

4-1-2026

Efficacy, Acceptability, and Feasibility of StayQuit for Sustaining Smoking Abstinence After Psychiatric Hospitalization: A Pilot Study

Corinne N. Kacmarek

Hannah C. Smith

Alicia Lucksted

Lan Li

Laché Wilkins

Gabriella Coakley

Peter Phalen

Deborah Medoff

Faith Dickerson

Julie Kreyenbuhl

*See next page for additional authors*Follow this and additional works at: <https://aah.org/jpcrr>Part of the [Behavior and Behavior Mechanisms Commons](#), and the [Mental Disorders Commons](#)

Recommended Citation

Kacmarek CN, Smith HC, Lucksted A, et al. Efficacy, acceptability, and feasibility of StayQuit for sustaining smoking abstinence after psychiatric hospitalization: a pilot study. *J Patient Cent Res Rev*. 2026;13:42-50. doi: [10.17294/2330-0698.2184](https://doi.org/10.17294/2330-0698.2184)

Published quarterly by Midwest-based health system Advocate Aurora Health and indexed in PubMed Central, the Journal of Patient-Centered Research and Reviews (JPCRR) is an open access, peer-reviewed medical journal focused on disseminating scholarly works devoted to improving patient-centered care practices, health outcomes, and the patient experience.

Efficacy, Acceptability, and Feasibility of StayQuit for Sustaining Smoking Abstinence After Psychiatric Hospitalization: A Pilot Study

Authors

Corinne N. Kacmarek, Hannah C. Smith, Alicia Lucksted, Lan Li, Laché Wilkins, Gabriella Coakley, Peter Phalen, Deborah Medoff, Faith Dickerson, Julie Kreyenbuhl, and Melanie E. Bennett

Efficacy, Acceptability, and Feasibility of StayQuit for Sustaining Smoking Abstinence After Psychiatric Hospitalization: A Pilot Study

Corinne N. Kacmarek, PhD,^{1,2} Hannah C. Smith, BS,³ Alicia Lucksted, PhD,^{1,2} Lan Li, MS,^{1,2} Laché Wilkins, MS,¹ Gabriella Coakley, MS,¹ Peter Phalen, PsyD,² Deborah Medoff, PhD,² Faith Dickerson, PhD,⁴ Julie Kreyenbuhl, PharmD, PhD,^{1,2} Melanie E. Bennett, PhD^{1,2}

¹US Department of Veterans Affairs, VISN 5 Mental Illness Research, Education, and Clinical Center, Baltimore, MD;

²University of Maryland-Baltimore, School of Medicine, Department of Psychiatry, Division of Psychiatric Services Research, Baltimore, MD; ³University of Maryland-Baltimore, School of Medicine, Department of Psychiatry, Division of Addiction Research and Treatment, Baltimore, MD; ⁴Stanley Research Program, Sheppard Pratt Health System, Baltimore, MD

Purpose	Veterans with mental illness have high rates of tobacco use and psychiatric hospitalization in the Veterans Health Administration (VA). VA is smoke-free, and guidelines recommend that smoking cessation medication and counseling be delivered during and one month after hospitalization to sustain abstinence. Little is known about how patients experience this intervention. This pilot study evaluated the acceptability, feasibility, and efficacy of an evidence-informed, novel smoking intervention, StayQuit, for psychiatric inpatients.
Methods	Participants were recruited from an inpatient VA psychiatric unit. Changes in self-reported cigarettes smoked per day, nicotine dependence, and abstinence self-efficacy were evaluated between baseline and 12-week follow up. Participants were interviewed about their experiences.
Results	The sample ($n = 26$) was predominantly white, male, and diagnosed with a depressive disorder. Fifteen (58%) participants completed at least one counseling session and the follow-up assessment. Among them, there was a statistically significant reduction in mean cigarettes smoked per day and increase in abstinence self-efficacy. Participants appreciated the knowledge and supportiveness of interventionists and reported that StayQuit helped them make progress towards their smoking goals.
Conclusions	Evidence-informed interventions like StayQuit are acceptable to Veterans, but implementation-focused research is needed to maximize feasibility in real-world settings. (<i>J Patient Cent Res Rev</i> . 2026;13:42-50.)
Keywords	tobacco use; inpatient mental health; tobacco treatment; qualitative analysis; acceptability and feasibility

Patient-Friendly Recap

- Smoking rates in people with mental illness remain high and lead to long-term illness and death.
- Veterans with mental illness have high rates of tobacco use and psychiatric hospitalization at the VA.
- We evaluated a new smoking intervention called “StayQuit” for patients with mental illness at the VA.
- StayQuit helped participants reduce the number of cigarettes smoked per day and strengthened their confidence to quit smoking.

