

ORIGINAL PAPER

A Study of Patients' Smoking Habits in a Psychiatric Hospital

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Abstract

Background: Global smoking-related mortality is predicted to increase rapidly. The close and complex relationship between smoking and psychiatric disorders exposes smokers with mental illness to increased smoking-related risks. The prevalence of cigarette smoking is significantly higher among patients with psychiatric illnesses than among general population. Our study aimed at finding the mental health patients' views and attitudes regarding their smoking habits.

Methods: Inpatients of a large psychiatric hospital were studied (March-June 2012), using a semi-structured interview based on Dickens' et al (2005) questionnaire enriched with demographic/medical file data and smoking profile. Of the eligible 100 patients, 80 (80%) agreed to participate after giving their signed consent. Statistical analysis was performed by using descriptive statistics (means and frequencies).

Results: The sample was male (67.5%), with mean age 52.6 (± 12.9) years old, with schizophrenia (50%), schizoaffective (15%) and bipolar (7.5%) disorders. All the participants were current smokers consuming 27.4 (± 13.4) cigarettes per day. All our patients have thought to give up smoking and need help in doing so (70%). Smoky atmosphere on the ward and seeing staff/other patients smoking are barriers to quitting. Participants (47.5%) thought that staff should be allowed to smoke with patients.

Conclusions: Psychiatric care staff should consider whether their own smoking behavior undermines their patients' attempts to stop smoking. Smokers should be regularly offered help and encouragement to quit. Healthcare providers should tailor their treatment approaches accordingly.

Keywords: smoking, mental patients, attitudes & beliefs

Introduction

Tobacco was imported in Greece during the 17th century and, despite state and church reactions and bans, its use spread with rapidity. According to the World Health Organisation (WHO) smokers worldwide are estimated to one billion (WHO, 2014).

Tobacco dependence is now acknowledged as a chronic condition that accounts for nearly half a million premature deaths each year in the U.S. alone (CDC, 2005; Fiore et al., 2008, Tzenalis & Sotiriadou, 2009; Merakou et al, 2014). Furthermore, the global health burden of cigarette smoking is

huge, with the recent incidence of smoking-related mortality being estimated at over five million people annually and predicted to increase to approximately one billion smoking-related deaths during the twenty-first century (Jha, 2009; Aubin et al., 2012). In Europe 215 million people are smokers, divided in 34% males in Western and 47% in Eastern Europe, whereas in females the proportion is 25% in Western and 20% in Eastern Europe (WHO, 2007). A gender difference in smoking rates is reported from most parts of the world, due to the fact that males are markedly overrepresented among cigarette smokers (Pauly, 2008; Pogun et al.,

2009; Dome et al., 2010). Greece has the highest proportion of smokers between the Western European countries (37.6%) (WHO, 2007).

Mental patients and their smoking habits were studied for the first time in 1986 and higher rates of smoking than general population were found (Hughes et al., 1986). Almost twenty years later a series of motives that lead mentally patients to smoking were described. It was found that psychosocial, sensor-motor, weakness – retreat – satisfaction (neurochemical, neurobiological addiction theories), stimulation, relaxation, addiction and automatism were interfering with smoking habits (Lujic et al., 2005). Researches on mental health and smoking habits have shown healthy mental state as a prognostic factor of smoking and a positive relationship of smoking and anxiety (Epstein et al., 2000; Simantov et al., 2000). The majority of mental patients have a diagnosis of schizophrenia, an illness with high mortality rates from smoking-related diseases (Brown et al., 2000). This might be true for the long-term hospitalized mentally ill but not for mentally ill in general and that needs more research. The causes of high prevalence of smoking in psychiatric hospitalized patients are multi-factorial: low social status (Rasul et al., 2001; Montoya et al., 2005), therapeutic effects of nicotine (Lawn et al., 2002), alleviation of antipsychotic therapy effects (Levin et al., 1996), calming effects of smoking (Spring et al., 2003) and hospital culture (Lawn et al., 2002; Dickens et al., 2005).

Having all the above in mind it was decided to study the mentally patients in Greece, as there are no research data. Our study aimed at finding the mental health patients' views and attitudes regarding their smoking habits.

Materials and Methods

Design

Adult in-patients of a psychiatric hospital were studied using a semi-structured interview based on Dickens' et al. (2005) questionnaire enriched with demographic data (age, gender, length of hospitalization, Mental Health Act status), medical file data (diagnosis according to ICD-10, medications, first diagnosis, number of hospitalizations,

co-morbidity) and smoking profile (duration of smoking, age and reasons for starting to smoke, number of cigarettes per day, their beliefs about harming their health). The questionnaire consisted of yes/no response items and statements requiring a response on a 5-point Likert scale.

