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Health Knowledge, Attitudes, Beliefs and Practices Revealed from Focus Group Discussions on Tobacco Smoking among Lebanese and Palestinian School Children in Lebanon

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Abstract: ***Through the analysis of focus groups, this research identified the students' arguments based on knowledge, attitudes, beliefs, practices and social dimensions when discussing tobacco smoking health. Our analysis was based on the World Health Organization recent definitions of "comprehensive health education curriculum". Two schools were selected in the same area, a Lebanese Public School and a Palestinian one, to test the hypothesis of possible differences between them, linked to eventual differences in their students' health situations. A grid was established to record the arguments. The results were recorded in tables and then commented. The students' arguments revealed the need to revise the national textbooks, and teachers to use interactive teaching methods that focus more on life skills, including the knowledge and social or psychological dimensions that strongly emerged during the focus groups.***

Keywords: Comprehensive school health education, tobacco smoking, attitudes, beliefs, practices, knowledge, WHO

1. Introduction

Health risk behaviors have been a major concern of many countries around the world including Lebanon, and they often start with teenagers. The last global health risks report, issued by the World Health Organization (WHO) in 2009, indicated that the major cause of death and disability shifted from infectious diseases to the chronic and non-communicable diseases. The report specified that tobacco use is the second leading global risk of mortality (8.7%) and high blood pressure, including central blood pressure due to arterial stiffness and cardiac wave reflection caused by cigarette smoking, is the first (12.8%) (Virdis et al., 2015 & WHO, 2009). Tobacco use causes nearly 6 million deaths per year worldwide, and current trends show that tobacco use will cause more than 8 million deaths annually by 2030 (CDC, 2015). In addition, the World Health Statistics 2014, issued by WHO, indicated similar results. In a nutshell, as mentioned by the United States Department of Health and Human Services report issued in 2014, smoking leads to diseases and disabilities and harms nearly every organ of the body. It causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis. Smoking also increases risk for tuberculosis, certain eye diseases, and problems of the immune system, including rheumatoid arthritis. Smoking is also a known cause of erectile dysfunction in males. This explains our interest in tackling tobacco smoking topic among schoolchildren in Lebanon.

Comparing smoking in Lebanon to the global situation revealed that the per capita cigarette consumption rate in Lebanon rose by a striking 475 percent between 1990 and 2012. This is the second highest increase recorded globally. According to the latest data by the UN World Health Organization, the total smoking rate in Lebanon is 38.5 percent among adults. The rate goes up to 46.8 percent among men, and 31.6 percent among women, meaning nearly half of adult males and one third of women in Lebanon are smokers. Currently, the annual average cigarette consumption rate in Lebanon is 119 packs per person, or about ten cigarette packs per month. This means that the average cigarette consumption rate was 2,379 cigarettes per capita in 2012, which is nearly three times the global average (WHO, MoPH, ISJ, Igsps, 2012). These problems are also consistent among Palestinian refugees living in Lebanon as indirectly indicated by the United Nations Relief and Works Agency (UNRWA) [[1] *UNRWA: United Nations Relief and Works agency for Palestinian refugees in the near east: Jordan, Lebanon, Syria and occupied Palestinian territory. In Lebanon, 425,000 Palestinian refugees are registered with UNRWA in twelve official camps and 42 gatherings across the country. They depend on UNRWA to provide for basic health, education and relief needs (UNRWA, 2014).*] reports. For example, the prevalence of Palestinian patients in Lebanon diagnosed with hypertension- 40-years of age and above-where smoking plays a major role in it was 16.8% (UNRWA, 2014). Moreover, 22.9% of school professionals at UNRWA schools currently smoke cigarettes as indicated by the school professional tobacco survey fact sheets conducted in 2010 (CDC & WHO, 2010). Thus, this problem concerns the Lebanese society as a whole disregarding the

nationality of the individuals. A view to health is not only to focus on disease prevention and treatment, but also to empower people to make informed choices towards healthy habits (WHO, 1986).

Many practices that lead to chronic non-communicable diseases in later life typically emerge during adolescence as tobacco smoking and other health risk behaviors including drinking alcohol, substance abuse, practicing unsafe sex, overeating leading to obesity, and lack of physical activities (Sawyer et al., 2012). For example, the Global School-Based Student Health Survey (GSHS), which is a collaborative surveillance project designed by the Center for Disease Control (CDC) to help countries around the world to measure and assess the behavioral risk factors and protective factors among young people aged 13 to 17 years, indicated relatively high percentages of health risk behaviors among adolescents in different countries including adolescents in Lebanese schools and UNRWA schools in Lebanon. The last GYTS conducted in 2011 in Lebanese schools and in 2013 in UNRWA schools revealed high prevalence of smoking among adolescents in Lebanon. 36.2% of grade seven-nine students in the Lebanese schools were using any smoked tobacco product (41.9% boys, 31.4% girls) compared to 25.4% (33.4% boys and 18.4%) in UNRWA schools. In addition, among 3384 university students in Lebanon, 779 (23%) reported that they were current water pipe smokers and 649 (19.2%) were current cigarette smokers (Salameh et al., 2014). Therefore, the prevention of this behavior has become a priority for public health policies (Beaglehole et al., 2011; Leon et al. 2010, Patton et al., 2012) and effective health education of adolescents is paramount to improve the health of the adult population. For example, the world witnessed a decline in cigarette consumption by 11.7 percent as a result of increased awareness about the risks (Chakrani, 2013). In this aspect, schools are considered as an excellent place to influence young people's health as a large sum of the target population attend school on almost daily basis (Gvozdeva & Kirilina, 2012; Marks, 2009). This gives a large platform to educate children on their health in a very accessible place, especially on important health risk behaviors such as smoking (Hubley, 1993). Therefore, we need to know about the motives of smoking and dependence such as the influence of parents' and friends' opinions, and idols' smoking status, to make efficient interventions at different levels including the curriculum, teaching learning strategies as well extracurricular activities inside and outside schools, and help parents advise their young offspring about the importance of non-smoking (Salameh et al., 2014).

