

## Evaluation of the CHOICES Program of Peer-to-Peer Tobacco Education and Advocacy

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**Abstract** CHOICES is a consumer driven program for addressing tobacco in people with mental illness that employs mental health peer counselors. Since 2005, CHOICES has conducted over 298 community visits reaching more than 10,000 smokers with mental illness (about 2500/year). A telephone based outcome study was conducted in 102 outpatient smokers who received a CHOICES peer-to-peer session. At 1-month follow up participants ( $N = 86$ ; 84%) reported smoking an average of 13 cigarettes per day which was significantly reduced from a baseline of 19 ( $P < 0.001$ ). Twenty-five individuals (29%) tried to quit smoking in the month after the peer session and another 47 (55%) reduced their smoking. Feedback from smokers about the program was positive. Most ( $N = 59$ , 71%) said it was a lot easier to talk with a consumer about smoking compared to their psychiatrist or staff. Peer-to-peer communication about tobacco use can

be effective to increase awareness and change smoking behaviors.

**Keywords** Smoking · Tobacco · Peer counseling · Consumer

### Introduction

Tobacco dependence among individuals with a mental illness or an addiction is a tremendous health care problem, with this group consuming nearly half of all the cigarettes in the US (Lasser et al. 2000). Studies indicate that more than 50% of individuals with mental illness are tobacco dependent, rates that are 2–4 times greater than the general population (Williams and Ziedonis 2004). Smokers with psychiatric disorders have an increased risk for tobacco caused medical illnesses, and evidence of more than 20 years of life lost, compared to the general population (Brown et al. 2000; Lichtermann et al. 2001; Miller et al. 2006; NASMHPD 2006).

Despite these alarming statistics, little is being done to address tobacco use among people managing mental illnesses. There is reduced access to treatment and little advocacy in this important area. Most mental health centers do not provide tobacco treatment and most tobacco treatment programs do not target people with mental illnesses. Changing the behavior of mental health professionals has had limited success in addressing tobacco as evidenced by the continued low rates of nicotine dependence diagnosis and treatment planning (Peterson et al. 2003; Thorndike et al. 2001; Williams et al. 2009). This is despite recommendations published more than decade ago for psychiatrists to treat tobacco in all their smoking patients (APA 1996).

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Perhaps the greatest barrier to immediate policy and systems change within the mental health setting is that tobacco use is not always seen as a problem among mental health consumers and their families. Mental health professionals and family advocacy groups have not been vocal in demanding tobacco treatment services for smokers with mental illness and these groups have continued to lobby for exemptions to smoke-free air provisions (Longo et al. 1998; Williams 2008). Even if they themselves endorse treating tobacco, consumer advocacy groups and mental health commissioners want to hear from consumers that tobacco is an important issue before taking steps to change policy. In addition, tobacco misinformation is common and consumers may minimize the long-term risks of tobacco, keeping it a low priority.

Despite these obstacles there is evidence that mental health consumers seek and utilize tobacco treatment and can be successful in quitting smoking (Haustein et al. 2002; Breslau et al. 2004). Although smokers with serious mental illnesses seem to understand that smoking is harmful and that quitting smoking can improve their health (Carosella et al. 1999) it is estimated that about half (Carosella et al. 1999; Addington et al. 1997; Hall et al. 1995; Etter et al. 2004) of this group have no plans of quitting in the next 6 months. Furthermore, less than one quarter are planning to quit in the next 30 days (Carosella et al. 1999; Addington et al. 1997), thus highlighting the need to increase motivational levels in clients before tobacco treatment can commence.

Having peers talk to smokers with mental illness, who may have low motivation to address their tobacco use, may offer advantages. The peer support model is based on shared responsibility, respect and mutual understanding of what is helpful (Mead et al. 2001). Peer services are in keeping with the Wellness and Recovery model, which the federal Substance Abuse and Mental Health Services Administration (SAMHSA) is prioritizing in order to address critical issues such as the physical health needs of people with mental illness (SAMHSA 2006). Peers are able to provide services in a less threatening way to those fearful of change, and consumers report high satisfaction with peer delivered services (Solomon 2004). Recent expert panels, including the SAMHSA Consensus Statement on Recovery, have concluded that peer providers are essential to the design and delivery of future mental health care (Campbell and Leaver 2003; SAMHSA 2005; Stotland et al. 2008) especially in the area of physical and mental health integration (SAMHSA Wellness Summit 2007). Many states have implemented peer run programs, recognizing the important role they play in an overall wellness and recovery plan (Mead et al. 2001).

