Addiction and Smoking, their relationship with disorder of some cognitive functions and personal traits among a sample of secondary school and university students in the State of Kuwait

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Introduction:^{(*)}

Addiction is among the issues that have their importance in the past, the present and the future of humanity. The past of this issue reaches the early period of humanity life, its present overwhelms the entire world, and its future is renewable and unspecific. There isn't a single society on earth that some of its individuals do not deal with a psychological substance or a drug that affects the psychological status in general, and the mental status in particular (Souif, 1996).

Since the mid 1960s, the problem of drugs occupies the priority among social problems at the international level, and the interest in it has increased since then until today **because** it is prevalent in different classes of the society and due to the emergence of serious kinds such as Heroin and cocaine, in addition to its connection with several problems such as poor psychological, educational and social adaptation, the health status deterioration, and the criminal behavior rate increase.

The declaration announced by the Public Conference of the United Nations held in 1987 points out the necessity of assessing the phenomenon of addiction, and forming comprehensive systems of gathering data and evaluating it. The Conference stresses the importance of acquiring accurate information around the patterns and functions of addiction, and what this data reveals about the phenomenon trends over the previous years, and what expected extensions of these trends are toward the visible future. The conference also stresses three main sources of information relevant to this and these sources are as follows:

a) Data registered as a part of regular process that takes place in three zones of governmental and nongovernmental medical care.

b) Incidents registered by law execution authorities.

c) Field surveys that are made by researches centers and university departments (Scientific Consultants Committee, 1992).

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According to the declaration issued by the United Nations, stressing on the third source of information, and testing the available databases on addiction in several societies; the researchers are conducting the current study on a segment of students in the Kuwaiti community. Through the studies related with taking substances affecting the nervous system and related with addiction and bad consequences of addiction among school and university students at the level of several societies. In the state of Kuwait, for example, it has been revealed that the percentage of cigarette smokers among the secondary school students reached 11.5% (Al-Moshaan, Awaid & Abdulatif, Khalifa, 2003) and 15.6% of the university students. For trying the psychoactive substances, the percentage reached 15.5% among university students. (A1-Anzy, Farih & Al-Hussein Abdulmonem, 2003).

In Egypt, Souif, M. et al., have pointed out that the rates of smoking among adolescents ranged between 10.77% and 29% through a series of studies since 1987 until 1995. At the same time, these rates increase in the American community in a way that is higher compared with Kuwait and Egypt (Botvin, et al., 2003)

From here, the risk of the early age in which the character of the adolescent or the youth in the secondary and university stages is still fragile or dangerous and vulnerable to fall as a prey to addiction becomes clear. On the other hand, the results of several studies have shown that male university and secondary school students who take drugs are among cigarette smokers, and from this it becomes apparent that the natural entry to trying drugs is smoking. (Hayder Ghalib, 1994).

Therefore, the education system in the Junior, secondary and university stages can play an effective role in protection from addiction from the start. This is what is called 'Protection of first class when efforts are oriented toward vulnerability of students to psychological ,social and educational problems, which push students

to smoke cigarettes, and therefore taking and addicting substances that affect the nervous system; which in turn leads to deterioration of some personal aspects and mental performance in general.

The Study Problem :

The current study tries to shed light on the magnitude of addiction and smoking phenomenon among segments of students in the Kuwaiti community, and the psychological and social factors connected with them, and the personal and cognitive effects resulting from addiction. This of course provide us with the opportunity to set protection plans based on scientific bases for protecting juniors from deviation and falling in the claws of this phenomenon. It also reduces the waste that results from the deterioration of health state and mental performance among the wide segment of students, knowing that we will limit our current study to smoking cigarettes and taking psychological substances (substances such as tranquillizers, recreational drugs and narcotics) other than other psychological substances (natural drugs and alcohols).