In Lebanon, in 1997, a new curriculum from grades one to twelve was developed and started being implemented in October 1999. Other initiatives were prepared but not yet enforced. Health education was integrated in different disciplines. Several objectives have been added to verify the health related aim: *"enable the students to make healthy practices that lead to physical, psychological, and mental development"*. The science curriculum for the elementary level included a general objective related to health: *"To acquire proper health and environmental personal habits"*. Tobacco smoking as a topic is introduced starting from grade 6 in the science curriculum. The national textbooks allocated one page only for the lesson about the "effect of smoking on the body" within the "Man and his Health" unit. The specific learning objectives, related to the content, are two: "Enumerates the hazards of smoking on our health" and "Fosters an anti-smoking campaign". The core of the lesson includes a paragraph of eight lines talking about the smoking harms on the respiratory and circulatory systems, main cigarette smoke substances: tar, nicotine and carbon dioxide, and their effects on the body. The last line talks about the effect of smoking on blood vessels and heartbeat. Then there are four photos with captions. The first photo shows two lungs that are for a smoker and a nonsmoker. The caption is: "A heavy smoker has a 20 times higher chance of getting lung cancer than a nonsmoker has". The second photo shows three teenagers (males) smoking together in a sitting room. The caption is: "lung damage is more serious in the lungs of teenagers". The third photo shows a pregnant woman smoking in the sitting room, with a caption: "smoking is also very dangerous for pregnant women". The fourth photo shows four teenagers (boys) smoking in a closed area in a restaurant and next to that there is a no smoking logo. The caption of the fourth photo is: "smoking is forbidden in closed areas. Some public places have designated areas for smokers". The last part of the lesson consists of 4 questions written under the title: "Observe and deduce"; the questions are: 1) name some harmful substances found in cigarette smoke. How do these substances affect the respiratory and circulatory systems? 2) Why is lung damage more serious in the lungs of teenagers? 3) Why is smoking very dangerous for pregnant women? 4) Why do you think smoking must be forbidden in all public areas? The photos are related to the culture and are seen in daily life. Hence, the Lebanese Ministry of Education considered the tobacco use topic starting from aims to the specific curricula, and is translated in the national textbooks. However, this coverage for the tobacco smoke lesson is more injunctive than taking into account the students arguments' when explaining why they smoke. Our research aims to analyze the students' arguments when discussing smoking use topic after learning about the topic, to identify the knowledge, attitudes, beliefs and practices to consider in teaching. That can be useful to improve the curriculum, the textbook and additional learning materials.

2. Theoretical background based on Review of Literature

To proceed in our analysis, we looked for the latest approaches to effective school health education and promotion, the comprehensive school health education approach, the possible interactions between knowledge, values, and practices, and for some researches related to health education interventions.

2.1 Health promotion and comprehensive school health education approaches

The health promotion perspective sees health as a bio-psycho-social unit with permanent interaction with the environment including other persons. WHO says that health

is *"a resource for everyday life, not the objectives of living; it is a positive concept emphasizing social and personal resources, as well as physical capacities"* (WHO, 1986, para1). In 1997, the World Health Organization stated that an education which includes health-related knowledge, skills, and attitudes lays the groundwork for pupils' health and well-being throughout the pupils' entire life span (WHO, 1997). In addition to the importance of life skills in changing behavior (WHO, 2001), a variety of health behavior theories have identified constructs that are critical for behavior change. As one example, the Health Belief Model (HBM), which is one of the most widely used conceptual frameworks in health behavior, has been used to explain both the change and maintenance of health–related behaviors, and as a guide framework for health behavior interventions. The underlying concept of the HBM is determined by personal beliefs for perceptions about a disease and the strategies to decrease its occurrence. The perception of susceptibility, seriousness, benefits, and barriers constructs is affected by modifying variables, cues to action, and self efficacy, therefore, our behavior (Glanz et al., 2002, p. 47-48 & National cancer Institute, 2003).

The most recent approach to health is the comprehensive school health education and promotion approach. A comprehensive school health education (CSHE) as specified by WHO (1991) *~~a~~ddresses the health problems and the factors that influence health within the context of the human, material, environment and other conditions of life; takes all opportunities for health: formal and informal, standard and innovative curriculum and pedagogy, services and opportunities available within and outside of the school; ensures harmony among the various health messages that influence students as messages from media, advertising, community, the health and development systems, family, peers, and schools; empowers children, youth and families to help them promote for healthy living*". In addition, comprehensive school health education *~~a~~ddresses the socioecnomic, cultural, physiological and genetic factors that have impact on health and behaviour*". Moreover, *~~it~~ includes a variety of inside and outside schools activities that foster the development of children and youth health to reach their full potential*". In this research, we will try to analyze the health knowledge, attitudes and practices of school children focussing on smoking topic.

2.2 Background in Didactics

One of the five pillars of education is **Learning to transform oneself and society** (UNESCO, 2005). Values or ideologies are recently highlighted in many subjects as history, philosophy and specifically in science education (which was only associated with the scientific knowledge) (Gould, 1983). Values are also important in health education. For example, the *"social health model endeavors to provide people with knowledge and understandings that enable them not only to make well-informed decisions but also to explore their values and attitudes*" (Elias &Tobias, 2002). Behavior according to Glanz et al., (2002) *~~is~~ a function of the subjective value of an outcome and of the subjective probability or expectation, that a particular action will achieve that outcome. Such formulations are generally termed value-expectancy theories*" (p. 47).