A convenience sample that included all the then hospitalized patients in a Psychiatric Hospital's medicine department was selected. The size of the sample and the fact that it came from one particular setting denote that the results cannot be generalized. The present study is just the primary stage of a large-scale study already taking place in psychiatric hospitals and other Mental Health settings.

Ethical approval was obtained from the Ethics Committee of the hospital. Of the eligible 100 patients, 80 agreed to participate after giving their signed consent (response rate 80%) and 20 were identified either as unable to participate or refused to do so. Face-to-face interviews with the first researcher were undertaken (March- June 2012), privately, in the living room of their wards, in order for them to feel more comfortable and at ease. Patients not giving their written consent, patients that retreat during the interview, autistic patients and users of toxic substances were excluded from the study.

Smoking Policy

According to the Hospital's smoking policy, patients and guests are allowed to smoke in the departments' lounges. Restricted patients are not allowed to smoke, while unruly patients are given a cigarette after specific agreements. Smoking habit is not used as a motivation or a banning method. Hospital staff is allowed to smoke only in clearly designated areas during the break.

Statistical analysis

Statistical analysis was performed by the SPSS17.00 by using descriptive statistics with mean and frequencies.

Results

Patients' sociodemographic and clinical characteristics are presented in Table 1; respondents were male (67.5%) and female (32.5%), with mean age 52.6 (± 12.9) years

Table 1. Sociodemographic & clinical characteristics of patients

	TOTAL	
	%	Sample n
Gender		
Male	67.5	54
Female	32.5	26
Age (years)	52.55 ±12.91	
Place of residence		
Rural	2.5	2
Semi-urban	0	0
Urban	97.5	78
Family Status		
Unmarried	62.5	50
Married	12.5	10
Widow	17.5	14
Divorced	7.5	6
Separated	0	0
Live with someone	0	0
Profession		
Unskilled worker	30	24
Skilled worker	10	8
Freelance professional	10	8
Middle employee	12.5	10
Higher/executive employee	5	4
Pensioner	10	8
Housewife	0	0
Student	2.5	2
Unemployed due to mental illness	20	16
Income		
none	17.5	14
< 999€	75	60
1000-2500€	5	4
>2500€	2.5	2
Primary mental disease		
Schizophrenia (F20)	50	40
Persistent delusional disorders (F22)	5	4
Acute & transient psychotic disorders (F23)	2.5	2
Induced delusional disorder (F24)	2.5	2
Schizoaffective disorders (F25)	15	12
Other nonorganic psychotic disorders (F28)	5	4
Bipolar affective disorders (F31)	7.5	6
Depressive episode (F32)	5	4
Persistent mood (affective) disorders	5	4
Obsessive-compulsive disorder	2.5	2
Current medication		
Neuroleptics	85	68
Antidepressants	20	16
Antiepileptic	7.5	6
Respiratory	2.5	2
Cardiological	12.5	10
Antihypertensive	2.5	2
Antiinflammatory	2.5	2
Antidiabetics	10	8

Table 2 Smoking habits of the sample.

		Total	
		%	Sample (n)
Ever smoked cigarettes	Yes	100	80
	No	0	0
Smoking at the time of study	Daily	95	76
	Sometimes	5	4
Smoking prior to admission	Yes	90	72
	No	10	8
Thoughts of smoking cessation	Yes	100	80
Ever tried to stop smoking b	Yes	60	48
	No	40	32
Something that prevents smoking cessation	Yes	5	4
	No	95	76
Needing help to stop smoking	Yes	70	56
	No	30	24
Type of help to stop smoking			
	Nicotine substitutes	27.5	22
	Smoking cessation sessions	7.5	6
	Counseling	20	16
	Other	15	12
Seeing staff smoking at work	Yes	92.5	74
	No	7.5	6
Seeing staff smoking at work in	Smoking room	22.5	18
	Office	45	36
	Outside	25	20
Advice from medical staff to stop smoking	Yes	25	20
	No	75	60
Beliefs of smoking being harmful to health	A lot	42.5	34
	A few	32.5	26
	Not at all	25	20
Reasons for starting smoking	Curiosity	25	20
	Most friends smoked	47.5	38
	Stress & personal problems	5	4
	In fashion	15	12
	other	7.5	6
Having chronic diseases	Yes	32.5	26
	No	67.5	54
Chronic diseases	Heart problems	15	12
	Diabetes Mellitus	15	12
	Chronic respiratory problems	10	8
	Musculoskeletal problems	5	4
Mean duration of smoking habit		<i>32.27 ±12.04</i>	
Mean age of starting smoking		<i>19.53 ±5.089</i>	
Mean number of cigarettes per day		<i>27.38 ±13.44</i>	

