

Prevalence Of Tobacco Smoking And Its Correlates Among Students Of Hilla Collage University In Babylon –Iraq

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Abstract:

In the developed countries the prevalence of smoking has been decreasing in recent years, but in Iraq, the smoking prevalence is increased.

Objective: The objective of this study was to estimate the prevalence of smoking and its variables among Hilla university college students.

Methodology: A descriptive sectional convenient study was fulfilled on the students of hilla university collage for males and females who were indiscriminately Selected from different sections during the period from February 1 to May 25, 2021.

Results: Of 500 students that response for questionnaire, the smokers number was (233), the number of male smoker was (213) and female smoker was (20). the friends were the main source of the first cigarette (52.8%), majority of students not agree if one of their family were a smoker (68.7%), private issues was the main cause of smoking (48%), the percent of student's smoker drinking alcohol was (85.9%). A smoker percentage association of knowledge score and behavior score was (46.6%), The association between Socio-demographic and behavior with gender, age groups, educational stage and residence with the significant value ($P < 0.05$).

Conclusion: The rate increasing of smoking is a dangerous indicator for the health of students and future generations, also lack of health awareness of the harms of smoking for these students leading to high prevalence of smoking among hilla university collage students, especially mixed smoking, the smoking is main reason to increase of air pollutants because it contains harmful substances

Key words: tobacco smoking, addiction of smoking, smoking effect wound healing.

Introduction:

The phenomenon of smoking is one of the most dangerous human and social habits that affect the health of the individual and those around him and the environment in its entirety in a very negative way, and it is unfortunate that the huge number of warnings related to the danger of smoking; However, we find that this

phenomenon is increasing, especially among adolescents and youth, and in this regard; It was important to shed light on this bad habit, to determine its seriousness, the causes of its spread, and the ways to confront and reduce it as much as possible.[Wiersinga WM.,2013]. Smoking is not limited to one type only; In fact, there are many harmful smoking methods that result in the smoker becoming ill with diseases, weak health and immunity, and passive smokers around him also suffer double and very dangerous health risks that may lead to death in many cases, and a number of this information about smoking has been refuted through a complete research on smoking Ready to use.[Mathur R, Douglas I.etal,2017].

1.1-The harmful effects of smoking on the individual and society:

With regard to the harms of smoking, whether second-hand smoke or passive smoking, on both the individual and society; It can be summarized through the following points mentioned such as many types of cancers, increased of heart beats, effect on brain memory, asthma, respiratory problems. [Chaman R,2015]

1.2 -Tobacco components:

Tobacco consist of 4700 chemical compounds materials, about 100 of these material consider toxins and 43 materials consider drugs such as nicotine was classified as insecticide, also contain ammonia, tar, toluene, acetic acid, methane,arsenic, methanol, stearic acid, lead, cadmium that considerharmful to humans and their health. [British Thyroid Foundation.2015].

1.3- Types of smoking:

There are many types of smoking, and in the next lines we will show you the most important four types. Cigarettes come in first place, and they are considered the most prevalent and used cigarettes. Cigarettes may cause strokes and heart disease. [Thornton J, etal,2007].

Hookah comes in second place, which has spread significantly, as some believe that it is less dangerous than cigarettes, and this is denied by science, as doctors acknowledged that it is more dangerous than cigarettes, and is also a source of transmission of infection., Cigars are the third most common, as they are found only in the rich and rich class, and may cause tongue cancer. The pipe comes in fourth place, which causes tongue cancer. It is not common and is not popular with smokers. [Hammes HP. etal.1977].

1.4-The effects of tobacco smoking on the human body:

The studies clarified that thenervous cells were effected by Smoking, this effect caused by the nicotine when tobacco is burned reaches very quickly to the brain and the person sense lack of tension, but in other state a bad vibe that quickly disappears and is replaced by a sense of unjustified fatigue, fatigue and fatigue.Smoking

also effects on respiratory system because the dangerous materials entering the lung. The harmful fumes from a cigarette lead to a lack of immunity in the smoker's body, and thus he becomes more vulnerable to disease, In the event that a person continues to smoke for long periods, smoking may cause a large number of diseases such as lung cancer, bronchitis and emphysema. Smoking affects the smoker's digestive system in a clear way, as smoking causes pancreatic cancer, esophageal cancer, and oral cancer, and smoking makes the owner more likely to develop diabetes. [Bassiony, M.2013].

