Knowledge, Beliefs, Attitude and Practices of Nurses Caring for Tobacco-Smoking Patients with Psychiatric Problems

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Abstract

Tobacco smoking is a common problem among residential psychiatric settings. People with mental disorders have been found to have higher rates of nicotine dependence than the general population. They also have higher mortality rate from tobacco related conditions. Nurses working in Psychiatric and mental health settings are ideally placed to deliver smoking cessation intervention to the client. ***Objective:*** *Assess knowledge, beliefs, attitude and practices of nurses caring for tobacco-smoking patients with psychiatric problem.* ***Settings:*** *The study was conducted at two settings; Neuropsychiatry Department at Tanta University Hospital and Psychiatric Department at Psychiatric, Neurology and Neurosurgery Center at Tanta University.* ***Tool:*** *Psychiatric Nurses' Knowledge, Belief, Attitude and Practices towards Patients' Tobacco-Smoking Questionnaire was used to collect the data for the present study.* ***Results:*** *The present study revealed that, more than half of studied nurses have high level of knowledge and the majority of nurses have positive attitude regarding smoking cessation, and about half of nurses have low level of practice regarding smoking cessation. Also, the majority of nurses face many challenges and barriers in helping patients to stop smoking. There were positive statistically significant relationships between the nurses' knowledge, attitude and belief and their level of practice towards psychiatric patient smoking cessation. Also this study stated a positively significant relation between nurses' level of knowledge, attitude and practices with their socio demographic characteristics; age and years of experiences, attending training program, educational level and intention to help psychiatric patient in smoking cessation.* ***Conclusion:*** *Nurses in general have knowledge, proper beliefs and a positive attitude toward smoking cessation yet, the level of practice of smoking cessation was low.* ***Recommendations:*** *The main recommendations pertaining to this study is to address training needs for nurses on smoking cessation intervention methods and techniques in addition to providing mental health nurses with the skills to deliver effective Smoking cessation intervention.*

<u>**Keywords:**</u> Smoking cessation; Nurses; Tobacco-smoking.

Introduction

The prevalence of Tobacco smoking among psychiatric patients is higher than the general population, and has a negative impact upon the physical health of this group. Tobacco has a unique place in mental health culture. Rates of smoking among people who live in psychiatric institutions are even higher around 70–74%[1,2].

Tobacco use may be defined as any habitual use of the tobacco plant leaf and its products. The predominant use of tobacco is by smoke inhalation of cigarettes, pipes, cigars and water pipes. Other forms of tobacco include smokeless tobacco which refers to a variety of tobacco products that are sniffed, sucked or chewed. Multiple factors may contribute to increased smoking prevalence among the psychiatric patients. Smoking may ameliorate the positive

symptoms of schizophrenia and may reduce the side effects of antipsychotic medications. Mentally ill smokers report more benefits such as a 'calming effect' from smoking than non-mentally ill smokers. The psychiatric inpatient environment may also contribute to high prevalence rates. Thus boredom and lack of alternative activities have been cited as contributory factors. Smoking for psychiatric inpatients is a mean of control in an otherwise uncontrollable environment. Moreover, peer pressure and reinforcement of smoking by the institution also contribute to the high prevalence of the phenomena[1, 3-5].

Psychiatric patients believed that smoking by staff encouraged them to smoke. It is difficult for inpatients in mental health setting to quit smoking because of the number of patients and staff who smoke in the ward areas. Smoking by clinical staff makes it harder for patients to quit, for such reasons then nurses' own smoking behavior and attitudes deserve further attention[5-7].

Nurses in mental health settings should identify smoking as a nursing problem and make plans for nursing interventions. Psychiatric nurses failed to consistently assess and treat tobacco use effectively. Often nurses believe that smoking may be therapeutic for patients and this attitude may reinforce the patients smoking behavior. In this stream, many studies suggest that nurses believe that smoking has a calming effect on patients and that they may use cigarettes as a tool to achieve therapeutic goals. There is a general theory that nurses' attitudes towards smoking have an impact on patient's smoking behavior. Additionally it seems that mental health professionals who are currently smokers report less knowledge compared with nonsmokers and it seems that they systematically underestimate the dangers related to smoking both in their knowledge and in their behavior. Furthermore, nurses reported patient resistance and disinterest as the major barrier to helping patients stop smoking[8-10].