Peer-to-peer contacts can also provide an alternative model for changing mental health systems that are driven

by increasing consumer demand for tobacco treatment services. Models for organizational change often target systems level change on the administrative or professional level. Increasing awareness and motivation for tobacco dependence treatment among mental health consumers can help more people quit tobacco and may also help to drive greater systems change by shifting accepted cultural norms in these settings. The project described here addresses these goals through the use of peer counselors who are dedicated to tobacco education, outreach and advocacy. Named the CHOICES program, it stands for Consumers Helping Others Improve their Condition by Ending Smoking but also has the dual meaning to empower mental health consumers that they can make the choice to not use tobacco (Williams 2007). CHOICES employs peer counselors called Consumer Tobacco Advocates (CTAs) whose goal is to provide peer support and education about tobacco through community outreach activities. The philosophy of CHOICES is to bring information to smokers with mental illness about the harms of tobacco, as well as the benefits of quitting and possibilities of treatment. This paper describes the development and implementation of the CHOICES program from its inception in 2005 and also presents findings from an evaluation study.

## Methods

CHOICES was conceived as a partnership between University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School (UMDNJ-RWJMS), the Mental Health Association in New Jersey (MHANJ a local affiliate of Mental Health America) and the New Jersey Department of Health and Human Services, Division of Mental Health Services (NJDMHS). Initial funding was provided through a grant from the American Legacy Foundation with subsequent funding from the Cancer Institute of New Jersey and the NJDMHS. The first goal of the project was to hire, train and supervise CTAs for the CHOICES Program and establish the initial project activities. The second goal was to monitor the productivity and effectiveness of CHOICES team through a variety of outcome measures. The third goal was to create and distribute resource materials targeting a larger audience of smokers with mental illness in New Jersey to enhance advocacy and education about addressing tobacco in mental health treatment settings.

### Consumer Tobacco Advocates

The CTAs work 20 hours per week and are paid a fixed stipend of \$800/month (\$9600/year) which allows them to retain their medical health coverage and other entitlements.

A requirement for being a tobacco advocate is that the individual be a mental health consumer with a minimum of 1 year tobacco-free period. Since the job requires driving to community locations, eligible applicants also have to possess a car and valid driver's license. Job opportunities are disseminated through supported employment and job training programs as well as email listserves. Job duties and responsibilities include providing focused tobacco outreach and education to smokers with mental illness within the state of New Jersey. CTAs serve as consultants to consumers or behavioral health agencies to assist with linkages to tobacco treatment, advocacy, support and the provision of educational materials. Additional job duties are listed in Table 1.

The CTAs receive 30 hours of intensive training and a detailed training manual to provide them with the knowledge and skills needed to perform the job. The curriculum includes both classroom and experiential learning and emphasizes facts about tobacco dependence, as well as how to interact with other consumers, make health information presentations, and how to work as an advocate. Most of the individuals hired had not worked previously as peer counselors and training time was also spent on issues such as self-disclosure and professionalism. CTAs learn how to contact community agencies that provide mental health services or support and schedule visits to the program. Services are provided at no charge to participating agencies. When a site visit is scheduled, CTAs prepare to provide an event similar to a health fair. Informational poster boards and handouts are displayed on a table. During a site visit that can last for 3–4 hours, CTAs begin with a

brief presentation to the consumer community and then remain available on-site to talk with individuals consumers about tobacco use.

The CTAs learn how to perform a 20 min peer-to-peer feedback intervention designed to motivate smokers with mental illness to seek tobacco dependence treatment. This peer-to-peer session was empirically based on a one-session motivational interview (MI) described by Steinberg et al. (2004), that showed a significant effect in motivating smokers with schizophrenia to seek treatment. Steinberg's technique consisted of a 45 min motivational interview and accompanying personalized feedback report that emphasized several consequences of tobacco use: the individual's expired carbon monoxide (CO) level, a calculation of the amount spent by the individual to purchase tobacco in a month and year, and a review of the individual's medical conditions linked to tobacco use.