Literature Review :

Reviewing literature iii the field of the current study, we can organize studies in two main pivots :

1 .Survey epidemic studies :

Those studies that cares about to what extent the phenomenon of addiction and smoking are prevalent in our community, and the psychological social factors related with them, and the Etiology factors :

a) Studies conducted on Kuwaiti community :

The phenomenon of addiction is considered one of the complicated international problems that any society may be subjected to with different degrees. And it is one of the issues that have priority. There is an interest in what economic, social and health difficulties

and troubles this problem causes which in turn have a negative impact on the society development and contribute to hindering the efforts of development and limit the growth rates in many aspects. The problem of drugs conquered the State of Kuwait in a noticeable way during 1990s .The official statistics of the Ministry of Interior in Kuwait pointed out that there is a growing increase in addiction cases. (Al-Homaydan, A., 2003 (and in a field study conducted by the Psychological and Social Services Administration in Kuwait (1998) from which the aim was determining the size of addiction phenomenon and its dimensions among the youth in the Kuwaiti Community, in addition to recognizing their attitudes toward addiction. This was through a sample including 2000 student from secondary stage in addition to 500 teacher from teaching staff in secondary school and 590 of students 'guardians. The results were as follows :

-The rates of trying drugs among male students were higher compared with female students, especially in young ages.

- The most important reasons for addiction are:

- Trying to escape from problems of life.
- Affirming manhood and masculinity.
- Weakness of parental control.

From here. many survey studies ha e been conducted. In a stud\ conducted by Esam Nofal & Rabiaa Alrandy (1999) for determining the rate of addiction prevalence among the students of the middle stage. This was through a sample including 300 students from different educational tones in Kuwait (1 53 male students. 147 females students) at a rate of 60 students in each tone. I he results ha e revealed that about 20° **o** of middle stage students take drugs especially the unlicensed and illegal drugs such as: breathing batiks (Kind of glue) and benzene (Car fuel) or drinking some liquids and medicines which contain a percentage of alcohol such coughing medications.

Al-Qoshaan. H. & Al-Kenderi, Y. (2002) conducted a study with the aim of recognizing smokers opinions about social and economic reasons and latent factors lying behind the youths orientation toward addiction. This is through various segments of drug-takers (200 drug-takers o central prison occupants. those who are subjected to treatment and repentants). The study included 21 persons taking drugs who have treatment in the hospital of Psychiatry in Kuwait. The results have shown that there is a substantial relationship between the decline of the economic level and taking psychological substances which have an effect on the nerves among the three segments (groups) .

Al-Moshaan, Aweid & Abdulatif, Khalifi (2003) conducted a study with the aim to recognize to what extent taking substances that affect on the nerves is relevant among secondary stage students in Kuwait. This was through a sample including 4007 male and female students in governmental secondary schools (males 2172 and I 830 females) whose ages range between 13 to 21 years). After analyzing the results of the questionnaire prepared for this purpose. the results revealed that there are big Portions of students who try the substances affecting the nerves such as (medicines, alcohols and natural drugs) in addition to smoking cigarettes. Ii has been revealed that smoking and addiction often start in the end of the middle stage and the beginning of the secondary stage. Males were taking drugs more than females, and the were more interested in getting drugs. in addition to many oilier exciting results.

b) Studies conducted on foreign societies:

Kristin & Frone tried **(2000)** determining the rates of drugs and alcohols taking among the secondary stage students during school day. This was through a sample including 208 male and female students randomly chosen horn 37 secondary schools in Erie - New York. The results have shown that there is aptitude for taking drugs at school. Male students recorded high levels of drug taking compared with

females.

In a study conducted by Mohler, Lee & Wechsler (2013) aiming to determine the variables related with addiction, to which the university students were subjected during years starting from 1993 until 2001 this was through a sample including 119 university students from Harvard College for Public Health. 1 lie results pointed nut that there was an increase in addiction rates among student that reached 40° **%** between 1993—2001 especially during 1993-1997. The rates of addiction increase according in the increase in the age stages. The signs of deviation such as violence. school failure appeared. The students were afflicted with frustration and depression.

In a study conducted by Yi & Daniel (2011**)** with the purpose studying to what extent the rise of the substances affecting the nerves such as (drugs, tobacco and alcohol) and the factors related with taking these substances among a group of American university students with Vietnamese origins including 412 male and female students- is prevalent. The results have shown that both variables of gender and societal culture play the effective role in taking or not taking drugs.

In a similar study conducted by Rodham. Hawton. Evans & Weatherall (2005) aiming to determining to what extent the phenomenon of addiction and smoking among male and female adolescents in secondary schools in England through a sample including 6020 male and Female adolescents. results hay e shown that males are smoking and addiction more than females. Alcohol takers in early age (13 or 14 years) were among heavy smokers compared with students who started taking alcohols in late age (15 years).

