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A Tobacco and Alcohol Prevention Curriculum Targeted Towards Immigrant Adolescents in Israeli Youth Villages

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2007

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An abstract of

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Abstract

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Immigrant Adolescents in Israeli Youth Villages

By Dylan Green

Background: Over the past 3 decades Israel has experienced a large influx of immigrants from the former Soviet Republics and Ethiopia. These immigrants have presented health needs and behaviors differing from those prevalent among Israeli nationals prior. In an effort to improve immigrant integration, adolescent immigrants are often placed in boarding schools called youth villages that cater to language needs and assist in cultural integration.

Objective: To identify gaps in health knowledge and behavior and develop a curriculum to address those gaps and assist in alleviating health disparities related to tobacco and alcohol use among immigrants.

Significance: The introduction of a curriculum tailored to the population and prevalent modifiable risk factors would assist in reducing health disparities related to tobacco and alcohol use faced by adolescents in Youth Villages.

Methods: The project is set in a youth village in northern Israel called Yemin Orde. Informal open-ended interviews were performed with staff and educators in an effort to identify the health needs of the students and the health services which already exist for them. Tobacco and alcohol use were identified as significant health concerns through the interviews and the school administration determined a curriculum should be created to address the issue. Inputs from the interviews as well as a literature review on modifiable risk factors of adolescent tobacco and alcohol use were utilized to develop the curriculum.

Results: A grade and culture appropriate curriculum, learning materials, and evaluation plan were developed to be used in informal afterschool small group sessions. Information from the interviews as well as a literature review was integrated into lesson plans in an effort to respond to the needs of the students appropriately and effectively.

Discussion: Further plans to adapt and expand the use of the curriculum to other youth villages are intended upon testing and evaluating initial use of the curriculum. Additional institutional recommendations are made regarding changes to policies, family outreach efforts, and the socio-environmental setting.

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Table of Contents

Chapter 1. Introduction	1
Introduction and Rationale	1
Problem Statement	2
Purpose Statement	3
Objectives	3
Significance	4
Definition of Terms	5
Chapter 2. Literature Review	6
Alcohol Use in Israel	6
Tobacco Use in Israel	11
Predictors and Motives of Adolescent Alcohol Use	15
Predictors of Adolescent Tobacco Use	17
Summary and Relevance	20
Chapter 3. Methods	21
Needs Assessment	21
Curriculum Development	22
Chapter 4. Discussion & Recommendations	26
Introduction	26
Public Health Implications	26
Recommendations	28
Conclusions	
Bibliography	
Appendix A: 9 th Year Curriculum	35
Session 1: Tobacco and Alcohol Health 101	
Session 2: Under Pressure	47
Session 3: Saying No	54
Handouts	60
Appendix B: 10 th and 11 th Year Curriculum	71
Session 1: Tobacco and Alcohol Health 101	

Session 3: Appreciative Inquiry	87
Handouts	92
Appendix C: 12 th Year Curriculum	
Session 1: Tobacco and Alcohol Health 101	
Session 2: Code Exercise	
Session 3: Pressure and Stress after Yemin Orde	
Handouts	
Appendix D: Impact Evaluation Quiz	
Appendix E: Evaluation Plan	134
Project Timeline	134
Explanation of Evaluation Principles	

Chapter 1. Introduction

Introduction and Rationale

The setting for the curriculum to follow is Youth Villages in Israel. Youth Villages were created during the 1930s in the area of modern Israel. The purpose of these Youth Villages was to assist Holocaust orphans in settling within Israel by providing a place to live, an education, and a cultural and religious identity. Beginning in the 1970s, Israel experienced a wave of immigration from Ethiopia and the Soviet Union according to the Israeli Central Bureau of Statistics (Table 1).

Table 1. Total Immigration to Israel by Country of Birth (Israeli Central Bureau ofStatistics, 2007)

Immigrant From:	1972-1979	1980-1989	1990-1999	2000-2004
Ethiopia	306 (0.1)*	16,965 (11.0)	39,651 (4.1)	14,859 (8.2)
USSR or Former Soviet Republics	137,134 (51.2)	29,754 (19.3)	772,239 (80.8)	104,741 (57.7)
Total Immigration to Israel	267,580	153,833	956,319	181,505

* Number in parenthesis represents the percentage of immigrants from the listed country of total immigration to Israel

Because of an increase in immigration from these nations and a reduction in the need for assistance to Holocaust orphans, the Youth Villages revised their purpose-- to assist in the integration of immigrant youth to Israel. These immigrant youth have faced many of the integration difficulties faced by other immigrant populations.

Problem Statement

Although Israel has attempted to integrate immigrants through Youth Villages and other efforts, immigrant populations still face differences in quality of living when compared to the general Israeli population. A report from the Bank of Israel in 2006 revealed differences in social indicators of health between immigrant and Veteran populations (Table 2).

Table 2. Socio-Economic Indicators by Immigration Status in 2005 (Bank of Israel,2007)

Socio-Economic Indicator	Jewish Veterans †	Soviet Immigrants	Ethiopian Immigrants
Proportion of Single Mothers	9.4	21.2	22.5
Education level (%)			
No qualification	0.8	0.5	20.4
Elementary School	11.2	4.0	19.5
High School/Matriculation	42.2	29.9	38.4
Higher Education	45.8	65.6	21.7
Unemployment rate (%)	7.6	6.6	13.2
Median Hourly Income (NIS)	39.6	25.2	22.0
Household Density	1.0	1.0	1.6
(persons per room)			
Families in Poverty (%)	14.5	16.9	51.7

†. Non-Immigrants

These differences in socio-economic indicators place these immigrant youth at a higher risk of unhealthy behaviors such as smoking and alcohol abuse (Latimer & Zur, 2010). Interviews with staff and educators at Yemin Orde revealed the students currently receive little to no education on tobacco and alcohol. The development of a health education curriculum focused on tobacco and alcohol use which is designed to fit the population of Yemin Orde Youth Village could reduce the health risks associated with adolescent use of tobacco and alcohol.

Purpose Statement

The purpose of this project is to develop a curriculum to be used by Yemin Orde Youth Village aimed at preventing tobacco and alcohol use.

Objectives

Objective 1. To identify what, if any, gaps in knowledge exist among immigrant youth attending Yemin Orde

Objective 2. To identify current efforts by Yemin Orde to reduce the use of tobacco and alcohol among youth

Objective 3. To review the literature regarding epidemiologic trends in adolescent tobacco and alcohol use, behavior change theory, and evaluative reports on effectiveness of interventions on youth tobacco and alcohol use.

Objective 4. To create a curriculum based on knowledge gaps of youth, organizational capacity of Yemin Orde, and evidence based interventions to reduce youth tobacco and alcohol use.

Objective 5. To provide a monitoring and evaluation framework and methodology to be used by Yemin Orde to determine the effectiveness of the curriculum and make changes where necessary for improvement.

Significance

The health effects of tobacco use and alcohol abuse is well documented. The Centers for Disease Control website lists increases in risk of various cancers, diseases of the neurological, cardiovascular, renal, and pulmonary systems , unintentional injury and socio-economic problems associated with tobacco use and alcohol abuse (CDC, 2010). The use of tobacco and alcohol in adolescence has been shown to be associated with continued trend of tobacco use and future alcohol abuse in adulthood (Bonomo, Bowes, Coffey, Carlin, & Patton, 2004). Thus, the reduction of tobacco use and delaying alcohol use among adolescents would reduce the risk of lifelong tobacco and alcohol associated risks. Fortunately, interventions aimed at modifying behaviors and risk factors in adolescence have been shown to be effective.

The introduction of a tobacco and alcohol curriculum at Yemin Orde could provide an effective means of improving current and long term health for immigrant youth and their families. Furthermore, Yemin Orde represents the flagship institution of Yemin Orde Initiatives- an organization representing more than a dozen Youth Villages with the goal of providing a quality education and a nurturing environment to all youth attending the villages. This relationship between Yemin Orde and its sister Youth Villages creates the potential for the health curriculum to improve the health of even more at-risk youth.

Ultimately, the introduction of a curriculum tailored to the population and prevalent modifiable risk factors would assist in reducing health disparities related to tobacco and alcohol use faced by Youth Villages.

Definition of Terms

Youth Village- An institution which provides housing and education to youth (often immigrants). Often described as a combination between a boarding school and a kibbutz.

Adolescent - A person between the ages of 13 and 19

Tobacco use- In this context, tobacco use primarily denotes the use of smoking tobacco, either cigarette or water pipe.

Curriculum- A document containing lessons to be used by educators, specifically on the topics of tobacco and alcohol prevention.

Chapter 2. Literature Review

The focus of this literature review is on two key elements. These are to describe the current situation of tobacco and alcohol use in Israel as well as illustrate student's risk at Yemin Orde. Firstly, information regarding tobacco and alcohol in the context of Israel was examined. Trends in alcohol and tobacco use/abuse over time, health impacts of alcohol and tobacco use/abuse, national policies surrounding tobacco and alcohol, and information on risk factors for use/abuse of tobacco and alcohol were reviewed. Next, research was done on modifiable predictors of tobacco and alcohol use in adolescence.

Alcohol Use in Israel

Israel has a very low level of alcohol consumption at 2.5 liters per capita, particularly when compared to the nations from the former Soviet Union, the home country of most Israeli immigrants (Table 3) (CIA, 2011) (WHO, 2003). When comparing alcohol consumption, it is important to consider that consumption is prohibited by those adhering to the laws of Islam; particularly when there is a significant Muslim population as can be seen in the table. It is currently estimated that the population of Israel is 7,300,000. More than 75% of Israelis are Jewish, 17% are Muslim, and 2% are Christian.

This complicates the description of alcohol use in Israel and furthermore alcohol use among immigrants in Israel. For instance, Table 3 shows Russia has an alcohol consumption of over 10 liters per capita and a small Muslim population. Compare this with Tajikistan or Turkmenistan which have alcohol consumption levels at around one liter per capita and much more significant Muslim populations. In short, the relationship of country of origin is significant when interpreting an immigrant's alcohol behavior.

Nation	Alcohol Consumption in Liters per Capita	% Muslim
Israel	2.47	16.8
Armenia	1.48	<1
Azerbaijan	4.54	93.4
Belarus	5.53	<20
Estonia	9	<32
Georgia	1.47	9.9
Kazakhstan	2.96	47
Kyrgyzstan	3.63	75
Latvia	9.61	<1
Lithuania	9.89	<5.5
Russian Federation	10.32	10-15
Tajikistan‡	0.39	90
Turkmenistan‡	1.18	89
Ukraine	6.09	<3.2
Uzbekistan‡	1.51	88

Table 3. Alcohol Consumption among Former Soviet Union Nations and Israel

[‡]Nations with Muslim Populations over 88% (CIA, 2011)

The results of a national household study which was conducted in 1995 were analyzed to examine differences between drinking patterns by gender and cultural groups (Jewish and Arab) within Israel (Neumark, Rahav, Teichman, & Hasin, 2001). The study sample consisted of 5,954 interviews which collected data on demographics, religiosity, and current alcohol use (non-ritualized alcohol consumption in the month prior to questioning). Results revealed more Jewish participants as current drinkers (46.6%) when compared to Arab participants (22.9%). After stratifying by gender, the associations between religiosity and cultural group were examined. Male secular Jews had 4.7 times the odds of current drinking compared with male religious Arabs and secular Jewish women had 18.2 times the odds of current drinking compared to religious Arab women (ORs were adjusted for education, marital status and age). Furthermore, secular Arab men had a rate of past month drinking of 63% while secular Jewish men had a rate of 72%.

In 2000, a national survey of drinking and drug use was constructed by Tel Aviv University (Schiff, Rahav, & Teichman, 2005). An analysis of the survey results focused on differences in alcohol consumption between immigrants from the former Soviet Union and Jewish Israeli residents. The study sample consisted of 5,998 face-to-face household interviews, and although Arabs were surveyed, they were not included in the study design resulting in a sample of 5,004 individuals. Demographic information was collected from participants in addition to drinking measures such as: whether the individual consumed any alcohol in the last week, whether or not 2 or more drinks were consumed in the most recent drinking event, whether the individual had a binge drinking event in the past year (5 or more drinks in one drinking event), and whether the individual self-reported "being drunk" in the past year.

Significant differences were found between male immigrants from the former Soviet Union and Israeli nationals whom reported at least 1 binge drinking episode in the last year and "being drunk" in the last year (Table 4). Results of Logistic Regression Modeling revealed former Soviet Union Immigrant status as a significant covariate with association to drinking in the last 12 months (OR 1.88 95% CI 1.22-2.90) and drinking in the last 30 days (OR 2.45 95% CI 1.68-3.58) after controlling for income, education, religiosity, age, marital status, and spouse's drinking.

Immigrant ^a	Binge Drinking Episode in Past Year (%)	Been Drunk in Past Year (%)
Yes	31.0	45.6
No	17.4	27.3

Table 4. Proportion of Men Who Reported Drinking Behaviors by Immigration Status

a:Immigrants from the former Soviet Union

Similar results were found by The Israel National Health Survey which was conducted from May 2003 until April 2004. The study, conducted by the Israel Bureau of Statistics, interviewed 4,859 individuals over the age of 21 in their household (Neumark, Lopez-Quintero, Grinshpoon, & Levinson, 2007). Socio-demographic characteristics and alcohol consumption habits were recorded. Through computer algorithms, lifetime DSM-IV alcohol disorder diagnosis was made.

Results revealed a lifelong abstinence from alcohol of 41% of respondents. Of those reporting having a drink of alcohol in the past year (52% of all participants), 55% were Jewish-Israeli and 22.7% Arab. Of those reporting consumption of an alcoholic drink in the past year, 83.6% drank fewer than 3 drinks on any day they drank, and 1% reported drinking 5 or more drinks in a day. Men drank more frequently (3 or more drinks in one week in the past year) than women (among Jewish-Israelis) at 8.7% and 2.2% respectively. Among Arab-Israelis, no women reported frequent drinking whereas 5.4% of men did. Immigrants from the Former Soviet Union had the highest odds of being diagnosed as having ever had a DSM-IV alcohol disorder with an adjusted odds ratio of 2.01, 95% CI 1.4-2.9 (adjusted for gender, age, education, income, marital status, and employment status).

The context of alcohol abuse as a public health concern is generally an increased risk of injury and crime. A study of the Israel National Trauma Registry sought to find an association between blood alcohol concentration (BAC) and reason for admission (Soffer, et al., 2006). Data were retrieved from patient records from January 2001 to December 2003 from a hospital in Tel Aviv. Although 7,630 patients were seen during the 3 year period, only 5,529 patients received blood tests for alcohol (patients hospitalized for 3 or more days) and were used in the analysis. For the purposes of this study, individuals with a BAC of 50mg/dl or higher were considered alcohol-intoxicated (study group) and all others were considered the control group. Additionally, researchers sought to determine an association between alcohol intoxication and injury severity by using the injury severity scale (ISS). The ISS is comprised of two measures, location of injury and severity of injury. ISS scores greater than 15 are generally considered "major trauma".

Of patients admitted with a BAC \geq 50mg/dl, 82% were between the ages of 15 and 44 and 91% were men. This particular study revealed alcohol-intoxicated patients to be more likely than the control group to be involved in road accidents (35% vs 24% respectively) and stab wounds (29% vs. 7% respectively) with a p-value less than 0.05. Additionally, those who were alcohol-intoxicated were more likely to have major trauma (ISS >15) than the control patients at 32% and 12% respectively (p<0.05). Furthermore, the majority of injuries in alcohol-intoxicated individuals occurred during the weekend, and more frequently from 7p.m. to 11a.m. while the control group events were evenly distributed among the week and more likely to occur from 7a.m. to 11p.m.

Another study examined the issue of road traffic crash fatalities associated with a BAC \geq 50 mg/dl or higher by using data from Israel's National Center for Forensic Medicine (Jaffe, Savitsky, Zaistev, Hiss, & Peleg, 2009). From 2000 to 2004, there were 704 driver deaths due to motor vehicle accidents. Of these, 445 received autopsies at the forensic institute, of which, approximately half received toxicological testing for drug and alcohol levels. Those with no testing results were treated as having no drugs or alcohol in their system.

The analysis revealed that of the entire sample, 8% had a BAC \ge 0.05 g/dl while 17% of those who received toxicological testing had a BAC \ge 50 mg/dl. Drivers with BAC \ge 50 mg/dl had an average BAC of 184 mg/dl (more than 3 times the legal limit) and all but one was male. Although there was no significant trend, mean BAC increased from 137 mg/dl in 2000 to 211 mg/dl in 2004. Regression modeling revealed that as age increased by 1 year, the odds of having a BAC \ge 50 mg/dl fell by 3%.

Summary

Findings from these studies illustrate the current situation of alcohol use in Israel. Israel has experienced heavy immigration from nations consuming more alcohol on average. Furthermore, studies have shown immigrants drink more and more frequently than Israeli nationals. Studies have also shown that intoxication is associated with a higher risk of injury and more severe injuries. Religiosity and gender also play a role in alcohol consumption patterns in Israel. Those who consider themselves more religious are less likely to drink as are females when compared to males. Less obvious, and of interest in this project, is the role that religion, immigration, and adolescence combined have on drinking patterns.

Tobacco Use in Israel

A national survey conducted in 1992 revealed that smoking rates among 18 year olds were similar to adults (Ben-Sira, 1992). Furthermore, it revealed the age for beginning smoking to be approximately 15 years old as smoking rates increased from 2% at age 14 to 12% at 16.