The intervention was shortened and scripted and is taught to the CTAs who also receive brief training sessions on motivational interviewing techniques. CTAs practice the script in role plays before using it in supervised encounters with smokers in the community. Two handouts are provided to the smoker during the peer-to-peer session. One called "What is CO?" explains what carbon monoxide is and how it harms the body of smokers. The second is a chart "How much does smoking cost?" that estimates how much smokers spend per month and year on cigarettes. The intervention also encourages smokers to consider how money spent on cigarettes could be alternatively spent. Each CTA is provided with a small, handheld carbon monoxide meter which is used in the feedback session. The

**Table 1** Consumer Tobacco Advocate Job Description

*General summary*

Provide focused tobacco outreach and educational services to smoking mentally ill consumers who are in outpatient treatment in the community. Consumer Tobacco Advocates serve as tobacco-focused consultants to other consumers or agencies to assist them with linkages to treatment, referrals, advocacy, support and the provision of educational materials. A major task involves implementing a one-session motivational intervention with other mental health consumers who smoke. In trainings and ongoing mentoring with the project leadership, Consumer Tobacco Advocates will learn how to discuss tobacco issues with peers, how to perform the feedback intervention and how to organize activities like health fairs and smoke-outs

*Duties and responsibilities*

1. Functions as part of a tobacco-advocacy team
2. Give smokers with mental illness a directory of treatment options for tobacco treatment within NJ
3. Maintains a day-to-day working relationship with mental health providers in the region, to ensure the coordination of tobacco advocacy services
4. Travels to mental health centers, self-help centers and health fairs in order to interact with consumers about their tobacco use
5. Maintains accurate records related to the number of contacts/services provided
6. Acts as a non-smoking role model for clients in a non-judgmental, objective manner
7. Provide smokers with mental illness with educational information about tobacco use through visits to mental health centers, self-help centers and health fairs
8. Implements a one-session motivational intervention with other mental health consumers who smoke
9. Encourage smokers with mental illness to sign up to receive the CHOICES newsletter in the mail
10. Contributes materials on a regular basis to the CHOICES newsletter

peer-to-peer feedback session is straightforward and includes suggested language for how to invite a smoker to talk about ways they could improve their life by learning more about tobacco use. CTAs always disclose that they do not provide tobacco cessation treatment but are there in a neutral, non-judgmental way to provide information and raise awareness.

The CHOICES Team is supervised by a Program Director who has expertise in tobacco treatment, education and advocacy in smokers with mental illness and addictions comorbidity. CTAs receive weekly telephone and in-person supervision and feedback from the Program Director who also assists in scheduling and organizing the overall team tasks. Ongoing supervision has been essential to give both support and continuing education to the CTAs who may be returning to the workforce after years of absence. CHOICES is typically staffed with 2–3 CTAs and the part-time Project Director. Outcomes for the team are also tracked through evaluation processes that are detailed below.

In addition to community visits, the CHOICES Program extends its reach to consumers via a free, quarterly newsletter that contains information on tobacco education and treatment options. Consumers are also encouraged to submit their personal recovery stories or art for publication in the newsletter. The CHOICES newsletter has also been an effective vehicle to disseminate information about recovery initiatives in New Jersey and build grassroots support for tobacco treatment. The CHOICES website ([www.njchoices.org](http://www.njchoices.org)) was created as an additional free tool to link consumers to tobacco education and resources including downloadable copies of the newsletter.

The productivity of the CHOICES team is evaluated by monitoring several activities including the: 1. Number of site visits, health fairs and other events attended or organized, 2. Number of smokers with mental illness contacted through the various outreach activities, and who receive the peer-to-peer feedback intervention, 3. Number of individuals who sign up to receive the CHOICES newsletter, 4. Number of hits to the CHOICES website.

#### Evaluation of Brief Peer-to-Peer Intervention

We also conducted an evaluation study to assess the characteristics of smokers in these settings, and evaluate the effectiveness of the 20 min peer-to-peer feedback intervention on the smoking behavior and motivation in a subset of smokers who received the individual session. Using a convenience sample, research staff attended several site visits at partial hospitalization/partial care programs where patients participated in programming on a half or full-day schedule. Any mental health consumer that currently used tobacco and completed an individual peer-

to-peer feedback intervention with a CTA was eligible to participate in the study. Participants signed a consent form and completed a baseline assessment with the research staff after the completion of the peer-to-peer session. The baseline assessment contained questions about their current tobacco use, motivation to quit and past use of tobacco treatment services.

