University of Armenia Department of Public Health

Institutional Review Board/Committee on Human Research
CONSENT FORM TEMPLATE

Title of Research Project: Qualitative study to explore reasons for smoking among teenage girls in Yerevan, Armenia

CHR#

The Public Health Department of the American University of Armenia is conducting the research related to the teenagers' some activities in Yerevan. The purpose of the study is to obtain the information about experiences and opinions (knowledge, attitude and feelings) regarding smoking behavior of teenage girls. Schoolteachers and 14-16 teenage girls may participate in the research. This interview will be conducted by MPH student. It will take place only once and will last 50-70 minutes. Your responses are highly valuable to us and we appreciate your participation in this study. Explanation of Research Project

RISKS/DISCOMFORTS:

There is no known risk for the participants of the study. The research possesses risk, discomfort and inconvenience the same as encountered in your daily life.

BENEFITS:

You will not directly benefit from the participation in this survey. However, the information provided by you may help for better understanding of the teenagers' behavior that can be used for future programs related to women health.

CONFIDENTIALITY:

The interview will be conducted anonymously. You don't need to mention your name or other identifying data, as they are not going to be used in any part of the research process. Your responses will be accessible only to the Public Health Department of the American University of Armenia.

VOLUNTARINESS:

It is your decision whether participates in the study or not. You have the right to stop providing information at any time you wish or skip any question you consider inappropriate. Your refusal to participate in the study or your decision to withdraw from that at any time will not affect your job or study.

WHOM TO CONTACT:

You should ask the person in charge any questions you may have about this research. You should ask him questions in the future if you do not understand something that is being done. The researchers will tell you anything new they learn that they think will affect you.

If you want to talk to anyone about this research you should call the person in charge of the study, **[Michael Thompson]** at **[phone number: (374 1) 51 25 60 /e-mail: mthompo@aua.am]**.

The person in charge of the study will answer your questions. If you want to talk to anyone about the research study because you feel you have not been treated fairly or think you have been hurt by joining the study you should contact the American University of Armenia at (374 1) 51 25 12.

APPENDIX 3

Guide for In-depth Interview with 14-16 teenage girls

Note to interviewer: This guide is designed for 40-70 minutes interview with Armenian teenage girl (14 – 16 years old). Do not read items written in italic out loud.

Introduction

- *Thank the girl for agreeing to participate.*
- *Introduce yourself*
- *Explain the purpose of research.(To obtain information regarding smoking behavior of teenage girls)*
- *Describe the process of the interview. Say that interview will last 0.75-1.25 hours.*
- *Explain that the everything will be done to insure the anonymity of the interviewee*

" My name is _____. I am an MPH student of AUA working on research related to certain activities and interests of teenage girls. I am interested in learning more about the experiences, knowledge, attitude and feelings regarding smoking behavior of teenage girls. Your participation will be very helpful in this investigation.

Warm-up questions

Generally people have certain images of characters from the literature or movies, which they try to use as role models. Today's women work in numerous fields and have different images.

1. In your mind, who is the ideal woman?
 - What characteristics of these women do you appreciate most of all?
2. Describe, please, the pattern of smoking in your surrounding?
 - How widespread is the habit of smoking?
 - How do you feel about it?
3. Please describe the ideal boy friend. Would he smoke?

Practice related question

4. Sometimes people smoke more, sometimes they smoke less. Usually when do you smoke more?
 - Are there places where you avoid smoking?
5. Can you describe your smoking pattern during the day - for example, today?
 - How many cigarettes do you smoke usually per day?
 - Where do you smoke mostly?
6. What is the duration of your smoking experience?
7. Would you describe the very first time you smoked a cigarette?
 - When did it happen?
 - Why did you do it? Please describe your first experience
8. **Tell me, please, what are the reasons of smoking for you now?**

Knowledge related questions

9. Some people think that smoking can negatively influence their health; others think it does not. What do you think about the influences of smoking on health?
 - How can cigarette smoking affect on your physical appearance (wrinkles, skin color, help to be slim, shape of body)?
 - How can it affect on your physical growth?
 - How is it related to the risk of development of heart diseases?
 - How is it related to the risk of development of breast or lung cancer?
 - Can you say anything else?
10. What do you think about the positive role of smoking on health?
11. How the smell that stays after smoking a cigarette can influence on intimate relations with boy friend?
12. Please list what factors in your opinion contribute to smoking initiation in general? (Stress, anxiety, peer-pressure...)
13. Many people try to quit smoking for some reasons. Some of them are successful in this attempt, while others are not. In your opinion, what are the reasons people decide to quit smoking?
14. In your opinion, what are the reasons for not being successful in quitting smoking?