A later study which examined Israeli attitudes to anti-smoking legislation was conducted from 1997 to 1998 (Samuels, 2000). The study sample consisted of 505 patients who had annual exams at a medical center in Jerusalem during the study period. Patients were questioned by their physicians on whether or not they smoked and attitudes towards smoking legislation. The study found 25.3% of the patients to be smokers, of whom, 47.7% had attempted quitting before and 65.6% began smoking before the age of 20. Attitudes towards anti-smoking legislation were generally favorable for both smokers and non-smokers. Eighty percent of patients supported recognizing cigarettes as an addictive substance, 79% were for prohibiting selling cigarettes to individuals under 18 years old, and 74.6% were in favor of banning advertising of cigarettes (though more so among non-smokers than smokers at 78.5% and 63.3% respectively). The article also cites several older studies which examined prevalences of smoking among certain demographic groups. One study reported a smoking prevalence of 20.1% among 10th grade students (Palti, Halevy, Epstein, Knishkowy, Meir, & Adler, 1995) and another found a smoking prevalence of 13.9% among 6th-10th graders (Meijer, Branski, Knol, & Kerem, 1996).

A more recent study examined water-pipe tobacco smoking prevalence among adolescents (Varsano, Ganz, Eldor, & garenkin, 2003). Nargila (also known as hookah, shisha, or argila) is most commonly used in Arab culture and involves smoking flavored tobacco through a water-pipe (usually in a group setting). The study questioned 12-18 year olds on how often they smoked nargila, when they smoked, and about their beliefs about the health effects. The study found that 41% of participants smoked nargila at some frequency, and 22% smoked at least every weekend. Smoking nargila was found to be three times more common than smoking cigarettes and girls were found to be heavier smokers than boys. Although 90% thought smoking nargila was not healthy, 50% thought it was less harmful than cigarettes. The most common reasons for smoking nargila were the pleasure it brings and the intimacy it adds to meetings with friends.

In 2004, a study combined results from three national surveys on smoking to analyze differences in smoking by socio-demographic indicators (Baron-Epel, Haviv-Messika, Tamir, Nitzan-Kaluski, & Green, 2004). The three surveys occurred from 1999-2001 and covered 12,862 individuals. The first survey, KAP, involved telephoning 5,954 random households by telephone, of which, 3,193 completed the survey. Arabs were not included in the study. The next survey, SMOKE, involved a random sample of telephoned households, totaling 9,870, of which, 6,021 responded. Jews, immigrants, and Arabs were included in this study. Finally, the MABAT survey interviewed 3,279 subjects face-to-face (out of a possible 6,399) which were selected by calling random telephone numbers to arrange interviews. Those eligible for the MABAT survey must have resided in Israel for at least a year, have not have been living in an institution, or identified as part of the Beduin population.

Results revealed differences in smoking rates by gender, education, and ethnicity (Jewish, Arab- defined as Muslim, Christian or Druze, or Immigrants from the former Soviet Union). Academic was defined as having obtained an academic degree. Nonacademic males were significantly more likely to be current smokers than academic males among immigrant with a rate ratio of 1.47. Non-academic Jews were more likely to smoke than academic Jews regardless of gender with rate ratios of 1.45 and 1.31 for males and females respectively.

Further associations were found when religiosity was considered and dichotomized as either secular or orthodox. Differences in current smoking rates by religiosity were only found amongst Jewish populations and not among immigrants or Arabs. Secular Jews were more likely to be smokers than orthodox Jews regardless of gender with percent differences of 11.6 and 21.3 for males and females respectively. No significant differences were found between secular and orthodox immigrants regardless of gender. Again, secular Arab men were more likely to be smokers at 51.6% reporting being current smokers versus 42.8% of orthodox Arab men.

Finally, logistic models were run to find covariates associated with current smoking for both men and women (Table 5).

	Men		Women	
Covariates	OR (95% CI)	p-value	OR (95% CI)	p-value
Arabs ^a	1.87 (1.59-2.20)	<0.0001	0.30 (0.23-0.39)	<0.0001
Immigrants ^a	1.34 (1.11-1.62)	0.0025	0.66 (0.54-0.80)	<0.0001
Religiosity ^b	0.53 (0.44-0.63)	<0.0001	0.26 (0.20-0.32)	<0.0001
Education ^c	0.60 (0.53-0.69)	<0.0001	0.68 (0.59-0.79)	<0.0001
Marital Status ^d	1.07 (0.93-1.23)	0.318	0.65 (0.57-0.74)	<0.0001

Table 5. Logistic Model Covariates for Current Smoking Status in Men and Women

a:Compared to Jews

b:Orthodox vs. Secular

c:Academic vs. Non-Academic

d:Married vs. Single

Being a male immigrant significantly increased the odds of being a current smoker when compared to Jews; however, a significant protective effect was found among women. Being orthodox decreased the odds of being a current smoker compared to those who are secular with orthodox men having nearly half the odds of being a current smoker than secular men and orthodox women having approximately one quarter of the odds of being a current smoker than secular women. Men who obtained an academic degree had 0.60 times the odds of being a current smoker than men who had no degree and women showed a similar trend. Finally, married men did not significantly differ from single men with regards to odds of being a current smoker, while married women had 0.65 times the odds of being a current smoker compared to single women.

Summary

While studies suggest that 20-40% of Israeli adolescents are smoking, smoking rates among adolescents are difficult to measure and interpret. Adolescent access to tobacco can be irregular and their perception of what it means to be a "smoker" can vary. Another study hinted at a high adoption rate of smoking while in the military with 65% of smokers beginning before 20 years of age. Some population based studies in Israel show higher rates of smoking among immigrants, men, the educated, and the religious. Of note is the prevalence of water pipe smoking among youth as well as the perceived risk of the act.

Predictors and Motives of Adolescent Alcohol Use

"Early adolescence is the key developmental period for the initiation of alcohol use that progresses on to regular use and problem drinking in mid-adolescence, later adolescence, and young adulthood." (Chartier, Hesselbrock, & Hesselbrock, 2010).

One study followed five grade cohorts in Oregon for 11 years conducting assessments on cognitions and alcohol use and highlights the importance to target social influence variables for those interested in preventing adolescent alcohol use (Andrews, Hampson, & Peterson, 2010). Assessments included alcohol use in the last year at grade 6, social images of drinkers at grade 7, and other measures of willingness and intentions for 1,075 students. Analysis supported the Prototype/Willingness Model in that social images and descriptive norms influenced willingness to drink in early adolescence. A study from Sweden analyzed predictors and future problems of adolescent alcohol use (Danielsson, Wennberg, Tengstrom, & Romelsjo, 2010). The study followed 1,847 14 year olds from 2001 until 2006. Questionnaires were handed out regarding alcohol consumption, alcohol related problems, and a series of predictors and environmental measures. Researchers classified students as low consumers/abstainers, gradual increasers, high consumers, and those with a sudden increase in alcohol use.

Those in the category of high consumers were more likely to be female at 65.6% while those in the sudden increase category were more likely to be male at 62.3%. Those who accelerated their alcohol use faster had higher rates of alcohol related problems. Furthermore, smoking cigarettes was related to high risk drinking, as was access to alcohol, and having friends who drink.

Another study sought to determine whether or not self-control moderates the effect of mass media on adolescent tobacco and alcohol use, which is a predictor of early smoking and drinking (Wills, Gibbons, Gerrard, Sargent, Lee, & Cin, 2010). Study measures included self-control indicators, exposure to movie smoking and alcohol use, peer smoking and alcohol use, and expectancies in those behaviors.

The results found a significant interaction of self-control on both movie smoking and drinking exposure as a predictor for adolescent smoking or alcohol use. The moderation effects were large, with those with good self-control having a reduction in the effect of media exposure of 47% and 45% on smoking and alcohol use respectively.

An analysis performed in the United Kingdom classified adolescent alcohol users into four categories (Mackie, Conrod, Rijsdijk, & Eley, 2011). Data were gathered from 1,422 adolescent, self-reported alcohol use motives. Latent class analysis identified four significant drinking motive classes: social, enhancement (to feel good), family occasions, and coping.

Social reasons were most frequently recorded with 93.8% of participants saying they drink when at a party and 89% reporting having drunk in the company of friends. Drinking to feel drunk was endorsed by 27.4% and 13% of participants admitted to drinking when having problems or feeling lonely. This same study further suggests tailoring prevention programs to motives (Conrod, Castellanos, & Mackie, 2008) and reducing the frequency of drinking to cope may reduce the number of alcohol related problems (Littlefield, Sher, & Wood, 2010).

Summary

Interviews with Yemin Orde staff revealed coping is a frequent motivating factor in adolescent drinking at the institution. Studies suggest that social drinking, drinking to fit in, or drinking for the feeling of getting drunk are more common motivations than drinking to cope in adolescence. However, these studies were not targeted towards populations similar to that of Yemin Orde.

Adolescents who increase the amount of alcohol they drink suddenly are more likely to develop alcohol related problems later in life. Studies further found that environmental and social factors were largely associated with alcohol initiation in adolescence. Those with friends who drink or smoke, or direct family members who drink are more likely to begin drinking at an earlier age.

Predictors of Adolescent Tobacco Use

A review of the literature published in 1998 revealed a number of sociodemographic, environmental, behavioral, and personal factors associated with uptake of smoking among adolescents (Tyas & Pederson, 1998). The review included studies from around the world published from 1984 to 1996 in English or French (though none from Israel)..

Significant socio-demographic factors associated with initiation of smoking included age, ethnicity/race, parental socio-economic status, urban/rural residence, and adolescent income. Environmental risk factors included parental smoking and attitudes towards smoking, sibling and peer smoking, peer attitudes and norms, and attachment to family and friends. Personal predictors for smoking include stress, depression/distress, low self-esteem, and perceptions of smokers.

Another study showed a relationship between sociometric status and smoking, that is, school popularity and the uptake of smoking (Aloise-Young & Kaeppner, 2005). This study was longitudinal in nature over 3 years by following 4th, 5th, 6th and 7th graders from four states in the United States. Students (n=1,630) were asked to name peers of their age who they liked and disliked to measure sociometric status. Students were categorized into five categories: popular (receiving many likes and few dislikes), rejected (many dislikes and few likes), controversial (similar numbers of likes and dislikes), neglected (receiving few nominations at all), and average (moderate amount of nominations).

Results revealed that those classified as Controversial sociometric status were at the highest odds of reporting cigarette use at the first follow up period when compared to those in the Average group (OR=1.57, 95% CI 1.30-1.91) (Table 6). The Rejected group had the next highest odds of using cigarettes at the first follow up time when compared to the Average group (OR=1.33, 95% CI 1.07-1.65). Neglected and Popular groups did not differ significantly from the Average group, though being a part of the Popular group did suggest a protective effect.

	Sociometric Status				
	Average	Controversial	Neglected	Popular	Rejected
% Smoking	31.7	50.0	32.8	25.8	42.1
OR	Reference	1.57	1.04	0.81	1.33
(95% CI)		(1.30-1.91)	(0.80-1.34)	(0.64-1.04)	(1.07-1.65)

Table 6. Reported Smoking and Sociometric Status

One final study describes the importance of reactance as a risk factor for future smoking (Miller, Burgoon, Grandpre, & Alvaro, 2006). A school-wide survey questioned 1,831 students on their smoking status/history, social and environmental risk factors, and psychological reactance.

Logistic regression analysis revealed past experimentation as the strongest factor associated with smoking with an odds ratio of 5.16. Next, psychological reactance was found to be a powerful indicator of smoking with an odds ratio of 1.78. Furthermore, having more friends who smoke was a significant predictor of smoking with an odds ratio of 1.67.

Summary

There are many risk factors for initiation of tobacco use. Risk factors include race or ethnicity, parental socio-economic status, and age. Familial and peer smoking are strongly associated with adoption of tobacco use. Stress, depression and low self-esteem are also all risk factors. Half the youth at Yemin Orde come from dysfunctional households and are likely exposed to the risk factors for tobacco smoking listed above.

Summary and Relevance

Nationally, Israel reports a relatively low amount of alcohol consumption. However, further examination of the issue reveals a large amount of the burden (and likely related health effects) lay on the immigrant population. Similar results are found when examining trends in smoking. Other known indicators and risk factors for alcohol and tobacco uptake among adolescents are common among immigrant populations, exacerbating the problem.

However, studies on the students at Youth Villages in Israel have not been done, particularly on tobacco and alcohol use. Considering the population of Yemen Orde Youth Village, it is clear students certainly fit into a high-risk category for alcohol and tobacco use in adolescence and thus alcohol and tobacco health effects later in life. A curriculum tailored to the population and prevalent modifiable risk factors could be very beneficial in reducing health disparities related to tobacco and alcohol use faced by Youth Villages.

Chapter 3. Methods

<u>Needs Assessment</u>

The origins of the project are rooted in a needs assessment performed over the summer of 2010. Due to the nature of the school population (immigrant, often impoverished, delinquent, etc.) it was presumed that there may be some gaps in health knowledge, attitudes or practices. Ideally, a knowledge, attitudes and practices survey would have been distributed to the youth to estimate any gaps in knowledge or practice in health behaviors. However, the project was initiated during the summer months, when many of the students had gone to their families for the summer. Some youth remained at Yemin Orde over the summer; however surveying this population could introduce significant selection bias to the study design.

Informal open-ended interviews with key informants such as school staff, counselors, and administrators were performed inquiring about any health concerns they felt existed among the students. Many of the interviewees were fluent in English, and the interviews were conducted in English. For those who were not fluent in English, an interpreter assisted in the interview process. In the absence of a significant response from the interviewee, commonly probed topics included youth use of tobacco, alcohol and drugs as well as nutrition, sexual/reproductive health and violence.

Interviewees were further questioned on what differences in health knowledge or behaviors existed based on gender, age, religiosity, or country of origin. Additional questions focused on reasons why students may engage in unhealthy behaviors. Finally, participants were asked to recommend educational methods which they felt may be effective in communicating healthy behavior change. Interview results were reviewed with school administrators and it was decided that a curriculum, made up of a series of afterschool informal education lessons would be created to address the issues of tobacco and alcohol use.

Curriculum Development

Literature Review

Following the needs assessment, a comprehensive review of the literature was performed. Topics reviewed included basic history and epidemiology of tobacco and alcohol use in Israel as well as immigration patterns. Next to be researched was the topic of modifiable risk factors leading to adolescent tobacco and alcohol use. The findings from the literature review as well as input from interviews and communication with Yemin Orde were considered in developing the curriculum.

Curriculum Review

Many U.S. state level curriculums are available publicly regarding tobacco and alcohol prevention. Most of these were not directly applicable to this project in that they were designed for United States high school classes specific to health education which spanned weeks and months of subject content. Examples of curriculums used in Israel were searched for but none were found to be publicly available.

However, examples of how to write goals and objectives, formatting options, and inspiration for activities could be drawn from the online curriculums. Two curriculums were available on the topics of Nutrition and Wellness and Personal Wellness from schools in Indiana and Kentucky respectively (Sellers, 2006) (Education Kentucky, 2010).

The curriculum developed for this project was modified from ELLA: Enriching Life for Latina Adolescents by Mallory Waters for use in the course Curriculum and Instruction at Emory University, RSPH. Further direction was gathered from PowerPoint presentations for the same course regarding topics such as: how to write effective objectives, curriculum planning, and how to write lesson plans.

Curriculum Format

There is a curriculum for 9th year students (Appendix A), one for 10th and 11th year students (combined) (Appendix B), and one for 12th year students (Appendix C). Each curriculum contains 3 sessions, intended to be approximately one hour each for three consecutive days. Each curriculum included a session on basic health effects and addictive qualities of tobacco and alcohol. Included with the health education sessions are educational materials (i.e. handouts, fact sheets, images, etc). The other two sessions are discussion/role-play based and are focused on identifying situations which put individuals most at risk of tobacco/alcohol initiation as well as practical experience in avoiding initiation.

Curriculum Context and Targeting

After youth complete their normal school day, they return to their dorms and break out into small groups of 12-24 led by a counselor. In these small groups youth have group discussions, play games, and hold learning activities. These daily afterschool group sessions are the settings for the curriculums. This adds convenience to carrying out the curriculum due to the groups having already been developed and there being a lesser need to add exercises to build group trust to the curriculums.

Diverse cultures are very important and must be considered during the development process. Youth at the village could vary with respect to country and culture of origin, length of time in Israel, religious devotion, and family background. Some of these are addressed in the afterschool groups which are focused on improving selfesteem, self-efficacy, as well as cultural and religious identity.

Interviews with school staff suggested different gaps in knowledge and practice between Ethiopian immigrants and those from the Russian Federation and the former Soviet Republic. The perception was that the Ethiopian youth were less familiar with alcohol use and the alcohol content of stronger drink such as spirits. This is found in the World Health Organization country profiles of alcohol use. From 1989 to 2001, Ethiopia consumed approximately 0.1 liters of pure alcohol per capita from spirits. During the same time period, the Russian Federation rose from 5 liters to 8 liters of pure alcohol per capita from spirits (WHO, 2004).

The needs assessment also identified the 9th year students as those at highest risk of adoption of tobacco or alcohol use. Lack of knowledge and peer-pressure were named as the biggest factors in beginning use.