Subjects also agreed to be contacted by research staff at 1 and 6 months following the baseline assessment to complete a brief telephone survey. Telephone survey questions included current tobacco use, motivation to quit, changes in smoking behavior and use of tobacco treatment services. Consumer satisfaction with the peer contact was also assessed. In addition to the structured portions of the survey, participants were encouraged to provide qualitative feedback and comments on any additional aspect of the interaction with the CTA they thought relevant. Participants received a pre-paid telephone calling card as an incentive for participating in the study at each of the three time points described. The Institutional Review Board of the RWJMS approved the study which was conducted between September 2005 and August 2007. There were no known conflicts of interest among the authors of the study.

#### Statistical Analysis

Baseline demographics and tobacco use history among study participants were evaluated by frequencies (for categorical variables) and means and standard deviations (for continuous variables). Comparisons of motivation to quit smoking were done using Pearson's chi-square test. Smokers lost to follow-up were compared to study completers using independent sample *t*-tests (for continuous variables) and Chi-square tests (for categorical variables). Cigarettes per day at 1 and 6 month follow-up were compared to baseline using paired sample *t*-test. Qualitative responses on certain items at 1 and 6 months were grouped into broader categories and their frequencies were calculated. We also performed additional analysis to see if there were any baseline differences among participants who were from programs that provided tobacco treatment counseling as compared to those whose program had no tobacco treatment counseling. All analyses were performed using SPSS 16.0 (Chicago, IL, USA).

## Results

#### Productivity of CHOICES Team

Since inception, the CHOICES team has conducted over 298 community visits reaching more than 10,000 smokers with mental illness (about 2500/year). CHOICES CTAs

met with over 1,408 individual consumers to give them the peer-to-peer intervention and personalized feedback about their smoking. CHOICES provides an average of six community site visits per month and has visited more than 150 different mental health and community-based programs in every county of NJ. Almost half (46%) of CHOICES site visits were to partial hospitalization/partial care programs or intensive outpatient programs but there were also visits to self-help centers or clubhouses (23%), groups homes or residential programs (14%), inpatient hospitals (7%), outpatient programs (5%), or case management services (5%). Programs were visited an average of three times. NJ has a strong network of state level consumer run events and organizations and CHOICES has presented at 31 consumer conferences and 29 other events (health fairs, peer advocate trainings, consumer forums). The newsletter is sent to more than 960 consumers and the CHOICES website has had more than 235,000 hits (currently about 5,000 per month).

### Findings from Evaluation Study

#### *Baseline Demographics and Current Tobacco Use*

A total of 102 outpatient smokers who expressed an interest in participating in the research study gave informed consent to participate. These smokers had an average age of 44 and most were unemployed (90%) and never married (58%). They reported smoking an average of 19 cigarettes/per day during the last week and had smoked for approximately 25 years. Most of them were moderately to severely nicotine dependent with almost half smoking within the first 5 min of waking in the morning, an indicator of severe nicotine dependence. Fifty-eight percent of subjects reported that a family member and/or friend buy tobacco for them. Additionally, a majority of participants reported living with another smoker (59%), having a disease caused or aggravated by smoking (61%), and smoking inside their home (60%). A complete listing of the baseline characteristics of smokers who participated is included in Table 2.

#### Access to Treatment and Motivation to Quit

Following the completion of the peer-to-peer session, motivation to quit smoking was assessed. ( $N = 101$ ). Forty percent of subjects reported seriously thinking of quitting smoking in the next 30 days and 44% reported seriously thinking of quitting in the next 6 months. Only 15% of subjects said they were not thinking of quitting at all. Since we did not have a baseline assessment of motivation to which we could compare these scores, we instead compared them to baseline results of motivational levels of

