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Designing for Dissemination: Development of an Evidence-Based Tobacco Treatment Curriculum for Psychiatry Training Programs

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Abstract

Psychiatry training programs provide a unique arena for affecting professional norms and increasing access to tobacco cessation services among smokers with mental illness. *Psychiatry Rx for Change* emphasizes evidence-based patient-oriented tobacco treatments relevant for tobacco users with psychiatric disorders. Following Diffusion of Innovations theory and the RE-AIM framework, the curriculum is being disseminated to psychiatry residency and graduate psychiatric nursing programs in the Western United States with plans to study curriculum adoption, implementation, and maintenance on a broad scale. *Psychiatry Rx for Change* aims to increase the likelihood that smokers with co-occurring disorders will receive evidence-based cessation treatment.

Keywords

The prevalence of smoking among persons with mental illness is nearly double that of the general population (41% vs. 23%), with even higher prevalence among the seriously mentally ill and those with additional addictions (Lasser et al., 2000; Rohde, Lewinsohn, Brown, Gau, & Kahler, 2003). The mentally ill, who often smoke heavily, make up 44% to 46% of the U.S. tobacco market (Grant, Hasin, Chou, Stinson, & Dawson, 2004; Lasser et al., 2000).

Rates of tobacco-related heart and lung disease and cancers are higher among individuals with mental illness compared with those of age-matched controls (Carney & Jones, 2006; Lichtermann, Ekelund, Pukkala, Tanskanen, & Lonnqvist, 2001; Ruschena et al., 1998). The U.S. Center for Mental Health Services indicates that persons with serious mental illness are dying 25 years prematurely on average, with tobacco-related chronic diseases being leading causes (Colton & Manderscheid, 2006). Affecting not only quantity but also quality of life, tobacco causes serious health complications and affects psychiatric treatment (Himelhoch et al., 2004; Zevin & Benowitz, 1999).

Recent meta-analyses have documented the effectiveness of physician- and nurse-delivered interventions for smoking cessation (Lancaster & Stead, 2004; Rice & Stead, 2008). Of 81 trials identified with more than 46,000 smokers, however, not one was conducted in a

psychiatric setting. Although tobacco dependence is recognized as a deadly health condition worthy of intervention in general medicine, its treatment in psychiatry has been largely ignored (Zarin, Pincus, & Hughes, 1997).

Surveys of psychiatric providers' practices in the early to late 1990s showed very low rates of identification and treatment of patients' tobacco use (Himelhoch & Daumit, 2003; Montoya, Herbeck, Svikis, & Pincus, 2005). The 2005 survey of the Association of American Medical Colleges (2007), conducted with 801 psychiatrists, indicated that 62% of psychiatrists routinely ask their patients about tobacco use and advise smokers to quit; however, few regularly assessed readiness to quit (44%); provided cessation materials (13%), nicotine replacement (23%), or other pharmacotherapy (20%); arranged follow-up (14%); or made appropriate cessation referrals (11%). Of note, relative to the other medical specialties surveyed, psychiatrists were the least likely to attend to patients' tobacco use. In the 2008 survey of the American Psychiatric Nurses Association (APNA, 2008), 85% of respondents reported routinely screening patients for tobacco use, 61% referred patients to tobacco intervention resources, and 29% reported that their organization provided intensive tobacco dependence treatment.

Interviews with psychiatric inpatients and chart reviews of psychiatry residents' clinical encounters have identified lower rates of attention to patients' tobacco use (Prochaska, Fromont, & Hall, 2005; Prochaska, Gill, & Hall, 2004). Most (52%) psychiatric inpatients, despite repeated contacts with the system, report never having been encouraged to quit smoking by a mental health provider (Prochaska, Fletcher, Hall, & Hall, 2006). Systematic chart review of 570 outpatient mental health visits that examined a 3-month window of care revealed that in only 3% of cases did psychiatry residents advise smokers to quit; in 5%, patients' readiness to quit was documented; 9% of smokers were offered assistance; and 5% received follow-up attention to their tobacco use (Prochaska et al., 2008). It is clear that obstacles to active psychiatric treatment of tobacco use and dependence need to be addressed.