Psychiatric nurses should act as role models of healthy behavior and provide support and advice for patients wishing to quit smoking .As health care providers require adequate knowledge and positive attitudes on smoking cessation interventions to support practice of these interventions, the lack of training on smoking cessation could be hindering the practice of smoking cessation methods by health care providers. In a study for Warren et al. (2009) on various health professional students in Kenya, only 27.7% of the nursing students and 26% of the medical students reported that they had received formal training in smoking cessation approaches during their training[11-13].

Recent guidelines for psychiatric facilities recommend that National Health Service Trusts move towards a smoke-free workplace with no 'smoking allowed' areas for staff. To date, there is a lack of published evidence on the extent to which this recommendation has been implemented. Moreover anecdotal evidence suggests that smoking is accepted by staff in psychiatric hospitals and to an extent, at least tacitly, encouraged; Health professionals working with this patient group and don't see it as their job to help people stop smoking. This must be unique in the health service and shows that there is a great need to achieve a total change in attitude[14-16]. Indeed, it is important to establish nurses' level of knowledge, attitude and practice of smoking cessation interventions. As undertake the majority of the daily workload with their patients[16], this study aimed to assess knowledge, attitude and practices of nurses caring for tobacco-smoking patients with psychiatric problem.

Aim of the Study

This study aimed to assess knowledge, beliefs, attitude and practices of nurses working with tobacco-smoking patients with psychiatric problem.

Research Questions:

What are the psychiatric nurses' knowledge, beliefs, the attitude and the practices about tobacco-smoking patients with psychiatric problems?

Materials and Method

Materials
Design: This study followed a descriptive research design.

Settings: The present study was conducted at two settings

- **Neuropsychiatry Department**, which is affiliated to Tanta University Hospital. The capacity of the department is 20 beds for male patients, and 25 beds for female psychiatric patients.
- **Psychiatric Department at Psychiatric, Neurology and Neurosurgery Center at Tanta University**. The capacity of this department is 25 beds for male psychiatric patients, and 15 beds for female psychiatric patient. It provides Psychiatric services to Gharbya, Menofia, and Kafr El-Sheikh governorates.

These previously mentioned settings work 7 days/week, 24h/day.

Subjects: A convenient sample of nurses constitutes the study subjects. Their number amounted to sixty nurses. Those who were working directly with psychiatric patients at the previous settings.

Tool: The following tool was used to collect data for the present study:

Psychiatric Nurses' Knowledge, Belief, Attitude and Practices towards Patients' Tobacco-Smoking Questionnaire[6,17]

It is a self-administered questionnaire specifically developed by the Department of Mental Health and Behavioral Sciences in The Faculty of Nursing, University of Athens by Koukia E. et al.[16] 28 statement

to assess psychiatric nurses' knowledge, belief, attitude and practices towards patients' tobacco-smoking. The questionnaire consisted of four parts. The first part "7 statement" referred to the mental health nurses' practices towards patients' smoking habits (e.g., assess smoking history, assess passive smoking, explain to the patient what a cessation plan means and assess the patient's smoking habits). The second part included mental health nurses' beliefs towards psychiatric patients' smoking practices "9 statements" (e.g., Psychiatric patients should be handled differently and Psychiatric patients should be allowed smoking in the unit). The third part referred to mental health nurses' attitudes towards smoking "8 statements" (e.g., Do you agree with the smoking law in Psychiatric hospitals). The fourth part included mental health nurses' knowledge towards psychiatric patients' smoking "4 statements" (e.g., knowledge of the dangers of smoking and knowledge of the dangers of smoking on mental health).

Each item in this tool for knowledge and practice was checked and scored on a three point rating scale as following:

Yes=3, Sometimes=2 and No=1.

The total score ranged from 11-33 and it is classified as:

11-18= Low, 9-26=Average and 27-33=High.

- For nurses' attitude (third part=8 statements), the format of this is two point Likert scale included Yes=2 and No=1. The total score ranging from 8-16. Score range from 8-12 indicate negative attitude, while score range from 13-16 indicate positive attitude.
- For nurses' beliefs the nurses responded by Yes or No for each statement.