Smoking rates in people with mental illness remain high and lead to dire health-related consequences, including long-term illness and death.^{1,2} Veterans with mental illness have high rates of tobacco use in the Veterans Health Administration (VA): 48% of those with schizophrenia, 39% of those with bipolar disorder, 31% of those with PTSD, and 27% of those with depression.² Smoking is estimated to shorten the life expectancy of individuals with mental illness by approximately 16 years

Corresponding author: Corinne N. Kacmarek, VA Maryland Health Care System, 10 N. Green St., BT/MIRECC 7th floor, Baltimore, MD 21201 (corinne.kacmarek2@va.gov)

due to smoking-related conditions like heart disease, chronic obstructive pulmonary disease, and lung cancer.^{1,3} Thus, efforts are needed to reduce the burden of smoking in this already vulnerable population.

Psychiatric hospitalizations are common for individuals with mental illness.⁴ VA is smoke-free,⁵ and psychiatric hospitalization provides a good opportunity to initiate tobacco treatment since smoking is prohibited, medications can be easily utilized, and regular smoking triggers are not present.⁶ Additionally, many hospitalized smokers with mental illness report high interest in quitting,⁷ negative attitudes towards smoking,⁸ and positive quit expectancies.⁹ Of note, abstinence during and after hospitalization is not associated with worsening psychiatric symptoms.¹⁰ However, delivering tobacco treatment in this setting presents workflow challenges, and many patients return to smoking after discharge. Interventions that begin in the hospital and continue after discharge may be able to bridge this gap and support abstinence following hospitalization.^{6,11–14} Importantly, patient perspectives of tobacco interventions are needed to maximize clinical impact and reduce implementation barriers in real-world settings.

We developed StayQuit, a program to deliver evidence-informed tobacco counseling, both in-person during an inpatient hospitalization and by telephone for several weeks after discharge. Here, we report findings from a mixed-methods pilot study in which we developed StayQuit and then evaluated its acceptability, feasibility, and efficacy in a small sample of Veterans with mental illness (ie, mood and psychosis spectrum disorders, PTSD) who smoked and were psychiatrically hospitalized in a VA medical center.

METHODS

Intervention Development

We drafted a preliminary outline for StayQuit based on our team's experience with smoking cessation among people with mental illness and a phone-based protocol¹⁵ for an intervention tailored to people with mental illness; this protocol provided brief telephone counseling using evidence-informed smoking cessation strategies such as managing nicotine withdrawal, coping with cravings (delay, drink water, deep breathing, distract), and using nicotine replacement therapy (NRT).^{1,6} We also convened meetings with an advisory panel of VA clinicians working in inpatient (n = 5) and outpatient (n = 4) psychiatric settings and Veterans with lived experience of mental illness and tobacco use (n = 2). StayQuit revisions are summarized in Supplemental Table 1. In addition, project interventionists received training in motivational enhancement, behavioral quit strategies, and participant

engagement strategies tailored to mental illness and were supervised by a licensed psychologist with expertise in smoking cessation for people with mental illness.

The three inpatient sessions of StayQuit followed a structured manual developed by the study team with topics for each session, but the topic checklist was the same for all sessions and included all possible topics to be discussed. Session 1 focused on resolving ambivalence with a decisional balance worksheet, Session 2 focused on behavioral skills to cope with cravings, and Session 3 focused on planning to stay quit after discharge, including using NRT. Participants who did not complete all inpatient sessions received this content during telephone sessions. Each telephone session started with a review of smoking and use of NRT, and motivation to change was tailored to each participant's stage of change.¹ For example, participants in the action stage reviewed how they were coping with cravings and high-risk smoking situations, while patients in the contemplation stage of change received motivational enhancement. During this time, discussion was driven by a combination of therapist- and patient-led points. For instance, if a patient was describing ambivalence about quitting, therapists could prompt discussions of roadblocks to quitting and relevance of quitting, two motivational enhancement strategies.⁶ A patient could also initiate the topic of roadblocks to quitting after bringing up challenges with behavioral strategies in the prior week.

