

Prevalence of Smoking among Male Psychiatric Outpatients

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Received 04 / 11 / 2007 – Accepted 18 / 11 / 2007

Abstract:-

The prevalence rate of smoking among psychiatric patients has been shown to be higher than that among general population, especially those with schizophrenia and affective disorders. This may reflect self-medication of symptoms, medication side effects, and cognitive deficits associated with psychiatric disorders. The aim of the study is to examine the prevalence of smoking among male psychiatric outpatients. 384 male psychiatric patients were participating in for this study. Another 280 patients, of the same age groups, attending general outpatient department of the same hospital for medical elements other than psychiatric acted as normal control. Diagnosis was made according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). Both psychiatric patients and control group were assessed by using a smistructured interview questionnaire, which includes questions about each patient's sociodemographic variable, comprehensive smoking history. The sociodemographic of smokers among psychiatric patients were single 72.3%, come from rural areas 74.9%, illiterate or had low education 82.2% and unemployed 83.2%. A prevalence of smokers among subgroup of psychiatric patients were, Schizophrenia 80.9%, Major Depression 60%, Mania 80%, Anxiety disorder 62.7%, Somatoform disorder 51.4%, Personality disorder 65% and substance abuse disorder 71.4%. Distribution of smokers among psychiatric patients and control group, 63.8 of the psychiatric patients were smokers against 32.1% of the control group were smokers. The prevalence of smoking in psychiatric male patients is high. It is consistent with other international studies.

التدخين عند الرجال المصابين بالاضطرابات النفسية

المستخلص:-

تم إجراء الدراسة على المرضى المصابين بالإمراض النفسية من الرجال مكونة من (384) مريضاً ، أعمارهم (18-60) سنة ، خلال الفترة من كانون الثاني ولغاية تشرين الأول لعام 2007 ، وعينة ضابطة مكونة من (280) مريضاً مصابين بأمراض جسمية وبفئات عمرية مقاربة للفئات العمرية للمرضى النفسيين ، من المرضى المراجعين للعيادة الخارجية لمستشفى آزادي العام في مدينة كركوك. تم تشخيص المرضى النفسيين حسب النظام التشخيصي الرابع الصادر من جمعية الأطباء النفسيين الأمريكية (1994). فكانت النتائج أن (63.8%) من مرضى الأمراض النفسية هم مدخنين مقابل (32.1%) من مرضى العينة الضابطة هم مدخنين وبوجود فرق إحصائي مهم . إما نسب المدخنين بين مرضى الأمراض النفسية والموزعة حسب تشخيصهم المرضي فكانت (80.9%) من مرضى فصام العقل، (80%) من مرضى داء الهوس، (62.7) من مرضى القلق، (60%) من مرضى الاكتئاب، (51.4%) من مرضى اضطرابات السوماتوفورم.

Key words: prevalence, smoking, psychiatric population.

Introduction:-

An association between substance abuse and major psychiatric illnesses mainly schizophrenia and affective disorders^(1, 2). There is compelling evidence that tobacco smoking represent a form of drug addiction to nicotine, now classified as psychoactive substance abuse⁽³⁾. An important subset of refractory smokers are those with psychiatric disorders and substance use disorders, among whom smoking rates exceed those in general population by two to fourfold⁽⁴⁾. The prevalence of smoking in the general population ranges from 30% to 41% of adults in the U.S.⁽⁵⁾. Notably, the rate of tobacco use increases three times in the psychiatric population and in particular, a range of 40%-100% is found among schizophrenics. For example, the prevalence rates of smoking in patients with different diagnoses were as follows: schizophrenia 88%, mania 70%, major depressive disorder 9%, anxiety, personality, or adjustment disorder 45%-47%, against a control population prevalence 30%⁽⁶⁾. In another two separate outpatient studies^(7,8) the prevalence rates of smoking were 74% and 68% in schizophrenic patients, respectively. Furthermore, among the psychiatric inpatient population, the prevalence rates of smoking were relatively higher, and ranged from 67% to as high as 92% among institutionalized schizophrenic patients⁽⁹⁻¹¹⁾. In addition, the high prevalence of smoking among psychiatric patients was found to be strongly associated with depression, alcoholism and other psychiatric illnesses with potential and profound implication^(12,13). Smoking was significantly associated with unemployment, low education status, rural background, and drug abuse⁽¹⁴⁾. Psychiatric patients are more likely than no psychiatric subjects to be of low socioeconomic status, unmarried and to use alcohol; all of which have been associated with a higher prevalence of smoking⁽⁶⁾. Hypotheses accounting for the high rates of smoking in psychiatric disorders^(13,15,16) include:-

- 1- Shared genetic factors that determine vulnerability to both smoking and psychiatric disorders.
- 2- Self medication by cigarette smoking of clinical symptoms; medication side effects, and

cognitive deficits associated with psychiatric disorders.