In addition, a socio demographic and working characteristics sheet was attached to the questionnaire. It was used to elicit data such as sex, age, educational level, occupation, nurses' smoking habits, years of

experiences, intention to help psychiatric patients in tobacco-smoking cessation, previous training program regarding smoking cessation and the challenges that face nurse in applying tobacco-cessation interventions.

Method

- Before starting the study, an official letter was addressed to the directors of the identified study settings to request their permission and cooperation to collect data.

- The study tool submitted to jury composed of five experts in psychiatric field in Tanta University to test content validity of the questionnaire. Modification was done according to their comments.

- Cronbach alpha was used to test internal consistency of the item to test reliability of the tool(0.79)

- **Pilot study:** Before embarking on the actual study, a pilot study was carried out. The purpose of the pilot study was to test the clarity, applicability, and feasibility of the tools. In addition, it served to estimate the approximate time required for interviewing the participants as well as to find out any problem or obstacle that collection. The pilot study was conducted on 5 nurses after explanation the purpose of the study and their right to agree or refuse to participate in the study. These nurses were selected randomly and excluded later from the actual study sample. After its implementation and according to its results, the necessary modifications were made based on the finding of pilot study.

- **Actual study:** The data was collected through individual interview with each study subject.

- The time of filling the questionnaire ranged from 20-25 minutes depending

on nurse's ability and their cooperation

- Data of the study was collected over a period of three months (starting from October to December 2016).

Ethical considerations:

- Every study subject was invited to participate in this study on a voluntary basis.

- Nurses were informed about the purpose of the study and a written consent to participate was obtained from each nurse before inclusion in the study.

- Privacy and anonymity of the participant was assured, confidentiality of data were assured. The nurses have the right to withdraw from the study at any time.

Statistical Analysis

Statistical presentation and analysis of the present study results was conducted using SPSS v20. The mean, standard deviation and linear correlation coefficient tests were used. The level of significance was adopted at ≤0.05.

Results

Table (1) clarifies the distribution of the studied nurses by their socio-demographic characteristics. This table shows that, more than half of studied nurses (56.67%) were in the age group range from 20-30years with Mean±SD=30±6.243 years. More than half of studied nurses (58.33%) were male. Concerning years of experience in dealing with psychiatric patient, nurses who had from 5<10 years of experience represent the highest percentage of the study subjects (53.33%), with mean years of experiences 6.5 years. The same table indicates that 46.67 % of nurses graduated from Technical institute. About half of nurses were smoker (51.66%). More than two third of studied

nurses (68.33) had no previous training about smoking cessation.

Table (2) shows challenges and barriers that may face nurses in helping patients quit smoking. The results indicate that the majority of nurses face many challenges as; lack of time and limited time with patients (93.33%), lack of patient education materials (98.33%), Insufficient clinical training on smoking cessation interventions was a challenges for 90.0% and 91.66% of nurses reported that patients do not comply with information given on smoking cessation.

Table (3) shows distribution of studied nurses according their belief regarding psychiatric patients smoking. The results indicate that most of the nurses have the following belief; Psychiatric patients should be handled differently regarding Smoking cessation and Smoking use and cessation affects psychotropic medication therapeutic levels (70.00% and 73.33% respectively).

Figure (1) represents the level of nurse's knowledge and practice regarding psychiatric patient smoking. In relation to nurse's level of knowledge more than one half of nurses (53.33%) have high level of knowledge with mean 8.7±2.47. Regarding level of nurse's practice, less than one half of nurses (46.66%) have low level of practice with mean 13.367±4.445.

Figure (2) represents the nurse's attitude regarding psychiatric patient smoking cessation. The results indicate that the majority of nurses have positive attitude toward psychiatric patient smoking cessation (80%).

Table (4) shows the relation between nurses' knowledge regarding psychiatric patients smoking and their socio-demographic and working characteristics. One can notice positive significant relations between level of nurse's knowledge and their age, educational level, years of experience and attendance of training session (P value=0.012, 0.001, 0.001 and 0.001 respectively).

Table (5) shows nurses attitude regarding psychiatric patients smoking and their working characteristics. A positive significant relation was found between level of nurse's attitude and their educational level, years of experience and attendance of training session at P value=0.013, 0.001 and 0.002 respectively.

Table (6) shows nurses practice regarding psychiatric patients smoking and their socio-demographic and working characteristics. A positive significant relation was found between level of nurse's practice and their age and attendance of training session at P value=0.025 and 0.019 respectively.

