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Smoking in Institutionized Schizophrenic Patients

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General Note
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ABSTRACT

Patients with mental illnesses suffer from a multitude of co-morbid conditions resulting in increased morbidity and premature mortality. It is estimated that patients with mental illnesses die about 25 years prematurely. Patient suffering from schizophrenia have a much higher rate of smoking and smoke more cigarettes than the general population. Smoking cessation in this population can help address the disproportionate morbidity and mortality seen in these patients.

Keywords: schizophrenia, smoking, nicotine, depression, mental illness

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Abbreviations: DSM: Diagnostic and Statistical Manual of Mental Disorders; USA: United States of America

1. INTRODUCTION

Schizophrenia and smoking are closely linked (De Leon et al, 2005). Non-instutionalized schizophrenics have a much higher rate of smoking and smoke more cigarettes than the general population (Keltner et al, 2006). This may be higher in institutionalized patients (O'Farrell et al, 1983). This increased rate of smoking has considerable negative impact on the management of schizophrenia and on the associated co-morbid conditions, resulting in increased morbidity and premature mortality (McCloughen, 2003; Goff et al, 2005; Prochaska, 2011). The smoking pattern in schizophrenics living in institutions has not been well studied. This study was done to evaluate nicotine addiction in an institutionalized population.

2. METHODS

We retrospectively reviewed the smoking history of all schizophrenic patients seen in our office during a period of six months. All patients were diagnosed to be suffering from schizophrenia by psychiatrists according to the criteria established by the revised fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 2000) All patients met the three diagnostic criteria: A. Characteristic symptoms: Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated), (1) delusions (2) hallucinations (3) disorganized speech (e.g., frequent derailment or incoherence) (4) grossly disorganized or catatonic behavior(5) negative symptoms, i.e., affective flattening, alogia, or avolition. B. Social/occupational dysfunction: For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement). C. Duration: Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or two or more symptoms listed in Criterion A present in an attenuated form (e.g. odd beliefs, unusual perceptual experiences) (DSM-IV, 2000). All patients were regularly seen by their psychiatrists and were stable on anti-psychotic medications.

3. RESULTS

Of the 100 patients, there were 54 (54%) males and 46 (46%) females. Of these, 96 were current smokers (96%). Of these 96, there were 52 (54%) males and 44 (46%) females. Of the smokers, 32 [20 (63%) males; 12 (37%) females] reported smoking up to 10 cigarettes per day, 42 [22 (52%) males; 20 (48%) females) up to 20 cigarettes per day, while 22 [10 (45%) males, 12 (54%) females] 30 or more cigarettes per day.

4. DISCUSSION

Smoking is common in psychiatric patients (Poirier et al, 2002; el-Guebaly et al, 1992). It is estimated that 44.3% of the cigarettes smoked in the USA are smoked by individuals with a psychiatric disorder (Lasser et al, 2000). The reasons are multi-factorial. There may be genetic factors making patients with mental illness more vulnerable to smoking (Dalack et al, 1998). Schizophrenia patients may find a reduction in medicine side effects with nicotine (Lyon, 1999). Psychiatric patients are subject to considerable peer pressure to smoke (Fagerström et al, 2009). Smoking in institutionalized patients may also help ward of boredom (De Leon et al, 1995). Although highly lethal (Mokdad et al, 2004), smoking and nicotine addiction in these patients is often overlooked by health care providers (Prochaska et al, 2004).

4.1. Smoking and schizophrenia

Schizophrenia is a worldwide disease (Bhugra 2005), and the third leading cause of global disability in persons aged 15-44 years (Health Organization, 2001). These patients suffer from multiple co-morbid psychiatric (Foti et al, 2010; Palmer et al, 2005) and medical conditions, including pulmonary, cardiovascular and endocrine diseases (Jeste et al, 1996; Casey et al, 2011; Goff et al, 2005;

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Copeland et al, 2007). They also appear to get suboptimal medical care (Brown et al, 2000; Felker et al, 1996). In general, patients with schizophrenia have a two to three fold higher mortality rate when compared to the general population (Laursen et al, 2007; Saha et al, 2007), and a reduction of 10-25 years in life expectancy. Smoking is very common in patients with schizophrenia, both inpatients and outpatients (Hughes et al, 1986; de Leon et al, 1995; el-Guebaly et al, 1992), and appears to contribute to the higher morbidity and mortality seen in these patients. The reasons for this addiction are multiple. There may be genetic factors predisposing this population to smoking (Dalack et al, 1998). Schizophrenia patients often self medicate with cigarettes to improve the processing of auditory stimuli, and to diminish antipsychotic medication side-effects (Lyon, 1999). Depression often co-exists in these patients, increasing their propensity for smoking (Hasin et al, 2005). Enviromental factors and stress may also play a role (Ziedonis et al, 1997). Institutionalized patients with schizophrenic are often subject to poor living conditions, poor diet, excessive alcohol intake, lack of exercise and reduced exposure to the sun (Wildgust et al, 2010). They may also succumb to peer pressure (Fagerström et al, 2009) and use smoking as a way to pass time (De Leon et al, 1995).

4.2. Prevention and Treatment of Smoking in patients with Schizophrenia

There are a number of reasons why health care professionals should intervene and reduce smoking in these patients (Prochaska, 2009). Patients with schizophrenia suffer from high rates of cardiovascular diseases and chronic lung diseases. They also die about 10-25 years prematurely (Colton et al, 2006). Tobacco smoke may interact with psychiatric medications, necessitating higher doses for adequate therapeutic effects (Zevin et al, 1999). Smoking cessation may also help eliminate other addictions (Kohn et al, 2003). However, patients with schizophrenia are resistant to give up smoking as they often feel better with nicotine and a smoking ban may increase agitation and aggression (Benowitz, 2008). Nicotine patches are helpful in reducing these symptoms resulting from the tobacco withdrawal (Allen et al, 2011). Eliminating tobacco use from institutions requires staff training and enforceable policies promoting non-smoking areas and times and written treatment protocols for nicotine addiction (Ziedonis et al, 1994). The benefits also extend to less work for the staff (Barzilai et al, 2001) and a better financial bottom line (Cromwell et al, 1997).

5. CONCLUSION

This study showed that 96% of institutionalized patients with schizophrenia were regular smokes. An astounding 64% smoked more than 20 cigarettes a day. Given the extreme harmful effects of this addiction, strategies to reduce smoking and protect this population from its harmful effects need to be established. Health care professionals may be handicapped in managing this problem in this population. They may not be aware of the dismal prognosis associated with nicotine addiction, they may lack the skills to provide smoking treatment, they may believe that smoking cessation attempts are futile in these patients, or they may fear exacerbating agitation and aggression during nicotine withdrawal. There are also concerns about reimbursement. However nicotine patches have proven beneficial in these patients. Backed by non-smoking policies in psychiatric institutions, data suggests that the plague of nicotine addiction in patients with schizophrenia can be overcome.

DISCLOSURES

The author has no conflicts of interest to disclose.

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