**Table 2** Baseline characteristics of participants ( $N = 102$ )

	Mean (SD)
Age	43.5 (11)
Cigarettes per day (cpd)	19 (14); Range 3–70
Years smoked	25 (12)
Age of first smoking	15 (5)
Past quit attempts	3 (3.6); Range 0–20
Years education	12 (2)
Ethnicity	Count (%)
African-American	26 (25)
Caucasian	54 (53)
Asian	10 (10)
Hispanic	2 (2)
Other	10 (10)
Gender	
Male	47 (46)
Female	54 (54)
Marital status	
Never married	59 (58)
Married	11 (11)
All others	32 (31)
Employment	
Unemployed	91 (90)
Part time	9 (9)
Full time	2 (1)
Current living arrangement	
Homeless/shelter	6 (6)
Friend, family or own home	40 (39)
Supervised apartment or group home	21 (21)
Rent own apartment	26 (25)
Other	9 (9)
Time to first cigarette in AM	
Within 5 min	45 (45)
6–30 min	37 (36)
31–60 min	11 (11)
After 60 min	9 (9)
Family or friend buys tobacco for me	59 (58)
Have a disease or illness caused or aggravated by smoking	62 (61)
Others in household are smokers	60 (59)
Others smoke indoors in the home	61 (60)

smokers with schizophrenia from the study by Steinberg study (2004) that used the same assessment question. In the Steinberg study of 80 smokers with schizophrenia, 14% reported seriously thinking of quitting smoking in the next 30 days, 20% reported seriously thinking of quitting in the next 6 months and 66% were not thinking of quitting at all; these results were significantly different from the CHOICES study of motivational levels (Chi-square 121.5,  $df 2$ ,

$P < 0.001$ ). This suggests that the CHOICES peer to peer session was motivating to smokers who received it since more smokers reported being in the contemplation or preparation stage of readiness to address their tobacco use as compared to the Steinberg study.

Only thirty-two participants (31%) reported that their mental health program offered any tobacco counseling or treatment. Despite limited access to treatment, 38% of participants reported they tried to quit smoking in the 6 months prior to the assessment, making an average of 1.6 quit attempts. These quit attempts were mostly unsuccessful and lasting less than 1 week for 84% of participants.

Because we were concerned that the presence of existing tobacco treatment at the participants' mental health program could have impacted smoking behavior we conducted analyses to compare baseline measures among those with and without reported access to tobacco treatment at the mental health program. We compared measures of tobacco dependence, as well as quitting behavior and motivational levels at baseline in those with access to tobacco treatment ( $N = 32$ ) to those without it ( $N = 70$ ). We found no differences in any of these measures between groups including number of cigarettes smoked per day, years of smoking, past quit attempts or time to first cigarette in the morning, suggesting that merely access to tobacco treatment did not significantly alter the smoking behavior of participants.

#### One Month Follow-Up

Eighty-six subjects (84%) completed the 1-month follow up interview over the phone. The remaining fifteen could not be reached (9 lost to follow-up; 4 hospitalized) or asked to be withdrawn from the study (3). Smokers who were lost to follow up were not significantly different from study completers in baseline demographic characteristics or measures of smoking such as cigarettes smoked per day, age of first smoking, or past number of smoking quit attempts.

At the time of the 1-month follow up participants reported smoking an average of 13 cigarettes/per day which was significantly reduced from baseline ( $t = 4.17$ ,  $df = 86$ ,  $P < 0.001$ ). Twenty-five (29%) tried to quit smoking in the month since the peer-to-peer session and another 47 (55%) who did not try to quit reduced their smoking. Fourteen (16%) had no change in their reported smoking behavior. Motivation to quit smoking was assessed at the 1-month follow up interview to see if levels were sustained from the initial assessment. Twenty-eight percent of subjects reported seriously thinking of quitting smoking in the next 30 days and 55% reported seriously thinking of quitting in the next 6 months ( $N = 24$  and 47,

respectively). Sixteen percent of subjects said they were not thinking of quitting at all ( $N = 14$ ).

At the 1-month follow up, many subjects reported that they had addressed their tobacco use in various ways. They talked to their doctor, nurse or mental health staff about getting help to quit (33%), used a tobacco treatment medication (21%), attended a tobacco group or individual counseling session (14%), used an internet site to learn about smoking cessation (6%) or used the NJ tobacco telephone QuitLine (4%). Interestingly, there was no relationship between individuals who made quit attempts and the presence of tobacco counseling or treatment at their mental health program.

