Trends in Medicine

Research Article

Is smoking cessation addressed by resident psychiatrists in outpatient settings?

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Abstract

Introduction: Cigarette smoking remains prevalent among patients with psychiatric illnesses, and it is a major cause of morbidity and mortality in this patient population. There have been few studies examining smoking cessation and treatments for these patients in an outpatient psychiatric setting.

Aim: To evaluate if smoking cessation is adequately addressed by resident psychiatrists in an outpatient setting.

Method: A retrospective chart review study was conducted consisting of fifty consecutive charts of nicotine (tobacco) dependent psychiatric patients to determine the number of visits patients had, number of times smoking cessation was addressed during those visits, if treatment was initiated and which type of treatments patients received.

Results: The average number of visits per patient was 45. Smoking cessation was addressed in 12% of patients and 4% of those patients were treated with prescribed medication and psychotherapy for smoking cessation.

Conclusions: The study illustrates that resident psychiatrists are less readily assessing and treating tobacco dependence. The study results, combined with the pressing health risks associated with smoking prevalence in the mentally ill population, suggests that more should be done to adequately address smoking cessation in patients with mental illnesses and to encourage treatments for those patients who are open to them.

Introduction

Cigarette smoking remains a primary cause of preventable mortality and morbidity in the United States. Despite a great deal of research on smoking and greater awareness regarding the adverse health effects of smoking, it is estimated to be responsible for roughly five million deaths worldwide and 480,000 deaths per year in the United States [1]. The prevalence of smoking has been reduced from about 43% in 1965 to 18% as of 2014 among the adult population in the United States [1]. Despite this reduction, cigarette smoking continues to be a major contributor to lung cancer [2]. Cigarette smoking is also associated with other deleterious health effects, such as chronic obstructive pulmonary disease (COPD) [3], coronary heart disease [4], peptic ulcer disease [5], osteoporosis [6,7], and reproductive disorders [8], including increased risk of infertility [8], spontaneous abortions [8], ectopic pregnancy [8,9], and premature menopause [8].

Studies have shown that quitting smoking at any age provides important health benefits and greater life expectancy [10,11]. According to one study, treating smoking is considered one of the most important activities a clinician can engage in, as it is beneficial in terms of lives saved, quality of life and cost effectiveness [12]. "The smoking prevalence among individuals with a current psychiatric illness is nearly double that of individuals without a mental illness" (41% versus 23%) and, is even higher among those with severe mental disorders and substance use disorders [13,14]. It is estimated that 44% of the cigarettes sold in the United States are to those with psychiatric diagnoses [13]. Studies have also shown higher smoking rates among patients with certain types of mental illnesses, such as schizophrenia, depression, bipolar disorder and panic disorder [15-18]. Schizophrenic patients have been shown to be heavily nicotine dependent, and they often have a very difficult time in quitting smoking cigarettes [17,19-21]. Depression is also a crucial factor associated with smoking and an increased risk of smoking cessation treatment failure [22-25]. One study showed that depressed individuals are 27% more likely to smoke than those individuals with no history of depression [15,25].

Pharmacological treatments for smoking cessation include several U.S. Food and Drug Administration (FDA) approved and off-label options. Nicotine replacement (polacrilex/gum, transdermal nicotine patch, nicotine nasal spray, and nicotine inhaler), bupropion (Zyban, Wellbutrin) and varenicline (Chantix) are all pharmacologic treatments to help patients with smoking cessation. "Social, psychological and behavioral supports" are generally effective as well, but require more time and motivation of patients and clinicians to be effective [24,26]. It is difficult for a non-depressed patient to quit smoking, but when depression is present with patients being "sad, anhedonic, and lacking energy" quit rates are likely to be even lower [22]. Though, more recent studies have shown that there is not a significant difference in quit rates between depressed and non-depressed patients [27]. This suggests that clinicians may have a defeatist attitude when considering treating nicotine dependence in those seen as having greater psychiatric comorbidity. Given the higher rates of smoking and poor outcome for

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patients with psychiatric disorders, it is important for psychiatrists to adequately assess and treat cigarette smoking as both a medical and psychiatric comorbidity in the outpatient setting [13,28]. An argument can be made for more aggressive pharmacological smoking cessation treatment in the mentally ill and could ideally be developed into the standard of care for psychiatric practice [29].

