
**ASSESSMENT OF REHABILITATION AND SMOKING
CESSATION STRATEGIES IN PATIENTS WITH
PSYCHIATRIC DISORDERS
INTERVENTIONAL STUDY**

[3]

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ABSTRACT

Background: Tobacco use disorders associated with most psychiatric and respiratory disorders smoking ultimately destroy a person's life, rehabilitation and smoke cessation program can save the person's life.

Aim Of The Work: assessment of rehabilitation and smoking cessation program and to evaluate the improvement of the patients after following the rehabilitation program.

Patients And Methods: This is interventional study was carried on 120 patients collected from the private psychiatric clinics as a convenience sample selection 120 are tobacco use disorder and had psychiatric disorder.

Results: After one year of actual rehabilitation and smoking cessation program show improvement in clinical picture of patients

Conclusion: Smoking cessation is associated with improved quality of life compared with continuing to smoke

Recommendation: strict regulation should be adopted to prevent mal usage of smoking that lead to dependence and abuse also recommend that future policies should encourage further research into adverse health effects of smoking and the benefits of rehabilitation and smoking cessation.

Key Word: (smoking, abuse, cessation, rehabilitation)

INTRODUCTION

What is meant by rehabilitation? From the Roman Latin word *habilitas*, to restore to a former capacity, to reinstate, to restore former rights. It can also mean to prepare someone to resume normal life after an illness, or to restore to their former status. It is a service to help people recover from the difficulties of longer-term mental health problems. The rehabilitation team includes psychiatrists, counselor, nurses, occupational therapists, psychologists and social workers (Royal College of psychiatrist, 2017). Mental health rehabilitation is a form of rehabilitation that focuses on helping people to recover lost skills in coping with the demands of everyday life and restoring relationships that may have become strained or damaged as a result of problems related to mental illness or some type of substance abuse.(Psychosocial Rehabilitation Services, 2015)

In many cases, mental health rehabilitation is part of a larger rehabilitation efforts aimed at helping an individual escape from some form of addiction. Often, addiction seriously impacts the ability and the desire of the addict to engage in normal social interaction, pay attention to hygiene, and in general deal with simple tasks that most people perform each day. (Pratt *et al.*, 2002). Psychiatric rehabilitation, also known as psychosocial rehabilitation, and sometimes simplified to psych rehab by providers, is the process of restoration of community functioning and well-being of an individual diagnosed in mental health or mental or emotional disorder and who may be considered to have a psychiatric disability. Psychiatric rehabilitation work is undertaken by rehabilitation counselors, licensed professional (Crowther *et al.*, 2001). Cigarette

smoking is the most popular method of using tobacco; however, many people also use smokeless tobacco products, such as snuff and chewing tobacco. These smokeless products also contain nicotine, as well as many toxic chemicals. By inhaling tobacco smoke, the average smoker takes in 1–2 milligrams of nicotine per cigarette. When tobacco is smoked, nicotine rapidly reaches peak levels in the bloodstream and enters the brain. (Belluzzi *et al.*,2005).Most smokers use tobacco regularly because they are addicted to nicotine. Addiction is characterized by compulsive drug seeking and abuse, even in the face of negative health consequences. It is well documented that most smokers identify tobacco use as harmful and express a desire to reduce or stop using it, and nearly 35 million of them want to quit each year. (Breslauand Johnson, 2000). Research has shown how nicotine acts on the brain to produce a number of effects. Of primary importance to its addictive nature are findings that nicotine activates reward pathways—the brain circuitry that regulates feelings of pleasure. A key brain chemical involved in mediating the desire to consume drugs is the neurotransmitter dopamine, and research has shown that nicotine increases levels of dopamine in the reward circuits (Breslauand Johnson, 2000). Smoking cessation can have immediate health benefits. For example, within 24 hours of quitting, blood pressure and chances of heart attack decrease. Extensive research has shown that treatments for tobacco addiction do work. Although some smokers can quit without help, many individuals need assistance with quitting. Long-term benefits of smoking cessation include decreased risk of stroke, lung and other cancers, and coronary heart disease. A 35-year-old man who quits smoking will, on average, increase his life expectancy by 5 years (John *et al.*, 2004).