2. Studies which paid attention to revealing the physical and psychological disorders and social problems arising from taking drugs and alcohols:

Both Tomori & Zalar (2000) conducted a stud on a sample

including 3687 students in Solvinia. The study concluded that students who smoke and take drugs were suffering from depression and afflicted with suicidal thoughts. In addition, their self- confidence was low. Wang-Min: Collins & Diclemente (2007) tried to study the relationship between depression and cocaine taking among African and American females and males. This was through a sample including 553. Results revealed an increase in degrees of depression among females who take drugs more than males. It has also been revealed that cocaine is among substances that induce variations in personality so that they become depressed. worried and confused.

The longitudinal study conducted by Disclafani: Tolou-shamns: Price & Fein (2002) aiming at measuring the relationship between cocaine taking and neural psychological functions such as (measuring IQ, remembrance. speed in neurological programming. verbal performance, attention and abstract thinking) has shown that drug takers hay e weak performance in intelligence test, and the speed of their remembrance processes is short and long-termed. In a similar study conducted by Ames: Sussman: Dent & Stacy (2005) for measuring the relationship between cognitive functions and addiction through a sample including 467 of adolescents in California State in the USA. the results revealed that the effect of addiction on memory processes in particular was significant.

In this concern. Vogel: Hurford & Smith (2003) conducted a stud aiming at determining the relationship between smoking and depression among adolescent students in secondary schools including 98 adolescents (82 students in secondary schools and 16 students in university stage) whose ages range between 16-19 years. using Multiscore Depression Inventory (MID). The results have shown that the adolescent students whose achievement was low and who lived with one of the smoking parents were usually less vulnerable to smoking and feeling depressed. I his was what their scores revealed in MDI 1 est. They were considered instrumental helpless and social

introvert especially in older ages. Some expressed their desire in suicide because of feeling unable to connect with the family or other people.

The study has also shown that female students who had low scores in MDI test were smokers. This indicated that there was a difficulty in decision making. feeling guilty, poor self-esteem. disordered temper. excess irritability and foggy thinking . All of these dimensions are measured with MIDI Test. so it is necessary to meet the adolescents needs by helping them to give up smoking and trying to train those ho have withdrawal social behavior to fulfill their needs, and therefore relieve 'eel lug guilty, isolation and feeling helpless, weak and pessimistic

The fundamental Concepts of the Study:
 1.Anxiety:

It is one of the most important traits. other than being severe arousal state or excess physiological activity (Ahmed Abdul-Khalek, 1984, page 4). Al-Tahan defined 'anxiety' (1987) as 'any negative emotional disorder, disturbing feeling. instability or feeling tense and irritable". This leads to forming a weak image of the **s**elf and the individual feels able to achieve aims and goals set by others such as parents and teachers.

2. repression:

It is one of' the negative Affective disorders of an individual. Depression with its broad sense stands for Dysphorie-mood characterized with sad feelings, helplessness. lacking competence. value and feeling lonely especial feeling guilt the American Psychiatric Dictionary defines "depression as 'a clinical syndrome consisting of decrease in mood rhythm. difficulty in thinking and psychomotor tardiness". (Campbell. 1981, p.164).

3. Self-esteem:

It is the attitude that an mdiv dual takes toward himself' and his judgment on his abilities and capabilities. Rosenberg (1978) defines it as the comprehensive tendencies of an individual whether negative or positive toward himself'

4. Psychomotor Ability:

Many psychologists tend to call this ability as 'pschomotor'. This ability includes constant strength. whole body balance, resonance time. limbs movement. various limbs cooperation, lingers skill, manual skill, arm or hand stability . accurate control (Hassan Shehata et al, 2003. page *235).*

5. Abstract Ability:

it is the ability to use abstract thoughts in working out sums and problems and dealing with new situations. (Farid Nagar. 2003). Al-Sahwa Mohamed Naguib 1990) views abstractness as the ability or the cognitive function which work out problems depending on abstractness of properties, hows, concepts or a certain phrase among a number of details or particulars that have variant amount **of** difference. then this ability evaluate these principles on all things. situations. or suitable elements whether found in direct or indirect cognition field.