The scientific **K**nowledge, **V**alues and social **P**ractices (KVP) model proposed by Clément (1998, 2004, 2006) is particularly important in areas linked to health education where the aim is not the focus on disease prevention as it is in the biomedical model, but rather to develop positive attitudes and behaviors towards good health and wellbeing (Carvalho et al., 2008). The values in the KVP model are utterly linked to social values that guide the social practices and the conceptions are analyzed as possible interactions between the three poles K (scientific knowledge), V (systems of values) and P (social practices). Values include the opinions, believes, and ideology; whereas, social practices include professional practices of researcher, teacher, and the today and future citizenship practices of students (Clément, 2006). The KVP model analyzes the conceptions of all the actors of the didactic transposition: researchers, authors of syllabi and of school textbooks, teachers and authors of diverse scientific resources (actors of TV, radio, media, internet…), and students (Clément, 2006, 2013). In this research, we studied not only the scientific knowledge, but also the important social practices and the value systems from the students' perspectives to see how health related knowledge is interacting with other dimensions that can also be taken into consideration for health education.

2.3 Researches on health education interventions

The results of urban health study conducted in Lebanon showed that around 60% of adolescents aged 13–20 years had ever tried a narghile and one-fifth continued to smoke. The study also revealed that the influence of friends was the major reason of narghile smoking. Maternal smoking was a risk factor for narghile smoking in one of the neighborhoods, while the paternal smoking was the risk factor for another. The study concluded that the influence of social pressure, family and community involvement, and multiple levels of interventions are necessary in the awareness for dangers of narghile to prevent the narghile smoking (Afifi et al., 2009). Another study conducted by Waked et al. (2012) emphasized the need for effective health education on the dangers of smoking, including light cigarettes, in addition to the need to foster health education free of gender bias. Moreover, a study conducted by MEDSPAD in 2009, recommended that anti-smoking education and skills training, as well as non-smoking policies must become a priority for all those in charge of the school curriculum and environment in Lebanon. Terzian suggested that awareness campaigns and cessation programs that aim to reduce the prevalence of water pipe smoking among youth must target parents along with their adolescents. In addition, health education about smoking needs to emphasize on the peers and family influences (Terzian, 2013). The Global Youth Tobacco Survey (GYTS) mentioned earlier in this research, revealed the need to have comprehensive tobacco prevention programs for adolescents in Lebanon, multi-level interventions that focus on social pressures and influences, activated anti-smoking policies, and the need to include education about the dangers of smoking and skills to resist peer pressure to smoke in the school curriculum (Saadeh et al., 2008).

Health Education was one of the topics investigated during the Biohead-Citizen project (Biology, Health and Environmental Education for better Citizenship), and the Lebanese teachers' conceptions were found to depend on their religion (Khalil, Munoz & Clément 2007a) or depend on their mother language (Khalil, Munoz & Clément, 2007b).

The purpose of our research is to determine the students' knowledge, attitudes, beliefs and practices related to smoking. Knowledge is concerned with cognition and the development of skills (Anderson and Krathwohl, 2001); attitude is concerned with changes in interest, attitudes and values (Krathwohl, Bloom and Masia, 1964); practice includes physical movements, coordination and motor skills (Simpson, 1972; Dave, 1970; Harrow, 1972); and belief is a principle, proposition, idea accepted as true because new information are interpreted in consistent ways to what learners already know and which confirms their previous conceptions (Berk, 2004).

3. Methodology

The first author of this article conducted two focus group discussions to students in grade six (12 years); as smoking topic is covered in depth in science subject in this grade that proceeds the preparatory cycle targeted in the GYTS, and because at this age children are affected by social pressures and influences and might be tempted by cigarettes.

This is a case study design, where two focus group discussions on tobacco smoking were conducted for students in grade six at the end of the scholastic year. The first focus group was in a Lebanese elementary co-educational public school and the second was in a neighboring elementary co-educational UNRWA school. The Students were randomly selected for each focus group with equal distribution of boys and girls. We proceeded as follow: After clarifying the purpose of the focus groups in each class section of grade six, the students were asked whether they would like to participate. Those who agreed were asked to write anonymously on a paper whether they are with or against smoking and justify why, then to add a sign or symbol. The papers were collected and the written statements were read. Most of the students were against smoking. The students, who wrote more comprehensive answers with clear elaborated justification, were identified from their signs and selected to participate. For close answers, we considered the gender factor. Eight students were chosen; four were with smoking (two boys and two girls) and four students against smoking (two boys and two girls). The initial discussed question, in each focus group, was: "What do students at your age know, do and believe about smoking among teenagers?" The pro-smoking students sat on one side, the anti-smoking students sat in the opposite side, and the moderator sat in the middle. The focus group discussions were recorded using audiotapes and then transcribed. The discussion was in Arabic language. It was managed with little interventions from the moderator to see how students respond and express themselves alone, and to adjust the debate. The students' arguments were short and then translated into English language and typed in a special grid. The data was rechecked to make sure that they are accurately documented for reliability (Gibbs, 2010, p. 98). The transcription included the time, students' responses, and the facilitator's intervention. It is too long to be reproduced here. We also analyzed the exchange of arguments among students, however, we limit our article to present the results categorized in qualitative tables to display texts from across the whole data set in a way that makes systematic comparisons easier (Gibbs, 2010). The study will help us answer the following research questions: **1) What arguments, based on knowledge, attitudes, beliefs, practices and social dimensions are used by students of the two schools when discussing tobacco smoking topic of Health Education? 2) What possible differences can be observed between students from a Lebanese Public School (LPS) and an UNRWA school**?

4. Results

The students' arguments were categorized first according to the different categories (harmful / not harmful, passive smoking, addiction….) then according to the different domains (knowledge, attitudes and beliefs, and practices) for each category. The sentences or phrases related to each of the three domains were selected from the arguments and recorded in different tables (tables 1 to 3). This helped us to determine the students' level of knowledge, attitudes and practices related to smoking in each of the selected schools, and to compare them with what is mentioned in the textbook. In addition, it helped us to determine and compare the depth of reasoning among school children in the LPS and UNRWA school.