A primary barrier to delivering smoking cessation counseling in psychiatric practice may be lack of training. In the Association of American Medical Colleges (2007) survey, psychiatrists identified limited education and training for addressing tobacco use and cessation. A variety of curricula has been developed and a recent systematic review concluded that training health professionals to treat tobacco dependence has measurable effects on professional performance including offering counseling, setting quit dates and follow-up visits, distributing self-help materials, and recommending nicotine replacement (Lancaster, Silagy, & Fowler, 2000). Of the 10 trials identified, however, none was conducted with mental health professionals.

In two separate national surveys, only 50% of psychiatry residency training directors and 51% of graduate psychiatric nursing faculty reported that assessment and treatment of tobacco dependence was a component in their programs' curriculum (APNA, 2008; Prochaska, Fromont, Louie, Jacobs, & Hall, 2006). Among programs that addressed tobacco, curriculum time was a median duration of 1 hour in psychiatry residency programs and 2 hours or less among 76% of graduate psychiatric nursing programs. Among psychiatry residents surveyed in five Northern California programs, few reported receiving adequate tobacco cessation training in medical school (26%) or residency training (21%), as continuing medical education (3%), or on-the-job training (9%; Prochaska et al., 2005).

Dissemination of an evidence-based curriculum has the potential of dramatically increasing delivery of tobacco cessation treatment to smokers with mental illness. Building on the foundation of the successful *Rx for Change* curriculum developed by Karen Hudmon and colleagues and disseminated nationally to schools of pharmacy and acute care nursing (Heath et al., 2007; Hudmon et al., 2003), we developed *Psychiatry Rx for Change*, a tobacco treatment curriculum for psychiatry training programs (Prochaska et al., 2008). A packaged and free-to-

use program available online, the curriculum aims to serve as a vehicle for systematic dissemination of the Clinical Practice Guideline for treating tobacco dependence in psychiatric patients. This article describes the process undertaken in developing the curriculum and application of Rogers's (1995) Diffusion of Innovations theory and Glasgow and colleagues' (2007) RE-AIM framework in guiding dissemination and evaluation of its adoption and implementation in psychiatry residency and graduate psychiatric nursing programs. The RE-AIM model emphasizes consideration of the program: Reach, Efficacy, Adoption, Implementation, and Maintenance (Glasgow & Emmons, 2007).

METHOD

Curriculum Development

In developing the curriculum, we applied Kern, Thomas, Howard, and Bass's (1998) framework for medical education curriculum development. Surveys conducted with psychiatry residents ($N = 105$) and national residency training directors ($N = 114$) documented the training needs and informed the curriculum's educational goals and learning objectives (Prochaska et al., 2005; Prochaska, Fromont, et al., 2006). Nationally, tobacco-related content covered in psychiatry residency programs varied greatly (Prochaska, Fromont, et al., 2006). Programs without tobacco content in their curricula identified lack of faculty expertise as a barrier. Most psychiatry residents (94%) and psychiatry residency training directors (89%) reported interest in a model tobacco curriculum focused on smokers with mental illness; the residency directors reported that they would dedicate, on average, 4 hours of curriculum time to tobacco-related training.

The content of the curriculum derives from numerous meta-analyses and clinical practice guidelines that summarize more than 8,700 articles in the literature (American Psychiatric Association, 2006; Fiore et al., 2008). We created a fully referenced curriculum outline, with didactic and interactive learning strategies. An expert advisory group reviewed the outline, and their feedback was incorporated. We then developed curriculum slides and supporting materials, which were evaluated in a focus group with psychiatry residents and informed by individual interviews with psychiatry residency training faculty (Prochaska et al., 2007). The interviews aimed to delineate effective methods for integrating tobacco treatment strategies within psychiatric training and practice and within different clinical orientations.

Curriculum Description

Psychiatry Rx for Change is constructed as independent, but complementary, modules (see Table 1). Most are considered required, with a total time of 4 hours to implement. A few optional modules are available for training programs able to dedicate more time. The material in all content areas of the curriculum is specific to psychiatry and smokers with mental illness. The training emphasizes evidence-based patient-oriented tobacco treatments relevant for tobacco users with psychiatric disorders, including smokers with depression, schizophrenia, anxiety, and alcohol and illicit drug disorders. The cessation strategies are tailored to smokers at all stages of readiness to quit, are amenable to a variety of treatment orientations (e.g., cognitive behavioral, psychodynamic, medication management) and clinical settings (e.g., outpatient, inpatient, addictions treatment), and are fully supported by rigorous scientific research, heavily referenced with current literature citations. Interactive training components include (a) the opportunity for trainees to handle actual (nonprescription) or placebo (prescription) nicotine replacement products while learning key counseling messages; (b) a clinical practice exercise for trainees to practice addressing tobacco with an actual patient in their caseload; and (c) case-based treatment planning with eight fully developed cases differing in demographics, diagnostic details, and stages of change.