6. Addiction:

It means insistence on a habit of taking a certain substance or performing specific activities for a long time with the purpose of' being in a state of ecstasy or excluding a state of depression or sadness.

Here we can point out the definition of "addiction" from Mostafa Sweif point I view, it is a definition based on the definition of' International I health organization. It shows that addiction is ''having a psychological substance without the doctor's permission whether one time on approval. on intermittent or regular basis and whether the aim is promotion, pleasure or facing pressing situations.

(Siueif,1998),

7. Smoking:

It means smoking cigarettes on a regular basis, and with an number of Cigarettes per day.

The Study Objectives

The current study aims to reveal:

1- The rates of cigarettes smoking and trying psychoactive substances among secondary and university students. males and females, in the Stale of Kuwait.

2. The nature of differences between smokers and non—smokers from the individuals of the sample concerning variables of the study which are represented in some mental performances (ability to abstract, ability to learn). psychomotor performance, and some personality traits (general worry, depression. self—esteem).

3- The nature of differences between addicting and non-addicting sample **i**ndividuals concerning variables of the study which are represented in some mental performances (ability to abstract. ability to learn). Psychomotor performance. and some personality traits (general worry, depression and self-esteem).

4- The impact of interaction between the three independent variables (gender. smoking. taking psychoactive substances on the mental performances (ability to abstract, ability to learn), psychomotor performance, and some personality traits (general worry, depression. Self-esteem).

5- Variables effective in forming performance that is based on the studs measures in some mental performance (ability to abstract. ability to learn). pschomotor performance, and some personality

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traits (general worry, depression and self-esteem). Verifying the preceding objectives can contribute to setting a concept for a protective programme takes into account protecting students from smoking and addiction, It also contributes to designing programmes oriented toward protection from addiction substances in general.

Methodology and Procedures:

Research Methodology:

The researchers have used a descriptive methodology based on comparison between subsidiary groups to determine the features of addiction and smoking. and consequently their relationship with cognitive functions and personality traits.

The study procedures:

Subjects:

The study sample consisted of *854* male and female students from some secondary schools. Kuwait university and Public Authority of Applied Education and Training (420 males. 434 females) in the age range from 14 until **ov**er 30 **y**ears, representing variables of educational stage. study branches, social status and residence place. were randomly chosen from students lists in different departments and branches.

Study Tools:

The current study tools are as follows:

The researchers use in this study six fundamental scales:
I. State-trait Anxiety Scale:

Prepared by Spielberger (1983), Arabicized and prepared by

Ahmed Ahdul-khalek .The scale consists of an inventory measuring worry as a trait, includes 20 items. and each item is answered by choosing an alternative of four alternative (ranges between 'never' and always') from 1-4 and in a way opposite to an answer key in nine phrases. The minimum score is 20 and the max mum score is 80.

The items focus on the cognitive aspect of worry which stands for relatively fixed individual differences in being vulnerable to anxiety.

2, **Beck Depression inventory:**

Arabicized by Ahmed Abdul-khalek (1996). The inventory includes 21 statements and the answer alternatives differ according to different items. Each one of them represents a category of symptoms and attitudes. Each one of them describes a behavioral appearance of depression. The range of evaluating scores for each phrase from (0-3) according to intensity and density. The inventory items were chosen based on their connection with apparent behavioral characteristics of depression. The inventory is considered one of the depression scales that is mostly used in the field of mental health, treatment and psvehia1r in the United States of America because they were especially prepared for measuring depression. And **ii** is easy to respond to them from examinees.

3. Rosenberg Self-esteem Inventory:

This inventory includes 10 items, and each item is and answered by choosing an alternative from five alternatives range between 1-5. It reflects to what extent in individual evaluate himself and his behavior from the perspective of prevalent criteria in the social cycle surrounding the individual. The scale interest focused in

particular on the adolescents evaluating themselves. Then the circle of interests widened and it included dynamics of positive self—image development in the stage of adolescence. Rosenberg considered self—esteem as a concept reflects an individuals attitude toward himself.

4. Similarities Test:

It is one of the sub-tests of Wechsler scale for measuring adults and adolescents intelligence (WAIS). It consists of 12 pairs of words, and the examinee is asked to find main aspects of similarities between two words. The score on a single item ranges between (0, 1, and 2) according to specification of similarity aspect mentioned by the examinee. It measures the ability to abstract simple concepts, forming concepts and average performance in test 10 with a standard deviation 3.