4.1 Arguments about Tobacco smoking

The arguments given by the students in UNRWA school and the neighboring LPS about tobacco smoking were studied in depth to see the main concepts they cover. The students argued around 11 main topics: a) use of filter or not, b) psychological, mental and emotional effects of smoking, c) religious views toward smoking, d) smoking is harmful or not, e) addiction, f) passive smoking, g) impact of smoking on environment, h) cues to action, i) social influences on smoking, j) laws and policies, k) economical impact resulting from smoking. The different arguments between the pro-smoking students and the anti-smoking students in both schools were recorded in different tables, and then the number of arguments for pro-smoking and anti-smoking students in each of the two schools were counted and recorded in table 1 below. This gives an idea of the argument of much concern to the students to focus on in dealing with the students for smoking.

Table 1: Number of pro-smoking and anti-smoking arguments of grade six students in a Lebanese Public School (LPS) and UNRWA school when discussing the tobacco smoking topic

Arguments categories	*LPS*			*UNRWA*		
	Pro-smoking	Anti-smoking	Total	Pro-smoking	Anti-smoking	Total
Filter usage	3	3	6	6	4	10
Psychological, social and mental effects of smoking	9	3	12	12	5	17
Religion views towards smoking	6	5	11	6	2	8
Harmful not harmful	17	16	33	19	23	42
Addiction	13	5	18	21	16	37
Passive smoking	2	2	4	7	6	13
Effect of smoking on nature	5	4	9	8	9	17
Cues to action	0	1	1	5	1	6
Social Conformism (peers, parents' pressure…)	13	8	21	20	9	29
Laws and policies	4	5	9	4	3	7
Economy	1	4	5	4	3	7
Total number of arguments	73	56	129	112	81	193

The duration of the two focus groups was similar. Table 1 shows that the students at UNRWA school had during this time a bigger number of arguments than the students in the LPS, and with the pro-smokers more than the anti-smokers in both schools. The arguments about smoking being harmful or not, addiction, and social influences were the highest in both schools, whereas cues to action was the least. To analyze the arguments given by students in each of the two schools, the ones related to knowledge, attitudes and beliefs, and practices domains were listed in different tables and explored below.

4.2 Knowledge Related Arguments:

Table 2 below illustrates the knowledge related arguments of grade six students in a Lebanese Public School and an UNRWA school when discussing the tobacco smoking topic.

Table 2: Knowledge related arguments of grade six students in a Lebanese Public School (LPS) and an UNRWA school when discussing the tobacco smoking topic

Argument	*LPS*	*UNRWA*
Filter usage	Makes smoking less harmful; removes nicotine which is a yellow substance; doesn't remove all bad effects; it lets people smoke more.	Makes smoking less harmful in causing diseases; harmful substances stick to filter; some nicotine will not be trapped.
Psychological, social and mental effects of smoking	It is harmful; causes dizziness	Smoking causes dizziness at the beginning, and then it becomes normal.
Religion views towards smoking	None	None
Harmful / not harmful	Smoking gives bad smell; pollutes air; is harmful; smokers look older; damages the liver; causes cough at the beginning; causes cancer; passes into the abdomen and harms it; causes acne; doesn't harm the abdomen, harms the lungs.	Smoking is harmful; causes cancer; enlarges the lungs; black lungs; red eyes, yellow teeth and wrinkles on face; shisha contains substances found in candles and batteries; smoking shisha is more dangerous than smoking a cigarette.
Addiction	Addiction means they have been smoking for long.	
Effect of smoking on nature	Smoking pollutes air; may lead to fires; a cigarette thrown on straws, will cause fire; children throw the shisha on carpets and cause fire.	When you smoke in nature, the charcoal of the shisha may fall on grass and cause fire; also if you throw lit cigarettes, this may cause fire.
Cues to action	None	None
Social Conformism (peers, parents' pressure…)	None	Zaghloul flavored tobacco doesn't need aluminum foil, put charcoal directly on it. We advice people to smoke it. One smoke, is enough to satisfy you.
Laws and policies	None	None
Economy	None	None

Students in both schools are well familiar with the use of filter. They mentioned that filter use makes smoking less harmful as it removes all, or most, or only part of the harmful substances. In addition, students talked about the yellow sticky substance, nicotine. In the LPS, there is scientific reasoning of the filter absorption to nicotine proved by the presence of sticky yellow-brown color and that the use of filter leads people to smoke more. In the UNRWA school, none of the students asked for justification of "How do you know a filter will trap all the harmful substances?" or "How do you know that the small amount of smoke / nicotine going through the filter will be harmful?" There is repetition of the same claims, with a final compromise, and no demonstration, and no scientific argument.

Related to psychological, mental and emotional effect of smoking, the "causes dizziness" argument of pro-smoking students in both schools emphasizes the effect of smoking on

the brain function, but just as claims (not supported by any scientific result). They did not talk about long term effects of smoking shisha, while it was affirmed that –it is harmful". Scientific information is not yet introduced in textbooks and / or classrooms to support or to contradict this information.

Regarding religion views towards smoking, in both schools there were no justifications of some versus in the Quran or profits' sayings that indicate that smoking is harmful or haram. The harmful-normal effect of smoking episode for students at both schools was the longest. In addition, they talked about the harmful effects of smoking in most of the episodes and emphasized that smoking is harmful and causes cancer. The anti-smoking students in LPS know that smoking gives bad smell; pollutes air; smokers look older; damages the liver; causes cough at the beginning; passes into the abdomen and harms it; causes acne; harms the lungs. Whereas the UNRWA students know that smoking enlarges the lungs; causes black lungs, red eyes, yellow teeth and wrinkles on face, damages the liver; shisha contains substances found in candles and batteries. Smoking shisha is more dangerous than smoking cigarettes and one shisha is equivalent to a pack of cigarettes. One of the UNRWA students mentioned that smoking contains many other substances as those found in candles and batteries. We can say that the students acquired the knowledge about some effects of smoking as lung problems and cancer, but they didn't explain the processes, nor listed the cardiovascular diseases as mentioned in the textbook.