The aim of this study was to estimate the prevalence of smoking and its variables among hilla university college students. in Al-Hillacity,Babil, Iraq, during 2021.

Methodology:

A descriptive sectional convenient study was fulfilled on the hilla university college students for males and females who were indiscriminately Selected from different sections during the period from February 1 to May 25, 2021. The study protocol was revised and Approved by the Scientific Committee of the Hilla University College of Department of Nursing\ the Research Ethics Committee in the college. Verbal informed consent was obtained from each Student enrolled in the study, after explaining the purpose of this questionnaire. All the information achieved from the Participants was kept trusted. The tool of data collection was a pretested questionnaire. Adopted from previous standard national surveys and Studies, and the organized questionnaire was validated by A panel of via experts. The repeatability and validity of the Questionnaire were tested by piloting. [Al-Murshedi RK, and Baiee HA,2018].

Data analysis:

Statistical analysis was carried out using SPSS version 20.0. Categorical variables were presented as frequencies and Percentages. Continuous variables were presented as (means $\pm$ standard deviation). Students was compared the means between two groups. Pearson's Chi-square Test (χ^2) also used of free degree (DF) and the association between Socio-demographic and behavior. Statistically significant with $P \leq 0.05$.

Results:

500 students that response for questionnaire, the smokers number was (233), the number of male smoker was (213) and female smoker was (20). the friends were the main source of the first cigarette (52.8%), majority of students not agree if one of their family were a smoker (68.7%), private issues was the main cause of smoking (48%), the percent of student's smoker drinking alcohol was (85.9%). A smoker percentage

association of knowledge score and behavior score was (46.6%), The association between Socio-demographic and behavior with gender, age groups, educational stage and residence with the significant value ($P < 0.05$).

Table (1): distribution of study by age group, gender and residence

			Smoker	Non Smoker	χ^2	P. value
Age groups	<= 20 years	No	66	77	0.017	0.992
		%	46.2%	53.8%		
	21-24 years	No	122	139		
		%	46.7%	53.3%		
	>=25 years	No	45	51		
		%	46.9%	53.1%		
Mean ±SD(Range)	22.23±2.31(19-27)					
Gender	Male	No	213	164	0.347	0.000*
		%	56.5%	43.5%		
	Female	No	20	103		
		%	16.3%	83.7%		
Residence	Urban	No	171	193	0.077	0.782
		%	47.0%	53.0%		
	Rural	No	62	74		
		%	45.6%	54.4%		

This table showed that most of age group smoker was >=25 years and there percent was (46.9%) also showed male smoker percent was (56.5%) and female was (16.3%), Smokers residence in urban area percent were (47%).

Table (2): distribution of study according to educational stage

			Smoker	Non Smoker	χ^2	P. value
Education	First stage	No	44	52		

al Stage		%	45.8%	54.2%	0.043	0.998
	Second stage	No	66	76		
		%	46.5%	53.5%		
	Third stage	No	67	75		
		%	47.2%	52.8%		
	Fourth stage	No	56	64		
		%	46.7%	53.3%		

This table showed that the most of smokers in the third stage with (47.2%) and fourth stage comes after with (46.7%).