	9 th Grade	10 th -11 th Grade	12 th Grade
Session 1	Tobacco and Alcohol Health 101		
Session 2	Under Pressure	Costs and (Dis)Benefits	Code Exercise
Session 3	Saying No	Appreciative Inquiry	Pressure and Stress after Yemin Orde

Curriculum Content

Each lesson contains a number of activities. Each activity has a matrix estimating the amount of time the activity should take, required preparation, the concept of the

activity, and a guiding script for the facilitator. If handouts are needed, it is noted as such and they are provided at the end of the document.

Evaluation Design

Finally, evaluation planning guidelines and materials are included in the curricula (Appendices D and E). Surveys were designed to evaluate the impact of the entire workshop on participants' tobacco and alcohol knowledge, attitudes and practices. Other surveys were developed to be used as process monitoring tools for each age group. These surveys are to be given before and after each 3-day workshop for monitoring the effectiveness of the individual curricula.

IRB

This project did not require IRB approval as it was a Special Studies Project which did not conduct research.

Chapter 4. Discussion & Recommendations

Introduction

Over the past 3 decades Israel has experienced a large influx of immigrants from the former Soviet Republics and Ethiopia. In an effort to improve immigrant integration, adolescent immigrants are often placed in boarding schools called youth villages. These immigrants have presented health needs and behaviors differing from those prevalent among Israeli nationals prior.

The project is set in a youth village in northern Israel called Yemin Orde. Interviews were performed with staff and educators in an effort to identify the health needs of the students and the health services which already exist for them. From the interviews, tobacco and alcohol use were identified as significant health concerns; consequently the school administration decided a curriculum should be created to address the issue.

Three school-grade targets were identified for unique curricula (9th, 10th & 11th, and 12th). Those in 9th and 12th grade were perceived to be at highest risk of smoking as they are in transition stages. Those in 9th grade are entering the new realm of high school and a new school environment. Those in 12th grade are experiencing the stresses of matriculation exams, life after graduation, and preparing for mandatory military service (where a vast majority of youth soldiers smoke).

Public Health Implications

Direct Health Impact

A positive health impact is possible by filling a gap in health education at Yemin Orde and addressing the prevalence of tobacco and alcohol use among the youth. The curricula aim to fill this gap in health education and reduce the incidence of unhealthy behaviors among the adolescents. Specifically, by delaying the initiation of tobacco and alcohol use, the youth will be at a lesser risk of lifetime tobacco and alcohol use/abuse and the health effects associated with those behaviors.

Yemin Orde is considered the pilot testing site for the workshop. If the workshop is found to be effective, it could be scaled up to include other schools. Yemin Orde is the flagship school in an organization of schools called the Yemin Orde Initiative which are linked by similar ideologies in education and character development. Schools in the network differ slightly in some ways (though are similar in structure) and the workshop could be targeted towards each institution's needs. Furthermore, the workshop evaluation efforts of the workshops can aid both the schools and public health professionals by providing a information on youth smoking and alcohol knowledge, attitudes and practices.

Future Collaboration and Education

The time spent with Yemin Orde and working on this curriculum is an initial collaboration between Yemin Orde, Rollins School of Public Health, and the Global Health Institute.

A potential benefit resulting from this project is the formation of a collaborative relationship between Yemin Orde, Global Health Institute, and Rollins School of Public Health. There exists the potential for future public health students to have practicum experiences with Yemin Orde or other schools in its network. Students interested in education, nutrition, reproductive health, mental health, or overall immigrant and adolescent health could potentially work with Yemin Orde. Furthermore there could even be an opportunity for a team of students from different backgrounds (theology, clinical practice, public health, undergraduates, etc.) to collaborate on research topics such as gender equity, health communication and behavior, and religiosity. Other efforts by students could be focused on additional evaluations of current programs or capacity building for Yemin Orde.

Recommendations

Pilot Testing

As previously mentioned, Yemin Orde should be the pilot testing site for the workshop. Included with the curricula are surveys to be distributed to the students. The intention of these surveys is to evaluate whether or not the lessons affected the knowledge and attitudes of the students.

Surveys should be distributed before the workshop and after to establish whether there was a change in knowledge or attitudes towards tobacco and alcohol. A more robust pilot testing design would include a control group- that is a group of students surveyed who would not be directly exposed to the workshop. This would allow evaluators to determine more definitively whether or not the workshop itself had an impact on knowledge and attitudes rather than some other unknown effort or simply chance.

For example, if each grade level had six afterschool counseling groups, the intervention (the workshop) would be randomized to three of the groups for each grade. Surveys would be distributed simultaneously to all groups before and after the workshop, and the results would be compared. A concern in this design is leakage. It is possible for those in the intervention group to share information they've learned in the workshop with those in the control group. In the event that happens, the results of the pilot testing evaluation would be biased towards the null (i.e. the actual effect of the workshops would appear to be less than it actually is).

School Environment and Policy

The following recommendations are aimed at cultivating an environment, culture, and set of social norms at Yemin Orde in which tobacco and alcohol use are viewed as unhealthy behaviors. In short, the purpose of the curriculum and any administrative or environmental changes is to create an environment in which tobacco and alcohol use is perceived as unhealthy, or from another perspective, refraining from tobacco and alcohol use is considered healthy and popular.

Firstly, administrators, staff and residents at Yemin Orde may consider making the campus a tobacco free campus. Currently, the rules regarding tobacco use are unclear or largely unenforced. In the event that Yemin Orde decides to create rules surrounding student's smoking it would be important to create equivalent rules for those in the rest of the community.

Yemin Orde may also find it useful to contact nearby sellers of tobacco, alcohol or businesses which offer nargila. While there are laws restricting selling tobacco and alcohol to those under the age of 18, it was noted in many interviews that adherence to these laws is infrequent. Thus, explaining Yemin Orde's desire to improve the health of its students to businesses in a request to restricting access to these products to youth could be very helpful.

Another theme mentioned in many interviews was that of a home environment which is conducive to tobacco or alcohol use. Some of the largest predictors of adolescent tobacco and alcohol use are being part of peer or family spheres which condone these behaviors. It was mentioned frequently in interviews that families rarely restricted and in some cases supported tobacco and alcohol use among the youth. Thus, while use of these substances while at Yemin Orde may be controlled effectively, use while at home over weekends may be unrestricted. Beginning a dialogue of communicating the importance of healthy behavior to the families of students may assist in reducing tobacco and alcohol use.

A final suggestion is to encourage the creation of a student led group which focuses on tobacco and alcohol related activities or promotions to educate student's peers on healthy behaviors. Another action which could be taken is identifying individuals in the community with a passion or interest in preventing adolescent tobacco and alcohol use. Teachers, administrators, counselors, village residents, and especially students should be considered for these ambassador positions in which they are viewed as role models for the community in regards to healthy behavior. These role models can generate their own activities based on the way they perceive the needs of those around them as they are most familiar with their environment.

Encouraging the youth and the administration to take action in health education can increase the total community buy-in. As mentioned earlier in Chapter 2, many of the motivating factors for alcohol and tobacco use arise from social and environmental factors. This can enhance the effectiveness of the curriculum by allowing those who are targeted for the intervention to create a conducive setting for encouraging healthy behavior change.

Conclusions

This project began with the identification of a population with a public health problem with little in place to prevent risky health behaviors. Through reviewing literature and advisement from educators at Yemin Orde, a curriculum was developed with an evaluation plan to improve knowledge, attitudes and practices surrounding tobacco and alcohol use. The goal of improving health among immigrant students at youth villages can be further realized by continuing to improve curriculum. Furthermore, expanding and adapting the curriculum to additional schools as well as developing future collaborative efforts between Yemin Orde, Global Health Institute and the Rollins School of Public Health at Emory University can expand the public health impact of the project.

Bibliography

Aloise-Young, P. A., & Kaeppner, C. J. (2005). Sociometric Status as a Predictor of Onset and Progression in Adolescent Cigarette Smoking. *Nicotine & Tobacco Research*, 199-206.

Andrews, J. A., Hampson, S., & Peterson, M. (2010). Early Adolescent Cognitions as Predictors of Heavy Alcohol Use in High School. *Addictive Behaviors*.

Bank of Israel. (2007, April 11). *Bank of Israel*. Retrieved April 8, 2011, from http://www.bankisrael.gov.il/press/eng/070404/070404e.htm

Baron-Epel, O., Haviv-Messika, A., Tamir, D., Nitzan-Kaluski, D., & Green, M. (2004). Multiethnic Differences in Smoking in Israel. *European Journal of Public Health*, 384-389.

Ben-Sira, Z. (1992). Smoking Among Youth. *The Louis Guttman Israel Institute of Applied Social Research* .

Bonomo, Y., Bowes, G., Coffey, C., Carlin, J., & Patton, G. (2004). Teenage Drinking and the Onset of Alcohol Dependence. *Addiction*, 1520-1528.

CDC. (2010, July 20). *CDC*. Retrieved April 8, 2011, from http://www.cdc.gov/alcohol/fact-sheets/mens-health.htm http://www.cdc.gov/alcohol/fact-sheets/womens-health.htm http://www.cdc.gov/tobacco/basic_information/health_effects/index.htm

Chartier, K. G., Hesselbrock, M. N., & Hesselbrock, V. M. (2010). Development and Vulnerability Factors in Adolescent Alcohol Use. *Child and Adolescent Psychiatric Clinic of North America*, 493-504.

CIA. (2011, January 19th). *The World Factbook: Israel*. Retrieved January 24, 2011, from The CIA Library: https://www.cia.gov/library/publications/the-world-factbook/geos/is.html

Conrod, P., Castellanos, N., & Mackie, C. (2008). Personality-targeted Interventions Delay the Growth of Adolescent Drinking and Binge Drinking. *Journal of Child Psychology and Psychiatry*, 181-190.

Danielsson, A.-K., Wennberg, P., Tengstrom, A., & Romelsjo, A. (2010). Adolescent Alcohol Use Trajectories: Predictors and Subsequent Problems. *Addictive Behaviors*.

Education Kentucky. (2010, August 3). Retrieved April 14, 2011, from Education Kentucky: http://www.education.ky.gov/KDE/Instructional+Resources/Curriculum+Documents+and+Resources/Teaching+Tools/Combined+Curriculum+Documents/

Israeli Central Bureau of Statistics. (2007, December 6). *Israel Central Bureau of Statistics.* Retrieved April 8, 2011, from http://cbs.gov.il/shnaton58/st04_04.pdf

Jaffe, D. H., Savitsky, B., Zaistev, K., Hiss, J., & Peleg, K. (2009). Alcohol and Driver Fatalities in Israel: An Examination of the Current Problem. *Israel Medical Association Journal*, 725-729.

Latimer, W., & Zur, J. (2010). Epidemiologic Trends of Adolescent Use of Alcohol, Tobacco, and Other Drugs. *Child and Adolescent Psychiatric Clinic of North America*, 451-464.

Littlefield, A., Sher, K., & Wood, P. (2010). Do Change in Coping Motives Mediate the Relationship Between Personality Change and "Maturing Out" of Problem Drinking. *Journal of Abnormal Psychology*, 93-105.

Mackie, C. J., Conrod, P. J., Rijsdijk, F., & Eley, T. C. (2011). A Systematic Evauation and Validation of Subtypes of Adolescent Alcohol Use Motives: Genetic and Environmental Contributions. *Alcholism: Clinical and Experimental Research*.

Meijer, B., Branski, D., Knol, K., & Kerem, E. (1996). Cigarette Smoking Habits Among Schoolchildren. *Chest*, 921-926.

Miller, C. H., Burgoon, M., Grandpre, J. R., & Alvaro, E. M. (2006). Identifying Principal Risk Factors for the Initiation of Adolescent Smoking Behaviors: The Significance of Psychological Reactance. *Health Communication*, 241-252.

Neumark, Y. D., Lopez-Quintero, C., Grinshpoon, A., & Levinson, D. (2007). Alcohol Drinking Patterns and Prevalence of Alcohol-Abuse and Dependence in the Israel National Health Survey. *The Israel Journal of Psychiatry and Related Sciences*, 126-135.

Neumark, Y. D., Rahav, G., Teichman, M., & Hasin, D. (2001). Alcohol Drinking Patterns among Jewish and Arab Men and Women in Israel. *Journal of Studies on Alcohol*, 443-447.

Palti, H., Halevy, A., Epstein, Y., Knishkowy, B., Meir, M., & Adler, B. (1995). Concerns and Risk Behaviors and the Association Between them Among High-school students in Jerusaelm. *Journal of Adolescent Health*, 51-57.

Samuels, N. (2000). Attitudes towards Anti-Smoking Legislation in Israel: A Jerusalem Study. *Israel Medical Association Journal*, 507-509.

Schiff, M., Rahav, G., & Teichman, M. (2005). Israel 2000: Immigration and Gender Differences in Alcohol Consumption. *The American Journal on Addictions*, 234-247.

Sellers, D. (2006, February 8). *Greensburg K12 Curriculum*. Retrieved April 14, 2011, from Greensburg K12:

http://www.greensburg.k12.in.us/gchs/Curriculum/Family%20Consumer%20Science/Nutrition% 20and%20Wellness.pdf

Soffer, D., Zmora, O., Klausner, J. B., Szold, O., Givon, A., Halpern, P., et al. (2006). Alcohol Use among Trauma Victims Admitted to a Level 1 Trauma Center in Israel. *Israel Medical Association Journal*, 98-102.

Tyas, S. L., & Pederson, L. L. (1998). Psychosocial Factors Related to Adolescent Smoking: A Critical Review of the Literature. *Tobacco Control*, 409-420.

Varsano, S., Ganz, I., Eldor, N., & garenkin, M. (2003). Water-pipe Tobacco Smoking Among School Children in Israel: Frequencies, Habits, and Attitudes. *Harefuah*, 736-741.

WHO. (2003). *Core Health Indicators*. Retrieved January 24, 2011, from WHO Statistics: http://apps.who.int/whosis/database/core/core_select_process.cfm?strISO3_select=ALL&strInd icator_select=AlcoholConsumption&intYear_select=latest&language=english#

WHO. (2004). *WHO Global Status Report on Alcohol*. Retrieved April 14, 2011, from WHO: http://www.who.int/substance_abuse/publications/globalstatusreportalcoholprofiles/en/index. html

Wills, T. A., Gibbons, F. X., Gerrard, M., Sargent, J. D., Lee, H.-R., & Cin, S. D. (2010). Good Self-Control Moderates the Effect of Mass Media on Adolescent Tobacco and Alcohol Use: Tests with Studies of Children and Adolescents. *Health Psychology*, 539-549. Appendix A: 9th Year Curriculum

<u>Target Audience</u>: 9th and 10th grade students at Yemin Orde

Purpose: To empower and educate students at Yemin Orde in an effort to decreasing tobacco initiation/use and alcohol use/abuse to improve health.

Location to be Taught: The workshop will be held on the premises of Yemin Orde during already established informal afterschool education groups of 12-20 youth led by a counselor.

<u>Time Frame</u>: This is a 3-session workshop to be taught for three consecutive afternoons. It will be part of a larger pilot test which will evaluate the effectiveness of the workshop which could be expanded to other schools in the Yemin Orde network. Each session will take between 60 and 90 minutes.

Measurement: Surveys will be given before the workshop begins and after it ends. The surveys will be designed to determine baseline knowledge, attitudes and practices surrounding tobacco and alcohol use and eventually determine if the workshop had an impact on these.

Learning Goals:

Session 1: Tobacco and Alcohol Health 101

- a.) To educate youth on the basic health effects of tobacco and alcohol use.
- **b.)** To discuss associated costs, behavioral, and social effects associated with tobacco and alcohol use.
- c.) To educate youth on the addictive properties of tobacco and alcohol.

Session 2: Under Pressure

- **a.)** To discuss reasons why youth start smoking or drinking and the extent of peer tobacco use.
- **b.)** To discuss how peer pressure works.
- **c.)** To discuss how expectations of effects from substance use may not be accurate.

Session 3: Saying No

- **a.)** To discuss and develop methods of resisting peer pressure.
- **b.)** To practice, through role-play, resisting peer pressure.

Session 1: Tobacco and Alcohol Health 101

Total Time: 90 minutes

Session within overall workshop: The school curriculum at Yemin Orde currently has very few to no lessons which are focused on health, much less the health effects of tobacco and alcohol. Thus, this session is designed to explain the health impacts of tobacco and alcohol use. Furthermore, this session seeks to explain some of the other effects of tobacco and alcohol use as well as explain the basics of addiction.

Session Summary: The session begins with an introduction by the facilitator and a survey distributed and filled out by each of the participants. Next, cards with either a tobacco fact or myth will be distributed to participants. Each will read their card and the remaining participants will vote on whether they feel the statement is a fact or a myth. Participants will also be given tobacco and alcohol health fact sheets to be read aloud to the group. The lesson will also include information on the contents of cigarettes, amounts of alcohol in common drinks, as well as the addictive properties of these substances.

Goals:

- a.) To educate youth on the basic health effects of tobacco and alcohol use.
- **b.)** To discuss associated costs, behavioral, and social effects associated with tobacco and alcohol use.
- c.) To educate youth on the addictive properties of tobacco and alcohol.

Objectives:

a.) Identify 3 conditions for which tobacco use can put one at risk of.

b.) Identify 3 conditions for which alcohol use can put one at risk of.

- **c.)** Confirm that nicotine is present in all tobacco.
- **d.)** Confirm that nicotine is an addictive substance.

e.) Confirm that both tobacco and alcohol are highly addictive.