The aim of the work is to assessment of rehabilitation and smoking cessation program and to evaluate the improvement of the patients after following the rehabilitation program.

PATIENTS AND METHODS

- 1) Study design: interventional study.
- 2) Setting of the study: collected from private psychiatric clinics after patients' consent, time table from 6-2015-8-2017
- 3) Sample design: convenience sample selection

Methods:

A) Patients were initially assessed for proper diagnostic assignment.

- 1) The variables assessed were demographic data as age, and gender.
- 2) Data related to use of tobacco as consumption as age when started smoking, age when started seeking treatment began and number of cigarettes smoked per day were assessed.
- 3) Other psychiatric diagnoses were made by researcher with assistance from two senior psychiatrists conducted via a semi-structured interview according to the international classification of disease version 10 (ICD10) Diagnoses were based on all variable information, including direct interviews, collateral history and hospital records.

Number of hospitalizations was collected data also included family history of other mental disorders and also tobacco use.

- 4) History of shortness of breath, cough and wheezing, were also recorded. The diagnosis of respiratory disorder was made. Diagnosis of asthma was made according to GINA guidelines (global initiative for asthma) and chronic

obstructive pulmonary disease (COPD) was considered according to GOLD standards (Global initiative for lung disease) if there is cough and expectoration on most of the days for 3 months for 2 successive years.

- 5) Patients with presenting with broncho-pulmonary symptoms were subjected to pulmonary function testing using portable spirometer and peak expiratory flow meter by a broncho-pulmonary specialist. Forced expiratory volume in first second (FEV1) and peak expiratory flow rate (PEFR) were measured and expressed as the percent predicted values.

B) Patients were offered a smoke cessation rehabilitation program.

- 1- Interview and Standardized questionnaire.
- 2- World health organization (WHO) smoking cessation program modified to cope with Egyptian community (Within the program the patients are taken and antidepressant drugs and medical treatment)
- 3- Functional lung test before program and after 6 months from starting the program and after 12 months

The program of rehabilitation begins once the patient has the desire to quit

The program consist of 6 months of actual rehabilitation and 6 month follow up:

- In the first month make the decision to quit and understand the high risk times pick a quit dates and remove all the reminders, stay busy by work or physical activities under psychiatrist supervision start to take regular session by psychiatrist and counselor.
- in the second month, avoid the high risk situation
- in the third month follow up

- in the fourth and fifth months start strategies for maintenance like self-care, stress management and Periodic sessions are needed:
- in the six month make clinical examination, pulmonary function test
 - Each session lasts at least 30 minutes to 45 min
 - There are at least 4 sessions. Per month
 - The program lasts at least 6 month of rehabilitation and 6 month follow up during last 6 month patients take two or one session at least per month
- In the last month make functional lung test and clinical examination to evaluate the result and repeated after one year of rehabilitation.

STATISTICAL ANALYSIS

The data was verified and analyzed statistically using SPSS Statistics software (version 20). The differences with $P < 0.05$ were considered statistically significant.

RESULTS

Table (1): Descriptive groups according to age interval

	Frequency	Percent
18-30	43	35.83
31-45	52	43.33
46-60	25	20.83
Total	120	100.0

Table (2): Descriptive groups according to gender

gender	Frequency	Percent
Male	76	63.3
Female	44	36.7
Total	120	100.0

Table (3): Descriptive groups according to response to the smoking cessation program

	Frequency	Percent
No Response	58	48.3
Response(Decrease)	40	33.3
Response(Quite)	22	18.3
Total	120	100.0

Correlations:**Table (4):** Relation between cessation and age started to treatment

Program response after 12 month	r	p-value
Age started to treatment	0.180	0.049*

* Correlation is significant at the 0.05 level (2-tailed).