We also solicited feedback about their impressions of the CHOICES Consumer Tobacco Advocates at the 1-month follow up call. Eighty-six percent ( $N = 72$ ) felt that the CTA were very or extremely friendly towards them. Eighty-three percent ( $N = 69$ ) felt that the CTA was very or extremely interested in their smoking. Seventy-four percent ( $N = 61$ ) felt that the CTA was very or extremely knowledgeable about their smoking. Eighty-five percent of respondents ( $N = 71$ ) said it was very or extremely important for the CTA to give them feedback about their smoking. None of the satisfaction responses were significantly different between those who tried to quit smoking in the prior month since the peer to peer session and those who did not. Subjects were asked to compare how easy it was to talk to a CTA about smoking compared to their psychiatrist or other mental health staff. Most ( $N = 59$ , 71%) said it was a lot easier to talk with a CTA, 11% ( $N = 9$ ) said it was somewhat easier and 18% ( $N = 15$ ) said there was no difference. Qualitative responses about the interaction with the CHOICES CTAs are summarized in Table 3.

#### Six Month Follow-Up

##### *Demographics and Current Tobacco Use*

Sixty subjects (59%) completed the 6-month follow up phone call. At the time of the 6-month follow up participants reported smoking an average of 13 cigarettes/per day which was significantly reduced from baseline ( $t = 3.376$ ,  $df = 59$ ,  $P = 0.001$ ). Twenty-eight (47%) tried to quit smoking in the 6 months since the peer to peer session and another 29 (48%) who did not try to quit reduced their smoking. Three (5%) had no change in their reported smoking behavior.

At the 6-month follow up, many subjects reported that they had addressed their tobacco use in various ways. They talked to their doctor, nurse or mental health staff about getting help to quit (57%), used a tobacco treatment medication (38%), attended a tobacco group or individual counseling session (22%), used an internet site to learn

**Table 3** Qualitative feedback from participants

What new thing did you learn or find most helpful?	Count (%) <i>N</i> = 86
Carbon monoxide score and effect of CO on health	19 (21)
Motivated me to quit and had hope about quitting	13 (16)
The many chemicals contained in smoke	12 (15)
Ways to stop smoking with tobacco treatment medications	10 (12)
Treatment resources (other than medications)	5 (6)
Someone cares about me	2 (2)
Cost of smoking	4 (5)
Quit smoking handouts	3 (4)
Don't remember or learned nothing new	15 (18)
Comments	
"The Advocate surprised me...that someone actually cared about whether I quit or not"	
"The CO meter intrigued me. I was in the danger level, close to be the highest one (in score)"	
"I was shocked at the amount of money I spend (to buy tobacco)"	
"We talked and the Advocate really wanted to help. Talking really helped"	
"The Advocate had answers to my questions"	
"There are more options out there (for quitting) than I realized"	
"Not to give up. Don't feel like a failure if you've tried 2–3 times"	
"I never realized there were so many chemicals in smoke"	
"I have been reading the material you gave me"	
How would you suggest we improve the program for other mental health consumers?	Count (%)
No suggestions; Liked it the way it is	48 (56)
More materials, more handouts	9 (10)
Come more often, spend more time	8 (9)
Provide nicotine replacement medications	6 (7)
Add a support group	1 (1)
More emphasis on QuitLine	1 (1)
More information on cigar use	1 (1)
Comments	
"You did the best you could. The rest is up to me"	

about smoking cessation (8%) or used the NJ tobacco telephone QuitLine (2%).

Motivation to quit smoking was assessed at the 6-month follow up interview to see if levels were sustained from the initial assessment. Thirty-four percent of subjects reported seriously thinking of quitting smoking in the next 30 days and 42% reported seriously thinking of quitting in the next 6 months ( $N = 20$  and  $25$ , respectively). Nineteen percent of subjects said they were not thinking of quitting at all ( $N = 11$ ). Three individuals (5%) reported that they had already quit for more than 24 h.

## Discussion

The CHOICES program of peer driven community outreach to help smokers with mental illness is the first of its

kind. In a relatively short time, the CHOICES program has had a broad reach, and the feedback about the program from consumers and professionals has been extremely positive. Few other programs have been developed for addressing tobacco among people with mental illness that include consumers in the planning and delivery of services. The CHOICES program exemplifies many aspects of a successful wellness and recovery initiative: It targets a group with a tremendous health care need, seeks to reduce the harm caused by tobacco in a vulnerable group, focuses its efforts in the community, which best accommodates the target population, employs peers to reduce educational or cultural barriers that may exist and develops successful partnerships with key stakeholder groups for sustainability.

Strengths of this approach included the use of peer provided services. Using peer counselors helps to fight the stigma associated with mental illness and tobacco use.