Activity	Materials	Time
1. Introduction and	Pre/Post-Test for each	15 Minutes
Pre/Post-Test	youth and pens/pencils	
2. Tobacco: Myth or	Myth or Fact cards, Tobacco	20 Minutes
Fact	Health Fact Sheet	
3. Nicotine, Tobacco	Tobacco Contents image,	20 Minutes
Contents and	Nicotine Brain image	
Addiction		
4. What is in a Drink?	Standard Drink Sheet	15 Minutes
5. Alcohol Health	Alcohol Health Fact Sheet	20 Minutes
Issues and addiction		

Time	Key Concept	Materials	Preparation
15 Minutes	The facilitator will	A copy of the	Be prepared with the
	introduce the intent of	Pre/Post-Test for	subjects covered in this
	the workshop and	each of the	workshop for the
	administer the	participants as well	introduction. Prepare
	Pre/Post-Test.	as pens/pencils for	copies of the Pre/Post-
		each.	Test for each participant
			as well as providing
			pens/pencils.

Activity 1: Introduction and Pre/Post-Test

Guiding Script

<u>Directions for the Facilitator</u>: Explain that the weekly sessions over the next month will cover the topics of tobacco and alcohol use among the participants. Each session will cover a different topic and participants will be involved in activities, games, and discussions. The facilitator should explain that the participants should feel comfortable discussing any personal experiences regarding the topics at hand. Furthermore, explain that nothing said during the session would cause a participant to be punished and that they should respect each other.

When the facilitator hands out the Pre/Post-Test, explain that there are no incorrect answers, the tests won't be "graded", and that the participants should answer the questions honestly. The intent of the test is to see if the workshop was helpful by administering the same test at the end of the workshop. Collect the tests once the participants complete it and ask if anyone has any questions before moving on to the next activity.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, complete the Pre/Post-Test honestly, and feel free to ask questions when they arise.

Key Concept	Materials	Preparation
There are often many	Tobacco Myth or	Prepare Tobacco
myths regarding the health	Fact cards for each	Myth or Fact cards
effects of tobacco use. This	of the participants,	by printing and
activity seeks to dispel	Tobacco Health	cutting them out as
some of these myths while	handout.	well as printing out
providing accurate health		the Tobacco Health
information regarding		handout.
tobacco use.		
	There are often many myths regarding the health effects of tobacco use. This activity seeks to dispel some of these myths while providing accurate health information regarding	There are often manyTobacco Myth ormyths regarding the healthFact cards for eacheffects of tobacco use. Thisof the participants,activity seeks to dispelTobacco Healthsome of these myths whilehandout.providing accurate healthinformation regarding

Activity 2: Tobacco Myths or Facts

Guiding Script

<u>Directions for the Facilitator</u>: Begin the activity by handing out a Myth or Fact card to each participant. Each participant will then, read aloud side A of their card. The rest of the group will then vote/discuss whether or not the statement is a myth or a fact. The reader will then read aloud side B of the card revealing the answer. Hand out a Tobacco Health sheet to each participant. Then, each participant will read aloud a fact from the sheet. End the activity by asking if any participants have any questions.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in reading aloud of Myth or Fact cards, participate in voting activity, read aloud Tobacco Health Handout, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	Demonstrate the harmful	Tobacco Contents	Print a Tobacco
	contents of tobacco	image, Nicotine	Contents image for
	(including Nicotine) and	Brain image.	each participant and
	the addictive qualities of		a COLOR copy of the
	tobacco products.		Nicotine Brain
			image.

Activity 3: Nicotine, Tobacco Contents, and Addiction

Guiding Script

<u>Directions for the Facilitator</u>: Begin the activity by handing out the Tobacco Contents Image. Have each participant read aloud a substance from the image. Explain to the participants that each of the contents is poisonous and that these poisons are consumed when one smokes tobacco of any kind. Also note that nicotine is an addictive substance within all tobacco products. Explain that all people are capable of being addicted to nicotine (and thus, tobacco) and that the addiction is very difficult to break. Those trying to quit smoking suffer from, among other things; anger, depression, weight gain, restlessness, and anxiety.

Pass around the Color Nicotine Brain images to the participants. Explain how the color blue in the images is nicotine and that after as little as a few puffs from a cigarette, the nicotine is already abundant in the brain. Furthermore, explain that 1 in 4 people will lose control over whether or not to continue to smoke after as little as 3 cigarettes and nearly half will lose control after smoking 5. End the session by asking if anyone has any questions. <u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in reading aloud the tobacco contents, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
15 Minutes	Demonstrate the	Standard Drink	Print the Standard
	equivalences between	Sheet	Drink Sheet.
	alcoholic drinks through a		
	standardization process.		

Activity 4: What is in a Drink?

Guiding Script

<u>Directions for the Facilitator</u>: The facilitator will begin the activity by probing participant's knowledge on the amount of alcohol in alcoholic drinks. The facilitator could ask:

- What is a drink?
- Give an example of a strong drink or a weak drink
- How many drinks does it take for one to get drunk

After briefly discussing this, pass around the Standard Drink Sheet. Explain to the participants that what constitutes a "drink" depends on many things such as size, alcohol content and type. Explain that a single beer, a glass of wine, and a shot or chaser of hard liquor all have equivalent effects on the body. The participants should be told that each of these is a "standard drink". The difference in the amount of alcohol by volume between types of beverages is even further exacerbated when one considers the typical volume purchased. A six pack of beer is approximately 6 drinks, while a bottle of wine is 5, and a bottle of liquor is 17.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, respond to probing questions by the facilitator, share any experiences or thoughts with the group, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	Explain the health effects	Alcohol Health Fact	Print a copy of both
	associated with alcohol	Sheet, Alcohol	the Alcohol Health
	use/abuse/addiction as well	Addiction Fact	Fact Sheet and
	as explaining the addictive	Sheet	Alcohol Addiction
	property of alcohol.		Fact Sheet for each
			participant.

Activity 5: Alcohol Health Issues and Addiction

Guiding Script

Directions for the facilitator: Begin this session by asking the participants if they can think of any negative health or social effects stemming from alcohol use. After a brief discussion, hand out the Alcohol Health Fact Sheet to the group. Have each participant read a fact from the sheet and leave time for questions or requests for clarification in between. Next, go on to explain that alcohol is a physically addictive substance. All individuals who misuse alcohol are at high-risk of alcohol dependence. Misuse can be defined as drinking to avoid problems, to try to feel better, feeling the need to drink often, or drinking to the extent that it affects your academic, professional, or social life. Hand out the Alcohol Addiction Fact sheet and again have students read aloud symptoms of withdrawal from alcohol.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in the group discussion on negative effects of alcohol use, read aloud Alcohol Health Fact Sheet and the Alcohol Addiction Fact Sheet, and feel free to ask questions as they arise.

Session 2: Under Pressure

Total Time: 60 minutes

Session within overall workshop: Interviews with Yemin Orde staff revealed both peer pressure and a desire to fit in as the most likely reason for initiation of smoking. Thus, this session will focus on discussing the reasons why youth feel the need to smoke or drink, how peer pressure works, and how expectations of tobacco and alcohol use may not be accurate.

Session Summary: The session begins with a summary of the past session and the introduction of the next topic, peer pressure. The session is largely discussion based in probing information on tobacco and alcohol related peer pressure from the participants. Sub-topics include how peer pressure works, how people feel when peer pressured, and how expectations surrounding one's response to peer pressure can be unrealistic.

Goals:

- **a.)** To discuss reasons why youth start smoking or drinking.
- **b.)** To discuss how peer pressure works.
- **c.)** To discuss how expectations of effects from substance use may not be accurate.

Objectives:

- a.) Identify 3 common reasons for tobacco or alcohol initiation.
- **b.)** Identify 2 ways in which peer pressure works.
- c.) Identify 3 incorrect expectations of tobacco or alcohol use.

Activity	Materials	Time
1. Introduction and	None needed	15 Minutes
Discussion		
2. How Does It Work?		20 Minutes
3. Expecting the		25 Minutes
Unlikely		

Time	Key Concept	Materials	Preparation
15 Minutes	Introduce the new lesson	None needed	Review some of the
	and begin a discussion on		health effects of
	the reasons for youth		tobacco and alcohol
	beginning tobacco or		use from the last
	alcohol use.		session. Review the
			current lesson and
			examples.

Activity 1: Introduction and Discussion

Guiding Script

<u>Directions for the facilitator:</u> Begin by reviewing some of the negative health effects of using tobacco and alcohol which were discussed in the previous session. Also reiterate the fact that tobacco and alcohol are both addictive. Next, begin the new session by introducing the lesson's topic as peer pressure. Ask participants what peer pressure means to them. After recommendations, or if there are none, define peer pressure as "influence from a group of people to change the way you think, feel, or act to become a part of that group". Ask if anyone can give an example of an instance where they felt (or exerted) peer pressure to smoke or drink. Ask youth reasons why their peers (or they themselves) use tobacco or alcohol. If not mentioned, examples are:

- To fit in
- To look cool or attractive
- To impress others
- Because a role model does so
- To feel better
- To forget their problems

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in peer pressure conversation, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	To discuss the ways peer	None needed.	Review lesson and
	pressure affects the		examples of peer
	participants.		pressure.

Activity 2: How Does It Work?

Guiding Script

<u>Directions for the facilitator:</u> Summarize the reasons why people may start smoking or drinking and explain how peer pressure can effect or motivate those reasons. Begin this activity by asking the participants how they imagine resisting peer pressure might make them feel. Common feelings and reasons for feeling pressured include:

- Fear of rejection
- Fear of being disliked
- Fear of being made fun of
- Simply do not know how to resist.

Ask the participants what types of things those applying peer pressure might say to make them feel that way. General statements might include:

- We don't want to be your friend anyway if you don't drink/smoke
- You aren't fun/cool
- It isn't bad anyways, adults just want to tell you what to do

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in the group discussion about peer pressure, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
25 Minutes	To discuss situations where	None needed.	Review the lesson
	succumbing to peer		and example
	pressure does not meet		expectations.
	one's expectations.		

Activity 3: Expecting the Unlikely

Guiding Script

<u>Directions for the facilitator</u>: Begin by summarizing what people who are peer pressuring others say and how it can make them feel. Then explain how the feelings arising from peer pressure are all expectations or assumptions of what would happen depending on how you respond. Ask participants how succumbing to peer pressure will benefit them. Examples include:

- Makes things more exciting
- Will impress others or make you more attractive
- Make you feel better or help solve or avoid your problems
- Make you less anxious or shy

Even though these are the expectations of what might happen if you smoke or drink, the reality can be quite different. Also, to achieve the above benefits, there are other things the participants could do. For example:

Expectation	Reality	Alternative Action
Make things	Drinking can make you	Ask the participants what things the
more exciting	depressed and both alcohol	like to do for fun? How exactly could
	and tobacco can make you	smoking or drinking make these
	more anxious.	things better?
Impress others	There's nothing impressive	Focus on your talents or positive
or make you	or attractive about smoking	personal characteristics that make
attractive	or drinking, especially the	you a good person, like being
	smell.	intelligent or kind.
Feel better	If you feel bad or sad, and	Share your troubles or experiences
about problems	drink, it can make you feel	with someone you trust, like a
or avoid them.	even worse, and can even	teacher, counselor, social worker or a
	lead to alcohol dependence.	friend.
Make less	Alcohol can make you more	To be less shy in social situations, try
anxious or shy	relaxed, but it can cause you	having topics ready to talk about like
	to have reduced judgment	sports, music, TV or school.
	and do things you might	
	regret like argue or fight with	
	others.	

End the lesson by summarizing some of the reasons why people begin smoking or drinking, what they were likely expecting to gain because of these reasons, and how these expectations aren't realistic and that there are better alternatives to gain those benefits.

<u>Directions for the participants:</u> Listen attentively to the facilitator, participate in the group discussion about expectations, and feel free to ask questions as they arise.

Session 3: Saying No

Total Time: 60 minutes

Session within overall workshop: Thus far in the workshop, the health effects of tobacco and alcohol use have been explained as well as common reasons for initiating use of those substances. In this session, participants will practice and experience simulated situations through role-plays with their peers.

Session Summary: This session will primarily consist of role-plays with the participants. The facilitator will act out a scenario in which they resist peer pressure to smoke. Next the group will discuss other methods of declining the advances of someone applying peer pressure. Finally, groups of participants will perform role-plays in front of the class with some discussion in between each.

Goals:

a.) To discuss and develop methods of resisting peer pressure.

b.) To practice, through role-play, resisting peer pressure.

Objectives:

a.) Identify scenarios where peer pressure is being applied

b.) Identify effective methods of resisting peer pressure.

Activity	Materials	Time
1. Facilitator role-play	None needed.	10 Minutes
and introduction.		
2. Situation	-	15 Minutes
Brainstorm		
3. Act out role-plays	Role-play Scenarios	35 Minutes

Time	Key Concept	Materials	Preparation
10 Minutes	To see a person successfully	None needed.	Be prepared for a
	resist peer pressure and		role-play scenario in
	introduce the day's lesson.		which you have to
			resist pressure to
			smoke.

Activity 1: Facilitator Role-Play and Introduction

Guiding Script

<u>Directions for the facilitator</u>: The facilitator will begin this session by selecting a participant (or volunteer) to assist in a role-play. The participant will play the role of the "peer pressure applier" and the facilitator will be resisting. Ask the participant to pretend the facilitator is a peer and then attempt to pressure them into smoking. Explain to the participant that they should be aggressive in pressuring you to smoke. After a short exchange, simply walk away from the situation and end the role-play. Ask the rest of the group to discuss what happened. How did the participant try to pressure the facilitator into smoking? How did the facilitator say no? What was the end result?

Conclude the activity by explaining the lesson's topic today: role-playing and peer pressure. Explain that the participants will engage in thinking of peer pressure resistance tactics and role-play practices.

<u>Directions for the participants:</u> Listen attentively to the role-play, participate in the group discussion afterwards, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
15 Minutes	To allow the participants to	None needed.	Review the lesson
	think of ways they can		contents and be
	resist peer pressure.		prepared to assist in
			brainstorming ideas.

Activity 2: Situation Brainstorm

Guiding Script

<u>Directions for the facilitator</u>: Begin this activity by asking the participants to think of ways in which they can resist peer pressure, similar to that in the previous role-play. Explain that they should not feel scared and have the power to say no, in any way they see fit. Important details include looking the person applying the peer pressure in the eyes, to stand up tall, and firmly say "No" and stick to it. Mention that an individual who is treating you this way may not be a good friend to have anyways and the participants shouldn't be worried about what they think.

<u>Directions for the participants:</u> Listen attentively to the facilitator, participate in brainstorming ways to resist peer pressure, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
35 Minutes	Allow the participants to	Role-play scenarios	Print and cut out the
	actively practice and		role-play scenarios
	observe in resisting peer		
	pressure.		

Activity 3: Act out Role-Plays

Guiding Script

<u>Directions for the facilitator</u>: Have the participants get into small groups of 2 or 3 and hand out a scenario to each of the small groups. Allow them to read and discuss their scenarios and who will play what role for about 5 minutes. Next have each small group act out the scenario. Each small group should talk about how the scenario makes them feel and act out how the scenario may turn out. Then discuss the following:

- What did you see?
- What was said?
- What was good about the scenario? What was bad? What could they have done differently to resist peer pressure?

End the session by summing up the whole workshop. Tobacco and alcohol are harmful and addictive substances. Peer pressure can be applied in a number of ways, and can often make you feel uncomfortable or scared to resist. However, the benefits of resisting peer pressure far outweigh the perceived expectations of succumbing to it. Saying no to peer pressure is easy also. While you may be scared to lose a friend or to be made fun of, but you will be better off without friends like that and will be healthier without smoking and drinking. <u>Directions for the participants:</u> Listen attentively to the facilitator, participate in the group role-play scenarios, participate in the discussion, and feel free to ask questions as they arise.

<u>Handouts</u>

Pre/Post-Test

- 1. Age:
- 2. Gender:
- 3. Country your parents are from:
- 4. Language spoken at home:

Determine whether the following statements are true or false

- 5. Smoking cigarettes is bad for your health.
- 6. Smoking nargila is bad for your health.
- 7. Being around people who smoke is bad for your health.
- 8. Drinking alcohol can be bad for your health.
- 9. All tobacco products have nicotine in them.
- 10. Nicotine is a very addicting substance.
- 11. People who drink too much alcohol can become addicted.
- 12. Drinking alcohol makes whatever you are doing more exciting.
- 13. Drinking alcohol will make you feel better about your problems.
- 14. Smoking tobacco or drinking alcohol is a good way to make good friends.
- 15. The following story is an example of peer pressure.

A new boy joins Yemin Orde. He doesn't have anyone to talk to and seems to be shy. A group of kids who are smoking approach him and ask if he wants to join.

16. The following story gives a good example of a way to resist peer pressure.

After being approached by the group of smoking kids and offered to smoke, the boy avoids eye contact with the group and whispers no. The group begins to make fun of the boy, and eventually he agrees to smoke.