Table (7) illustrates the correlation between nurse's knowledge, attitude and practice regarding psychiatric patients' smoking cessation. The results show a positive significant correlation between level of nurses' knowledge and their attitude at P value=0.001. Also, there is positive significant correlation between level of practices with their level of knowledge and attitude at P value=0.001 and 0.007 respectively.

Discussion

People with mental disorders have been found to have higher rates of nicotine dependence than general population. They also have higher mortality rate from tobacco related conditions. Tobacco smoking is a source of tension between client and medical staff. Psychiatric and mental health nurses are ideally placed to deliver smoking cessation interventions to client[1,15]. The present study aimed to assess knowledge, beliefs, attitude and practices of nurses working with tobacco-smoking patients with psychiatric problem

The present study revealed have high level of knowledge regarding smoking cessation regarding nurses and the most of nurses believed that; psychiatric patients should be handled differently regarding Smoking cessation and Smoking use and

cessation affects psychotropic medication therapeutic levels. This may be due to the fact that more than half of nurses were aged from 20-30 years and they were recently graduated so, they have enough update knowledge. Also, these results may be explained by about half of the studied nurses graduated from technical institute and faculty of nursing.

On the contrary the findings of Watiri (2014)[18] who had studied health care providers' knowledge, attitude and practice of smoking cessation interventions in public health facilities in Kiambu county, Kenya, were slightly different than those of the present study. On fact, he found that half of the participants' knowledge were average and the rest had poor knowledge.

Koukia and Stathopoulos (2016) aimed to investigate the knowledge, practices and belief of psychiatric nurses and nurses' assistants towards patients' smoking habits and clinical practice. They reported the existence of a number of misperceptions concerning psychiatric patients and a serious deficiency in nurses' knowledge on tobacco dependency and cessation[16].

Regarding psychiatric nurses' attitude toward psychiatric patient smoking cessation the majority of nurses have positive attitude toward psychiatric patient smoking cessation. This may be due to high level of nurses' knowledge and years of experience years in working with psychiatric patients. This result is consistent with Watiri (2014)[18] whose study in Kenya indicated that the majority of the participants had a positive and neutral attitude towards provision of smoking cessation interventions.

Present result are comparable to a study of Yan et al. (2008)[19] and McCarty et al. (2001)[20] among of health care providers in china as he found that 88% of the health care providers had positive attitude and they were playing an active role in tobacco control. Similar findings were observed in a study of McCarty et al. (2001)[20] to assess nurses'

attitude towards smoking cessation interventions in Minnesota.

A cross sectional study done by Wong (2007)[21] among nurses in New Zealand, he found three quarters of the nurses had negative attitude "disagreed that their time was better spent in helping patients with other things rather than smoking cessation".

Regarding the psychiatric nurses' practice toward psychiatric patient smoking cessation, about half of the nurses had poor practice level toward psychiatric patient smoking cessation. The majority of nurses stated that they had many barriers hindering them from practicing smoking cessation for psychiatric patients: the barriers include not having enough time to apply smoking cessation intervention, also they not having enough educational materials and sufficient clinical training program regarding smoking cessation intervention and patient resistance to stop smoking.

These findings are consistent with other studies, as Eldein, Mansour & Mohamed (2012)[22], they found that low practices level of nurses in smoking cessation intervention for psychiatric patients . In the same stream, Watiri (2014)[18] reported health care providers' failure to practicing and document the patients smoking status was contribute to missed opportunities in the establishing smoking cessation interventions in public health facilities in Kenya. This is comparable to Abdullah et al. (2006)[23] who found that despite knowing the smoking status of patients, only 1 in 3 doctors and nurses advised all smoking patients to quit.

Regarding the relation between nurses' knowledge, attitude and practices, the result indicated a positive significant relation between nurses' knowledge and attitude with their level of practices, this result is consistent with findings in other studies done by Abdullah (2006)[23], Albert (2005)[24] and Passey (2012)[10] which stated that higher knowledge was associated with better practice of smoking cessation interventions. A more positive attitude

towards the provision of smoking cessation interventions was also significantly associated with better practice scores.