The students in both schools were not able to define addiction clearly and accurately. They only mentioned that addiction means that they have been smoking for a long time. The anti-smoking students in both schools tried to convince the pro-smoking students that they can't stop smoking because they are used to it without giving any scientific justification. For example, they didn't mention how nicotine moves to blood and affects the synapses. It seems they don't really know what addiction scientifically means. In addition, the students in both schools also know that smoking pollutes air, and smoking shisha may lead to fire. The anti-smoking students argued that the charcoal of the shisha may fall on grass and cause fire as the case if you throw lit cigarettes, while the pro-smoking students argued that charcoal is easily put off and that fire may break out from many things and not only from cigarettes. One of the UNRWA students knows about a type of tobacco used in the community called –Zaghloul".

4.3 Attitudes and beliefs related arguments

Table 3 below shows the attitudes and beliefs related arguments of grade six students in a Lebanese Public School and an UNRWA school when discussing the tobacco smoking topic.

Table 3: Attitudes and Beliefs arguments of grade six students in a Lebanese Public School and an UNRWA school when discussing the tobacco smoking topic

	LPS	*UNRWA*
Filter usage	Filter usage lets people smoke more	None
Psychological, social and mental effects of smoking	Calm nerves; forget sadness; feel he is in new country; release stress; get amused; get proud of yourself; high self esteem; high self confidence; mature; it is not harmful as it activates and improves concentration; forget your sadness; it will not harm when one get used to it; It satisfies the brain so intelligent people smoke; helps us study.	Makes us feel relaxed; has nice and sweet taste; feel happy; death is not caused from smoking but it is a destiny; It is good like praying & God obedience; I like it; releases pressures and nervousness; gives nice taste; amuses; smoking shisha helps me do many things; feel energetic and study; feel calm; stopping shisha causes headache; when I smoke shisha, I like everything about me.
Religion views towards smoking	Smoking is Haram and forbidden; being haram is not mentioned in Hadith or Quraan; it is haram because it harms; smoking near others lets people get diseases so it is haram; it is not haram if it doesn't harm; God gave us our body to protect it from harm as smoking	Stopping smoking shisha is God's will; Allah created tobacco; smoking is haram and harmful; if smoking is haram so why should we smoke; God created our body to protect it and not to harm it by smoking; shisha which is haram pushes me to smoke.
Harmful not harmful	If you are used to it smoking doesn't harm; cigarettes smoking causes less diseases than shisha; some children are not harmed from smoking; some smokers become thin and sick, others get serious diseases that lead to death or infections; smoking harms people and waste money; it calms the nerves but harms	Smokers at first cause dizziness then it becomes normal. People smoke because they don't know that it is harmful. I know it is harmful but I can't stop it. Smoking shisha has advantages: first, it helps in food digestion; second, it helps you when you have constipation and third, it helps improve your appetite.
Addiction	If people are not used to smoking, they will go to hospital, however who are used to it will nothing happen to them no matter how much they smoke; People who smoke for 4 years will be harmed later. Addiction means they have been smoking for a long time and no one can stop them, and if you stop them they will smoke again; If people are used to smoking, they can run and play normally	Smoking at the beginning cause dizziness, then it will be normal when you get used to it; I know it is harmful, but I can't stop it and I need to smoke it every day. You can't stop billions of people from smoking; If we stop smoking then it is God's will. I have strong will and can stop smoking shisha when I want. You can't stop it because you are addicted to it; If you have will, you can stop smoking.
Passive smoking	When you smoke….people around you inhale this smoke and get harmed too. So it is haram because it leads to diseases	None
Effect of smoking	None	None

on nature		
Cues to action	You cannot prevent people from smoking	yes, you make posters and other thing, but nobody will listen to you; when I watch a film on TV, and I see people smoking, I feel that I want to smoke shisha
Social Conformism (peers, parents' pressure…)	The most important thing is that he is in good health, and nothing harmful happened to him.	We can say that nobody do not smoke shisha nowadays; You can't stop people in billions from smoking shisha; your parents were not educated, and nobody advised them not to smoke shisha; You said ¾ of people smoke shisha, now don't you notice that ¼ of people are smoking shisha? I like shisha.
Laws and policies	People will keep on smoking even with laws; they can get it illegally; Here in Lebanon anyone can smoke anywhere, and any person can buy it.	The government can force smokers to stop by removing all shisha from the country or by preventing people from selling it; but they don't care.
Economy	The money you spend on smoking can be spent on something beneficial that doesn't harm;	Instead of buying cigarettes, buy something useful to your body. You spend your money on something that harms you and for burning; Instead of spending money on smoking, store more food;

The LPS students believe that filter usage makes people smoke more. They smoke to have calm nerves; forget sadness; feel living in new country; release stress; get amused; be proud of oneself; have high self esteem and self confidence; be mature; forget sadness; satisfy the brain. The pro-smoking students believe that smoking is not harmful as it activates and improves concentration, helps us study and one get used to it. They also believe that intelligent people smoke. The pro-smoking UNRWA students also believe that smoking makes us feel relaxed, calm and happy; has nice and sweet taste; releases pressures and nervousness; gives nice taste; amuses; smoking shisha helps me do many things, like myself, feel energetic and study; stopping shisha causes headache; they also see that death is not caused from smoking but it is due to destiny; It is good like praying & God obedience.

The anti-smoking students at both schools argued that smoking is religiously not welcomed and the pro-smokers in both schools disagreed. This shows that students usually refer to religion to give excuses and justifications for their behaviors. This issue is not discussed in the textbook, even inside the religion discipline.