The final intervention was delivered between 2017 and 2018 and offered up to 16 sessions: three face-to-face sessions while inpatient, and up to 13 phone sessions over 12 weeks after discharge. The intervention focused on supporting Veterans with their smoking goal after discharge.

Screening and Recruitment

This study was approved by the University of Maryland Institutional Review Board and the VA Maryland Health Care System Research and Development Committee. Participants were recruited in-person from the inpatient psychiatric unit at the Baltimore VA Medical Center. Eligible participants were (1) 18 or older, (2) receiving inpatient psychiatric care, and (3) self-reported smoking at least five cigarettes per day prior to hospitalization. Individuals with a documented history of severe neurological disorder or intellectual developmental disorder were excluded.

Measures

Participants completed a baseline assessment in-person and a 12-week follow-up phone assessment. At follow up, participants were invited to complete an audio-recorded interview about their StayQuit experiences. Participants

were paid \$30 for the baseline assessment and \$30 for the follow-up assessment. Participants did not receive additional compensation for interviews.

Measures included a demographics form, questions about current smoking and quitting history, the Fagerström Tolerance Questionnaire (FTQ)¹⁶, and Smoking Abstinence Self-Efficacy Scale (ASES).¹⁷ After each session, the interventionist completed a checklist for topics discussed (checklist with room for “other”). After each phone session, interventionists also rated (a) each participant’s engagement (1 = very little, 2 = somewhat, 3 = full), (b) session tone (negative, mixed, positive), and (c) outcome, which was based on observed congruence between the Veteran’s goal and actions and the Veteran’s responses to strategies used by the interventionist to improve goal/action alignment (poor, adequate, good).

Interview recruitment was determined by the number of consenting participants who were available to complete the 12-week follow-up assessment and agreed to complete the interview. Questions assessed the participant’s view of StayQuit acceptability, feasibility, and efficacy. Participants were also invited to provide suggestions on how to improve StayQuit. Interviews were semi-structured to promote a more conversational style and address the interview objectives.¹⁸

Quantitative Data Analysis

Data on demographics, number of sessions, topics discussed, and session ratings were summarized descriptively. Feasibility was measured using the number of counseling sessions attended; acceptability was measured using interventionist session ratings; smoking was measured by cigarettes smoked per day; nicotine dependence was measured by the FTQ¹⁶; abstinence self-efficacy was measured by the ASES¹⁹; and intervention efficacy was measured using t-tests to evaluate changes in smoking, nicotine dependence, and abstinence self-efficacy.

Qualitative Data Analysis

Interviews were conducted by members of our team who completed interview training; interviewees were not interviewed by anyone who delivered StayQuit to them. Then, each interview was listened to by another study staff member who summarized question-level responses, typed exemplar quotes verbatim, and summarized pre-determined domains informed by the study’s aims: acceptability, feasibility, efficacy, and recommendations for improvement. Participant-level information was then aggregated and reviewed by the team using a rapid matrix analysis approach, which is appropriate for studies like this with limited resources, a short study timeline, and focused research questions.²⁰

RESULTS

Background Characteristics

Screening and referral yielded 102 people who were daily smokers of five or more cigarettes and were eligible to participate. Of these, 54 (53%) were not approached for participation because they were either discharged before study staff could approach or not in the unit when study staff were available; 14 (14%) declined to participate; and five (5%) displayed inadequate understanding of the study during the consent process or were discharged prior to completing it, yielding 28 (27%) who consented to participate. Of these, one did not complete the baseline assessment due to early discharge, and one was found to not meet eligibility criteria, leaving a final sample of 26 participants.

The sample (n = 26) was 85% male, 50% white, 85% unmarried, and, on average, 49.8 years old (SD = 13.1) with 13.5 years of education (SD = 2.1). Most participants were diagnosed with major depressive disorder or depressive disorder not otherwise specified (n = 20, 77%). Participants smoked a mean of 16 cigarettes per day before hospitalization (SD = 9.1); had a mean score of 7.2 (SD = 1.9) on the FTQ, suggesting a high level of dependence (Fagerström & Schneider, 1989); and had a mean smoking abstinence self-efficacy score of 1.9 (SD = 0.5), indicating low self-efficacy (Table 1). Most Veterans (77%, n = 20) had quit at least once for 24 hours or more in the past 12 months, with an average of 3.4 quit attempts (SD = 3.0). Over half (58%) planned to remain abstinent after hospitalization.