Psychiatry Rx for Change materials include an instructor guide, the faculty lecture slides, and trainee resource materials. The resource materials include all teaching slides; ancillary handouts on cessation counseling, strategies for managing nicotine withdrawal, a pharmaceutical product guide, and a booklet for patient tracking of mood and tobacco use; recommended readings; a referral resource list; patient cessation brochures; and stickers for streamlining charting of tobacco cessation interventions.

Curriculum Efficacy Evaluation

We evaluated the 4-hour curriculum with 55 psychiatry residents at three programs in the San Francisco Bay Area (Prochaska et al., 2008). For the initial efficacy evaluation, the curriculum was taught by Drs. Prochaska and Fromont, onsite at each of the training programs with the programs' training directors making the necessary adjustments to accommodate the teaching time into their curriculum hours. The evaluation was approved by the training programs' Institutional Review Boards, and residents provided informed consent for use of their responses for research. Assessments indicated significant improvements in psychiatry residents' tobacco-related knowledge, attitudes, confidence, and behaviors from pre- to posttraining with gains sustained at 3-months follow-up (Prochaska et al., 2008). In addition, systematic chart review ($N = 1,204$) found significant improvements in residents advising smokers to quit, assessing readiness to quit, assisting with quitting, and arranging follow-up ($ps < .05$); asking about tobacco use was high at baseline due to inclusion on the intake form. On a scale from 1 (*poor*) to 6 (*outstanding*), the average rating was 5.4 ($SD = 0.6$). All residents (100%) recommended that other psychiatry residency programs would benefit from the tobacco cessation training.

With evidence of efficacy, we received funding from the State of California Tobacco-Related Disease Research Program to study dissemination of the curriculum to psychiatry residency training programs and graduate psychiatric nursing programs in the Western United States. The dissemination study is focused on engaging psychiatry residency and graduate psychiatry nursing faculty to integrate and deliver the curriculum within their own coursework.

Dissemination Theoretical Framework

Development of *Psychiatry Rx for Change* has been grounded in Rogers's (1995) Diffusion of Innovations theory and Glasgow and colleagues' (2007) RE-AIM framework, in that we have carefully considered each of the program characteristics so as to maximize the potential for broad-scale dissemination and adoption. Rogers (1995) described diffusion of innovations as "the process by which an innovation is communicated through certain channels over time among members of a social system" (p. 5). The stages of diffusion include dissemination, adoption, implementation, and institutionalization. The rate of diffusion of an innovation depends on attributes of the innovation and characteristics of the adopter, as well as on channels of communication used to disseminate the innovation and the social system. Below, we consider the elements of *Psychiatry Rx for Change* that we believe will aid in its successful dissemination, adoption, implementation, and institutionalization.

Dissemination of *Psychiatry Rx for Change* uses a train-the-trainer model and innovative adherence and performance measures. To ease adoption, training and support materials have been developed. Training will be offered at no cost to participants, in-person in San Francisco in May 2009 and online via the Web site (http://rxforchange.ucsf.edu). Travel support and Continuing Medical Education credit are provided. The curriculum Web site offers further support and consultation, thereby reducing perceived complexity. The modular format is designed to aid program adoption, addressing compatibility with existing training. Well-piloted, the program has demonstrated success with early adopters as detailed above in the description of the efficacy study. The relative advantage of participation in the program is that

state-of-the-art teaching materials are provided, thereby reducing the amount of effort individual faculty have to put forth to develop similar lectures.

We have increased visibility of the program through conference presentations, continuing medical education trainings, and scientific articles (Prochaska et al., 2007; Prochaska et al., 2005; Prochaska et al., 2008; Prochaska, Fromont, et al., 2006). At the 2006 meeting of the Association for Academic Psychiatry, the curriculum received a presentation award. We have the support of leaders of the American Association for Directors of Psychiatry Residency Training nationally and within state cau-cuses as well as individual training directors who are assisting with disseminating the program to their colleagues. We also have contacted program directors at graduate psychiatry nursing programs, identifying interest in a model tobacco treatment curriculum. In the language of Diffusion Theory, we anticipate that adoption of the program will be based on an authority decision (i.e., the training director's), which tends to result in the most rapid rate of adoption. Psychiatry training directors exhibit a high level of interconnectedness in their social system and acceptance of new ideas for teaching. We continue to promote awareness through a variety of communication channels, including journal articles, presentations, professional networking, brochures to other allied health schools, online links to the curriculum Web site, and newsletters distributed to the programs. Given the increased awareness of tobacco use among individuals with mental illness, we believe the timing is perfect for dissemination of the *Psychiatry Rx for Change* curriculum.