Table 3. Patients’ attitudes towards smoking

	TOTAL					
	Totally disagree (%)	Disagree (%)	Do not have an opinion (%)	Agree (%)	Totally agree (%)	Sample (N)
Not enough information to stop smoking	17.5	70	12.5	0	0	80
Not enough encouragement from staff	0	50	17.5	32.5	0	80
Smoky atmosphere will make it difficult for me to stop smoking	0	40	5	55	0	80
Seeing other patients smoke will make it difficult for me to stop smoking	2.5	30	5	62.5	0	80
Seeing staff smoke will make it difficult for me to stop smoking	2.5	40	7.5	47.5	2.5	80
Too difficult to stop smoking	0	10	0	62.5	27.5	80
Staff should be allowed to smoke at work	0	22.5	15	62.5	0	80
Staff should be allowed to smoke with patients (if agreeing to smoking at work)	0	10	5	47.5	0	50
Visitors should be allowed to smoke with patients	0	22.5	15	60	2.5	80
Ward rules on smoking are correct	0	7.5	17.5	67.5	7.5	80
Staff should encourage smokers to stop or reduce smoking	0	20	15	45	20	80
Staff should set a good example	0	12.5	22.5	52.5	12.5	80
Trust a reference person that does not smoke more than a smoker	10	47.5	30	12.5	0	80
Cooperate better with a smoker reference person than with a non smoker	10	40	22.5	27.5	0	80

old, unmarried (62.5%), secondary school graduates (55%), unskilled workers (30%), with income less than a thousand Euros (75%) and residents of urban areas (97.5%). Their primary diagnosis (according to ICD-10) was schizophrenia (50%), schizoaffective (15%) and bipolar (7.5%) disorders. The patients were on medication for a variety of other chronic diseases, such as heart and respiratory problems (12.5% and 2.5%, accordingly), Diabetes Mellitus (10%) and hypertension (2.5%), with more than one

chronic problem in some cases. The mean of hospitalization of our patients was 121.1 (± 159.7) months.

Most participants reported themselves as current regular smokers, either daily (95%) or sometimes (5%), consuming 27.4 (± 13.44) cigarettes per day. Almost 90% of the current smokers had commenced smoking before admission to our hospital, whereas 10% started smoking while in hospital. All the respondents had thought to give up smoking with 60% of them having tried to

stop smoking at some point of their life. 87.5% of our patients thought that there was enough information about smoke cessation. Of those having considered stopping smoking, 70% reported that they need help in the process. Smokers also told which interventions they would find most helpful when they decide to stop smoking: nicotine substitutes (27.5%), counseling (20%) and smoking cessation sessions (7.5%) (Table 2).

Participants were asked about staff, patients and visitors smoking, and the ward rules about smoking. Nine out of ten reported seeing staff smoking at work and 45% of them said that they saw staff smoking in the office, 25% outside in the yard and 22.5% that staff smokes in the ward smoking room. Smoky atmosphere on the ward (55%) and seeing staff or other patients smoke (50% and 62.5%, respectively) are perceived as barriers. Most participants expressed liberal attitudes towards smoking, saying that staff and visitors should be allowed to smoke with patients (47.5% and 62.5%, respectively) (Table 3). The majority (75%) thought that rules about smoking on their ward were right. The state ministry of health has enforced a non smoking policy in all public areas, excluding psychiatric hospitals (Ministry of Health, Law 3868/2010). Sixty five percent of the respondents thought that staff should set a good example by not smoking and they should encourage patients who smoke to stop or cut back (65%) (Table 2).

Discussion

The study gives some information on mental patients' views and attitudes towards smoking. All participants were smokers, smoking 27.4 cigarettes per day. This fact comes in accordance with high smoking prevalence in psychiatric hospital settings (Dickens et al., 2005; Kelly & McCreddie, 1999; Herran et al., 2000; Meiklejohn et al., 2003; Suemoto et al., 2013). Half of the participants were diagnosed with schizophrenia, schizoaffective and bipolar disorders, according to ICD-10. A meta-analysis of 42 studies across 20 countries (De Leon & Diaz, 2005; Hehir et al., 2012) reported that schizophrenics or schizoaffectives have 5.3 times higher chance to smoke than general population. It

has, also, been found that the prevalence of smoking among schizophrenic patients is higher (Fagerstrom & Aubin, 2009; Hou et al., 2011; Shinozaki et al., 2011) than in general population (Haw et al., 2004; McNeill, 2004) and in patients with mood disorders (Itkin et al., 2001; Ucok et al., 2004; Kao et al., 2011). The high incidence of smoking among psychiatric patients might, in part, be due to a beneficial effect of nicotine on cognition and/or mood. For example, a growing body of evidence suggests that patients with schizophrenia may improve in some areas of cognitive performance after smoking cigarettes or using a nicotine replacement therapy (NRT) Adler et al., 1993; Levin et al., 2001; Smith et al., 2002; Harris et al., 2004; Jacobsen et al., 2004; Barr et al., 2008b). In addition, nicotine is associated with positive mood in healthy volunteers as well as in patients with psychiatric disorders (Henningfield et al., 1985; Soria et al., 1996; Lasser et al., 2000; Jones et al., Haro et al., 2004). Probably, the nicotinic cholinergic transmitter system is involved as a key regulator of some cognitive processes (e.g. attention and working memory) in the hippocampus and prefrontal cortex, and this may account for the psychopathologic basis of smoking in schizophrenia (Aubin et al., 2012).