Feasibility

All but three (88%; 23/26) completed at least one inpatient counseling session. Participants completed a total of 39 inpatient sessions and 81 telephone sessions. Eleven (50%) completed one, eight (33%) completed two, and four (17%) completed three sessions while inpatient. On average, sessions lasted 35.6 minutes (range 11-76). Fourteen participants (54%) completed at least one phone session. Fifteen participants (58%) completed at least one inpatient or phone session, the follow-up assessment, and interview. On average, these 15 participants completed 6.3 sessions (SD = 4.6), approximately 38% of the 16 maximum sessions. Participants identified fewer barriers to completing counseling sessions during hospitalization compared to after discharge.

Acceptability

Interventionist Session Ratings. Participants were rated as either fully (89%) or somewhat (11%) engaged. Sessions were mostly rated as having a positive tone (88% positive, 11% neutral, 1% negative) and good outcome (90%).

Table 1. Participant Demographics at Baseline

	M	SD
Age	49.77	13.13
Education	13.50	2.12
Cigarettes per day	15.88	9.06
Fagerström Test of Nicotine Dependence	7.19	1.92
Abstinence Self-Efficacy	1.90	0.52
Past-year quit attempts ^a	2.87	2.88
Inpatient sessions	1.50	0.91
Phone sessions	3.04	4.31
Total sessions	4.54	4.31
	n	%
Gender (male)	22	84.62%
Race ^b		
White	13	50.00%
Black or African-American	11	42.31%
American Indian or Alaska Native	1	3.85%
Multi-racial	1	3.85%
Marital status		
Presently married	4	15.38%
Widowed	0	0.00%
Divorced/separated	14	53.85%
Never married/single	8	30.77%
Unemployed (yes)	16	61.54%
Service-connected disability (yes)	17	65.38%
Schizophrenia-Spectrum Disorder	1	3.85%
Major Depressive Disorder	8	30.77%
Depressive Disorder NOS	12	46.15%
Bipolar-Spectrum Disorder	5	19.23%

Note. $n = 26$. ^aQuit attempts lasting at least 24 hours in the past 12 months. ^bRace is based on 2020 US Census Categories.²⁷

Participant Perceptions of Intervention. Participants described in-person hospital sessions as a source of social support and practical advice to help manage cravings. The experience of not smoking in the hospital was discussed in 95% ($n = 37/39$) of inpatient sessions, suggesting that inpatient counseling sessions helped to address the challenges of mandatory abstinence. See Table 2 for a summary of topics discussed.

Participants reported that talking about remaining abstinent while hospitalized helped facilitate smoking reduction after discharge. Many described their interventionists as knowledgeable, supportive, and nonjudgmental. Participants appreciated how interventionists were flexible and consistent in their communication. Additionally, some reported that anticipating the follow-up calls helped them stay accountable to their quit goals. Like inpatient sessions,

phone sessions helped participants by promoting greater awareness of their smoking habits and providing practical advice. See Table 3 for direct quotes identified by participant pseudonym and Table 4 for demographic characteristic of the interviewees.

Efficacy

Changes in Smoking, Nicotine Dependence, and Abstinence Self-Efficacy. The 15 participants who completed the follow-up assessment showed a statistically significant decrease in the number of past seven-day cigarettes smoked ($t(14) = 2.9, p < 0.01$) from 15 to eight cigarettes per day (Figure 1) and a statistically significant increase in abstinence self-efficacy ($t(14) = -2.89, p = .01$) from 1.9 to 2.5 (Figure 2). There were no significant reductions in nicotine dependence ($t(14) = 1.9, p = .08$).