In the language of the RE-AIM model, reach considers the extent of the target population—in our case, future psychiatrists and advanced practice psychiatric nurses and other mental health providers—who will receive the training (Glasgow & Emmons, 2007). Efficacy is the effect of the curriculum on intended outcomes, namely, the tobacco-related knowledge, attitudes, confidence, and behaviors of the residents/students and faculty. Adoption is the participation rate among possible settings and the representativeness of participating settings. Implementation is the extent to which the intervention is delivered as intended. Maintenance is the continuation of the intervention over time. Few health promotion interventions have successfully translated into practice (Glasgow & Emmons, 2007). Table 2 considers Glasgow's RE-AIM dissemination framework and the ways in which the *Psychiatry Rx for Change* curriculum addresses traditional barriers to adoption in terms of cost, flexibility, ease of use, minimal requirements for faculty expertise and time demand, customizability, and broad relevance.

Analysis Plan

Success of the dissemination effort will be analyzed following Glasgow's RE-AIM framework, which emphasizes the "3 Rs" of dissemination (Glasgow & Emmons, 2007). The *representativeness* of the sample will be evaluated as the degree of adoption, quantified as the number of graduate psychiatric nursing and psychiatry residency programs out of the total targeted that adopt the curriculum. The adopting programs will be compared with nonadopting programs on general training program characteristics and faculty perceptions of the curriculum. The degree of adoption also will be compared between disciplines. Although we anticipate a high rate of adoption, lower rates would permit analysis of predictors of adoption. *Robustness* of the curriculum's effectiveness on residents'/students' knowledge, attitudes, confidence, and behaviors will be examined in a variety of psychiatry training programs. *Replicability* will be evaluated as the degree of program effectiveness on resident and graduate psychiatric nursing student outcomes by degree of curriculum implementation over 2 years' time. Data collection will begin spring 2009 and continue through spring 2011.

DISCUSSION

Clinician training in evidence-based patient-oriented cessation treatments relevant for tobacco users with co-occurring psychiatric disorders is needed to improve the health of the patients we serve. There is evidence that advanced practice nursing has significant curricular gaps with tobacco education (Heath & Crowell, 2007). National efforts are needed to initiate widespread changes in graduate nursing curriculum with an emphasis on graduate psychiatric and mental health nursing. The expertise of the advance practice psychiatric and mental health nurse to deliver broad-based care while addressing psychiatric morbidities places them in an important position to treat tobacco use and dependence (Cataldo, 2001).

Psychiatry Rx for Change offers a turnkey solution for programs training future psychiatrists and advanced practice psychiatric nurses. The *Psychiatry Rx for Change* materials are highly comprehensive, fully referenced, and have demonstrated efficacy (Prochaska et al., 2008). Interested faculty can access the curriculum materials via the program Web site at http://rxforchange.ucsf.edu. The Rx for Change program, as well as the train-the-trainer event, are supported by funding from nonindustry sponsors. The train-the-trainer program will provide the opportunity for faculty to network with colleagues and become part of a large dissemination effort addressing an important public health problem.

Psychiatric treatment encounters with both physicians and advanced practice nurses provide an ideal and untapped opportunity for assisting patients with quitting smoking. Ultimately, we envision that this research will lead to a shared, model tobacco cessation curriculum that can be disseminated nationally to psychiatry training programs (residency, nursing, pharmacy, etc.) and thereby effectively reach this vulnerable and costly population of smokers. More broad, the process by which *Psychiatry Rx for Change* has been developed and the application of theory to inform the curriculum's dissemination plan and evaluation also may serve as a useful model for other curriculum areas.

Acknowledgments

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TABLE 1

The *Psychiatry Rx for Change* Curriculum Components

Lecture Slide Modules

Epidemiology of Tobacco Use in the Mentally Ill compares the prevalence of tobacco use among individuals with current and former psychiatric disorders with the general population.

Forms of Tobacco (optional) discusses the many forms of tobacco available in the United States (e.g., cigarettes, cigars, bidis, hookah).