A further issue that has created a barrier to tackling smoking in psychiatric populations is the belief that smoking is a type of 'self-medication' for some psychiatric symptoms. This belief may discourage clinicians from promoting smoking cessation in their patients and reduce the understanding of nicotine dependence in this population (Ziedonis et al., 2008). In fact, smoking has for many years been tolerated and, even, encouraged by mental health professionals (Aubin et al., 2012; Schroeder & Morris, 2010).

Psychiatric illness relates to long periods of hospitalization during which smoking habits can change (Olivier et al., 2007). All patients said that they would like to stop smoking, but the overwhelming majority reported that it was just too difficult to quit, which is supported by other studies (Hughes & Frances, 1995). Barriers to stop smoking were staff and other patients smoking as well as the smoky atmosphere on the ward. Staff

often use cigarettes to reinforce certain behaviors in the in-patient setting leading to some alterations in social interactions focused around smoking, thus it is important, in psychiatric units, to address staff concerns about smoking cessation (Olivier et al., 2007).

Half of the participants felt that there was enough encouragement from staff to give up smoking and that there was enough information available about quitting. It is psychiatric health care workers' duty to offer patients help with stopping smoking, as well as to promote cessation techniques. Healthcare providers should tailor their treatment approaches accordingly.

There is a debate on the matter of staff smoking at work and in particular with patients or in places that can be seen by them. Less than half of the participants in this study thought that staff should be allowed to smoke with the patients. In a study in an independent sector tertiary referral centre in the UK, patients thought the contrary. The smokers patients agreed with the statement "staff should be allowed to smoke with patients" (n=29, 85.3%) in addition with the non-smoker patients (n=6, 54.5%, p<0.05)(Dickens et al., 2005). It was uncommon that in our study half of the smokers agreed that seeing staff smoking at work would make it more difficult for them to quit. Participants in other two studies in the UK, claim the same, that smoking by staff in medium-secure units made it more difficult for them to quit (Meiklejohn et al., 2003; Moxham, 2001).

Mental health professionals might bear in mind that their own smoking habits/behavior could affect (negatively) their patients' attempts to stop smoking. It is very harsh and unreasonable to ban patients from smoking in their home (Dickens et al., 2005), as a lot of patients are detained for long periods in a psychiatric hospital. However, health professionals have a duty to protect non-smokers from environmental tobacco smoke and develop special designated areas for smoking. These measures will aid those who are trying to quit by ensuring that smoking area is not the central point of the ward environment.

The sample size (n=80 participants) was the main limitation of this study, as it was a pilot study. The current study results largely reflect views and attitudes of severely mentally ill and not mentally ill in general.

The results of this study of mentally in-patients show first of all that the chosen research tool was appropriate, as it measured well the views and attitudes of mental ill patients towards smoking. Secondly, it was found that all patients were smokers facing substantial barriers to quitting and feeling that staff and visitors might be able to smoke with them. Institutions have been reluctant to attempt to restrict or ban smoking in outpatient and inpatient psychiatric settings despite the trend to prohibit smoking in other health care settings due to discipline problems, treatment disruption, the historic use of cigarettes as reward and incentives, the social function of smoking, the belief that smoking restrictions would eliminate one of the few pleasures available to these individuals, and the belief that psychiatric patients lack the motivation, cognitive function, or insight necessary to control their addiction. Current guidelines force hospitals to be smoking-free areas. This applies for patients, visitors and staff, but it excludes psychiatric facilities as it states that smoking is allowed outdoors (Greek Ministry of Health, 2010). As it is very difficult, if not inapplicable, to follow this legislation in a psychiatric hospital, it would be best to create restricted smoking areas outside the buildings. It is hoped that this move will encourage more staff and patients to give up smoking and will improve their physical health. Psychiatric care staff should consider whether their own smoking behavior undermines their patients' attempts to stop smoking. Smokers might be regularly offered help and encouragement to quit. Healthcare providers should tailor their treatment approaches accordingly.

It seems that increasing motivation to quit is a key element for successful cessation and essential to promotion of healthy behaviors.

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