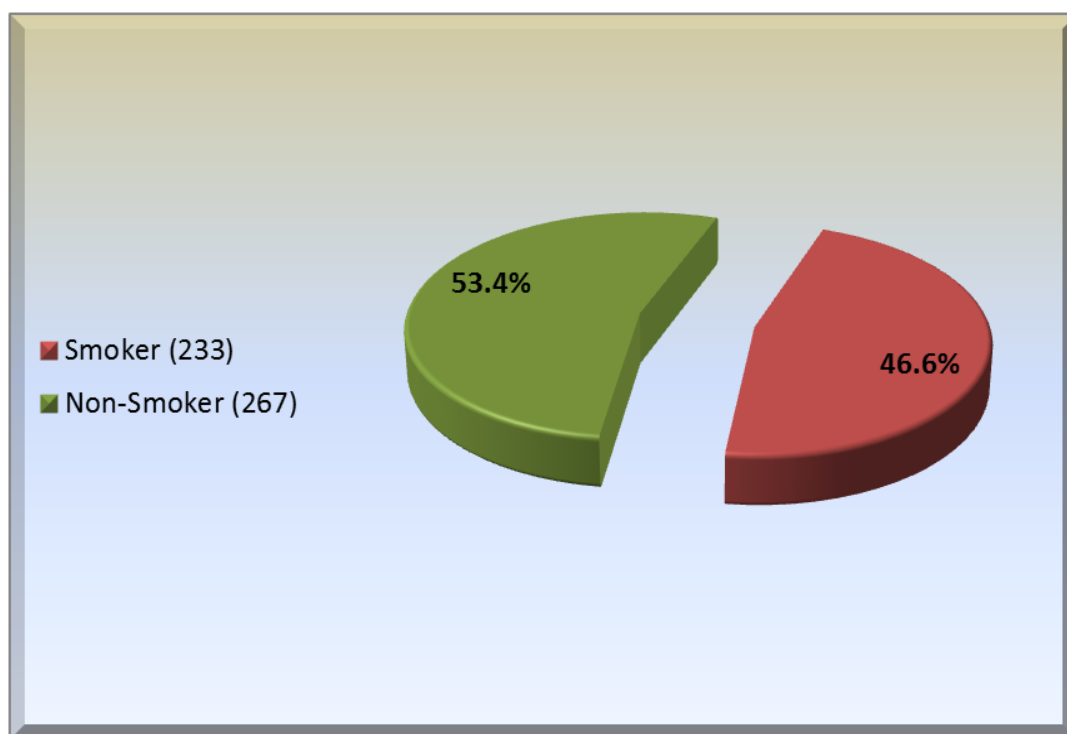


Figure (1): Smoker and non-smoker percent

Table (3): distribution the study according to type, first cigarette source and reason of smoke

		Frequency	Percent
Type of Smoking	cigarette	87	37.4

	Hookah	54	23.1
	Mixed	92	39.5
First cigarette source	Friends	123	52.8
	Bought for My	74	31.7
	Family	36	15.5
What reason pushed you up to smoke	Exams	21	9.1
	Free times	52	22.3
	Private issues	112	48
	Fun with friends	48	20.6

This table showed that most of type of smoking was mixed smoking with (39.5%) and the first cigarette source was friends with (52.8%), also showed the reason pushed to smoke was private issues with (48%).

Table (4): distribution of study according to satisfactory symptoms of smoking

satisfactory symptoms		Frequency	Percent
Cough	Yes	105	21.0
	No	128	25.6
Short of Breathing	Yes	38	7.6
	No	195	39.0
Bad mouth smell	Yes	75	15.0
	No	158	31.6

This table showed that the most symptoms was cough with (21%) and the bad mouth smell comes after with (15%) and finally short of breathing with (7.6%).

Table (5): distribution of study according to Smoker life style

Smoker Life Style	Frequency	Percent
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Duration of Smoking Per years	<=2 years	190	81.5
	>2 years	43	18.5
	Mean $\pm$ SD(Range)		1.76 $\pm$ 0.99 (1-4)
Number of Cigarettes per day	< 10 Cig	140	60.1
	10-19 Cig	91	39.1
	20-29 Cig	1	0.4
	>= 30 Cig	1	0.4
	Mean $\pm$ SD(Range)		8.48 $\pm$ 5.16 (1-30)
Number of Hookah per day	<2 Hookah	87	37.3
	>=2 hookah	146	62.7
	Mean $\pm$ SD(Range)		1.69 $\pm$ 0.59 (1-3)

This table showed that the most duration of smoking per years were less than 2 years with (81.5%), and the most number of cigarette per day were less than 10 cigarettes with (60.1%) also showed that the most number of hookah per day were more than 2 hookah with (62.7%).