5. Associated Pairs Learning Test **(PALT)**

It is a test of' Wechsler Memory Scale tests. It consists of 10 items, and each item includes a pair of words: (6) of which are verbally associated by meaning such as (school, pupil). and they are easy pairs. and (4) pairs of' them do not have association such as (hook, balcony) and they are randomly ordered. These pairs are administered to the examinee in form of' 3 trials. Each correct item is given one mark in the recall The mean for all trials is taken. One mark is given for each correct recall of the difficult pairs and half mark is given for each easy recall. I he to1a mark is calculated as: number of difficult pairs ± number of easy pairs divided by (2).

6- Mark Making Test:

It is one of Gilford general attitudes test battery (GATB). It is consisted of 100 squares, in each of them. examinee insert the mark (II) within 30 seconds. I hat means, the examinee is required to perform the test as quickly and accuracy **is** possible to make the largest possible number of marks in a definite time of **30** seconds In

the beginning, the examinee is given two trials of 10 seconds and 20 seconds. [he mark is given as the number of correct attempts. This test measures the psycho motor speed and attention. [his scale is highly efficient in clinical differentiation and it is highly sensitive to show differences between adductor and non—adductors.

Reliability

The reliability of' the measurement of the **s**tudy, (anxiety depression as state and sell -esteem) is calculated *by* two methods.

a- the reliability of the Alpha Cronbach factor.

b- split—half for the male sample. female sample and the total sample (see tables 1 & 2).

Table (1) shows factors of Alpha Cronhach and split-half in measuring anxiety. depression and self—esteem for male sample. female sample and the total sample.

Sample & indicators Measures	Alpha croubach			Split-half		
	Male (420)	**Female (434)**	**Total (854)**	**Male (420)**	**Female (434)**	**Total (854)**
Anxiety	*.0.919	0.919	0.920	0.880	0.850	0.865
Depression	0.912	0.888	0.899	0.843	0.822	0.833
Self-esteem	0.876	0.869	0.873	0.841	0.823	0.833

* All parameters are sign**ificant beyond 0.01**

All   previous   parameters   indicate   the   presence   of   high

reliability upon using these measures in the current study. The reliability also is calculated for similarities test. PALT and mark making test **by** the use of test-retest method in a sample of 40 male & female students.

Table (2) shows the parameters of reliability by re-test method in terms of similarities, mark making and PALT.

Sample & Indicators Measures	Parameters of reliability of Re-test
Similarities	*0.886
Mark masking	0.794
PALT	0.843

* All parameters are significant beyond 0.01

The reliability as calculated by test-retest method proves that the use of the above three measures is highly reliable.

Methodology of gathering field data

a) A number of' researchers were trained on how to gather field data,.

b) The sample was determined randomly.

c) The data of the study was gathered during the period from February to June 2005.

Statistics analysis plan

1- Frequencies. percentages and critical ratios were calculated to show the indication of differences among various groups in spreading rates and associated changes.

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2-   Means, standard deviations and values of T-test were calculated between dereferences between opposite groups on the test of the study.

3-   Multiple Analysis of' Variances was calculated to show the effect of reaction between independent and dependent variables (the test of' the studs).

4-   Multiple Regression was calculated to show the contribution of independent variables in the formation of performance on the tests of the study.

Results & discussion

For the first objective aiming to examine the rates oh smoking and psychoactive substances among male and female students.

Table (3) shows rates of smoking among male and female students and differences indicator by the use **of** the critical ratio Table **(3)** shows the smoking rate among the sample (male & female) of the study

Sample & Indicators Statement	Male (420)		Female (434)		Critical ratio
	Number	**%**	**Number**	**%**	
Yes	195	46.4	26	6.0	*13.49
No	225	53.6	408	94.5	*13.49

* The critical ratio is significant at 0.01 level (see: Ferguson. 1966)

The results shown in table (3) indicates high rates of smoking for the males comparing to females **(46.4%,** males, 6% **females).** This can **be attributed as** adolescent and youth **males look** at **smoking** as

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a kind o **freedom, independency and masculine appearance. specially. adolescence** is featured some physical. mental and emotional **disorders I he anxiety of the adolescent** regarding **self or identity** may take several dimensions asking him **self** about **how others see** him? I low **others** judge me? **Does he** really **become** big? **Does he have masculine features'?** That **the first** concern of **the adolescent** in **this stage is his self** and identity.