Table (5): Psychiatric disorders and program responses after 12 months (n=120)

Psychiatric disorder	program response after 12 month						χ^2	p-value
	no response		Response (decrease)		Response (quite)			
	No.	%	No.	%	No.	%		
General anxiety	7	5.8	8	6.7	6	5	30.446	0.001**
panic disorder	2	1.7	10	8.3	6	5		
Sleeping disorder	1	0.8	4	3.3	3	2.5		
depressive episodes	22	18.3	8	6.7	5	4.2		
psychotic disorder	26	21.6	3	2.5	0	0		
phobic disorder	4	3.3	3	2.5	2	1.7		

Table (6): Relation between smoking cessation and respiratory disorders

Program response after 12 month	r	p-value
Respiratory disorders	0.521(**)	0.003

Relation between smoking cessation and respiratory disorder is significant

DISCUSSION

Substance used disorder population shows the higher rates of psychiatry illicit substances have raised many concerns over its long term effects. often these have been about the effects of chronic use on mental health .however, the frequent practice of substance use also raises concerns over its potential for adverse effects on the respiratory system unfortunately, the illegal status of substance use make it difficult to obtain reliable data on such use and its effect (Becker *et al.*, 2007) the current study show Relation between cessation and respiratory disorder is significant (p value 0.003)

The study provided a detailed clinical picture of a sample of substance use patients hospitalized in psychiatric setting this study documented co-occurrence of substance abuse and certain specific psychiatric diseases, and the effect of rehabilitation and smoking cessation on psychiatric patient's. Screening for respiratory symptoms for further bronchopulmonary specialist assessment.

In the previous studies fifty subjects (29 male and 21 female) completed the group program and all four assessments. Their mean age was 40 years (SD=8), they had a mean of 12 years (SD=2) of education, and their mean number of previous hospital admissions was eight (SD=9). 30 subjects had made no previous attempt to quit, 17 had used nicotine replacement, and three had attended a smoking cessation program. (Addington *et al.*,1998) in current study

120 patients (76 male and 44 female) completed the program their mean age male 35(SD=11) ,female 32(SD=8), the previous hospital admission 44 patients 36.7%,75 patients had made no previous attempt to quit, family psychiatric history 45.8%,family tobacco history76.7%

The current study show the onset of starting tobacco use in age group 14-30 years and the majority is teen age in the previous studies the adolescent is particularly, challenging period in the course of development. It is also critical time for the development of psychiatric disorder ,as many adolescents are at great risk of developing of substance use related disorder(Burke *et al.*,1990) substance use and abuse among adolescents are viewed as major public health problems. The adolescent psychiatric inpatient population is at an even higher risk of use and abuse, dependence on legal or illegal tobacco, psychotropic substances and examined the prevalence of use and abuse .dependence on substances in an adolescent inpatient psychiatric population and found higher prevalence of use and abuse substance use disorder. So this study show no difference in the onset of starting of substance abuse problem the average is teen age

The evidence shows a correlation between the amount of treatment and the success rates achieved (long-term abstinence). Broadly speaking, less intense interventions achieve lower success rates. They usually potentially reach more people. The evidence so far suggests that individual and group support have similar effectiveness presents the effectiveness of the main forms of smoking cessation interventions

- Abstinence rates of the main forms of interventions
- Physician high intensity counseling (> 10 minutes) versus

- No person-to-person contact 22.1%, control 9% - Bupropion versus placebo 30.5%, control 17%
- Physician advice to quit (average length of intervention ≤ 3 minutes) versus no
- Advice to quit 10.2% .7.6%
- Proactive telephone counseling versus no special format 13.1%, 10. % (WHO)
- In the current study the percentage of response to the program 51.6%
- (decrease) 33.3% (quit) 18.3%

The Patients have panic disorder higher response 8.3% (decrease),5%(quit) 1.75% (no response)then Patients have general anxiety response 6.7% (decrease) ,5%(quit) , 5.8 (no response) then Patients have depressive episodes response 6.7%(decrease) 4,2%(quit)18.3%(no response) then