Residency is a time where young physicians are trained and adopt strategies for treating patients. Oftentimes, the skills learned will be used and repeated for decades while treating patients. It is unclear if board certified or resident psychiatrists are taught to uniformly address nicotine dependency in their patients or if they develop this skill set independently. This paper sought to look at current practices in a psychiatry residency training program. The investigators wished to determine how often nicotine dependence was clinically addressed in session and how often cessation strategies were suggested to the typical, highly comorbid outpatient.

Methods

This study was a retrospective chart review of cases from 1/1/08 through 11/1/08. It was conducted after formal review board approval (October 29, 2008, IRB Exempt No. 100-08). No patient contact was established in order to collect study data. This study was not funded by external sources. Patients who were actively smoking were identified from a computerized database. The clinic generally operates with 10 residents who work 1.5 days per week, generally conducting 50-minute sessions combining therapy and medication management. This is a small capacity training clinic. As such, fifty consecutive charts were reviewed to determine the average number of days in treatment, the number of visits; the mode of treatment each patient received (either medications, psychotherapy or both), and primary psychiatric diagnoses covering both Axis I and Axis II disorders. It was recorded whether smoking cessation was brought up, the number of times it was addressed, and if any treatment was prescribed.

Raw numbers were tallied from independent chart reviews and the averages were calculated from these numbers.

Results

Fifty charts of patients were studied at our clinic, seen by approximately 20 mental health clinicians (MD, NP, PhD, and CSW). Particularly, the physicians in this study were psychiatric residents (N=10) and the predominant mode of service delivery was to provide therapy and medication management by the resident alone. The clinic utilizes various mental health providers, but these cases were restricted to resident trainees' cases. Use of another mental health provider in a split therapy model was rare (15-20%). Patient clinic enrollment ranged from 7 to 1978 days with a mean of 725 days under care. The number of visits ranged from 2 to 177 with an average of 45 visits as a follow-up for their primary diagnosis. Out of the fifty patients, only one (2%) received medication management alone for their outpatient treatment, nine (18%) received psychotherapy alone, and 40 (80%) received both medications and therapy simultaneously for their primary diagnoses. All patients had 1 to 3 diagnoses on Axis I and only one patient (2%) was diagnosed with a personality disorder comorbidity. The low prevalence of personality disorders may be a consequence of selection bias and may not reflect the true prevalence of personality disorders in the clinic.

Surprisingly, the study results indicated that out of fifty patients, only six patients (12%) were counseled regarding smoking cessation while they were in treatment for their main psychiatric diagnoses. After smoking cessation was addressed, only two patients (4%) were prescribed varenicline and one patient (2%) was prescribed bupropion sustained-release (SR). The other three patients (6%) were not started on any treatment. Finally, according to the chart review, when smoking cessation was addressed, one third of clinicians asked routinely at every visit about smoking-related issues, one third asked on several occasions, and one-third asked only two to three times throughout the patient's enrollment in the clinic.

Discussion

As noted above, there are a number of physician techniques available to address and enhance smoking cessation in outpatient mental health clinics. However, by reputation, "the mental health system has been reluctant to identify and treat tobacco dependence despite exhortations to diagnose and treat this often-fatal disorder" [18,29]. This phenomenon might be linked to the belief on the part of mental health professionals "that they do not have the skills to provide smoking treatment, the failure to understand that mental health patients may want to quit and can succeed in quitting, reimbursement concerns, and fear of exacerbation of symptoms during nicotine withdrawal" [18,30,31]. Also, "it is sometimes assumed that individuals with a mental illness are too distracted, demoralized, or disorganized to benefit from smoking treatment" [31]. Clearly, cessation treatments can work, and it would be useful to aid and encourage resident physicians, as well as more veteran clinicians to start to actively address this problem [32]. This study utilized a simple retrospective chart review and found that patients were followed up several times for the treatment for psychiatric diagnoses, but smoking cessation intervention was infrequently included in any of the visits.