The adolescent may become smoker as a result of being mature. free and the **attractiveness** among his smoking **friends.** also as a kind of uniformity and belongness to **a group of friends through** doing the same **behaviors. Smoking** may show **some** affection **and amicability between group** of **friends. The above explanations** may he high lighted through reviewing the reasons or occasions of first cigarette smoked as the following:

Sharing friends 38%. death of one of the parents 13.6% for trial only 12.2% masculine feature 10%, trying with friends not associated with parents 10% trying to forget a personal problem 5.9% , trying to overcome a definite situation 2.3% proud as a smoker 2.3% spending spare time 1 .80%. involvement in a social party 1.8% and as adventure 1.4%. Female students stated that smoking was an express of being high class and high prestige. The actual starting age for a smoker was about 12 years old. Obtaining cigarettes was either by seeking to get cigarettes 51.6% or by some body 48.8% this high lights what is called positive and negative engagement. Number of daily cigarettes smoked by the individuals of the sample ranged from less than ten to more than twenty cigarettes. with a mean of 20 cigarettes/ day.

Table (4) shows the rate of attempting ps**ychoactive substances** among male and **female students.**

Table (4) the rate of attempting psychoactive **substances** among the **students.**

Sample & Indicators Statement	Male (420)		Female (434)		Critical ratio
	Number	%	Number	%	
Yes	140	33.3	175	40.3	*2.12
No	280	66.7	259	59.7	*2.12

***T**he **critical** ratio **is significant** at 0.05 level**.**

The above table shows the rate of attempting various psycho medications is 33.3% o for males and 40.3% for females. This higher rate for females (the critical ratio value is significant) may he attributed to fluctuation of parents dealing with their males and females children between spoil and cruelty he parents also by being not agree with each other about the suitable way of raising make their children kill in anxie1 and confusion. So they are pushed to addiction or attempting drugs that stimuli organ self in dependency either to achieve pleasure or to avoid anxiety. This is further to the symptoms of drug withdrawal represented in psycho physic disorders results from sudden stop of taking such drugs. The parents as being unable to know how to meet and satisfy the needs of their children. and lack of awareness of the consequences of harmful impacts on the psycho health of their children ma result in social stresses leading the adolescent to addiction to avoid such impacts.

The sever use of such medications h females before the reach the age of being exposed to diseases causing physical pains is very surprising and call for the need of more research work.

The current study shows that those who attempting psycho mediations suffer from diseases and physical pains with 29,8% comparing to 1 7.6% o of those not attempting such drugs. Also. the suffer psychological disorders with 8,9% comparing to 5% of those not attempting psychoactive substances. The increase in the rate of

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addiction may he due to the existence of regular income since the study shows that 70.2% of those attempting such drugs have a regular income. however 60.3% of non-attempting have regular income.

Rates of taking various psycho medications was 66.3% for sedatives, 22.5% for stimulating drugs 29.5% for narcotics. The higher rate of sedatives may he attributed to getting used to take Panadol which is available in pharmacies on counters which relief' headaches suffered by youth because the use of' stimulates. 69.6% of the sample sought to have such drugs without prescriptions and 30.8% of the sample was given such drugs by others. 43.2% of those attempting such drugs stated hat they still tale the drugs until now, 56.8% has stopped for various reasons, the rate of being continued in using the drugs is high if compared to previous results in the same context, which in general indicates that *25%* only is continued in addiction and 75° of the sample is stopped (Soueif. M.. 1996).