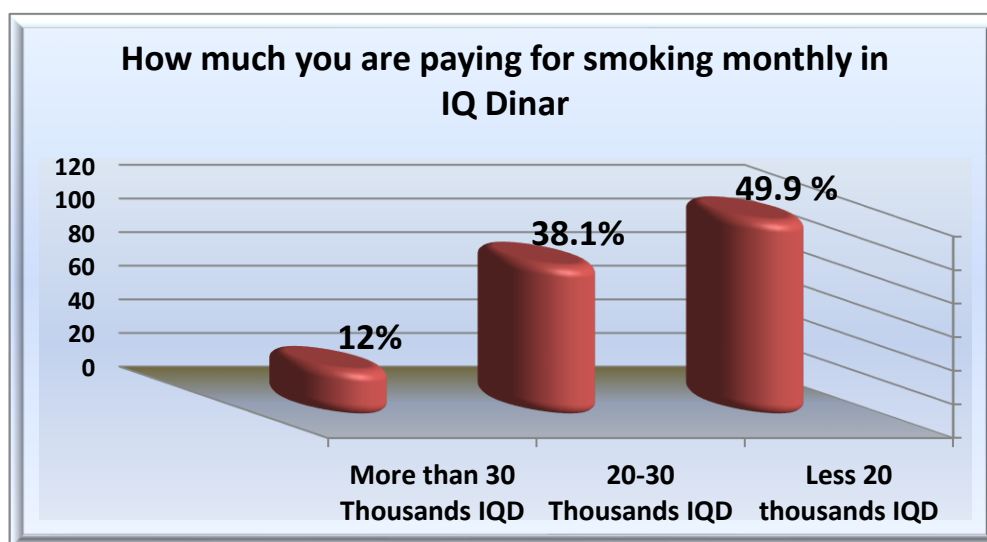


Figure (2): Money spend monthly for smoking

Table (6): Compare between smoker and non-smoker behavior

Behavior					X ²	P. value
			Smoker	Non smoker		
Do you agree if one of family being a smoker	Yes	N o	158	72	83.564	0.000*
		%	68.7%	31.3%		
	No	N o	75	195		
		%	27.8%	72.2%		
Are you with the project to establish public places without smoking	Yes	N o	228	206	46.534	0.000*
		%	52.5%	47.5%		
	No	N o	5	61		
		%	7.6%	92.4%		
Do you drink alcohol	Yes	N o	61	10	51.401	0.000*
		%	85.9%	14.1%		
	No	N o	172	257		
		%	40.1%	59.9%		
Do you take sedative pills without a doctor's prescription	Yes	N o	4	2	0.983	0.322
		%	66.7%	33.3%		
	No	N o	229	265		
		%	46.4%	53.6%		

This table showed that the smoker behavior with agree if one of family being smoker was (68.7%) and the percent of smoker with project establish public places without smoking was (52.5%), also showed that the most of the smokers were drinking alcohol with (85.9%) and smoker that take sedative pills without doctor's prescription was (66.7%).