The LPS pro-smoking students believe that smoking is not harmful if you are used to it; smoking causes fewer diseases than shisha; and that some children bear smoking and not harmed. While the anti-smoking students believe that some smokers become thin and sick; some smokers get serious diseases that lead to death or infections; smoking harms people and waste money; it calms the nerves but harms. Whereas the pro-smoking UNRWA students believe that smoking at first causes dizziness then it becomes normal; it is harmful but can't be stopped; smoking helps in food digestion and improves appetite. While the anti-smoking students believe that people smoke because they don't know that it is harmful. The short term effects and long term effects of smoking with statistical data are absent in the textbook. In addition, regarding addiction, the anti-smoking students in both schools tried to convince the pro-smoking students that they can't stop smoking because they are addicted to it without giving any scientific justification. For example, they didn't mention how nicotine moves to blood and affects the synapses. The textbook does not explain the concept of addiction at early ages, and does not highlight the several attempts of the countries around the words to reduce tobacco smoking including the anti-smoking campaigns prepared by WHO and other local and International nongovernmental organizations.

In the LPS, the anti-smoking students believe that smoking is haram because it causes diseases and that money spent on smoking can be spent on something beneficial. The pro-smoking students believe that we can't prevent people from smoking even with the foundations of smoking related laws and policies. The pro-smoking UNRWA students also believe that whatever you do to convince people to smoke, they will not. And they believe that TV programs provoke people to smoke. However, the anti-smoking students believe that the people in the government can force people to stop smoking, if they care. They tried to convince the pro-smokers to spend money on something useful instead of buying cigarettes that harm. They never talked about the economical dimensions of firms of cigarettes.

The pro-smoking students reverted to solutions from the government to reduce the prevalence of smoking which agree with the WHO anti-smoking campaigns on the World No-tobacco Day, 2014 theme that urges countries to interfere and increase the taxes on tobacco products. Raising taxes on tobacco is both the most effective and cost-effective way of reducing tobacco use around the world (WHO, 2014). This also agrees with what Glanz et al. (2002) mentioned about success elements for health that includes government involvements, mass communication, environmental and policy change, and direction by a coalition.

4.4 Practices Related Arguments

Table 4 below shows the practices related arguments of grade six students in a Lebanese Public School and an UNRWA school when discussing the tobacco smoking topic.

Table 4: Practices related arguments of grade six students in a Lebanese Public School and an UNRWA school when discussing the tobacco smoking topic

Arguments	*LPS*	*UNRWA*
Filter usage	My father uses filter	I am using a filter
Psychological, social and mental effects of smoking	I smoke shisha when I feel lost	
Religion views towards smoking	None	None
Harmful not harmful	I started smoking at 7 and nothing happened to me; a relative started smoking at young age and now he smokes four packs a day and he is in good health; at young age people have strong immunity.	I know it harms but I can't stop it; we convinced our parents that from religion point of view it is haram, and from health its harmful; shisha is more dangerous than cigarettes, they put in it Marijuana.
Addiction	Some people smoke one shisha in the morning, one at noon and one in the afternoon; I saw my friend smoking shisha many times.	I stopped smoking by playing with my friends; I tried to stop smoking but I got headache; I felt lost; I stopped it for 10 days; I tried to stop, but I felt weak and dizzy.
Passive smoking	The pregnant women should not sit with smokers; she has to move to another room; when one smokes in front of others, they will inhale the smoke from childhood.	We can smoke but not near pregnant woman; I don't smoke unless I am sitting alone, or on a balcony so that smoke go to air; I smoke at kaskas, I don't smoke at home because my sisters are too young.
Effect of smoking on nature	Smoking in picnics lead to huge fire because they remove the tobacco from the shisha and throw it.	I don't smoke unless I am sitting alone, or on a balcony for smoke to go to air; I put it off in water
Cues to action	None	They should not watch TV programs showing smokers. They should watch programs for their ages.
Social Conformism (peers, parents' pressure…)	My cousin used to smoke cigarettes; A relative started smoking when he was very young. I saw many people including relatives take small shisha with them wherever they go; I smoke here at a café shop; all people smoke shisha in Benati café; I smoke at home; when my aunt and grandma visit us, my mom prepares shisha, I smoke with them; I also smoke at balcony with my sister; all football players in Mondial smoke cigarettes and shisha; some teachers smoke cigarettes and shisha; Miss… smokes in a café with her husband; the doorkeeper smokes.	Our entire environment at home is filled with shishas; Our parents smoke shisha; my father smokes cigarettes in front of me, I tried to convince him, but I failed; when I go to sea, I see all people smoke; my brother smokes shisha; I smoke with my friends in a café; Dani, Issa, and Kamal in G6 let me smoke when I was in G3; in the school trip, I saw teachers smoking, and I imitate them; many people smoke at Abou Omar café shop at Sabra; I smoke in a café at Rawshee, with my brother; I smoke at Barbeer; every Friday and Sunday, I go to Kaskas and smoke there; I smoke shisha at the balcony with my aunt; In Tyre, all people smoke shisha; In the village I live in, 1 million people smoke shisha; In Alay, all people smoke shisha at night; they use tobacco ~~Z~~aghloul".
Laws and policies	The government should put laws to prevent people from smoking; parents should not ask their children to buy cigarettes; people under 18 years shouldn't buy cigarettes; In Lebanon anybody can buy it and smoke it anywhere; There should be laws to prevent small people from going to café.	The people in the government also smoke.
Economy	Sometimes we don't have money to smoke, so we borrow money; sometimes if she doesn't have money, she steals to afford for smoking	If I don't have money and I feel I want to smoke shisha, I borrow money, then I pay them back.