17. Smoking makes you more likely to (circle all correct answers):

Get cancer	Make friends	Make money
Look good	Be stressed	Die

18. Drinking a lot makes you more likely to (circle all correct answers):

Impress others	Have liver failure	Be intelligent
Be forgetful	Become popular	Become addicted to alcohol

- 19. Many people start smoking tobacco or drinking alcohol because (circle all correct answers):
- A. They think it makes them look cool.
- B. They think it will make the fit in with other people.
- C. They think it impresses others.
- D. It is healthy
- 20. People sometimes feel pressured by their peers to smoke tobacco or drink alcohol because (circle all correct answers):
- A. They are afraid of being made fun of by others.
- B. People are never pressured to smoke or drink.
- C. Because they don't know how to say no.
- D. They don't want to be rejected by a group of people who do those things.

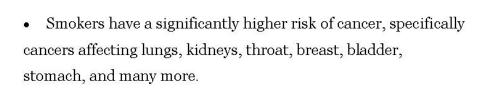
The tobacco in nargila is not addicting, only	Myth! ALL tobacco products contain nicotine and
cigarettes.	are addicting. This means pipe tobacco, nargila,
	cigarettes, and cigars.
You have to smoke a lot of cigarettes to become	<u>Myth!</u> It can take as few as 3 cigarettes to become
addicted.	addicted.
Smoking tobacco through a water pipe is not	<u>Myth!</u> Smoking tobacco through a water pipe is
harmful to your health, the water makes it OK.	still harmful for your health. There is no healthy
	way to smoke any tobacco products.
Smoking tobacco can put you at an increased risk	True! All tobacco use puts you at risk of a
for many diseases. These include many cancers,	multitude of negative health effects. There are NO
lung disease, heart disease, oral disease, and	benefits to using tobacco.
death.	
Smoking tobacco will make me more popular and	Myth! The idea that smoking will make you cool or
attractive.	impress others has been developed by tobacco
	companies to get people to start smoking and is
	not true.
Smoking can cost an individual a great deal of	True! A lifetime of smoking will cost a huge
money.	amount of money on tobacco. The cost of tobacco
	has risen consistently over the years. Also, when
	you consider hospital bills and time lost to work
	due to being sick, it costs even more.

Tobacco Myth or Fact Cards

The nicotine in tobacco is put there by humans. If	Myth! Nicotine naturally occurs in all tobacco.
I smoke all-natural tobacco then it won't be	However, it is true that tobacco companies add
addicting.	even more nicotine to their products to increase
	the addiction smokers have.
There is no point in quitting smoking once you	Myth! The benefits of quitting exist no matter how
have started.	long you have been smoking.
Cigarettes sold that say "Light" on the package	Myth! So-called "Light" cigarettes are just as
are healthier than regular cigarettes.	dangerous to your health as regular cigarettes.
People who die early from smoking only loose a	Myth! Smokers die approximately 14 years earlier
couple of unhealthy years at the end of life	than non-smokers!
anyways.	
Second-hand smoke, that is smoke you inhale	True! Second-hand smoke is harmful to your
when someone around you smokes, is harmful.	health as well. Especially younger people.

Tobacco Health Fact Sheet



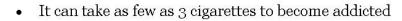


Smokers on average, die 14 years sooner than non-smokers.

- Smokers are more likely to become ill, specifically contracting the flu
- Smoking increases risk of heart attacks, stroke, and other heart disease

•

• Smoking increases the risk of kidney failure

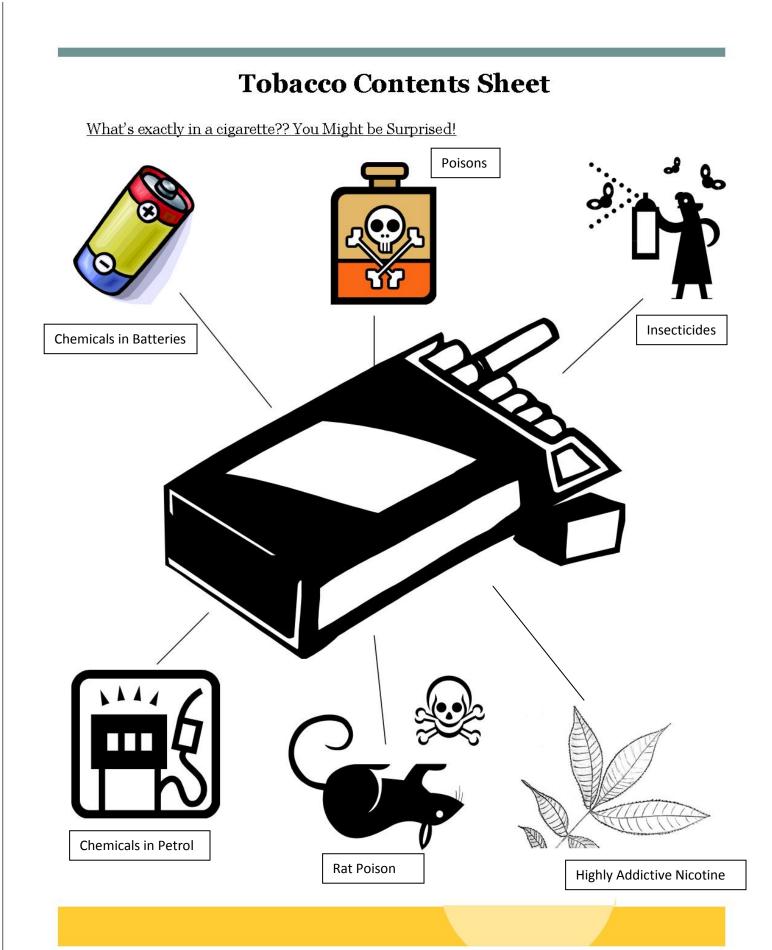




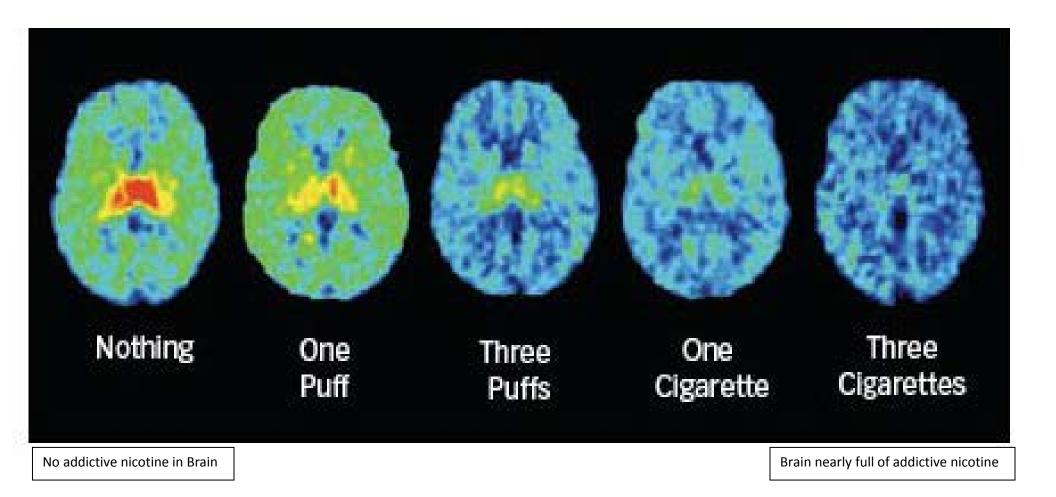


- Smokers are 3 times as likely to lose teeth
- Smokers are more likely to be infertile
- Smokers self-reported a lesser quality sex life than that of non-smokers
- Smokers are more likely to be stressed
- Smoking while pregnant can cause miscarriage or otherwise threaten the baby
- Smoking nargila is just as harmful as smoking cigarettes





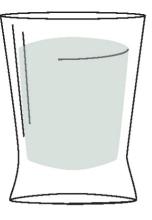
Nicotine Brain Image¹



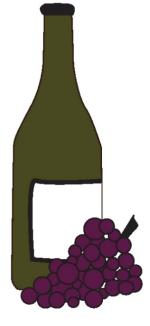
¹ <u>http://whyquit.com/whyquit/LinksAAddiction.html</u>

Standard Drink Sheet

The amount of alcohol in a bottle of beer is the same amount of alcohol found in a glass of wine or a chaser of liquor. Each one should be considered 1 Drink.









A 6-Pack of Beer is 6 Drinks

A Bottle of Wine is 5 Drinks

A Bottle of Arak or Vodka is 17 Drinks

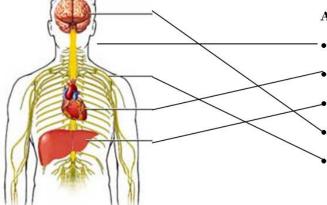
Alcohol Health Fact Sheet

Abusing Alcohol can put you at Risk of.....

- Diabetes
- Bad memory
- Hepatitis
- Anxiety and panic
- Diseases of the stomach and pancreas







And...

- Cancers of the mouth and throat
- Alcohol related heart failure
- Cirrhosis of the liver
- Poor mental development
- Addiction to alcohol and alcohol withdrawal

Symptoms of Alcohol withdrawal include.....

- Headaches
- Easily annoyed
- Depression
- Headaches
- Vomiting
- Loss of sleep
- Tremors and weakness



Role-Playing Scenarios

- The scenario starts with all but one of the group members pretending to smoke.
 The one group member who is not smoking is offered a cigarette by the rest of the group.
- You are at school and a group of friends dare you to skip class with them to smoke some cigarettes.
- You are at a big party. Everyone there appears to be smoking and drinking alcohol. A group of peers across the room who are smoking and drinking are looking at you and laughing and pointing.
- You are studying really hard for your upcoming matriculation exam which is the next day. A group of friends is trying to get you to go hang out and drink some vodka they brought in. It is important for you to pass the exam, but you think they will make fun of you if you don't go.

Appendix B: 10th and 11th Year Curriculum **Target Audience:** 10th and 11th year students at Yemin Orde

Purpose: To empower and educate students at Yemin Orde in an effort to decreasing tobacco initiation/use and alcohol use/abuse to improve health.

Location to be Taught: The workshop will be held on the premises of Yemin Orde during already established informal afterschool education groups of 12-20 youth led by a counselor.

<u>Time Frame</u>: This is a 3-session workshop to be taught for three consecutive afternoons. It will be part of a larger pilot test which will evaluate the effectiveness of the workshop which could be expanded to other schools in the Yemin Orde network. Each session will take between 60 and 90 minutes.

<u>Measurement</u>: Surveys will be given before the workshop begins and after it ends. The surveys will be designed to determine baseline knowledge, attitudes and practices surrounding tobacco and alcohol use and eventually determine if the workshop had an impact on these.

Learning Goals:

Session 1: Tobacco and Alcohol Health 101

- **a.)** To educate youth on the basic health effects of tobacco and alcohol use.
- **b.)** To discuss associated costs, behavioral, and social effects associated with tobacco and alcohol use.
- **c.)** To educate youth on the addictive properties of tobacco and alcohol.

Session 2: Costs and (Dis)Benefits

a.) To discuss the cost-benefits of using alcohol and tobacco.

Session 3: Rephrasing Pressure

- **a.)** To explain the concept of appreciative inquiry
- **b.)** To discuss how appreciative inquiry can help resist peer-pressure.

<u>Session 1: Tobacco and Alcohol Health 101</u> **Total Time:** 90 minutes

Session within overall workshop: The school curriculum at Yemin Orde currently has very few to no lessons which are focused on health, much less the health effects of tobacco and alcohol. Thus, this session is designed to explain the health impacts of tobacco and alcohol use. Furthermore, this session seeks to explain some of the other effects of tobacco and alcohol use as well as explain the basics of addiction.

Session Summary: The session begins with an introduction by the facilitator and a survey distributed and filled out by each of the participants. Next, cards with either a tobacco fact or myth will be distributed to participants. Each will read their card and the remaining participants will vote on whether they feel the statement is a fact or a myth. Participants will also be given tobacco and alcohol health fact sheets to be read aloud to the group. The lesson will also include information on the contents of cigarettes, amounts of alcohol in common drinks, as well as the addictive properties of these substances.

Goals:

- a.) To educate youth on the basic health effects of tobacco and alcohol use.
- **b.)** To discuss associated costs, behavioral, and social effects associated with tobacco and alcohol use.
- c.) To educate youth on the addictive properties of tobacco and alcohol.

Objectives:

a.) Identify 3 conditions for which tobacco use can put one at risk of.

b.) Identify 3 conditions for which alcohol use can put one at risk of.

- **c.)** Confirm that nicotine is present in all tobacco.
- **d.)** Confirm that nicotine is an addictive substance.

e.) Confirm that both tobacco and alcohol are highly addictive.

Activity	Materials	Time
1. Introduction and	Pre/Post-Test for each	15 Minutes
Pre/Post-Test	youth and pens/pencils	
2. Tobacco: Myth or	Myth or Fact cards, Tobacco	20 Minutes
Fact	Health Fact Sheet	
3. Nicotine, Tobacco	Tobacco Contents image,	20 Minutes
Contents and	Nicotine Brain image	
Addiction		
4. What is in a Drink?	Standard Drink Sheet	15 Minutes
5. Alcohol Health	Alcohol Health Fact Sheet	20 Minutes
Issues and addiction		

Key Concept	Materials	Preparation
The facilitator will	A copy of the	Be prepared with the
introduce the intent of	Pre/Post-Test for	subjects covered in this
the workshop and	each of the	workshop for the
administer the	participants as well	introduction. Prepare
Pre/Post-Test.	as pens/pencils for	copies of the Pre/Post-
	each.	Test for each participant
		as well as providing
		pens/pencils.
	The facilitator will introduce the intent of the workshop and administer the	The facilitator willA copy of theintroduce the intent ofPre/Post-Test forthe workshop andeach of theadminister theparticipants as wellPre/Post-Test.as pens/pencils for

Activity 1: Introduction and Pre/Post-Test

Guiding Script

<u>Directions for the Facilitator</u>: Explain that the weekly sessions over the next month will cover the topics of tobacco and alcohol use among the participants. Each session will cover a different topic and participants will be involved in activities, games, and discussions. The facilitator should explain that the participants should feel comfortable discussing any personal experiences regarding the topics at hand. Furthermore, explain that nothing said during the session would cause a participant to be punished and that they should respect each other.

When the facilitator hands out the Pre/Post-Test, explain that there are no incorrect answers, the tests won't be "graded", and that the participants should answer the questions honestly. The intent of the test is to see if the workshop was helpful by administering the same test at the end of the workshop. Collect the tests once the participants complete it and ask if anyone has any questions before moving on to the next activity.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, complete the Pre/Post-Test honestly, and feel free to ask questions when they arise.

Key Concept	Materials	Preparation
There are often many	Tobacco Myth or	Prepare Tobacco
myths regarding the health	Fact cards for each	Myth or Fact cards
effects of tobacco use. This	of the participants,	by printing and
activity seeks to dispel	Tobacco Health	cutting them out as
some of these myths while	handout.	well as printing out
providing accurate health		the Tobacco Health
information regarding		handout.
tobacco use.		
	There are often many myths regarding the health effects of tobacco use. This activity seeks to dispel some of these myths while providing accurate health information regarding	There are often manyTobacco Myth ormyths regarding the healthFact cards for eacheffects of tobacco use. Thisof the participants,activity seeks to dispelTobacco Healthsome of these myths whilehandout.providing accurate healthinformation regarding

Activity 2: Tobacco Myths or Facts

Guiding Script

<u>Directions for the Facilitator</u>: Begin the activity by handing out a Myth or Fact card to each participant. Each participant will then, read aloud side A of their card. The rest of the group will then vote/discuss whether or not the statement is a myth or a fact. The reader will then read aloud side B of the card revealing the answer. Hand out a Tobacco Health sheet to each participant. Then, each participant will read aloud a fact from the sheet. End the activity by asking if any participants have any questions.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in reading aloud of Myth or Fact cards, participate in voting activity, read aloud Tobacco Health Handout, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	Demonstrate the harmful	Tobacco Contents	Print a Tobacco
	contents of tobacco	image, Nicotine	Contents image for
	(including Nicotine) and	Brain image.	each participant and
	the addictive qualities of		a COLOR copy of the
	tobacco products.		Nicotine Brain
			image.

Activity 3: Nicotine, Tobacco Contents, and Addiction

Guiding Script

<u>Directions for the Facilitator</u>: Begin the activity by handing out the Tobacco Contents Image. Have each participant read aloud a substance from the image. Explain to the participants that each of the contents is poisonous and that these poisons are consumed when one smokes tobacco of any kind. Also note that nicotine is an addictive substance within all tobacco products. Explain that all people are capable of being addicted to nicotine (and thus, tobacco) and that the addiction is very difficult to break. Those trying to quit smoking suffer from, among other things; anger, depression, weight gain, restlessness, and anxiety.

Pass around the Color Nicotine Brain images to the participants. Explain how the color blue in the images is nicotine and that after as little as a few puffs from a cigarette, the nicotine is already abundant in the brain. Furthermore, explain that 1 in 4 people will lose control over whether or not to continue to smoke after as little as 3 cigarettes and nearly half will lose control after smoking 5. End the session by asking if anyone has any questions. <u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in reading aloud the tobacco contents, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
15 Minutes	Demonstrate the	Standard Drink	Print the Standard
	equivalences between	Sheet	Drink Sheet.
	alcoholic drinks through a		
	standardization process.		

Activity 4: What is in a Drink?