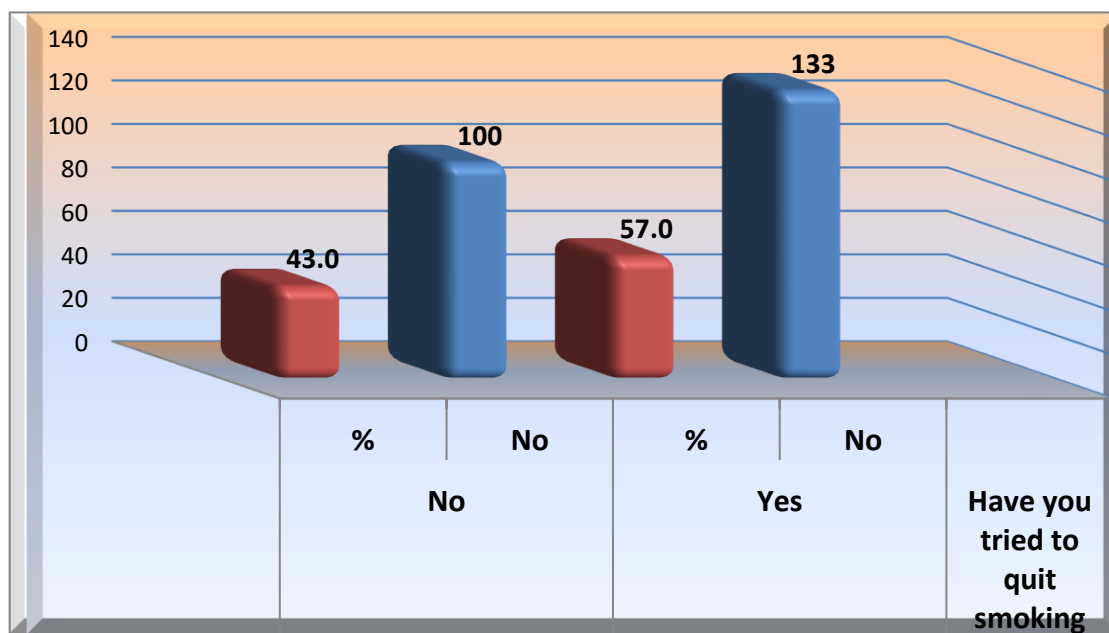


Figure (3):Smokers trying to quit smoking

Table (7): Compare between smoker and non-smoker by Knowledge

Knowledge					X ²	P. value
			Smoker	Non smoker		
Passive smoking is harmful for infants	Yes	No	163	196	0.732	0.392
		%	45.4%	54.6%		
	No	No	70	71		
		%	49.6%	50.4%		
Does smoking leads to addiction	Yes	No	198	215	1.718	0.190
		%	47.9%	52.1%		
	No	No	35	52		
		%	40.2%	59.8%		

Does a large anti-smoking campaign in the university is necessary	Yes	No	163	249	46.582	0.000*
		%	39.6%	60.4%		
	No	No	70	18		
		%	79.5%	20.5%		
Does smoking increases heart beats	Yes	No	207	234	0.172	0.678
		%	46.9%	53.1%		
	No	No	26	33		
		%	44.1%	55.9%		
Does smoking may lead to stomach cancer	Yes	No	161	222	13.698	0.000*
		%	42.0%	58.0%		
	No	No	72	45		
		%	61.5%	38.5%		

This table showed that the smoker knowledge of effect smoking on infants was (45.4%), and for addiction of smoking was (47.9%), about (39.6%) with anti-smoking campaign in university, also about (46.9%) with the smoking increases heart beats and (42%) with smoking may lead to stomach cancer.

Table (8): distribution of study according knowledge score

Knowledge Score					χ ²	P. value
			Smoker	Non smoker		
	Low	No	18	7	28.205	0.000*
		%	72.0%	28.0%		
	Moderate	No	168	151		
		%	52.7%	47.3%		
	Good	No	47	109		
		%	30.1%	69.9%		
Total		No	233	267		
		%	46.6%	53.4%		

This table showed that most of knowledge score of smokers had low(72%) and about (52.7%) had moderate also about (30.1%) had good.

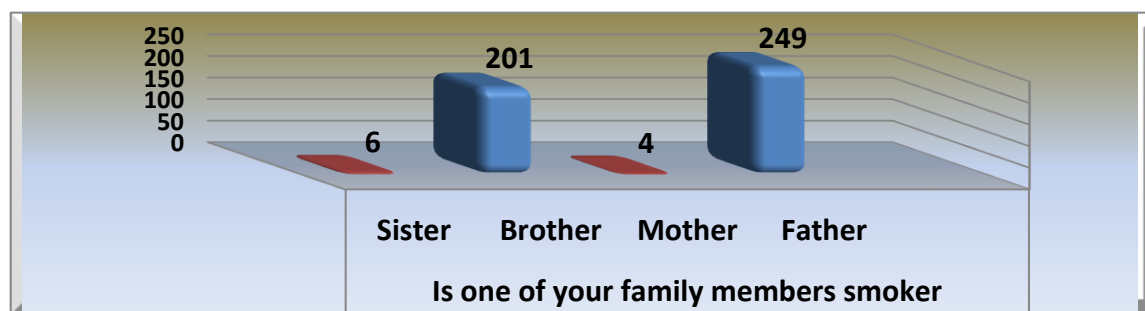


Figure (4): percent of one of family member smoker

Table (9): distribution of study according behavior score

Behavior Score					X ²	P. value
			Smoker	Non smoker		
	Low	No	48	11	53.695	0.000*
		%	81.4%	18.6%		
	Moderate	No	130	123		
		%	51.4%	48.6%		
	Good	No	55	133		
		%	29.3%	70.7%		
Total		No	233	267		
		%	46.6%	53.4%		

This table showed that the most of smoker behavior score had low (81.4%), also about (51.4%) had moderate and about (29.3%) had good behavior score.