3- Common environmental factors such as stress that can increase expression of smoking behavior and onset of psychiatric symptoms.

The aim of the study is to determine the prevalence of smoking among male psychiatric outpatient.

Methodology:-

384 male patients who were attending my clinic and psychiatric outpatients of Azadi general hospital in Kirkuk city, between January, 2007 and October, 2007 were participating in for this study. Age of the patients between (18-65) years. Another 280 patients, of the same age groups, attending general outpatient department of the same hospital for medical elements other than psychiatric acted as normal control. Diagnosis was made according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)⁽¹⁷⁾. Psychiatric patients were regularly following up their treatment in psychiatric clinics and had been interviewed, along with their key relatives. Both psychiatric patients and control group were assessed by using a structured interview questionnaire, which included questions about each patient's sociodemographic variable, comprehensive smoking history. Smokers were identified as those who answered yes to the question "Do you smoke cigarettes now". The author briefed each patient as well as key relatives where necessary regarding this research. Thereafter, all patients gave their verbal consent to participate in this study. Statistical analysis was done by chi-square.

Results:-

The total numbers of patients assessed were 664. The study group consist of 384 patients with psychiatric disorders and control group was made-up of 280 medically ill with no psychiatric disorders. The psychiatric groups consist of 94 with schizophrenia, 105 with major depression, 10 with mania, 51 with anxiety disorder, 20 with obsessive compulsive disorder, 55 with somatoform disorder, 41 with personality disorder and 28 with substance abuse disorder. The mean age of psychiatric patients is 39±9.2 while the mean age of control group is 38±8.9. Table 1 shows Sociodemographic variables of

smokers and nonsmoker. It was observed that a significant number of smokers were single 72.3%, come from rural areas 74.9%, illiterate or had low education 82.2% and unemployed 83.2%. Table 2 shows prevalence of smoking among diagnoses of subgroup of psychiatric outpatient. It was shown that a significant number of smokers were Schizophrenia 80.9%, Major Depression 60%, Mania 80%, Anxiety disorder 62.7%, Somatoform disorder 51.4%, Personality disorder 65% and substance abuse disorder 71.4%. Patients with Substance abuse in our sample consist patients with Drugs abuse such as Benzhexol tablet (parkizole, Artine), Clonazepam (Rivotril), Pulmocodine syrup (Antitussive syrup), Antihistamine tablet (Allermine). While the patients with obsessive-compulsive disorder had the least prevalence of smoking 5%. Table 3 shows the distribution of smokers among psychiatric patients and control group. 63.8% of the psychiatric patients were smokers against 32.1% of the control group. Table 4 shows daily frequency of cigarette smoking among subgroup of psychiatric disorders. It shows heavy smokers (more than 20 cigarettes/day) were among Psychotic patients (80% of Manic patients, 51.1% of Schizophrenic patients), 35.7% of Depressive patients and 35.7% of patients with Drugs abuse. Table 5 shows a significant difference of heavy smokers among psychiatric patients 34% versus 9.9% of control group.

Discussion:-

This study shows significantly more smoking prevalence among psychiatric patients (63.8%) than control group (32.1%) and this was similar to the result of (Hughes). The prevalence of smoking in our sample was significantly more among single (72.3%), rural areas (74.9%), illiterate and low educational level 82.2%, and unemployed 83.2%, these are consistent with ALHabeeb study⁽¹⁴⁾. Among psychiatric patients those with schizophrenia smoked higher than the elevated rates of smoking in patients with other psychiatric illness and this consistent with Kelly and McCreadie R⁽¹⁸⁾. The study shows high prevalence of smoking cigarette among manic patients (80%) and this is similar to the study of