Guiding Script

<u>Directions for the Facilitator</u>: The facilitator will begin the activity by probing participant's knowledge on the amount of alcohol in alcoholic drinks. The facilitator could ask:

- What is a drink?
- Give an example of a strong drink or a weak drink
- How many drinks does it take for one to get drunk

After briefly discussing this, pass around the Standard Drink Sheet. Explain to the participants that what constitutes a "drink" depends on many things such as size, alcohol content and type. Explain that a single beer, a glass of wine, and a shot or chaser of hard liquor all have equivalent effects on the body. The participants should be told that each of these is a "standard drink". The difference in the amount of alcohol by volume between types of beverages is even further exacerbated when one considers the typical volume purchased. A six pack of beer is approximately 6 drinks, while a bottle of wine is 5, and a bottle of liquor is 17.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, respond to probing questions by the facilitator, share any experiences or thoughts with the group, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	Explain the health effects	Alcohol Health Fact	Print a copy of both
	associated with alcohol	Sheet, Alcohol	the Alcohol Health
	use/abuse/addiction as well	Addiction Fact	Fact Sheet and
	as explaining the addictive	Sheet	Alcohol Addiction
	property of alcohol.		Fact Sheet for each
			participant.

Activity 5: Alcohol Health Issues and Addiction

Guiding Script

<u>Directions for the facilitator</u>: Begin this session by asking the participants if they can think of any negative health or social effects stemming from alcohol use. After a brief discussion, hand out the Alcohol Health Fact Sheet to the group. Have each participant read a fact from the sheet and leave time for questions or requests for clarification in between. Next, go on to explain that alcohol is a physically addictive substance. All individuals who misuse alcohol are at high-risk of alcohol dependence. Misuse can be defined as drinking to avoid problems, to try to feel better, feeling the need to drink often, or drinking to the extent that it affects your academic, professional, or social life. Hand out the Alcohol Addiction Fact sheet and again have students read aloud symptoms of withdrawal from alcohol.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in the group discussion on negative effects of alcohol use, read aloud Alcohol Health Fact Sheet and the Alcohol Addiction Fact Sheet, and feel free to ask questions as they arise.

Session 2: Costs and (Dis)Benefits Total Time: 60 minutes

Session within overall workshop: Israel, like the U.S., has increasingly taxed alcohol and tobacco products (though at a lower rate). This session is designed to illustrate the direct and indirect opportunity costs of using alcohol and tobacco are.

Session Summary: The session begins with a review of the previous session and the introduction of the day's lesson. Next, participants will play a cost game in which they determine the costs of smoking and list other things they could spend an equivalent amount of money on. Finally, participants will be given handouts listing the health and social effects of tobacco and alcohol use/abuse. Then they will quantify the "benefits" and compare them to the previous activity.

Goal:

a.) To discuss the cost-benefits of using alcohol and tobacco.

Objective:

a.) Identify tobacco use and alcohol abuse as costly actions with no benefit.

Activity	Materials	Time
1.) Introduction	None	10 Minutes
2.) Cost Game	Cigarette Cost Sheet	25 Minutes
3.) "Benefit"	Tobacco & Alcohol	25 Minutes
Discussion	"Benefits" Sheet	

Activity 1: Introduction

Time	Key Concept	Materials	Preparation
10 Minutes	To review Session 1 and	None	Review Session and
	introduce the day's lesson		be prepared to
			answer questions.

Guiding Script

<u>Directions for the facilitator</u>: Begin the session by reviewing the key concepts from the previous session on Alcohol and Tobacco Health. Key points are that the use of tobacco and alcohol is harmful to your health and are addictive behaviors. Then, go on to summarize the current session. This session will focus on the costs of using tobacco and alcohol and how those costs compare to other ways one can spend their money.

<u>Directions for the participants</u>: Listen attentively to the facilitator and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
25 Minutes	To discuss the physical and	Cigarette Cost Sheet	Print out Cigarette
	monetary costs of tobacco		Cost Sheet for each
	use and other		participant; research
			the cost of a pack of
			cigarettes, bring
			writing utensils for
			participants.

Activity 2: Cost Game

Guiding Script

<u>Directions for the facilitator</u>: Begin the activity by handing out a Cigarette Cost Sheet for each participant. As a group, fill out the portion of the sheet regarding the costs of cigarettes. Note that this is not a mathematics exercise. Being exact in the calculations is not important and performing the activity as a group should help prevent any student from being concerned with such. After deciding the costs of cigarettes for each time period, have each participant come up with alternative ways in which to spend their money. Options could range from music and food at the low end to cell phones and other technology at the upper end. Ask participants to volunteer some of their answers for what they might like to purchase if they had each sum of money.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in discussion around the costs of cigarettes, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
25 Minutes	To discuss how the	Tobacco & Alcohol	Print out a Tobacco
	perceived "Benefits" of	"Benefits" Sheet	& Alcohol "Benefits"
	alcohol and tobacco use are		Sheet and cut out
	also costs.		each portion.

Activity 3: "Benefit" Discussion

Guiding Script

<u>Directions for the facilitator:</u> Begin this activity by explaining that the costs associated with drinking alcohol are similar to that of tobacco. Since the group has just discussed the costs associated with using tobacco and alcohol, now they will discuss and quantify the "benefits" of using these things. Hand out a cut out from the Tobacco & Alcohol "Benefits" Sheet to each participant (participants can get into groups if there are not enough handouts for all of them). Ask them to read their sheet and think (or discuss if they are in groups) about the cost associated with "benefit" listed. Do they consider it a positive or negative cost? Can they put a dollar amount on it? Considering the alternative (i.e. those "benefits" not happening) what advice might they give a friend who is considering using or is already using alcohol or tobacco.

Conclude the activity by summarizing the high cost of tobacco and alcohol use and that the "benefits" even further those costs. Furthermore, the group has discussed better ways to spend their time and money.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in giving a cost to the "benefits" of tobacco and alcohol use, and feel free to ask questions as they arise.

<u>Session 3: Appreciative Inquiry</u> **Total Time:** 60 minutes

Session within overall workshop: This session focuses on the concept of appreciative inquiry in an effort to improve self-efficacy and reduce the effect of outside pressure to use tobacco and alcohol.

Session Summary: This session begins with an introduction and explanation of appreciative inquiry followed by scenarios illustrating its effect. The session will conclude with a discussion on how appreciative inquiry can affect the way participants perceive peer pressure.

Goals:

a.) To explain the concept of appreciative inquiry

b.) To discuss how appreciative inquiry can help resist peer-pressure.

Objectives:

Activity	Materials	Time
1.) Introduction		10 Minutes
2.) Appreciative		30 Minutes
Inquiry	None	
3.) Rephrasing		20 Minutes
Pressure		

a.) Apply the concept of appreciative inquiry

Time	Key Concept	Materials	Preparation
15 Minutes	To review the past sessions	None	Review the day's
	and introduce the day's		session and be
	session.		prepared for
			questions.

Guiding Script

<u>Directions for the facilitator</u>: The facilitator will begin by reviewing the past two sessions on tobacco and alcohol health as well as the cost-benefit session. In summary, alcohol and tobacco health can negatively impact your health and social life and are addictive behaviors. Furthermore, tobacco and alcohol use incur significant costs and offer no benefit. Next, explain that the day's session will be on something called appreciative inquiry.

<u>Directions for the participants</u>: Listen attentively to the facilitator and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
30 Minutes	Explain the concept of	None	Review the scenarios
	appreciative inquiry and		and be prepared to
	illustrate it through short		facilitate the
	scenarios.		discussion.

Activity 2: Appreciative Inquiry

Guiding Script

<u>Directions for the facilitator:</u> Begin by explaining the concept of appreciative inquiry. Often in life people are posed questions or presented with problems, and asked to solve them. This method (called Problem Solving) while useful in many situations, can sometimes cause people to focus negatively on their surroundings and situations. In contrast, appreciative inquiry focuses on positive things like "What are we doing successfully?" and "What are my strengths?" By approaching situations from a positive angle you can build on your strengths and focus on envisioning a successful situation (or personal self).

Next have two volunteers who are willing to discuss their summer vacations. Have two other volunteers ask them questions about their summer. One will ask another questions from the problem solving perspective and the other will practice appreciative inquiry. Have the problem solving volunteer ask the following:

- Did you have any difficult times this summer?
- Weren't you bored over the summer? There was nothing to do!
- Well this summer didn't go well, what are you going to avoid doing next summer?

Next, have the appreciative inquiry volunteer ask the following:

- What were some really fun things you did this summer?
- I had a lot of spare time this summer to do anything I wanted. Describe something you did to relax or enjoy your friends.
- It sounds like you had a lot of fun during your vacation, what will you do more of to make the next one even better?

After this, the volunteers can return to the group.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in the exercise, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	To discuss how	None	
	appreciative inquiry can		
	affect the way we perceive		
	peer-pressure		

Activity 3: Rephrasing Pressure

Guiding Script

Directions for the facilitator: Explain how when the first person asked questions, they were in a negative way, which caused the person to answer in a negative way. This phrasing of questions in this way caused the group to feel as if the volunteer had a bad summer. Alternatively, the second person asked questions in a positive way, causing the other to answer positively as well. In comparing the two, the second sounded as if they had a better summer although they may not have. Ask the group what some of the benefits of approaching situations through appreciative inquiry might be. Next, ask how appreciative inquiry might be related to peer-pressure. Often, peer-pressure is presented in a negative way. People feel if they don't do something, then something bad will happen. Alternatively, you can use appreciative inquiry to focus on the good things that could happen if you don't succumb to peer-pressure.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in the group discussion, and feel free to ask questions as they arise.

<u>Handouts</u>

Pre/Post-Test

- 1. Age:
- 2. Gender:
- 3. Country your parents are from:
- 4. Language spoken at home:

Determine whether the following statements are true or false

- 5. Smoking cigarettes is bad for your health.
- 6. Smoking nargila is bad for your health.
- 7. Being around people who smoke is bad for your health.
- 8. Drinking alcohol can be bad for your health.
- 9. All tobacco products have nicotine in them.
- 10. Nicotine is a very addicting substance.
- 11. People who drink too much alcohol can become addicted.
- 12. Drinking alcohol makes whatever you are doing more exciting.
- 13. Drinking alcohol will make you feel better about your problems.
- 14. Smoking tobacco or drinking alcohol is a good way to make good friends.
- 15. A pack of cigarettes is cheap, so smoking is not expensive.
- 16. Smoking makes you more likely to (circle all correct answers):

Get cancer	Make friends	Make money
Look good	Be stressed	Die

17. Drinking a lot makes you more likely to (circle all correct answers):

Impress others	Have liver failure	Be intelligent
Be forgetful	Become popular	Become addicted to alcohol

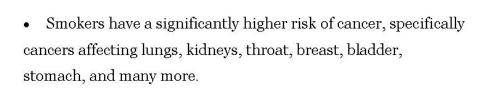
Tobacco Myth or Fact Cards

The tobacco in nargila is not addicting, only	<u>Myth!</u> ALL tobacco products contain nicotine and	
cigarettes.	are addicting. This means pipe tobacco, nargila,	
	cigarettes, and cigars.	
You have to smoke a lot of cigarettes to become	<u>Myth!</u> It can take as few as 3 cigarettes to become	
addicted.	addicted.	
Smoking tobacco through a water pipe is not	<u>Myth!</u> Smoking tobacco through a water pipe is	
harmful to your health, the water makes it OK.	still harmful for your health. There is no healthy	
	way to smoke any tobacco products.	
Smoking tobacco can put you at an increased risk	<u>True!</u> All tobacco use puts you at risk of a	
for many diseases. These include many cancers,	multitude of negative health effects. There are NO	
lung disease, heart disease, oral disease, and	benefits to using tobacco.	
death.		
Smoking tobacco will make me more popular and	<u>Myth!</u> The idea that smoking will make you cool or	
attractive.	impress others has been developed by tobacco	
	companies to get people to start smoking and is	
	not true.	
Smoking can cost an individual a great deal of	<u>True!</u> A lifetime of smoking will cost a huge	
money.	amount of money on tobacco. The cost of tobacco	
	has risen consistently over the years. Also, when	
	you consider hospital bills and time lost to work	
	due to being sick, it costs even more.	

The nicotine in tobacco is put there by humans. If	Myth! Nicotine naturally occurs in all tobacco.
I smoke all-natural tobacco then it won't be	However, it is true that tobacco companies add
addicting.	even more nicotine to their products to increase
	the addiction smokers have.
There is no point in quitting smoking once you	Myth! The benefits of quitting exist no matter how
have started.	long you have been smoking.
Cigarettes sold that say "Light" on the package	Myth! So-called "Light" cigarettes are just as
are healthier than regular cigarettes.	dangerous to your health as regular cigarettes.
People who die early from smoking only loose a	Myth! Smokers die approximately 14 years earlier
couple of unhealthy years at the end of life	than non-smokers!
anyways.	
Second-hand smoke, that is smoke you inhale	True! Second-hand smoke is harmful to your
when someone around you smokes, is harmful.	health as well. Especially younger people.

Tobacco Health Fact Sheet





Smokers on average, die 14 years sooner than non-smokers.

- Smokers are more likely to become ill, specifically contracting the flu
- Smoking increases risk of heart attacks, stroke, and other heart disease

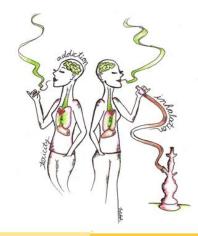
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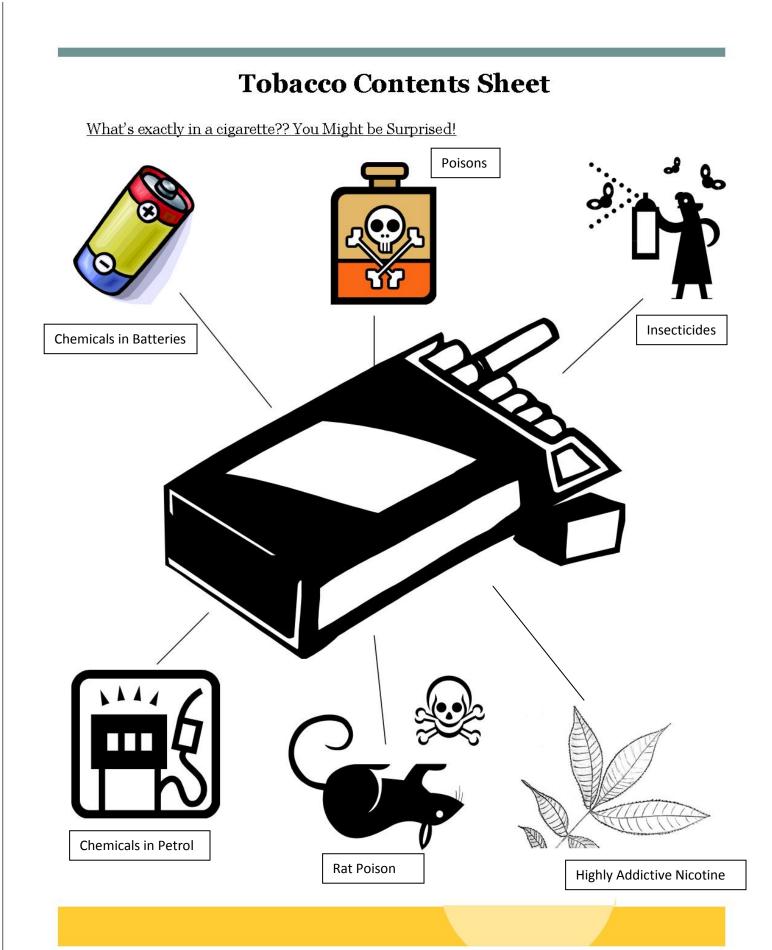
- Smoking increases the risk of kidney failure
- It can take as few as 3 cigarettes to become addicted



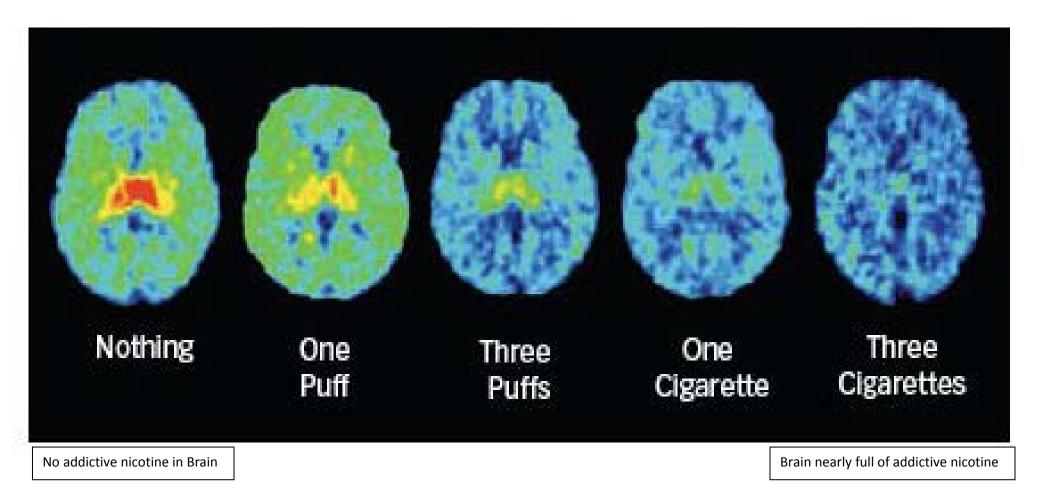


- Smokers are 3 times as likely to lose teeth
- Smokers are more likely to be infertile
- Smokers self-reported a lesser quality sex life than that of non-smokers
- Smokers are more likely to be stressed
- Smoking while pregnant can cause miscarriage or otherwise threaten the baby
- Smoking nargila is just as harmful as smoking cigarettes



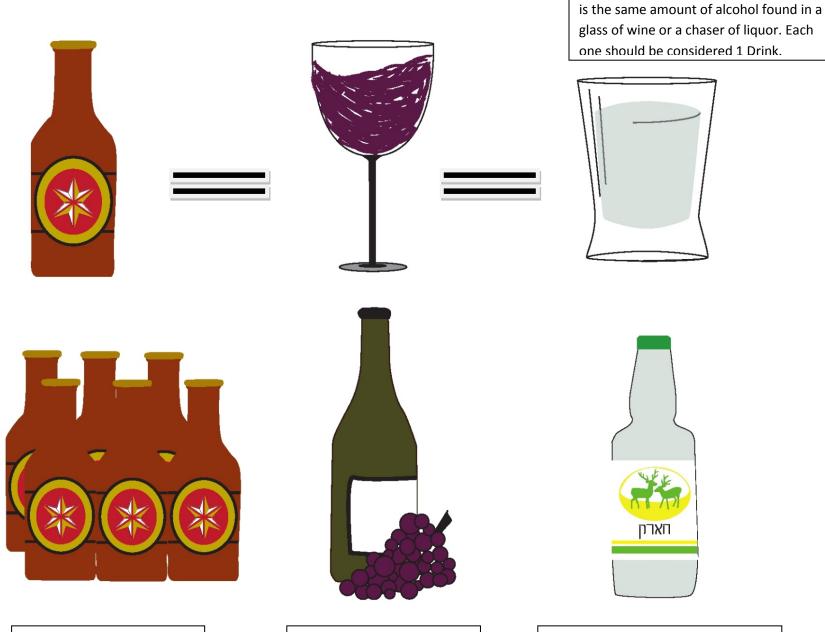


Nicotine Brain Image²



² <u>http://whyquit.com/whyquit/LinksAAddiction.html</u>

Standard Drink Sheet



A 6-Pack of Beer is 6 Drinks

A Bottle of Wine is 5 Drinks

A Bottle of Arak or Vodka is 17 Drinks

The amount of alcohol in a bottle of beer

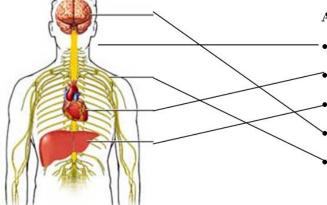
Alcohol Health Fact Sheet

Abusing Alcohol can put you at Risk of.....