Also, regarding the relation between nurses' the socio-demographic characteristics and their level of knowledge, attitude and practices toward smoking cessation, this study stated a positive significant relation between nurses' level of knowledge, attitude and practices with their age and years of experiences, attended of training program, educational level and their intention to help psychiatric patient in smoking cessation. This is in congruence to findings in other studies that have found significant differences in the smoking cessation practices based on age or number of years of experiences Abdullah et al. (2006)[23]; Gan et al. (2007)[25]; Ulbricht et al. (2006)[26].

In contrast, in a study carried out by Lam et al. (2011)[27] to assess whether sex mattered towards the smoking cessation practices of health care providers in China, females were found to be more likely to provide smoking cessation interventions as compared to males.

Conclusion

The results of the present study largely responded to its research question. It can be concluded that nurses in general have knowledge, proper believes and a positive attitude toward smoking cessation yet, the level of practice of smoking cessation was low. In addition nurses face many challenges hindering them from helping psychiatric patients to stop smoking. Moreover certain factors were found to affect knowledge, attitude, belief and practice these were clarifying the actual nurses' knowledge, attitude, belief and practice of nurses working with tobacco smoking patient with psychiatric problems.

Recommendations

The followings are the main recommendations yielded by this study:

- Address training needs for nurses on smoking cessation intervention methods and techniques

- Provide health care facilities with information, educational and communication (IEC) materials such as posters and brochures to aid in the delivery of smoking cessation interventions to patients.

- Smoking cessation intervention programs should be a part of core business of daily work schedule for mental health nurse. These programs should be geared towards provides mental health nurses with the necessary knowledge and skills to deliver effective smoking cessation intervention. Moreover methodologies of the training programs clearing a positive attitude towards Smoking cessation.

Acknowledgement

Table (1): Distribution of studied nurses according to their socio-demographic characteristics (No=60)

Socio-demographic Characteristics	N	%
Age		
20-	34	56.67
30-	22	36.67
>40+	4	6.67
Mean±SD=30±6.243		
Gender		
Male	35	58.33
Female	25	41.67
Educational		
Diploma	24	40.00
Technical institute	28	46.67
Bachelor of nursing	8	13.33
Years of experience		
1<5	20	33.33
5<10	32	53.33
>10+	8	13.33
Mean±SD=6.5±2.843		
Do they Smoke?		
Yes	31	51.67
No	29	48.33
Have Previous Training program about tobacco-smoking cessation		
Yes	19	31.66
No	41	68.33

Table (2): Distribution of studied nurses according to the challenges and barriers that facing them in helping patients quit smoking (No=60)

Challenges and barriers	N	%
1. Patients are not interested in receiving smoking cessation information	50	83.33
2. Patients do not comply to information given on smoking cessation	55	91.66
3. Lack of time/ time with patients is limited	56	93.33
4. Lack of smoking cessation specialists to refer patients to for further assistance	55	91.66
5. Lack of patient education material (brochures/pamphlets)	59	98.33
6. Insufficient training on smoking cessation interventions	54	90.0
7. Insufficient knowledge on smoking cessation interventions	46	76.66

Responses are not mutually exclusive

Table (3): Distribution of studied nurses according to their belief regarding psychiatric patients smoking cessation (No=60)

Nurses' beliefs regarding smoking cessation	N	%
1. Psychiatric patients should be handled differently regarding Smoking cessation	42	70.0
2. Psychiatric patients should be allowed smoking in the unit	40	66.66
3. Smoking cessation may exacerbate psychiatric symptoms	36	60.0
4. Smoking use and cessation affects psychotropic medication therapeutic levels	44	73.33
5. Smoking establishes therapeutic relationship	23	38.33
6. Nurses should try to persuade psychiatric patient to quit smoking	15	25.00
7. Nurses should organize a seminar on tobacco cessation inside the psychiatric unit	18	30.00
8. Smoking cessation to psychiatric patient may provoke illness relapse	25	41.66
9. Psychiatric hospital should have a smoking room for patients inside the unit	15	25.00