In the LPS, one 14 years old pro-smoking student started smoking at age of seven years and another one when felt lost. In the UNRWA school, one of the students used filter and another student tried to stop smoking by focusing on sports activities. The students in both schools saw colleagues, cousins, relatives, doorkeeper, teachers, football players and TV actors practice smoking in different places as home, relatives' houses, café, football yard, home balcony, and in different areas. They recognized that anyone can buy cigarettes from anywhere, and some people borrow or even steal money to smoke. They also emphasized the need to smoke alone in separate places. The pro-smoking students in both schools tried to give solutions and evidence based on what they see and hear in daily life as: "~~I~~ started smoking at seven, and now as much as I smoke, nothing will happen to me", and "~~h~~ave a relative who started smoking when he was very young. He smokes four packs of cigarettes per day. Now, he is old and still smokes four packs of cigarettes per day. The most important thing is that he is in good health, and nothing harmful happened to him". They also related harmful effects of smoking to addiction, i.e. "~~if~~ they are addicted to smoking it will not be harmful". This emphasizes the need to improve the textbooks and to introduce discussions during the classroom sequences of teaching.

5. Discussion

The two focus groups were organized at the end of the scholastic year, after sequences of teaching topics related to Health, including the dangers of tobacco. The analysis of the episodes argued by the students about smoking shows that, in both schools, the students acquired some of the knowledge mentioned in the textbook. They effectively mentioned some points, but more as claims than as demonstrations susceptible to convince the pro-smoking students. For instance, they said ~~-s~~moking harms the respiratory system and heart", ~~-n~~icotine is a sticky yellow substance", ~~-s~~moking is dangerous to pregnant women", ~~-s~~moking causes cancer", ~~-s~~moking at young age is harmful", ~~-s~~moking causes cough", ~~-s~~moking shisha will pass into abdomen and harms it" and ~~-s~~moking by pregnant women harms the fetus". These statements are not complete and sometimes are not accurate. Information as for example the ~~-e~~ffect of smoking on blood vessels and heart beat", ~~-e~~ffect of tar and carbon monoxide", ~~-c~~hance of smokers to get lung cancer than nonsmokers" and ~~-e~~ffect of smoking on other body systems" needs to be recalled by students as they are mentioned in textbook. The students talked more about general terms that they hear in their daily lives than reproducing the scientific content of the textbook. They claimed for instance the ~~-r~~ole of government in restricting smoking", ~~-s~~moking is haram", ~~-s~~moking helps in digestion", ~~-a~~nd use of filter makes smoking less harmful" but without being able to give clear and scientific justifications based on scientific facts and statistical data. This means that what was given in curricula and textbooks failed to be properly learned by the students. This is possibly due to teaching practices, which do not include debates as those organized for these two focus groups. A participative pedagogical style is much more effective than just an informative or injunctive style, in the textbooks (Berthou et al., 2008) as well as in the teaching sequences.

Moreover, our results also show that the curriculum and textbooks need to be improved not only by inclusion of some scientific, medical, economical, social or even psychological knowledge, that appeared to be lacking during the focus groups, but also by taking into consideration the attitudes, values and practices that seemed to be in interaction with the claimed knowledge arguments.

The pro-smoking students in both schools have certain beliefs and attitudes toward smoking. The argumentations are very similar in the two schools, but there are some interesting differences, as those mentioned above and related to psychological, mental and emotional effects of smoking: the pro-smoking students in UNRWA school focused on personal feelings as ~~-f~~eel relaxed", ~~-f~~eel happy", ~~-r~~elease nervousness", ~~-f~~eel energetic" more than the students at the LPS who mentioned that they smoke to have ~~-s~~elf confidence", ~~-s~~elf esteem", ~~-l~~ook mature", ~~-b~~e proud" and look mature. This may be an indirect consequence to the social life where the Palestinians in Lebanon live in poor and unstable conditions as also revealed from the social influences arguments. The LPS students mentioned that they saw adults smoking including teachers, school attendants, relatives, and old people in café. Whereas, the students at UNRWA school in addition to adults, they mentioned more about smoking among young people and listed many coffee shops in different places they go to and smoke.

The pro-smoking students in both schools emphasized that smoking relaxes nerves and has many good effects on mental and emotional health. These possible effects need to be mentioned in the textbook and discussed in the classrooms as the students at this age mostly start smoking to prove that they are mature (Berk, 2004). Teaching strategies that lead to change in behaviors and beliefs are needed as the Health Belief Model. The pro-smoking students also believe that ~~-s~~moking releases stress" and ~~-c~~alms nerves", ~~-s~~moking lets one feel relaxed and happy", smoking is ~~-n~~ot haram in religion", ~~-e~~ven if smoking is harmful, they will not be affected when they get used to it", ~~-s~~moking helps in digestion", ~~-s~~mokers will never be able to stop smoking", or that ~~-t~~hey can stop smoking but they are not convinced", or that ~~-s~~moking after a long time becomes normal". These attitudes need to be dealt with in textbooks and classrooms and should include the concept of addiction at early ages. The textbooks should also better highlight the several attempts of the countries around the world to reduce tobacco smoking including the anti-smoking campaigns prepared by WHO and other local and International non-governmental organizations.

The pro-smokers mentioned some practices related to smoking such as ~~-t~~he use of filter", ~~-s~~moking shisha at coffee shop", ~~-s~~moke flavored tobacco", ~~-s~~moke near parents". In addition, they saw the practices done by successful adult persons in the community as ~~-t~~eachers", ~~-p~~arents", ~~-f~~amily members", ~~-a~~dults smoking in cafes' and near beach". The influences of such practices on teenagers need to be mentioned in the textbook and discussed in classrooms. It is an illustration of the interaction between knowledge and practices in the KVP model: in Lebanon, frequent social practices are to smoke, and are in interaction with social knowledge showing that several observed smokers are not ill, justifying the practice of still smoking (in interaction with the value of social conformism). This KVP interaction is strong, and not easy to be destabilized. That needs to introduce new solid knowledge, related to the local Lebanese data, on the dangers of smoking, and to teach that this new knowledge is statistically proved, and in consequence is not in contradiction with the observation of some individual healthy smokers.