Table (10): Association between Socio-demographic and behavior.

Demographic	Chi-Square	DF	P. value
Gender	11.479	2	0.003*
Age groups	3.022	4	0.554
Educational Stage	2.856	6	0.827

Residence	6.163	2	0.046*
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This table showed that chi-square of gender was (11.479) and degree free was (2) and p.value was (0.003). Also showed that the chi-square of age groups was (3.022) and degree free was (4) and p.value was (0.554).About (2.856) chi-square of educational stage, degree free equal to (6), p.value was (0.827). The residence chi-square was (6.163), degree free was (2) and p.value was (0.046).

Discussion:

This study reported important findings of the prevalence of smoking among hilla collage university students. In this study, the overall prevalence of smoking among hilla collage university students was (46.6%), most of them was male (91.4%). This smoking prevalence is higher than that found in another local study (21.8%). [AanerudM, etal,2015]. According to studies conducted in other countries in the region, the prevalence of smoking among adolescents was ranged between 12% and 29.8% in Saudi Arabia and 7.1% in Iran.[Jawad M, and Charide R.etal,2018], While according to the US 2016 national survey on drug use and health, the prevalence of current smokers among 12–17-year-old population was 15% and this is further lower than the pattern of our finding.[Ahrnsbrak R,etal.2016], These differences may be due to different sample size in addition to certain environmental and social factors. Furthermore, smoking models have been examined during this study. The pattern of the smoking model in the current study was that mixed smoking (hookah and cigarette (39.5%) and smoking cigarette only were (37.4%) while smoking.Hookah was the lowest model being used by the students (23.1%). These findings were disagreeing with that of another study carried out in Iraq, which found that the main tobacco use is the cigarette (13.9%) followed by shisha/hookah (4.8%) and pipe (1.4%). [Sattar, B.A.2015].

The results of this study revealed that hookah use is a growing concern among students as most of the smoker students were using hookah and cigarette. This finding may be attributed to the wrong belief among the population that hookah use is less harmful than cigarette smoking, being accepted by friends and frequent attending social places such as coffee shops which influence attendee healthy behavior. The prevalence of hookah use has increased several folds than its use in 2012, where it was only (4.8%), It is the nearest results to the ever reported highest hookah use was among Lebanese youth (65.3%).[Apostol GG, etal ,2002] It is obvious that the percentage of hookah use reported here is much higher than in other communities, for example, the current hookah use among north Carolina students was 6.1%, in Canada 5.4%, and in Iran was 6.0% in 2011.[Fakhari A,etal.2015].

Moreover, the reasons (family history, private issues, psychological stress, and self-proven) behind smoke initiation have been examined and observed in this study. These reasons have shown to interact and play a major role as a cause for smoking initiation among students. Multiple reasons were the main cause of smoking initiation in most of the reported cases. Family history was the second frequent cause. A study in Saudi Arabia, found that peer pressure and psychosocial pressure act as a risk factor for smoking, while another study who had been conducted in Iran stated that there is no significance between smoking and psychological stress, such as depression and anxiety. [KhademalhosseiniZ,etal. 2015].

3.1-Smoking effect on mouth:

This study obtain access to that the smoking is a major cause many of mouth disease such as, lip disease, tongue cancer, gum disease, tumors of the cheek disease, and bad of mouth smell. These disorders of disease or cancer including white or red spots in the mouth that do not treatment, the blisters in mouth that do not heal, also effect on teeth in the mouth like tooth decay, or conglomerates and puffiness. In other study that refer to the male smoker are ten times more likely to get mouth disease and cancer, compared to male who do not smoke. The developing orally cancer is five times higher in female who smoke compared to female who do not smoke. Only half of the people who get oral cancer will survive after five years. In this study refer to that smokers drinking alcohol consider also a major risk factor for oral cancer. Smoking and heavy alcohol caused the most states of oral cancers, and in another study refer that the combination between smoking cigarettes and drinking alcohol puts you at in the way to developing oral cancer. [Kifley A, LiewG, etal,2007].