For the second objective aiming to examine the nature of differences between **smokers and non-smokers in terms** of **the variables** of **the study**

Table *(5)* **shows** the differences between smokers and non-smokers.
Table (5): Means, standard deviations and (T) values their indications between smokers and non—smokers in the measu

Sample & Indicators Measures	Smokers (221)		Non-smokers (633)		(T) values
	Mean	Standard deviation	Mean	Standard deviation	
Anxiety	40.45	11.94	39.03	11.03	1.56
Depression (state)	14.41	12.47	13.44	9.66	1.14
Self-esteem	38.83	7.49	39.19	6.30	0.68
Similarities (Wechsler)	9.00	4.05	9.61	4.07	1.83

Mark making (GATB)	31.15	13.86	34.03	14.32	*2.47
PALT	3.71	1.60	4.05	1.88	*2.35
Academic grade	65.19	15.83	73.97	14.01	**7.76

* (T) Value is significant at 0.05 level ****** (I) Value is significant at 1.01 leveI

The results given in the above table show the presence of significant statistically differences between smokers and non-smokers. The non-smokers are higher in psychomotor ability; learn ability and the academic grades. This means that smokers find difficulty in learning, psychomotor abilities and academic attainments. Rates of academic future are higher among smokers may he due to continuous absence. frequent academic failure or runaway from schools. Of the psychomotor functions harmed because of smoking: deterioration of the hand and finger skills, motor coordination and speed of responding. Damage of cognitive functions is concentrated in deficiency in perception and memorizing. Especially when we consider smoking starts in the age of 12-18 years old as the actual start as shown in this study where 4.5**%** of the smokers started at age less than ten years old. However the actual age fur smokers as about twelve years old which the age of physical and mental developmental growth of the students. The most smokers of the sample 50.6% sought by themselves to obtain cigarettes. while 48.4% have been given cigarettes by others which highlight what it is called positive and negative and negative engagement

For the third objective aiming to examine the nature of differences between addicted and non-addicted in terms of **the variables of the study**

Table (6) shows the differences between addicted and non-addicted. Table (6) Means. standard deviation. (T) values and their indications between addicted and non-addicted in the measures of the study.

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Sample & Indicators	Addicted (315)		Non-addicted (539)		(T)
Measures	Mean	Standard deviation	Mean	Standard deviation	values
Anxiety	42.28	11.69	37.53	1.64	**4.78
Depression (state)	16.17	10.59	12.08	10.20	**5.34
Self-esteem	39.19	6.59	39.01	6.72	0.36
Similarities (Wechsler)	9.45	4.05	9.42	4.09	0.08
Mark making (GATB)	33.72	13.05	32.89	14.89	0.77
PALT	3.98	1.83	3.94	1.80	0.29

* (T) Value is significant at 0.01 level

-Those attempting psychoactive substances are more anxious than those non- attempting.

- These attempting psychoactive substances are more depressed than those ion— attempting. There are no difference between the groups in other variables.

- Some may ask: is anxiety and depression resulting in addiction for drug attempting? Or addiction is the reason of anxiety and depression? the answer may lead us to vicious circle. An addicted ma originally suffer personal disorders and lack compliance with his/her own society. Therefore start addiction thinking **it** might help in such had compliance. However addiction increases the disorders the personality and worsens the problem and the continuity of addiction Also, those suffering symptoms of depression sever sadness. Crying, sleeping disorders. had appetite. loss of' weight and stopping practice their hobbies, and start addict inn thinking it might help in overcoming such problem. However addiction increases the severity of depression especially with continuity of addiction in this ease is the reason behind addiction.

For achieving the forth objective aiming to examine the reaction among demographic variables and addiction variables, and the impact of **such reaction on the performance formation on the tests** of **the study.**

The researchers carried out multiple analysis of variances to examine the nature of differences between each **t**wo opposite groups and the nature of the**ir** intra reaction in each of the study measures (anxiety. depression. Self-esteem, similarities, mark making and PALT) as shown in table (7).

Table (7): (F) values and indications (results of the multiple analysis of variances to examine the impacts of the three independent variables and the intra-reaction (gender, smoking and addiction of psychoactive substances) and the measures of the basic studs.

Measures	F (Values					
Source of variances	Anxiety	Depression	Self esteem	Similarities	Mark making	PALT
Gender (male X female)	*5.53	3.06	1.06	0.06	*4.52	0.04
Smoking (smokers/ non-smokers)	3.27	1.25	0.07	2.038	0.02	2.02
Addiction (addicted/non addicted)	**10.27	**20.50	0.01	1.28	0.05	0.42
Gender X smoking	0.07	0.16	0.40	0.004	0.04	0.14
Gender X addiction	1.21	2.88	1.25	0.004	0.05	0.14
Smoking X addiction	0.49	**6.60	0.95	0.17	0.01	0.72
Gender X Smoking X addiction	0.31	**3.74	0.15	*3.76	0.06	0.01

* (F) Value is significant at 0 05 level.