- Diabetes
- Bad memory
- Hepatitis
- Anxiety and panic
- Diseases of the stomach and pancreas







And...

- Cancers of the mouth and throat
- Alcohol related heart failure
- Cirrhosis of the liver
- Poor mental development
- Addiction to alcohol and alcohol withdrawal

Symptoms of Alcohol withdrawal include.....

- Headaches
- Easily annoyed
- Depression
- Headaches
- Vomiting
- Loss of sleep
- Tremors and weakness



Role-Playing Scenarios

- The scenario starts with all but one of the group members pretending to smoke.
 The one group member who is not smoking is offered a cigarette by the rest of the group.
- You are at school and a group of friends dare you to skip class with them to smoke some cigarettes.
- You are at a big party. Everyone there appears to be smoking and drinking alcohol. A group of peers across the room who are smoking and drinking are looking at you and laughing and pointing.
- You are studying really hard for your upcoming matriculation exam which is the next day. A group of friends is trying to get you to go hang out and drink some vodka they brought in. It is important for you to pass the exam, but you think they will make fun of you if you don't go.

Cigarette Cost Sheet

How much does one pack of cigarettes cost?

What Could I Buy Instead?

How much does a pack of cigarettes a week cost?

How much does a pack of cigarettes a month cost?

How much does a pack of cigarettes a year cost?

Tobacco and Alcohol "Benefits" Sheet

- You often miss work due to a constant cough and ill feeling.
- You've lost friends because you've become unreliable due to an addiction to alcohol.
- You have a difficult time finding work as you struggle to present yourself acceptably and punctually at job interviews.
- The state of your oral health has declined from years of smoking tobacco.
- At an early age you are constantly going to see a physician due with serious respiratory illness.
- You can no longer play football with your friends because you struggle to keep up physically with the game.
- Anxiety and irritability from alcohol withdrawal make it difficult to hold a romantic relationship.
- Constant drinking to cope with stress and life problems further worsens these problems.
- While drunk you got in a fight with a stranger and lost your job because of the crime.
- You develop cancer at an early age and are unable to work to your full potential, placing a financial burden on your family.
- Constant smoking at home around your family causes them to be ill due to second-hand smoke.
- An addiction to alcohol causes you to spend the majority of your money on alcohol and neglect the rest of you and your family's needs.
- When you hang out with friends you struggle to keep up as the group walks around the city.

Appendix C: 12th Year Curriculum

<u>Target Audience:</u> 12th grade students at Yemin Orde

Purpose: To empower and educate students at Yemin Orde in an effort to decreasing tobacco initiation/use and alcohol use/abuse to improve health.

Location to be Taught: The workshop will be held on the premises of Yemin Orde during already established informal afterschool education groups of 12-20 youth led by a counselor.

<u>Time Frame</u>: This is a 3-session workshop to be taught for three consecutive afternoons. It will be part of a larger pilot test which will evaluate the effectiveness of the workshop which could be expanded to other schools in the Yemin Orde network. Each session will take between 60 and 90 minutes.

Measurement: Surveys will be given before the workshop begins and after it ends. The surveys will be designed to determine baseline knowledge, attitudes and practices surrounding tobacco and alcohol use and eventually determine if the workshop had an impact on these.

Learning Goals:

Session 1: Tobacco and Alcohol Health 101

- a.) To educate youth on the basic health effects of tobacco and alcohol use.
- **b.)** To discuss associated costs, behavioral, and social effects associated with tobacco and alcohol use.
- c.) To educate youth on the addictive properties of tobacco and alcohol.

Session 2: Code Exercise

- **a.)** To discuss reasons To have the youth self-identify the problem of smoking and drinking by youth
- **b.)** To have the youth discuss causes and results of youth smoking and drinking
- c.) To have the youth discuss methods of preventing youth smoking and drinking

Session 3: Pressure and Stress after Yemin Orde

- a.) To have youth actively participate in discussing feelings towards graduation
- **b.)** To have youth actively participate in discussing feelings towards military service
- c.) To have youth identify support networks to assist in this transition period

Session 1: Tobacco and Alcohol Health 101

Total Time: 90 minutes

Session within overall workshop: The school curriculum at Yemin Orde currently has very few to no lessons which are focused on health, much less the health effects of tobacco and alcohol. Thus, this session is designed to explain the health impacts of tobacco and alcohol use. Furthermore, this session seeks to explain some of the other effects of tobacco and alcohol use as well as explain the basics of addiction.

Session Summary: The session begins with an introduction by the facilitator and a survey distributed and filled out by each of the participants. Next, cards with either a tobacco fact or myth will be distributed to participants. Each will read their card and the remaining participants will vote on whether they feel the statement is a fact or a myth. Participants will also be given tobacco and alcohol health fact sheets to be read aloud to the group. The lesson will also include information on the contents of cigarettes, amounts of alcohol in common drinks, as well as the addictive properties of these substances.

Goals:

- **a.)** To educate youth on the basic health effects of tobacco and alcohol use.
- **b.)** To discuss associated costs, behavioral, and social effects associated with tobacco and alcohol use.
- c.) To educate youth on the addictive properties of tobacco and alcohol.

Objectives:

- **a.)** Identify 3 conditions for which tobacco use can put one at risk of.
- **b.)** Identify 3 conditions for which alcohol use can put one at risk of.
- **c.)** Confirm that nicotine is present in all tobacco.
- **d.)** Confirm that nicotine as an addictive substance.
- **e.)** Confirm that both tobacco and alcohol are highly addictive.

Activity	Materials	Time
1. Introduction and	Pre/Post-Test for each	15 Minutes
Pre/Post-Test	youth and pens/pencils	
2. Tobacco: Myth or	Myth or Fact cards, Tobacco	20 Minutes
Fact	Health Fact Sheet	
3. Nicotine, Tobacco	Tobacco Contents image,	20 Minutes
Contents and	Nicotine Brain image	
Addiction		
4. What is in a Drink?	Standard Drink Sheet	15 Minutes
5. Alcohol Health	Alcohol Health Fact Sheet	20 Minutes
Issues and addiction		

Time	Key Concept	Materials	Preparation
15 Minutes	The facilitator will	A copy of the	Be prepared with the
	introduce the intent of the	Pre/Post-Test for	subjects covered in
	workshop and administer	each of the	this workshop for
	the Pre/Post-Test.	participants as well	the introduction.
		as pens/pencils for	Prepare copies of the
		each.	Pre/Post-Test for
			each participant as
			well as providing
			pens/pencils.

Activity 1: Introduction and Pre/Post-Test

Guiding Script

<u>Directions for the Facilitator</u>: Explain that the weekly sessions over the next month will cover the topics of tobacco and alcohol use among the participants. Each session will cover a different topic and participants will be involved in activities, games, and discussions. The facilitator should explain that the participants should feel comfortable discussing any personal experiences regarding the topics at hand. Furthermore, explain that nothing said during the session would cause a participant to be punished and that they should respect each other.

When the facilitator hands out the Pre/Post-Test, explain that there are no incorrect answers, the tests won't be "graded", and that the participants should answer the questions honestly. The intent of the test is that participants will receive the same test at the end of the workshop to see if it was helpful. Collect the tests once the participants complete it and ask if anyone has any questions before moving on to the next activity.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, complete the Pre/Post-Test honestly, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
25 Minutes	There are often many	Tobacco Myth or	Prepare Tobacco
	myths regarding the health	Fact cards for each	Myth or Fact cards
	effects of tobacco use. This	of the participants,	by printing and
	activity seeks to dispel	Tobacco Health	cutting them out as
	some of these myths while	handout.	well as printing out
	providing accurate health		the Tobacco Health
	information regarding		handout.
	tobacco use.		

Activity 2: Tobacco Myths or Facts

Guiding Script

<u>Directions for the Facilitator</u>: Begin the activity by handing out a Myth or Fact card to each participant. Each participant will then, read aloud side A of their card. The rest of the group will then vote/discuss whether or not the statement is a myth or a fact. The reader will then read aloud side B of the card revealing the answer. Hand out a Tobacco Health sheet to each participant. Then, each participant will read aloud a fact from the sheet. End the activity by asking if any participants have any questions.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in reading aloud of Myth or Fact cards, participate in voting activity, read aloud Tobacco Health Handout, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	Demonstrate the harmful	Tobacco Contents	Print a Tobacco
	contents of tobacco	image, Nicotine	Contents image for
	(including Nicotine) and	Brain image.	each participant and
	the addictive qualities of		a COLOR copy of the
	tobacco products.		Nicotine Brain
			image.

Activity 3: Nicotine, Tobacco Contents, and Addiction

Guiding Script

<u>Directions for the Facilitator</u>: Begin the activity by handing out the Tobacco Contents Image. Have each participant read aloud a substance from the image. Explain to the participants that each of the contents is poisonous and that these poisons are consumed when one smokes tobacco of any kind. Also note that nicotine is an addictive substance within all tobacco products. Explain that all people are capable of being addicted to nicotine (and thus, tobacco) and that the addiction is very difficult to break. Those trying to quit smoking suffer from, among other things; anger, depression, weight gain, restlessness, and anxiety.

Pass around the Color Nicotine Brain images to the participants. Explain how the color blue in the images is nicotine and that after as little as a few puffs from a cigarette, the nicotine is already abundant in the brain. Furthermore, explain that 1 in 4 people will lose control over whether or not to continue to smoke after as little as 3 cigarettes and nearly half will lose control after smoking 5. End the session by asking if anyone has any questions. <u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in reading aloud the tobacco contents, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
15 Minutes	Demonstrate the	Standard Drink	Print the Standard
	equivalences between	Sheet	Drink Sheet.
	alcoholic drinks through a		
	standardization process.		

Activity 4:What is in a Drink?

Guiding Script

Directions for the Facilitator: The facilitator will begin the activity by probing participant's knowledge on the amount of alcohol in alcoholic drinks. The facilitator could ask: "What is a drink" or "Give an example of a strong drink or a weak drink" and "How many drinks does it take for one to get drunk". After briefly discussing this, pass around the Standard Drink Sheet. Explain to the participants that what constitutes a "drink" depends on many things such as size, alcohol content and type. Explain that a single beer, a glass of wine, and a shot or chaser of hard liquor all have equivalent effects on the body. The participants should be told that each of these is a "standard drink". The difference in the amount of alcohol by volume between types of beverages is even further exacerbated when one considers the typical volume purchased. A six pack of beer is approximately 6 drinks, while a bottle of wine is 5, and a bottle of liquor is 17.

<u>Directions for the Participants</u>: Listen attentively to the facilitator, respond to probing questions by the facilitator, share any experiences or thoughts with the group, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
20 Minutes	Explain the health effects	Alcohol Health Fact	Print a copy of both
	associated with alcohol	Sheet, Alcohol	the Alcohol Health
	use/abuse/addiction as well	Addiction Fact	Fact Sheet and
	as explaining the addictive	Sheet	Alcohol Addiction
	property of alcohol.		Fact Sheet for each
			participant.

Activity 5: Alcohol Health Issues and Addiction

Guiding Script

<u>Directions for the facilitator</u>: Begin this session by asking the participants if they can think of any negative health or social effects stemming from alcohol use. After a brief discussion, hand out the Alcohol Health Fact Sheet to the group. Have each participant read a fact from the sheet and leave time for questions or requests for clarification in between. Next, go on to explain that alcohol is a physically addictive substance. All individuals who misuse alcohol are at high-risk of alcohol dependence. Misuse can be defined as drinking to avoid problems, to try to feel better, feeling the need to drink often, or drinking to the extent that it affects your academic, professional, or social life. Hand out the Alcohol Addiction Fact sheet and again have students read aloud symptoms of withdrawal from alcohol.

<u>Directions for the participants</u>: Listen attentively to the facilitator, participate in the group discussion on negative effects of alcohol use, read aloud Alcohol Health Fact Sheet and the Alcohol Addiction Fact Sheet, and feel free to ask questions as they arise.

Session 2: Code Exercise Total Time: 60 minutes

Session within overall workshop: This session is intended to allow the participants to actively discuss the issue of youth tobacco and alcohol use through the methodology of Paulo Freire.

Session Summary: This session is comprised of essentially one exercise, in which the group is shown an image chosen to invoke conversation surrounding the issue of smoking and drinking among youth. The facilitator's role in this exercise is largely to keep things moving, and less so in introducing new information. The majority of the discussion should be introduced by the group.

Goals:

- **a.)** To have the youth self-identify the problem of smoking and drinking by youth
- **b.)** To have the youth discuss causes and results of youth smoking and drinking
- c.) To have the youth discuss methods of preventing youth smoking and drinking

Objectives:

a.) Discuss the problems arising from youth smoking and drinking and ways to prevent these acts.

Activity	Materials	Time
1. Introduction and	Code Image	15 Minutes
show Code Image		
2. Group led	None	45 Minutes
discussion		

Time	Key Concept	Materials	Preparation
15 Minutes	To introduce the day's	Code Image	Review the session and
	lesson, the concept of		the concept of the
	the exercise, and the		exercise. Print off the
	Code Image		Code Image for the
			group.

Activity 1: Introduction and Code Image

Guiding Script

<u>Directions for the Facilitator</u>: Introduce how the day's lesson is designed to be largely led by the group. Explain that it will be important for the group to participate in the discussion and then hand out the Code Image. Ask the group to inspect the image for 5-10 minutes. Tell them to be aware of all the details in the image.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, inspect the image, and feel free to ask questions when they arise.

Time	Key Concept	Materials	Preparation
45 Minutes	For the group to	None	Review for the session
	identify the problem,		and be prepared to
	discuss the causes of it,		probe the group for
	and develop actions to		discussion in the event
	prevent the problem.		they don't participate.

Activity 2: Group Led Discussion

Guiding Script

<u>Directions for the Facilitator</u>: After the group has inspected the image in the previous activity, ask the following questions. It is important to give a significant amount of time between each question to give the group time to think and reflect on the questions. Make it clear that they are in charge of the conversation and are able to pose questions to the rest of the group.

- Ask the group to discuss what they see in the image, in detail. Encourage them to detail everything they see and use adjectives.
- 2. After the group has discussed the contents of the image, ask them what they think the problem is.
- Next ask them where and when they may have seen a similar situation in their life.
- 4. Next ask why this happens. Each time they give a reason why an event happens, ask them why *that* event happens to delve deeper into the issue.
- Next ask what can be done to prevent the problem. Also ask who has the ability to do something about it.

<u>Directions for the Participants:</u> Listen attentively to the facilitator; participate in driving the group discussion forward, respond to the questions asked by the facilitator, and feel free to pose questions to the rest of the group.

Session 3: Pressure and Stress after Yemin Orde

Total Time: 60 minutes

Session within overall workshop: This session is intended to address possible issues of stress and pressure management while in the military for the soon to graduate 12th graders.

Session Summary: A group discussion surrounding some of the feelings youth currently have regarding impending graduation and military service. The group will also discuss ways they may be able to manage these feelings and networks they can take advantage to aid in this as well.