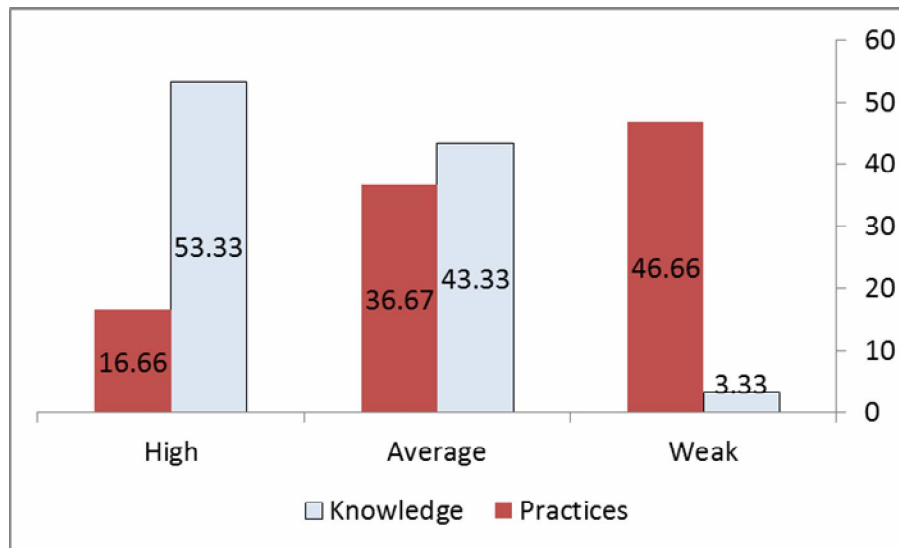Responses are not mutually exclusive

Figure (1): The nurse's knowledge and practices regarding psychiatric patients smoking cessation
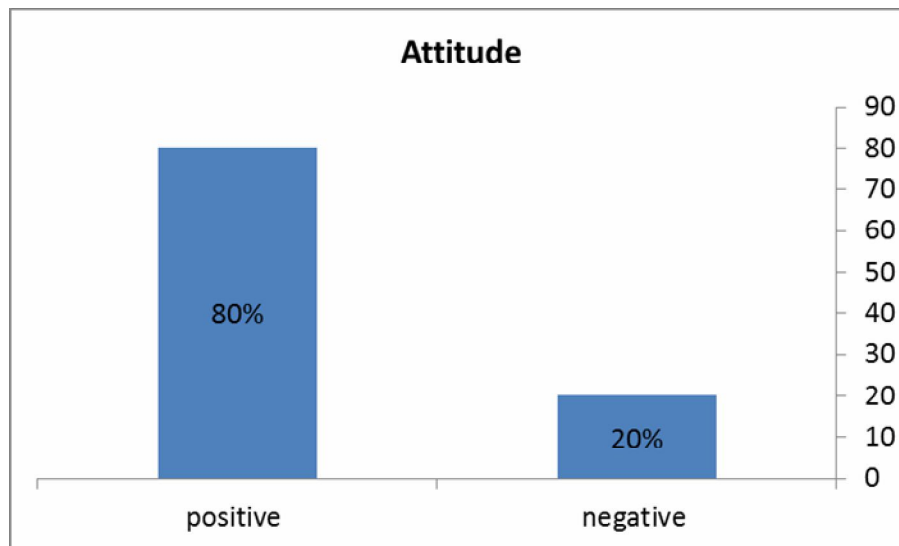

Figure (2): The nurse's attitude regarding psychiatric patients smoking cessation

Table (4): Nurse's knowledge regarding psychiatric patients smoking by their socio-demographic and working characteristics

Socio-demographic data		N	Knowledge			F or T	ANOVA or T-test	
			Mean	±	SD		Test value	P-value
Age	20-	34	8.706	±	2.277	F	4.772	0.012*
	30-	22	8.091	±	2.562			
	>40	4	12.000	±	1.050			
Gender	Male	35	8.400	±	2.252	T	-1.114	0.270
	Female	25	9.120	±	2.743			
Educational level	Diploma	24	7.333	±	1.880	F	12.742	<0.001*
	Technical Institute	28	9.071	±	2.448			
	Bachelor	8	11.500	±	0.926			
Years of experience in working with psychiatric patients	1<5 years	20	8.600	±	2.393	F	7.601	<0.001*
	5<10 years	32	8.063	±	2.341			
	>10 years	8	11.500	±	0.926			
Smoker	Yes	35	8.143	±	2.002	T	-2.126	0.038
	No	25	9.480	±	2.874			
Previous Training Program about tobacco-smoking cessation	Yes	24	10.667	±	1.786	T	6.602	<0.001*
	No	36	7.389	±	1.946			
	Two	12	10.167	±	2.368			