Impact of Tobacco Use in the Mentally Ill on Health & Functioning covers the physical and mental health effects of chronic tobacco use in those with mental illness including premature death and disability, associations with suicidal behavior, and the health benefits of quitting smoking. Additional topics include components in tobacco, the tobacco industry's marketing of light cigarettes, and the individual and societal financial costs of smoking.

Psychiatric Medication Interactions With Smoking addresses chemical interactions of tobacco use of clinical relevance in psychiatric care. Mechanisms of the interactions are discussed and a handout is provided. The effect of quitting smoking and smoke-free hospitalizations on psychiatric medication levels is discussed.

Factors Associated With the High Prevalence of Smoking in Psychiatric Populations focuses on the complex question of why individuals with mental illness smoke, including consideration of genetic and pharmacologic influences; behavioral, psychological, and social influences; and psychiatry treatment and systemic issues.

Tobacco Industry & the Mentally Ill (optional) presents internal tobacco industry documents demonstrating efforts to promote and maintain tobacco use in inpatient psychiatry and among smokers with schizophrenia.

Tobacco Treatment Guidelines and the Role of Psychiatry covers national and American Psychiatric Association tobacco treatment guidelines recommending that clinicians ask about tobacco use with all patients, assess readiness to quit, and offer appropriate interventions that include counseling and pharmacotherapy unless contraindicated. Discussion focuses on the role of mental health providers for treating individuals with co-occurring psychiatric and addictive disorders based on extended and repeated contacts with patients, knowledge of addictions treatment, and ability to integrate pharmacotherapy and counseling models. Discussion covers prioritization of smoking cessation with other clinical treatment goals and integration of cessation strategies within psychiatric care.

Counseling Strategies for Assisting Patients With Quitting is based on the National Cancer Institute's 5 As and the Transtheoretical Model of Change. The 5 As describe key components of tobacco intervention in clinical settings: (a) Ask about tobacco use, (b) Advise smokers to quit, (c) Assess readiness to quit, (d) Assist smokers with quitting, and (e) Arrange follow-up. Readiness to quit smoking is examined in relation to psychiatric symptom severity and in comparison with the general population. *Tobacco Use Mood Log* is used for raising awareness of the relationship between patients' tobacco use, isolation, and mood. The *Tobacco Cessation Counseling Guide Sheet* outlines stage-tailored patient-oriented interventions within the 5 As framework. Specific strategies for stress, mood, and weight management are discussed. Follow-up and relapse prevention efforts are emphasized with discussion of extended, long-term treatments. Research findings on the effect that clinicians have on quit rates and the importance of behavioral counseling as a necessary component of cessation interventions are presented.

Pharmacological Tobacco Treatments covers the first-line (nicotine replacement, bupropion, varenicline) and second-line (nortriptyline and clonidine) tobacco pharmacotherapies, new and emerging pharmacologic treatments, and the evidence base of other psychiatric medications (SSRIs, anxiolytics) and alternative treatments (herbal remedies, lobeline). Evidence and considerations for use of the pharmacotherapies with smokers with psychiatric disorders are discussed along with provision of high-dose, combination therapies and extended treatments. Content covered includes mechanisms of action, dosing regimes, side-effect profiles, costs, and precautions/contraindications including psychiatric medication interactions. The material is summarized in a comprehensive 2-page *Pharmacologic Product Guide*. The didactic is presented in conjunction with hands-on practice with nicotine replacement samples, described below.

Treatment of Special Populations covers strategies and considerations when treating smokers with clinical depression, anxiety disorders, or schizophrenia, hospitalized psychiatric patients who smoke, and smokers in treatment or recovery from other addictive disorders as well as pregnant smokers. Findings from clinical trials are presented, including consideration of the effect of quitting smoking on mental health recovery.

Smoking in Adolescents With Co-Occurring Psychiatric and Addictive Disorders (optional) addresses tobacco acquisition, assessment of adolescent tobacco use, primary comorbidities (e.g., attention deficit, conduct disorder, depression, and addictive disorders), and treatment considerations when working with adolescents and their families.

Interactive Components

Hands-On Aids for Cessation provides the audience with an opportunity to handle actual (nonprescription) or placebo (prescription) products while learning key counseling points for each of the cessation aids as well as proper dosing regimens and drug administration techniques.