There are data supporting and encouraging the use of FDA approved medications for smoking cessation in the non-mentally ill, however, from our results it is clearly evident that these agents have not been implemented effectively in our training clinic, commensurate with data suggesting low action rates at outpatient mental health clinics in general [18,29,31]. Smoking and mortality rates are higher in the mentally ill, but there is not much data supporting the need for help with smoking cessation in this population group [18,33]. Mental health clinicians are well aware of the utility of bupropion SR in treating depression, but it is rarely used for smoking cessation [34]. There are relative contraindications in using it in the bipolar smoker due to risk of mania activation, minimal risk using it in schizophrenia and minimal or no risk with depression or anxiety [35]. Its use is contraindicated in eating disorders. Varenicline is an effective agent but has warnings that it may induce depression or suicidal behavior [36]. It is not clear whether these risks are the results of the drug itself, or nicotine withdrawal. Federal warnings and contradictory epidemiologic data regarding varenicline and suicidal events have likely made clinicians concerned about using it [36,37]. Recent studies tend to show no risk of mental health exacerbation and have recently led to the federal warnings being removed [37,38]. Specifically, there is still conflicting data regarding the relative safety of varenicline in patients with psychiatric illnesses. One review article consisting of 25 case reports showed a high association between the use of varenicline and adverse psychiatric effects [39]. Meanwhile, the Gibbons, *et al.* review which looked at 17 randomized controlled trials showed very little adverse effects of varenicline compared to placebo in both psychiatric and non-psychiatric patients [37]. There has also been a more recently published study showing no significant adverse effects of varenicline in the maintenance treatment of smoking cessation in patients with schizophrenia and bipolar disorder [40]. However, despite these

ongoing concerns, the mortality risk due to use of varenicline is likely much lower than the risk associated with smoking. Mental health clinicians are aware of these risks and need to monitor for them during outpatient visits.

Our findings in this study suggest that there is a need to increase awareness among clinicians about addressing and treating nicotine dependence with the agents noted above and ideally, conduct more safety studies regarding smoking cessation in mentally ill patients. In that arena, the recent study by Rogers, *et al.*, also corroborates our findings [41]. They observed 15 years of physician reported data from the National Ambulatory Medical Care Survey completed by outpatient primary care providers and found that tobacco screening and counseling in psychiatric patients has been low among all physicians and particularly among psychiatrists. Despite this, smoking cessation counseling, though generally low, increased from 12% to 23% after the guidelines were implemented [41]. The low numbers are similar to the results of our study and show a trend of limited smoking cessation interventions in psychiatric patients. Theoretically, the low counseling rates may occur due to a lack of clinical skills yet achieved by trainees, or lack of familiarity and comfort with providing proper counseling [42]. Rogers, *et al.* also found that psychiatrists, who were already counseling patients on other issues like weight loss or alcohol or drug use, were more likely to counsel patients on smoking cessation.

The Rogers, *et al.* study observed how current practicing, board-certified psychiatrists addressed smoking cessation in psychiatric patients while our study specifically examined resident psychiatrists in training. The results of our study along with the Rogers, *et al.* study again highlight that smoking cessation counseling and treatment is currently a lower prioritized treatment goal among psychiatrists. Given the serious health impact of smoking, it will be important to further increase awareness beyond the recommendations of guidelines and create impactful educational interventions to change clinical practice to include more aggressive screening and treatment for psychiatric patients who are nicotine dependent.

If clinicians do not have time to clinically assess nicotine dependence in session, patient-completed screening questionnaires could be administered in the waiting room and checked prior to the visit for all new admission patients. Many hospitals routinely ask upon inpatient admission and sometimes directly ask on these surveys if the patient desires to quit. This approach then triggers the clinician to ask and provide treatment. Simple screening questions are generally printed on paper or computerized and data entered at the initial visits. Commonly used language includes:

"Have you used tobacco in the past 6 months?"

"Do you currently use tobacco?"

"How often do you use tobacco?"

"Have you ever tried to quit or thought about quitting?"

"What strategies or medications did you use?"

More formally, validated questionnaires like the Tobacco Daily Screener (TDS) could be used as a single worksheet dedicated to screening for nicotine dependence. It is a 10-item scale that patients complete [43]. Alternatively, the Fagerström Tolerance Questionnaire is an 8-item scale that can also be used [44].