Other benefits of a peer-to-peer intervention are the shared experiences of consumers, who understand mental illness and the challenges that go along with it. Not surprisingly, smokers felt it easier to talk to a CTA about tobacco than their own physician or mental health counselor. Although based at the UMDNJ-Robert Wood Johnson Medical School, CHOICES has had strong partnerships with the community through work with the Mental Health Association in NJ, (MHANJ) and NJ State Division of Mental Health Services (NJDMHS). These partnerships have contributed to the rapid growth and success of CHOICES. The Mental Health Association in NJ, a consumer-driven mental health advocacy organization, has been an especially effective community partner, linking CHOICES to an audience of consumers and sharing a commitment to addressing tobacco through policy and other work. The NJ State Division of Mental Health Services (NJDMHS) supports projects that employ mental health peer counselors and has been the primary funding source for the last 3 years.

As this was a pilot evaluation study, a major limitation was that we did not assess motivational levels of smokers prior to them receiving the peer-to-peer interaction. Although we can speculate that the relatively large numbers of smokers reporting readiness to address their tobacco use in the next 30 days was not due to chance alone, but due to the motivating effect of the peer session, we cannot be sure without further study. It is also not unexpected that the gains in motivation were not sustained at the 1- and 6-month follow up calls when these smokers were dealing with the realities of trying to quit. Smokers who participated in the study reported smoking significantly fewer cigarettes per day at both the 1- and 6-month follow up call. Three participants reported quitting smoking for more than 1 week at the 6 month follow up. Although these were not verified with biological measures (such as expired carbon monoxide), studies of self-reported smoking behavior and abstinence indicate that these measures are reliable (Baker and Brandon 1990; Vartiainen et al. 2002; Gorber et al. 2009). Both the reduction and quitting behavior observed in the study is remarkable given that setting a quit date and attempting to quit were not part of the peer session. In fact, CTAs try to remain neutral with regard to quitting behavior recognizing that this could be intimidating to low motivated smokers. All of these behavior changes are evidence of increased motivation to quit smoking, which occurred as a result of the CHOICES peer-to-peer session, and warrant further study. Although about one-third of participants reported that their mental health program offered tobacco counseling or treatment, we were not able to validate if these services existed and our preliminary findings suggests that merely the presence of such services did little to influence smoking behavior or

quit attempts. An additional limitation was our use of a convenience sample and subsequent studies might assess a more representative group of smokers.

An additional limitation of this feasibility study is the applicability of findings to settings other than partial hospital treatment programs. Persons receiving this type of service may be in a different stage of their recovery and may not be representative of all persons with severe mental illness who smoke. Also, the partial hospital/partial care environment is an artificial environment designed to provide short term treatment. In New Jersey, like other states, there have been successful efforts to make partial programs a more intensive experience focused on wellness, recovery and individualized treatment plans to help consumers make healthier lifestyle choices.

CHOICES has employed mental health consumers who are moderately ill or disabled from mental illness. The CTAs feel that the experience of working has made them achieve greater recovery in their own mental illness and speak strongly of the therapeutic experience from working that CHOICES has brought them personally. Each has gone onto achieve personal milestones including participating in publications, statewide and consumer conferences on Wellness & Recovery and/or have gone onto seek additional formal education. A number of studies have demonstrated that peer support and peer provided services benefit not only the individuals receiving the services but also the peer providers and the mental health system as a whole (Davidson et al. 2006). Peer providers report benefits such as increased confidence, self esteem, and ability to cope with illness. They also talk about the fact that working as a peer provider supports their own recovery and offers the opportunity for professional growth (Solomon 2004).

CHOICES has been well received nationally as a model for addressing tobacco in mental health settings. In 2007, CHOICES was awarded the 2007 Innovative Programming Award by Mental Health America, which is considering CHOICES as a model program for addressing tobacco through their national affiliate network. CHOICES was also selected as an “Innovative Program” presentation for the 2007 Institute on Psychiatric Services. CHOICES is listed as a “best practice” resource in national provider toolkits for the treatment of tobacco in mental health settings published by the Smoking Cessation Leadership (2009), the Behavioral Health and Wellness Program of the University of Colorado (2009), the Tobacco Cessation Leadership Network (2008), and the National Association of State Mental Health Providers (2007). Others have sought out the CHOICES program as a model that could be expanded beyond NJ and reach a larger audience of smokers. A multi-state implementation of CHOICES is currently underway on the west coast.



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