Clinical Practice Exercise, assigned at the first training session, has residents/students practice the 5 As with one of their current clinical psychiatric cases to apply the clinical skills they are learning. Their experiences are discussed in group including what it was like to ask about patients' tobacco use, sharing patients' reactions to the interaction, identifying what they would do similarly or differently next time, and plans for follow-up.

Case-Based Treatment Planning has residents/students work in pairs to develop a treatment plan for a case to then present to the larger group for discussion. There are eight fully developed cases representing a variety of demographics, psychiatric diagnoses, stages of change, and clinical treatment settings (e.g., inpatient, outpatient, community-based clinic, addictions treatment). Case handouts are provided with a detailed treatment plan in the *Instructor's Guide*. The treatment plan format follows the 5 As framework. The *Tobacco Cessation Counseling Guide Sheet* is used as a resource. A minimum of 30 minutes is dedicated to this interactive exercise.

Video Trigger Tape (optional) follows a single case longitudinally over five 45-second segments to promote group discussion on appropriate clinical interactions. The case, a patient diagnosed with bipolar disorder smoking 2 packs per day with no intention of quitting due to job stress, progresses over 6 months' time with the patient contemplating quitting, struggling with withdrawal symptoms, lapsing, and then quitting for good. The residents/students are queried for appropriate methods of responding to the patient including recommended interventions and consideration of how identified interventions fit within their treatment model. This method of education can be very interactive and engaging, as well as an effective educational tool.

TABLE 2

Consideration of the *Psychiatry Rx for Change* Curriculum in Relation to Traditional Barriers to Dissemination Identified in the RE-AIM Framework

Barriers to Adoption & Implementation	*Psychiatry Rx for Change* Curriculum
Characteristics of the intervention	
High cost	The curriculum materials are available, at no cost, to registered users at http://rxforchange.ucsf.edu
Intensive time demands	Minimum time demand relative to creating one's own lecture; materials are updated regularly and are easily retrieved online; 4 hrs for curriculum delivery plus about 2 to 4 hrs of faculty preparation
High level of staff expertise required	Faculty training provided at the train-the-trainer event and online
Difficult to learn or understand	Straightforward material; detailed instructor notes on each slide
Not packaged or "manualized"	Packaged and manualized with supporting instructor tool kit
Not developed considering user needs	Developed with input from focus group with psychiatry residents and expert interviews with training directors and faculty, and evaluated with 55 psychiatry residents in three different types of training programs (academic, community, and private medical center)
Not designed to be self-sustaining	Online portal allows for central updates to curriculum content with ease of dissemination
Highly specific to particular setting	Tobacco treatment strategies are relevant to smokers with a variety of psychiatric diagnoses, different treatment orientations, mental health settings, and types of clinical providers
Not modularized or customizable	Modularized (eight recommended as required and three as optional) and customizable
Characteristics of potential adoption settings	
Competing demands occur	Efficient and focused use of time; can be taught as single course or integrated into a broader substance abuse treatment seminar; addresses primary cause of disease and death in the United States and should be a priority for all health degree programs
Program imposed from outside	Aims to generate interest among faculty with supporting interest from the training program directors
Finance or organizations are unstable	Psychiatry training programs are highly stable; two faculty trained at each site in case of faculty turnover
Clients and setting have specific needs	Treatment strategies are relevant to a broad range of psychiatric diagnostic groups, orientations, and treatment settings
Resources are limited	The program is low cost
Time is limited	Curricular time demand is minimal (4 hrs)
Organizational support is limited	High interest expressed by residency training directors
Prevailing practices that work against innovation	Supportive documents offered to facilitate integration into existing practices (e.g., chart stickers, cessation guides, smoking cessation referrals)
Perverse incentives or regulations that oppose change	Regulations mandate clinical attention to patients' tobacco use (e.g., JCAHO); increasing clinical and policy forces to address smoking in the mentally ill
Characteristics of the research design	
Not relevant or representative: sample of patients, settings, or clinicians	Dissemination study aims to evaluate the *Psychiatry Rx for Change* curriculum in a broad sample of psychiatry residency and graduate psychiatric nursing programs in the Western United States. The study will track costs and evaluate implementation, maintenance, and sustainability.
Failure to evaluate cost	
Failure to assess implementation	
Failure to evaluate maintenance	
Failure to evaluate sustainability	

Note. JCAHO = Joint Commission on the Accreditation of Healthcare Organizations

Source. Glasgow, Marcus, Bull, and Wilson (2004).