Attitude related questions

15. What do you think about quitting smoking?
16. Sometimes people are being faced with situations, where they are forced to do something. Please state the reasons that would make you quit smoking?
17. Overall, how can you say about what does cigarette smoking represent to you?
18. Some people are concerned about their reputation. What do you think, how can cigarette smoking affect your reputation?
 - Please describe your fears, concerns.
 - Are they related to your behavior, e.g. to smoking?
19. What do you think about teens (boys and girls) who don't smoke?
20. What is your parents' attitude toward cigarette smoking in general?
 - Especially if they were informed about your smoking practice?

- Have you ever had problems (conflicts) with them concerning this issue? Please describe it.
- Do your parents smoke?

21. It is commonly accepted that people follow the advice of their friends or relatives related to different issues. How does your peers' behavior influence on your smoking?

22. What is the attitude of your teachers toward teenagers who smoke?

Conclusion

23. What do you think about cigarette advertisement?

24. It will be very helpful to know your opinion regarding the development of antismoking programs.

- *Thank the girl for participation in the interview*
- *Ask if she has any questions*

APPENDIX 4

Guide for Key –Informant Interview With School Teachers

Note to interviewer: This guide is designed for 40-60 minutes interview with an Armenian schoolteacher (who teach 8-10 grade teenagers). Do not read items written in italic out loud.

Introduction

- *Thank the informant for agreeing to participate.*
- *Introduce yourself*
- *Explain the purpose of research.(To obtain information regarding smoking behavior of teenage girls)*
- *Describe the process of the interview. Say that interview will last 45 – 75 minutes.*
- *Explain that the everything will be done to insure the anonymity of the interviewee*

“ My names is _____. I am MPH student of American University of Armenia working on research related to the exploration of teenage girl smoking. I am interested in learning about your opinion and feelings regarding smoking behavior of teenage girls. Your participation will be very helpful in the investigation of this issue.

Socio-demographic data

1. How old are you?
2. Are you married?
3. Have you a child? How many children do you have?
4. Do you smoke?

Warming up questions

1. How long have you been working as a teacher with 8-10 grade teenagers (girls)?
2. How many teenaged girls do you teach per year?
3. Please describe the behavior of the current population of teen girls in general? (how do they treat you, how do they study, etc.)
 - How does it differ from the behavior of teenage girls from previous times?
4. Please describe your relationship with them?
 - Do they consult with you about their daily problems or concerns (personal or family)?
5. Please describe the smoking behavior of the current generation of teen girls
 - How it differs from the behavior of previous generations?
 - Please describe any observation of smoking pattern among girls.

Knowledge related questions

6. What do you think about smoking in general?

7. In your opinion what factors contribute to smoking initiation?
 - How often these factors contribute to smoking initiation?
 - Where and when does it usually take place?
8. We know that smoking is a widespread phenomenon in our country and particularly among young women more recently. What do you think are the most common reasons for teenage girls smoking?
 - What factors influence it? (*peer- pressure, anxiety, stress*)

Attitude related questions

9. What is role of school policy (teachers) related to teenage smoking?
 - What do you think about your school policy related to this problem?
10. In your opinion, what is the role of parents in regard to teenage smoking?
11. Adolescents are prone to the influence of different factors within the environment such as peer teachers and their parents. How does advertisement of cigarettes influence teen-girls to smoke?
12. In your opinion, what is the role played by the government in the development of policy related to this question (availability of cigarettes, smoking in public or in work places)?

Conclusion

13. What do you think needs to be done to discourage teens from smoking?
 - Should any type of antismoking program be included within the school program?
 - What do you think about parents and teachers joined together to work on this issue?
- *Thank the teacher for participation in the interview*
 - *Ask if there are any questions.*