*Significant at p≤0.05

Table (5): Nurse's attitude regarding psychiatric patients smoking cessation by their socio-demographic and working characteristics

Socio-demographic data		N	Attitude			F or T	ANOVA or T-test	
			Mean	±	SD		Test value	P-value
Age	20-	34	15.647	±	2.423	F	1.671	0.197
	30-	22	14.455	±	4.032			
	>40	4	16.000	±	1.500			
Gender	Male	35	15.571	±	2.800	T	0.800	0.427
	Female	25	14.920	±	3.499			
Educational level	Diploma	24	14.250	±	4.110	F	4.703	0.013*
	Technical Institute	28	15.464	±	1.774			
	Bachelor	8	15.875	±	1.356			
Years of experience in working with psychiatric patients	1<5 years	20	15.500	±	2.328	F	9.712	<0.001*
	5<10 years	32	13.906	±	3.145			
	>10 years	8	15.875	±	1.356			
Smoker	Yes	35	15.600	±	2.872	T	0.886	0.379
	No	25	14.880	±	3.407			
Previous Training Program about tobacco-smoking cessation	Yes	24	16.750	±	1.847	T	3.180	0.002*
	No	36	14.333	±	3.397			
	Two	12	15.250	±	2.006			

*Significant at p≤0.05

Table (6): Nurse's practices regarding psychiatric patients smoking cessation by their socio-demographic and working characteristics

Socio-demographic data		N	Practices			F or T	ANOVA or T-test	
			Mean	±	SD		Test value	P-value
Age	20-	34	14.706	±	4.668	F	3.934	0.025*
	30-	22	11.545	±	3.814			
	>40	4	12.000	±	1.055			
Gender	Male	35	13.086	±	4.816	T	-0.576	0.567
	Female	25	13.760	±	3.929			
Educational level	Diploma	24	12.667	±	5.843	F	0.533	0.590
	Technical Institute	28	13.714	±	3.387			
	Bachelor	8	14.250	±	2.659			
Years of experience in working with psychiatric patients	1<5 years	20	12.900	±	4.364	F	0.265	0.768
	5<10 years	32	13.438	±	4.899			
	>10 years	8	14.250	±	2.659			
Smoker	Yes	35	13.629	±	4.947	T	0.537	0.594
	No	25	13.000	±	3.697			
Previous Training Program about tobacco-smoking cessation	Yes	24	15.000	±	2.467	T	2.417	0.019*
	No	36	12.278	±	5.125			
	Two	12	13.333	±	1.775			

*Significant at p≤0.05

Table (7): Correlation between nurse's knowledge, attitude and practice regarding psychiatric patients smoking cessation

Correlations		Knowledge	Attitude	Practices
Attitude	**R**	0.423		
	P-value	<0.001*		
Practices	**R**	0.596	0.346	
	P-value	<0.001*	0.007*	

*Significant at p≤0.05

References

1. Beaurepaire R. Smoking, schizophrenia and the self-medication hypothesis. Int J Clin Rev 2012; 05: 061.

2. Olivier D, Lubman DI, Fraser R .Tobacco smoking within psychiatric inpatient settings: biopsychosocial perspective. Aust N Z J Psychiatry 2007; 41: 572-580.

3. Tsoi DT, Porwal M, Webster AC. Interventions for smoking cessation and reduction in individuals with schizophrenia. Cochrane Database Syst Rev 2010; 6

4. Beaurepaire R, Rat P, Hachimi N, Benslimane N, Djellil F .Attitudes towards a Complete Smoking Ban among Mental Health Hospital Employees in France. Arch Nurs Pract Care 2015; 1(1): 010-014.

5. WHO. WHO Health Professionals and Tobacco Control. A Briefing File for the WHO European. January 2, 2007.

6. Okasha A. Mental Health Services in Egypt. The Journal of Sociology & Social Welfare 1991; (18).

7. Kumari S. Reduction of Smoking Rate among Psychiatric Patients in Tennessee Master's in Public Health: East Tennessee State University 2012.

8. Slater P, Elwee G, Fleming P, McKenna H. Nurses' smoking behaviour related to cessation practice. Nurs Times 2006; 102: 32-37.