During the two focus groups, most of the arguments in both schools were claims, not documented by scientific or medical data or explanations. The only data were personal experiences or observed facts from their daily lives. The statistical information proposed by pro-smokers as well as by the anti-smokers was generally not accurate. There was very few or not at all documented information of founded arguments, the most used and convincing arguments being personal evidences coming from their daily experiences, as pleasure or displeasure to smoke, release stress or not, individual examples and so on.

The pro-smokers were convinced by some arguments of anti-smokers as (smoking harms, passive smokers,..) and the anti-

smokers admitted some arguments of the pro-smokers (smoking increasing awareness, pleasure, calm nerves…). Nevertheless, for the other topics, they opposed without enough solid arguments to convince the others. The students at both schools failed to make real justifications for their practices and beliefs.

The above results show that the teaching-learning process about tobacco in both schools needs to have some modifications to improve the students' knowledge, attitudes and practices. Documented information, coming from biological, ecological, medical, psychological, social, religious, legal or economical domains need to be added as noticed from the students' argumentations. The information may include statistical data and figures to help them make scientific arguments.

In order to fill the gap and correct some beliefs towards smoking the following measures could be considered:

1) Addressing the physical, mental, and social dimensions of health and emphasizing the social pressures and influences of smoking at lower grades.
2) Developing the students' critical thinking skills by analyzing the influence of family, peers, media, technology and culture on smoking. For example, students need to observe and practice ways to: a- analyze advertisements directed towards young people to use tobacco. b- analyze what may be driving them to use substances and aim to find a healthy alternative. c- develop counter messages that include the cost of buying cigarettes and how else that money could be used (WHO, 2001).
3) Following the health promotion conception because it focuses on: a) Healthy conception that considers the diverse health dimensions: physical, mental, emotional, social, and spiritual. b) Empowerment conception that leads to personal skills development, empowerment, informed healthy choices or decisions and c) Environmental conception that focuses on social environment (working places, domestic…) physical environment, quality of life and living conditions.
4) Focusing on change of beliefs that leads to change in attitudes and values. Teaching about smoking needs to focus on increasing the personal perception of risk and harmfulness of engaging in specific health-risk behavior. In addition, the perception of benefits needs to be highlighted since: ~~–O~~ne's belief in the efficacy of the advised action to reduce risk or seriousness of impact" and ~~–d~~efining cues to action: how, where, when" that lead students to foster anti-smoking campaigns which is one of the objectives of the lesson. In addition to ~~–c~~larifying the positive effects to be expected" (Glanz et al., 2002).
5) Taking into account the specific dangers of the different local types of tobacco smoking forms as shishas, pipes, cigars, hookahs (that appeared to be the most popular for students during the focus groups). In addition to other forms as chewing tobacco, bidis, vaporizers, and electronic cigarettes. Textbooks and teaching should also inform students about the presence of other harmful types of tobacco products as flavored tobacco and artificial charcoal that students mentioned and considered less dangerous than cigarettes.
6) Emphasizing the development of the students' communication and interpersonal skills. For example, students need to observe and practice ways to: a- Inform others of the negative health and social consequences and personal reasons for refraining from tobacco; b- Ask parents not to smoke in the car when they ride with them; c- practice ways to listen and show understanding of the reasons a friend may smoke; d- persuade head master to adopt and enforce a policy for tobacco free schools.
7) Discussing the abuse of tobacco (also drugs, steroids and alcohol) as reflecting both personal and interpersonal decisions. Emphasizing that every health behavior has effects on oneself and on others (friends, classmates, parents, siblings and other relatives) and the effects must be carefully separated, specified, and examined.
8) Using participatory teaching strategies as focus group discussions on the effect of filters, performing experiments at school, searching and presenting statistics about smokers using cigarettes with filters smoke, and others.
9) Using different instructional tools to achieve differentiated learning
10) Consider out of school activities and the hidden curriculum of the school environment and the teachers' behaviors in addition to the formal health education curriculum as they have important influence on students (Hubley, 1993 & Marks, 2009). Implementation of a smoke-free school campus policy would be very adequate.
11) Relate the economical crises and social influences on tobacco selling and using.

6. Conclusion

Even if our work is only qualitative, and limited to the analysis of eight students' arguments, during two focus groups where it was possibly difficult for them to express all they had to say, our results are interesting. The students were selected to be significant spokespersons of pro-smoking and anti-smoking students of grade six (age = 12 years), the year where the dangers of smoking are taught at school during health education. All of these eight students freely spoke, some a little more than others, but all expressing their opinion, knowledge, attitudes and practices related to the topic smoking. There were no important differences among the Lebanese and the Palestinian schools, just a difference expressing that Palestinian students smoke to ~~–f~~eel relaxed", ~~–t~~o release nervousness" in their difficult socio-economical context of Palestinian camps in Lebanon, while Lebanese students, when they smoke, do that to ~~–l~~ook mature".

The eight students poorly used the scientific knowledge taught during the year, using it as claims not rooted in demonstrations that suggest the necessity to improve the way to teach this knowledge. Moreover, the arguments used during the focus groups by the pro-smoking students as well as by their anti-smoking colleagues, clearly showed the necessity to improve this teaching, including other

knowledge but also taking into account the social practices, attitudes, and beliefs of students.

The analysis of the focus group discussions related to tobacco smoking also suggested a list of endorsements regarding textbooks and teaching sequences. To work in the existing school health policies and in monitoring their proper implementation and improvement is essential, as for example the tobacco-free school policy. The use of interactive teaching strategies that focus on the development of life skills is crucial to modify the students' behaviors and attitudes towards healthy practices. The present research on students' arguments and conceptions can also be enlarged by the analysis of the conceptions of all the actors implied in the didactic transposition (Clément, 2006): researchers, authors of syllabi and of school textbooks, teachers and authors of diverse scientific resources (TV, radio, internet, other media).

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