Goals:

- a.) To have youth actively participate in discussing feelings towards graduation
- **b.)** To have youth actively participate in discussing feelings towards military service
- c.) To have youth identify support networks to assist in this transition period

Objectives:

- a.) Confirm the existence of support networks when youth are in times of need
- **b.)** Generate a method of managing emotions and stress

Activity	Materials	Time
1. Introduction	NT	10 Minutes
2. Discussion	None	25 Minutes
3. Managing Emotions		25 Minutes

Activity 1: Introduction

Time	Key Concept	Materials	Preparation
10 Minutes	Introduce the days	None	Review the session's
	lesson		contents

Guiding Script

Directions for the Facilitator: Quickly review the past two sessions by summarizing how the health effects of tobacco and alcohol use are negative and are both addictive. Furthermore, discuss how in the previous session the group identified youth tobacco and alcohol use as a problem and in this session, the group will discuss how those in the military might feel pressured to smoke.

<u>Directions for the Participants</u>: Listen attentively to the facilitator and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
25 Minutes	To discuss how	None	Review the session's
	participants might feel		content and be prepared
	about joining the		for questions and to
	military. What types of		probe the discussion.
	stress are they feeling?		
	What are they		
	expecting?		

Activity 2: Group Discussion

Guiding Script

<u>Directions for the Facilitator:</u> Begin the activity by discussing how the group feels about their upcoming military service. What emotions are they feeling? Excitement, anxiety, stress? Sad about leaving Yemin Orde and maybe their friends? Excited about being more independent? How might all of these feelings make the group more likely to smoke cigarettes.

<u>Directions for the Participants</u>: Listen attentively to the facilitator, participate in the group discussion on military service, and feel free to ask questions as they arise.

Time	Key Concept	Materials	Preparation
25 Minutes	To discuss possible	None	Review the session's
	ways of handling the		content and be prepared
	emotions they expect to		for questions and to
	arise when joining the		probe the discussion.
	military.		

Activity 3: Managing Emotions

Guiding Script

Directions for the Facilitator: After discussing how the participants are expecting to feel or may already be feeling about graduating school and moving on to the military; begin discussing how to handle these emotions. Explain how these feelings are normal and everyone goes through them. Ask the group to come up with ways to manage these emotions without needing alcohol or tobacco. Exercise, confiding in friends, and resisting peer pressure can go a long way to handling these emotions. Also, the counselors and others at Yemin Orde will always be there for the group when they need help or someone to talk to.

<u>Directions for the Participants:</u> Listen attentively to the facilitator, participate in the group discussion on military service, and feel free to ask questions as they arise.

<u>Handouts</u>

Pre/Post-Test

- 1. Age:
- 2. Gender:
- 3. Country your parents are from:
- 4. Language spoken at home:

Determine whether the following statements are true or false

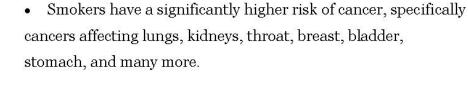
- 5. Smoking cigarettes is bad for your health.
- 6. Smoking nargila is bad for your health.
- 7. Being around people who smoke is bad for your health.
- 8. Drinking alcohol can be bad for your health.
- 9. All tobacco products have nicotine in them.
- 10. Nicotine is a very addicting substance.
- 11. People who drink too much alcohol can become addicted.
- 12. Drinking alcohol makes whatever you are doing more exciting.
- 13. Drinking alcohol will make you feel better about your problems.
- 14. Smoking tobacco or drinking alcohol is a good way to make good friends.

The tobacco in nargila is not addicting, only	<u>Myth</u> ! ALL tobacco products contain nicotine and	
cigarettes.	are addicting. This means pipe tobacco, nargila,	
	cigarettes, and cigars.	
You have to smoke a lot of cigarettes to become	<u>Myth!</u> It can take as few as 3 cigarettes to become	
addicted.	addicted.	
Smoking tobacco through a water pipe is not	<u>Myth</u> ! Smoking tobacco through a water pipe is	
harmful to your health, the water makes it OK.	still harmful for your health. There is no healthy	
	way to smoke any tobacco products.	
Smoking tobacco can put you at an increased risk	<u>True!</u> All tobacco use puts you at risk of a	
for many diseases. These include many cancers,	multitude of negative health effects. There are NO	
lung disease, heart disease, oral disease, and	benefits to using tobacco.	
death.		
Smoking tobacco will make me more popular and	<u>Myth!</u> The idea that smoking will make you cool or	
attractive.	impress others has been developed by tobacco	
	companies to get people to start smoking and is	
	not true.	
Smoking can cost an individual a great deal of	<u>True!</u> A lifetime of smoking will cost a huge	
money.	amount of money on tobacco. The cost of tobacco	
	has risen consistently over the years. Also, when	
	you consider hospital bills and time lost to work	
	due to being sick, it costs even more.	

The nicotine in tobacco is put there by humans. If	Myth! Nicotine naturally occurs in all tobacco.	
I smoke all-natural tobacco then it won't be	However, it is true that tobacco companies add	
addicting.	even more nicotine to their products to increase	
	the addiction smokers have.	
There is no point in quitting smoking once you	Myth! The benefits of quitting exist no matter how	
have started.	long you have been smoking.	
Cigarettes sold that say "Light" on the package	Myth! So-called "Light" cigarettes are just as	
are healthier than regular cigarettes.	dangerous to your health as regular cigarettes.	
People who die early from smoking only loose a	Myth! Smokers die approximately 14 years earlier	
couple of unhealthy years at the end of life	than non-smokers!	
anyways.		
Second-hand smoke, that is smoke you inhale	True! Second-hand smoke is harmful to your	
when someone around you smokes, is harmful.	health as well. Especially younger people.	

Tobacco Health Fact Sheet





• Smokers are more likely to become ill, specifically contracting the flu

Smokers on average, die 14 years sooner than non-smokers.

• Smoking increases risk of heart attacks, stroke, and other heart disease

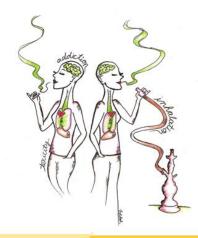
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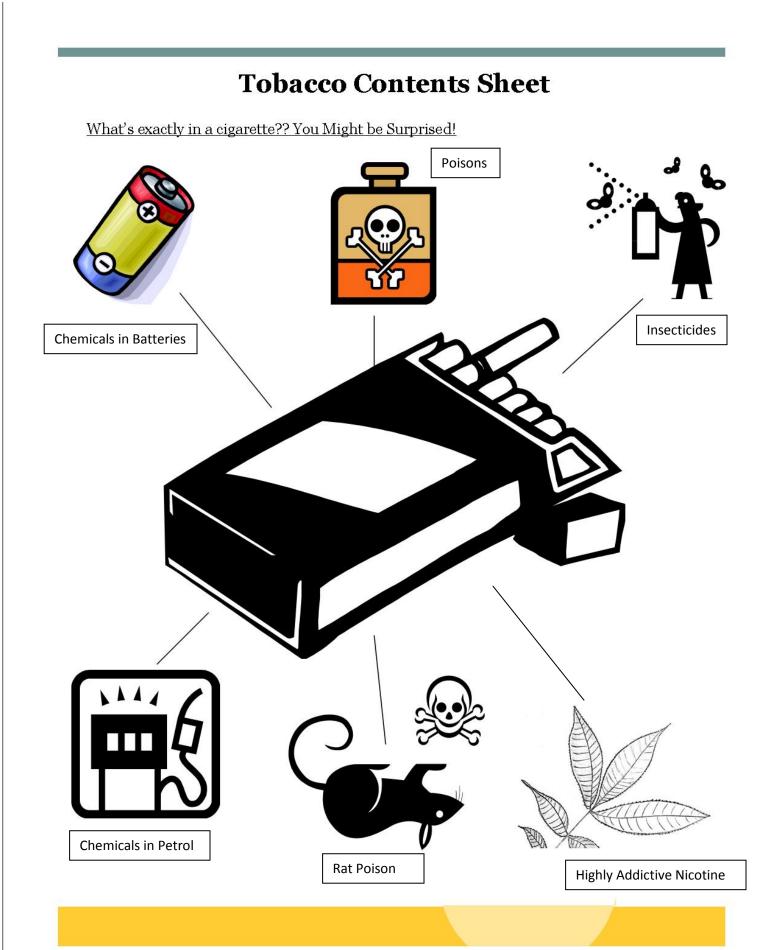
- Smoking increases the risk of kidney failure
- It can take as few as 3 cigarettes to become addicted



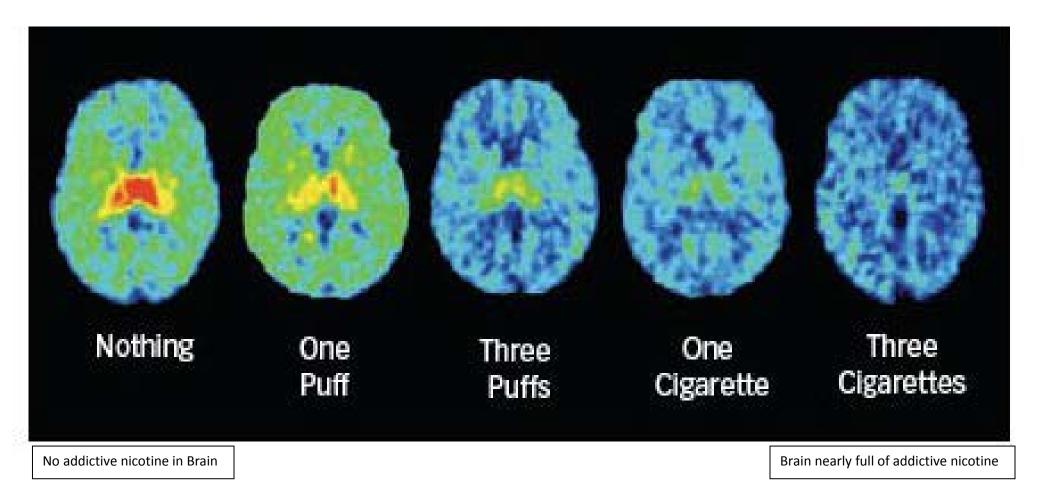


- Smokers are 3 times as likely to lose teeth
- Smokers are more likely to be infertile
- Smokers self-reported a lesser quality sex life than that of non-smokers
- Smokers are more likely to be stressed
- Smoking while pregnant can cause miscarriage or otherwise threaten the baby
- Smoking nargila is just as harmful as smoking cigarettes





Nicotine Brain Image³



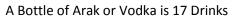
³ <u>http://whyquit.com/whyquit/LinksAAddiction.html</u>

Standard Drink Sheet



A 6-Pack of Beer is 6 Drinks

A Bottle of Wine is 5 Drinks



The amount of alcohol in a bottle of beer

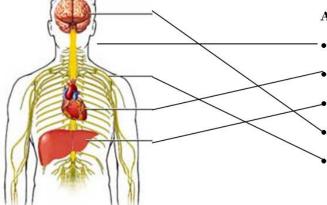
Alcohol Health Fact Sheet

Abusing Alcohol can put you at Risk of.....

- Diabetes
- Bad memory
- Hepatitis
- Anxiety and panic
- Diseases of the stomach and pancreas







And...

- Cancers of the mouth and throat
- Alcohol related heart failure
- Cirrhosis of the liver
- Poor mental development
- Addiction to alcohol and alcohol withdrawal

Symptoms of Alcohol withdrawal include.....

- Headaches
- Easily annoyed
- Depression
- Headaches
- Vomiting
- Loss of sleep
- Tremors and weakness



Code Image⁴



⁴ http://www.smokersworld.info/stop-smoking-focuses-on-american-youth/

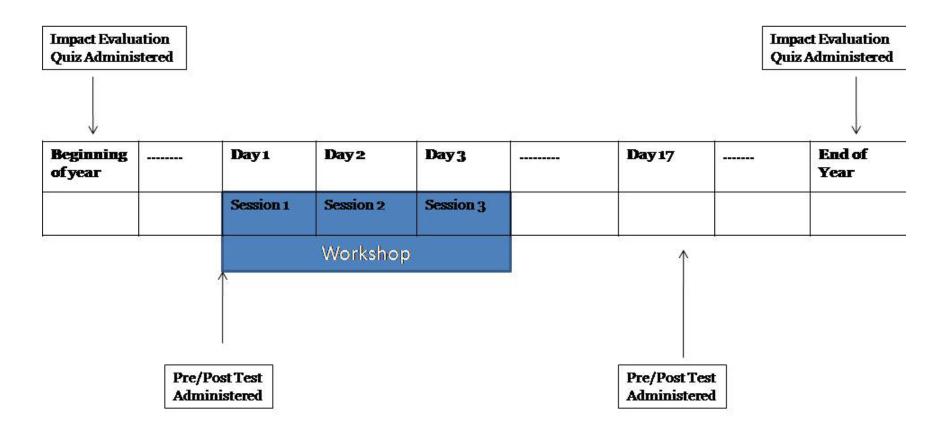
Appendix D: Impact Evaluation Quiz

- 1. Age:
- 2. Gender:
- 3. Country your parents are from:
- 4. Language spoken at home:
- 5. Have you ever smoked cigarettes or nargila?
- 6. Do you consider yourself a smoker?
- 7. How many cigarettes have you smoked in the past month?
- 8. How many times have you smoked nargila in the past month?
- 9. Have you ever drunk any alcoholic beverage (beer, wine, liquor)?
- 10. Do you consider yourself a drinker?
- 11. How many times have you had any alcohol in the past month?
- 12. How many times have you drunk beer in the past month?
- 13. How many times have you drunk wine in the past month?
- 14. How many times have you drunk liquor in the past month?
- 15. How many times have you had 5 alcoholic drinks in one day in the past month?
- 16. How many times have you drank until you felt drunk in the past month?

Appendix E: Evaluation Plan

Project Timeline

Timeline for Each Grade Workshop for Each Year

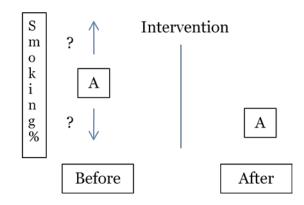


Explanation of Evaluation Principles

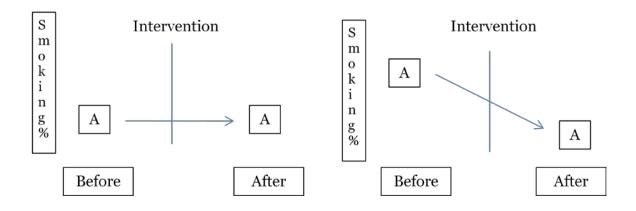
The purpose of this appendix is to explain the basic principles of evaluation, the importance of baseline testing, and the importance of using a counterfactual.

The simplest form of an evaluation is a post-test. A post-test involves surveying (or otherwise measuring) a population on the outcome of interest after the intervention. The problem with the post-test is that the starting point (i.e. what the outcome was like before the intervention) is unknown. Because of this, it is impossible to prove that the intervention was causal in creating the outcome (Figure 1).

Figure 1: Post-test Evaluation



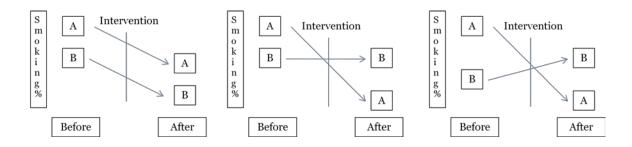
The next type of evaluation includes a pre-test to solve the problem described above. The pre-test gives baseline information on the outcome of interest. This allows one to determine if there has been a change over a time period in which an intervention was performed (Figure 2). Figure 2: Pre/Post Test Evaluation



The figure on the left displays a situation where the intervention likely had no effect on the outcome of interest as it didn't change from the baseline levels. However, the figure on the right shows an intervention which could have had an effect on the outcome as we see a change over time. A possible limitation with the Pre/Post Test Evaluation is that we are not sure what would have happened, had no intervention been done. It could be possible that the outcome would have changed without the help from an intervention. Or, perhaps there was something else that caused the change such as a national policy or simply another intervention.

To address this limitation, one can utilize a counterfactual. A counterfactual simulates what may have happened to the outcome had there been no intervention. To achieve this, a population which resembles the one targeted for the intervention is selected. This second population (counterfactual) which resembles the one receiving the intervention should be administered the same Pre/Post Test Evaluation as the intervention population (Figure 3).

Figure 3: Using a Counterfactual



In this figure, the box containing the letter "A" indicates the population receiving the intervention, while the box containing the letter "B" indicates the counterfactual. In the far left figure, a decline in the outcome of interest is seen in both populations. This suggests that the differences seen over time may not be due to the intervention as the population not receiving anything has seen a decrease. The figure in the middle illustrates a situation in which the intervention is likely to have an effect on the outcome as the counterfactual saw no change over time. Finally, the figure on the right could provide the strongest evidence for the effectiveness of the intervention. There is a decline in the outcome of interest among the population receiving the intervention and the counterfactual suggests that the outcome would have worsened over time had there been no intervention.

There is also the possibility that the differences seen in any of the above figures are due to chance. Thus one should consider randomly selecting groups for inclusion into the intervention group and others for the counterfactual group. For instance, if there were 10 small afterschool groups of youth, the workshop curricula would be randomly given to 5 groups while the other 5 got no intervention (but were still given the pre/post test). Then the outcomes would be aggregated to see if there was an average change overall due to the intervention.