** (F) Value is significant at 0.01 level.

The results of multiple analysis of variances indicate the following:
-There are differences between males and females regarding the variables of anxiety and psychomotor performance. -There are differences between addicted and non-addicted of psycho medications regarding depression.

- The reaction between smoking and addiction gives rise to depression. -The reaction between gender. addiction and smoking affects depression and ability of abstraction. So upon discussing such result. it might be said that such reaction existed between smoking and addiction affects the psychological health in such a w:i\ that the individual becomes negatively self evaluated. Further to some cognitive disorders and deformity in preceptors and memory dysfunction, the individual expects failure and becomes unable to concentrate.

Thus, it might he said that the reaction between smoking and addiction results in depression and deterioration of psychological condition. So. the individual becomes negatively self e actuated affecting his her various cognitive. emotional, social performances.

Also, gender reacts with smoking and addiction giving rise to disorder in abstraction and depression. These results come in compliance with 'A hat many researchers have reached about deterioration in the cognitive performance and the mode condition of the addicted, however such relationship dependent upon the gender of the addicted.

For the fifth last objective aiming to examine the contribution of **each independent variable in the performance formation on the dependent variables.**

The researchers carried **out** multiple regression analysis to examine the extent of' contribution of the variables: gender, age. marital status, smoking and addiction in the performance formation on the tests of the study: cognitive, mode condition and psycho motor, see table (8).

Measures	Active variables	R	r-square	F	B	Beta	T.	Sig.

Anxiety	Addiction	0.206	0.042	**33.42	-4.75	-0.206	5.78	0.001
	Gender	0.228	0.052	**20.75	2.25	0.099	2.79	0.005
	Smoking	0.250	0.063	**16.76	-3.13	-0.125	2.89	0.004
Depression	Addiction	0.191	0.036	**28.48	-4.10	-0.191	5.34	0.0001
	Gender	0.217	0.47	**18.66	2.20	-0.104	2.93	0.004
	Smoking	0.235	0.055	0.14.67	-2.56	0.110	-2.54	0.01
Self-esteem								
Similarities								
Mark making	Gender	0.149	0.022	**16.39	4.24	0.149	4.05	0.0001
	Age	0.191	0.037	**13.76	-0.41	0.121	-3.03	0.001
PALT	Age	0.149	0.22	**16.78	5.25	0.149	4.09	0.0001

** (F) Value is significant at 0.01 level.

Table (8) shows that active variables affecting the performance formation on both measures of anxiety and depression are: addiction, gender and smoking respectively While, the most important active variables affecting the formation of the psycho motor performance are: gender and age. The important active variable affecting PALT was the

age only. Regarding similarities and sell-esteem measures. the contribution of such variables was insignificant and not affecting the performance formation. These results impose future commitment to take gender variable into consideration upon studying deterioration resulting form smoking or addiction. especially when studying the features of such deterioration emotionally and on the mode condition

Recommendations

Through interpretation of the results of current study, the two researchers recommend the following:

1- Parents should follow proper ways of treatment to develop the personality of the adolescent and achieve the required self maturity so that he/she will not turn to smoking or addiction to satisfy the psychological needs and motivations.

2- Adolescents and youth should be directed about how to spend their spare time in a proper positive way satisfying their attitudes, motivations, further to the proper healthy directions for their physical and psychological powers.

3- The importance of communication between the family and the school to follow up the changes in the health, psychology and mental conditions of the student for early detection, diagnosis and treatment before reaching the stage of addiction.

4- Protective programs should be designed on well studied scientific basis to aware youth about addiction.

5- Proposing a mechanism that allow reckoning addicted students in schools and universities, specialists can carry out this task in order to start their treatment and re-qualifying them so that we can help them in achieving better attainments and optimal use of introduced educational variables.

6- Carry out a national integrated study on the level of both Ministry of Education and Ministry of Higher Education for clearer picture of the problem. Such study might be done

regularly as recommended by World Health Organization.

7- Protective information should be inserted in educational easy form into the academic syllabi.

8- This study can contribute in building a data bank about addiction and related problems in Kuwait society. Such bank will be useful in the future in carrying out studies related to the feasibility of protection and treatment on the state level.

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