Patients have sleeping disorder response3.3% (decrease) 2.5%(quit) ,0,8 (no response) then Patients have phobic disorder response2.5%(decrease),1.7% (quit),3.3%(no response) then Patients have psychotic disorder response2.5%(decrease),0% (quit), 21.6% (no response)

Previous studies smoking rates for respondents with no mental illness, lifetime mental illness, and past-month mental illness were 22.5%, 34.8%, and 41.0%, respectively. Lifetime smoking rates were 39.1%, 55.3%, and 59.0%, respectively) $P.>001$ for all comparisons). Smokers with any history of mental illness had a self-reported quit rate of(37.1%) $P. = 0.4$,(and smokers with past-month mental illness had a self-reported quit rate of (30.5%) $P.>001$ (compared with smokers without mental illness (42.5%), in current study the percentage of quitting 18.3% , decrease consumption is 33.3% the most psychiatric disorder

more responsive to the program was panic disorder 13.3%,(8.3% decrease,5%quit), then general anxiety11.7% , 6.7% (decrease) ,5%(quit)

Persons with mental illness are about twice as likely to smoke as other persons but have substantial quit rates

in the current study the relation between smoking cessation and psychiatric disorder is negative relation $r = -0.020$, $p=0.832$

Conclusion: Smoking cessation is associated with improved quality of life compared with continuing to smoke

Recommendation: strict regulation should be adopted to prevent mal usage of smoking that lead to dependence and abuse also recommend that future policies should encourage further research into adverse health effects of smoking and the benefits of rehabilitation and smoking cessation.

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تقييم استراتيجيات إعادة التأهيل النفسي والإقلاع عن التدخين لمرضى الاضطرابات النفسية - دراسة تحفظية

[٣]

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المستخلص

إعادة تأهيل الصحة النفسية يركز على مساعدة المرضى لاستعادة المهارات المفقودة ومتطلبات الحياة اليومية واستعادة العلاقات والتخلص من الأضرار الناتجة عن المشكلات التي تتعلق بالمرض العقلي أو النفسي أو تعاطي المخدرات، يؤثر الإدمان تأثيراً خطيراً على قدرة ورغبة المدمن على الانخراط والتفاعل مع المجتمع طبيعياً وبرنامج إعادة التأهيل يهدف إلى استعادة المكونات العاطفية والنفسية للمدمنين أو الذين لديهم مشكلات نفسية وعقلية أخرى مع إعادة إدراجهم في المجتمع لاستعادة مهاراتهم. ويهدف البحث الي تقييم برامج إعادة التأهيل والإقلاع عن التدخين للمرضى الذين يعانون من أمراض عقلية، وقد أجريت الدراسة علي ١٢٠ مريضاً يتم اختيارهم ممن يترددون علي العيادات والنفسية. تأخذ البيانات من المرضى ذوي الاضطرابات العقلية باستخدام استبيان معد مسبقاً للحصول علي البيانات الشخصية للمريض وتاريخه المرضي. كذلك تم استخدام برنامج تحفظي لإعادة التأهيل مكون من عدة خطوات تلائم المريض وتساعد علي اجتياز مرحلة الاضطراب العقلي والإدمان حيث يشمل البرنامج مقابلات شخصية مع المريض بصوره دوريه وقام بتنفيذ البرنامج متخصص في إعادة التأهيل ويتميز البرنامج بالمتابعة المستمره للمريض للتغلب علي الأعراض النفسيه للإسحاب ومنع التدهور والعودة مرة أخرى للإدمان وتم عمل فحص لوظائف التنفس قبل البرنامج وبعد البرنامج بستة أشهر وسنة، وقد أظهرت النتائج تحسن الحالة النفسية والصحية للمرضى بعد إعادة التأهيل كما أظهرت النتائج تحسناً واضحاً في وظائف الجهاز التنفسي.