Hughes JR et al⁽⁶⁾. The prevalence of smokers among patients with anxiety disorders was 62.7%. Nicotine in cigarette is known to relieve anxiety and anger in stressful situations⁽¹⁹⁾ so these patients may smoke as self-medication. 60% of depressed patients were smokers. This high percentage may be related to biological reinforcing effects of nicotine⁽²⁰⁾. Nicotine bind to nicotinic receptors in the brain, which augments various neurotransmitters, including dopamine, serotonin, nor epinephrine, acetylcholine, gamma amino butyric acid and glutamate to relieve the symptoms of depression⁽²⁰⁾. The prevalence of smokers among patients with drugs abuse was 71.4%. The reasons for such high prevalence are probably self medicating themselves in order to avoid discomfort associated with symptoms⁽²¹⁾, or drugs side effects⁽²²⁾. The other reason for such high result as was detected in our sample, that both drugs abuse and smoking cigarette were caused by the pressure from friends and peers. 51.1% of schizophrenic patients were heavy smokers. They were heavier than those in the control group (9.6%) and those with other psychiatric disorders (Depression 37.1%, Mania 50%, Drug abuse 35.7%, Personality disorders 34.14% and Anxiety disorder 19.6%) and this is similar to the result of Kelly C and McCreadie R⁽¹⁸⁾. This association between Schizophrenia and heavy smoking is consistent with finding of Weiser M et al⁽²³⁾. There was a significant difference in heavy smokers among psychiatric patients 32.8% against 9.6% of control group. This elevation of heavy smokers among psychiatric patients may be shared genetic factors that determine vulnerability to both smoking and psychiatric disorders, self medication by smoking and stress factor⁽¹⁶⁾. In conclusion, the prevalence of smoking in male psychiatric patients is high and in those with schizophrenia; it is higher than the elevated rates in patients with other psychiatric illness. It is significantly associated with single, illiterate or had low education, unemployment status and rural background of the patients.

Table 1: Sociodemographic variables of smokers and nonsmokers.

Variables	Total patients(384)		Smoker (N=245)		Nonsmoker (N=139)		p-value
	No.	%	No.	%	No.	%	
1-Marital state							
Single	202	52.6%	146	72.3%	56	27.7%	S
Married	182	47.4%	99	54.4%	83	45.6%	Ns
2-Residence							
Rural	195	50.8%	146	74.9%	49	25.1%	S
Urban	189	49.2%	99	52.4%	90	47.6%	Ns
3-Education level							
Illiterate and primary school level	179	46.6%	149	83.2%	30	16.8%	S
Intermediate and 2 nd school level	150	39.1%	80	53.3%	70	46.7%	Ns
University level	55	14.3%	16	29.1%	39	70.9%	s
4-Occupation							
Employed	211	54.9%	101	47.9%	110	52.1%	Ns
Unemployed	173	45.1%	144	83.2%	29	16.8%	s

S: Significant difference.

Ns: No Significant difference.

Table 2: Prevalence of smoking among diagnoses of subgroups of psychiatric outpatients.

Diagnoses	No. of patients	smokers		Non smokers		P -value
		No.	%	No.	%	
Schizophrenia	94	76	80.9	18	19.1	s
Major depression	105	63	60	42	40	s
Mania	10	8	80	2	20	s
Anxiety disorder	51	32	62.7	19	37.3	s
Obsessive compulsive disorder	20	1	5	19	95	s
Somatoform disorder	35	18	51.4	17	48.6	Ns
Personality disorder	41	27	65.9	14	34.1	s
Substance abuse disorder	28	20	71.4	8	28.5	s
Total	384	245	63.8	139	36.2	s

S: Significant difference.

Ns: No Significant difference.

Table 3: Distribution of smokers among psychiatric patients and control group.

Smoker & non smoker groups	Psychiatric patients		Control group		p-value
	No.	%	No.	%	
smokers	245	63.8	90	32.1	s
Non smoker	139	36.2	190	67.9	s
Total	384		280		

S: Significant difference.

Table 4: Daily frequency of cigarette smoking among subgroups of psychiatric disorders.

psychiatric disorders & number of patients		Smoking <10Cigarette		Smoking >10Cigarette		Smoking >20Cigarette	
Psychiatric groups	No.	No.	%	No.	%	No.	%
Schizophrenic disorder	94	6	6.4	22	23.4	48	51.1
Depression disorder	105	7	6.7	17	16.2	39	37.1
Manic disorder	10		3	30	5	50
Anxiety disorder	51	10	19.6	12	23.5	10	19.6
Obsessive compulsive	20	1	5	
Somatoform disorder	35	8	22.9	10	28.6	...	
Personality disorder	41	3	7.3	10	24.4	14	34.14
Substance abuse disorder	28	3	10.7	7	25	10	35.7
Total	384	38	9.9	81	21.1	126	32.8
Controlled group	280	34	12.1	29	10.4	27	9.6

Table 5: Daily frequency of cigarette smoking among psychiatric and control group.

No. of Cigarette/day	Patients with psychiatric disorders		Control group		p-value
	No.	%	No.	%	
Smoking <10Cigarette	38	9.9	34	12.1	Ns
Smoking >10Cigarette	78	20.3	29	10.4	s
Smoking >20Cigarette	129	34	27	9.9	s

S: Significant difference; Ns: No Significant difference

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