In regard to training for clinician-administered approaches and the development of clinical smoking cessation skill sets, there are some tools available. All are meant to encourage and guide clinicians in identifying and treating nicotine dependence. The updated 2014 Surgeon General Report on Treatment for Tobacco Use and Dependence has some recommendations that can guide clinicians, including resident psychiatrists, through the early processes of screening and treating patients [1]. The 5 R's model for enhancing motivation to quit is a simple and direct guide to what general clinicians should do in the screening process. It includes *"Relevance"* (encouraging patients to talk about specific reasons why quitting smoking is important and making suggestions), *"Risks"* (asking the patient to identify acute and short term risks of smoking and making suggestions), *"Rewards"* (asking the patient to identify the benefits of stopping tobacco use and making suggestions), *"Roadblocks"* (asking the patient to identify potential barriers to successfully quitting smoking and in psychiatric patients, this could mean exploring the patient's mental illness and other comorbidities) and *"Repetition"* (repeating the motivational intervention for unmotivated patients at every visit and encouraging those who have failed in trying to quit to continue to repeat the process) [1]. This can certainly be adopted and applied in residency and other mental health clinics as well.

Once patients have been identified and agree to stop smoking, there is another proposed model called the 5 A's model for treating tobacco use and dependence. In this model, clinicians should *"Ask"* (identify and document patient smoking status at every visit), *"Advise"* to quit (urge patients who are smokers to quit), *"Assess"* willingness to make a quit attempt (find out if patients are willing to make an attempt to quit at that point in time), *"Assist"* in quit attempt (offer medication and/or counseling to those patients willing to quit and propose interventions to help those who are unwilling to quit at the current time to consider it in the future), and *"Arrange"* follow up (immediate follow up within one week of patient's quitting and follow up to reassess and encourage those who have not committed to quitting) [1]. This model is proposed for treating all patients who are nicotine dependent and can be applied in outpatient psychiatric clinics as well. This model has been shown to improve clinician assessment rates by 32% after clinicians have been simply trained to use the 5 A's [45]. There are also many training modalities available to help clinicians become more adept and comfortable with these proposed models and in helping them to assess and treat their patients. There are online Continuing Medical Education courses, the Training Staff in Smoking Cessation Counseling courses from the Tobacco Technical Assistance Consortium, the University of Wisconsin Center For Tobacco Research and Intervention training manuals, U.S. Public Health Service clinician and patient materials online, Alliance for the Prevention and Treatment of Nicotine Addiction (APTNA) resources and services and many other clinician tools and materials online [46].

This study has the limitations of being a sample of opportunity, naturalistic and uncontrolled. The small sample size is related to the fact that the clinic setting of this study is mostly a psychotherapy training clinic that allows medication management within session with a small census and small number of psychiatric residents. The clinic utilizes other mental health providers, but these cases were restricted to resident trainees' cases. A confound could exist if patients were counseled by other mental health providers or their primary care physicians in the community.

Conclusion

Cigarette smoking continues to be a major health burden in society. It is especially a greater challenge for patients with psychiatric illnesses.

It has been well documented that patients with mental health disorders are more predisposed to nicotine dependence. As such, it is important to identify and help these patients with smoking cessation. In our study, 50 actively smoking patients' charts were reviewed to determine if their resident psychiatrists addressed smoking cessation and whether any treatment plans were initiated. In our study, we found that 3 out of 10 resident physicians routinely addressed smoking cessation with patients, suggesting that a large quantity of the patient population is not being adequately assessed for help with quitting smoking. Only 12 percent of the patients in our study were counseled on smoking cessation and of that group, only half ever received any treatment. These low intervention numbers are comparable to other studies that evaluate the clinical care of board-certified physicians as well.

The study results, combined with the pressing health risks associated with smoking prevalence in the mentally ill population, suggest that training in simple methodical approaches should be ideally incorporated into clinical training programs so that young physicians may develop automatic screening and treatment provision habits in the area of smoking cessation.

Competing interests

Thomas L. Schwartz, Shafi Raza, Neha Kansara and Tacina Outram declare that they have no competing interests or conflict of interest.

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