The recent studies refer to periodontal disease (gum disease) that may be caused three times more likely when smoking, because the smoking decreasing immune system's activity to control of the harmful bacteria that cause periodontal disease. Gum disease causes the inflammation of gums that lead to infected and damaged. As the gums break down, the periodontal pockets is formed result to deep spaces between the tooth and the gum. Also these studies refer to the increasing the chances of tooth losing by decrease the support to hold them. When gums become bleeding that is consider the symptoms of periodontal pockets. In other study that clarified the nicotine in tobacco smoke reducing the quantity of blood that flow to the gums this means that the symptoms of periodontal disease may be more dangerous. Also the study refer to that the loss of teeth causes by the teeth root surfaces get exposed because periodontal pockets and are more susceptible to injury. [Chaloupka, F.J. and Pacula, R.L..1997].

3.2 - Tobacco smoking effect on lung function with asthma:

In the other studies that refer to lung function that affected by smoking cause damaged clinically defined patients with asthma which clear that The decline of lung function is more rapid among patients with more than ten years of smoked as compared with those who smoked less than ten years. These studies results suggest that having ever smoked many years is connected with quickly damage to the lung function and after ten smoked years the rate of lung function decline remains accelerated, that if the patient stopping smoking or not. [Stämpfli MR, and Anderson GP, 2009].

3.3- Smoking effect on decrease body's natural wound healing process:

The previous study clarified that the smoking is effected on the healing of different injuries by healthcare professionals for its ability of smoking that cause serious diseases, the puffing on a cigarette conducted to increase the dangerous for developing cancer and emphysema, it can also decrease the body's natural wound healing process. According to the results of other studies, the smokers face a decelerates of wound healing than their non-smoking comparing when it comes to recovering from injuries or surgeries, a process that can already be difficult by depending on the severity of the wound. [Lange P, and Parner J. et al. 1998].

3.4- Effect of Smoking to prevents wounds from receiving enough oxygen:

Few studies refer to the effect of smoking by prevents oxygen to reach to the wounds. After being inhaled, oxygen flow through the blood stream towards the wound, and it becomes very important to the biological battle to treatment infection, health was return and tissue regenerate. The studies clarified that the smoking chemicals found in cigarettes causing effected and problems on respiratory and cardiovascular, both of which can decrease the amount of oxygen that need to tissue able to receive, was explained by the National Health Service. Tobacco smoking also affected on users to inhalation of carbon monoxide that also effect and connects with erythrocytes and prevents appropriate amounts of oxygen from passing through the bloodstream. [Chaloupka, F.J. and Wechsler, H. 2000].

3.5- Tobacco Smoking effect by increased blood sugar levels:

Another studies refer to blood sugar levels have very important in medical consequences, one of which is a decreasing of the wound healing process. According to Wound Care Centers, increasing of blood sugar that may be caused by smoking, creates arterial stiffness and narrows the blood vessels. Cell clumps are often unable to pass through capillaries and the increasing of blood sugar level can also make erythrocytes accumulates together, which can result in a decrease the enough of blood flow to healing wounds. [Colak Y, Afzal S, et al, 2015].

Conclusion:

- 1- We conclude from this study that high percentage of student smokers in hilla collage university.
- 2- The rate of increase is a dangerous indicator for the health of students and future generations, in addition to their low educational, intellectual and creative level because the effect of smoking on the brain cells.
- 3- Lack of health awareness of the harms of smoking for these students.
- 4- The most important reason to seek refuge of smoking is private issues.
- 5- Little or no healthy and government oversight by not providing follow up committees.
- 6- The smoking is main reason to increase of air pollutants because it contains harmful substances.

Recommendations:

- 1- Raising awareness of students and helping them to quitting of smoking by establishing projects, public and recreational places prevent smoking.
- 2- Change the daily life style and practicing hobbies.
- 3- Adoption of low that limited of smoking with the help and research team committees.
- 4- Awareness and urging parents and families to quitting of smoking through the variety awareness programs.
- 5- Create an health and educational article in institutes and universities, where students and affiliates are provided with enough information about the health effects of abnormal behavior patterns including smoking behavior.

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