9. Keizer I, Gex-Fabry M, Bruegger A, Croquette P, Khan AN. Staff representations and tobacco-related practices in a psychiatric hospital with an indoor smoking ban. Int J Ment Health Nurs2013; 23: 171-182.

10. Passey M. E, Sanson R. W. Knowledge, attitudes and other factors associated with assessment of tobacco smoking among pregnant Aboriginal women by health care providers: a cross-sectional survey. BMC Public Health 2012; 165(12).

11. Warren C. W, Asma S, Lee J, Mackay J. Global Health Professions Student Survey. In J. King & C. Lacey (Eds.), Global Tobacco Surveillance System: The GTSS Atlas. Brighton, UK: Myriad Editions 2009; pp. 63–73.

12. Jiang Y, Michael K& Elisa K. Chinese Physicians and Their Smoking Knowledge, Attitudes, and Practices. Am J Prev Med. 2007; 33(1): 15–22.

13. Lawn S and Campion J. Achieving Smoke-Free Mental Health Services: Lessons from the Past Decade of Implementation Research Int J Environ Res Public Health 2013; 10: 4224-4244

14. Lisa M, Adenekan O, Annan J, Katherine P, Freeman S, Barbara W. A survey of staff attitudes to smoking-related policy and intervention in psychiatric and general health care setting. Journal of Public Health 2006; (28)3:192–196.

15. Dickens G .Smoking and mental health nurses: a survey of clinical staff in a psychiatric hospital. Journal of Psychiatric and Mental Health Nursing 2004; 11: 445–451.

16. Koukia E, Nikolaos Gonisa, Michael Kourakosb. Psychiatric nurses' knowledge and practices towards patients 'Tobacco-related habits in Mental Health Hospitals in Greece. Tob Prev Cessation 2016; (2): 3. Available at: http://dx.doi.org/10.18332/tpc/61805

17. Wye P, Bowman J, Wiggers J, Baker A, Knight J. Total smoking bans in psychiatric inpatient services: a survey of perceived benefits, barriers and support among staff. BMC Public Health 2010; 10: 372.

18. Watiri G J. Health care provider's knowledge, attitude and practice of smoking cessation interventions in

public health facilities in Kiambu County, Kenya. A thesis submitted in partial fulfillment for the award of a degree of masters of public health, University of Nairobi 2014.

19. Yan J, Xiao S, Ouyang D, Jiang D, He C, Yi S. Smoking behavior, knowledge, attitudes and practice among health care providers in Changsha city, China. Nicotine & Tobacco Research 2008; 10(4):737–44.

20. McCarty MC, Hennrikus DJ, Lando H. A, Vessey JT. Nurses' Attitudes Concerning the Delivery of Brief Cessation Advice to Hospitalized Smokers. Preventive Medicine 2001; 681, 674–681.

21. Wong G, Fishman Z, McRobbie H, Arroll B, Sharon Clair, Freeman B, Clair S. Smoking and nurses in New Zealand: Assessment of smoking history, knowledge and attitudes of nurses in New Zealand. New Zealand: ASH New Zealand 2007.

22. Eldein H, Mansour N & Mohamed S. Knowledge, attitude and practice of family physicians regarding smoking cessation counseling in family practice centers, Suez Canal University, Egypt. Journal of Family Medicine and Primary Care 2013; 2(2):159.

23. Abdullah A S, Husten G. Promotion of smoking cessation in developing countries: a framework for urgent public health interventions. Thorax 2004; 59: 623–630.

24. Albert DA, Severson H, Gordon J, Ward A, Andrews J, Sadowsky D. Tobacco attitudes, practices, and behaviors: A survey of dentists participating in managed care. Nicotine & Tobacco Research 2005; 7(4): 9–18.

25. Gan Q, Jiang Y, Tong E, Yang Y, Nan Y. Chinese physicians and their smoking knowledge, attitudes, and practices. American Journal of Preventive Medicine 2007; 33(1): 15–22.

26. Ulbricht S, Meyer C, Schumann A, Hapke U, John U. Provision of smoking cessation counseling by general practitioners assisted by training and screening procedure. Patient Education and Counseling 2006; 63: 232–238.

27. Lam T, Chan Y, Siu S, Chan C. Smoking cessation intervention practices in Chinese physicians: do gender and smoking status matter? Health and Social Care in the Community 2011; 19(2): 126–137.