Experiences Using NRT and Other Abstinence Strategies. While inpatient, participants reported using NRT in 79% ($n = 30/39$) of the sessions; most of the sessions contained discussion about using the patch alone or with lozenges. NRT was described as helpful in 83% ($n = 25/30$) of the sessions. Reasons for not using NRT while inpatient included lack of interest in NRT and side effects (skin irritation with patch, gum aftertaste). Over half (59%; $n = 23/39$) of the inpatient sessions contained discussion about how to continue using NRT after discharge.

Using NRT was also discussed in most phone sessions (89%, $n = 72/81$). Of those who filled the NRT prescription at discharge, use varied. Many used trial and error to find the best technique.

Coping strategies were discussed in 62% ($n = 24/39$) of inpatient sessions and 84% ($n = 68/81$) of phone sessions. Asking for support was discussed in 43% ($n = 35/81$) of telephone sessions.

Returning to Smoking. Nearly two-thirds of the sample planned to quit smoking within 30 days of hospital admission. During inpatient sessions, the goal to stay abstinent after discharge was discussed in 97% ($n = 38/39$) of the sessions, thoughts about quitting were discussed in 92% ($n = 36/39$), and personal reasons for staying quit were discussed in 87% ($n = 34/39$). In phone sessions, remaining abstinent was discussed in 99% ($n = 80/81$) of the sessions, thoughts about quitting were discussed in 79% ($n = 64/81$), and personal reasons for staying quit were discussed in 62% ($n = 50/81$). Smoking reduction was discussed in 33% ($n = 27/81$). All but one participant returned to smoking after discharge. Some participants reported feeling discouraged by their return to smoking; others were proud of reducing from pre-hospitalization levels.

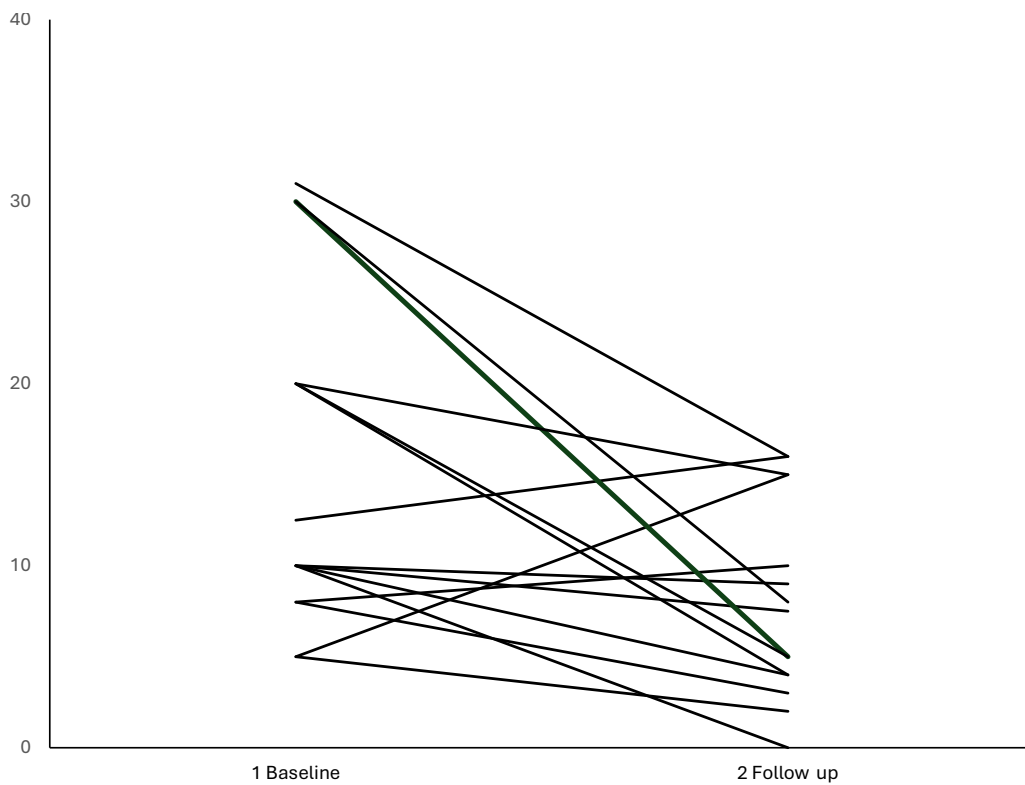


Figure 1. Change in cigarettes smoked per day between baseline and follow up. Note: n = 15.

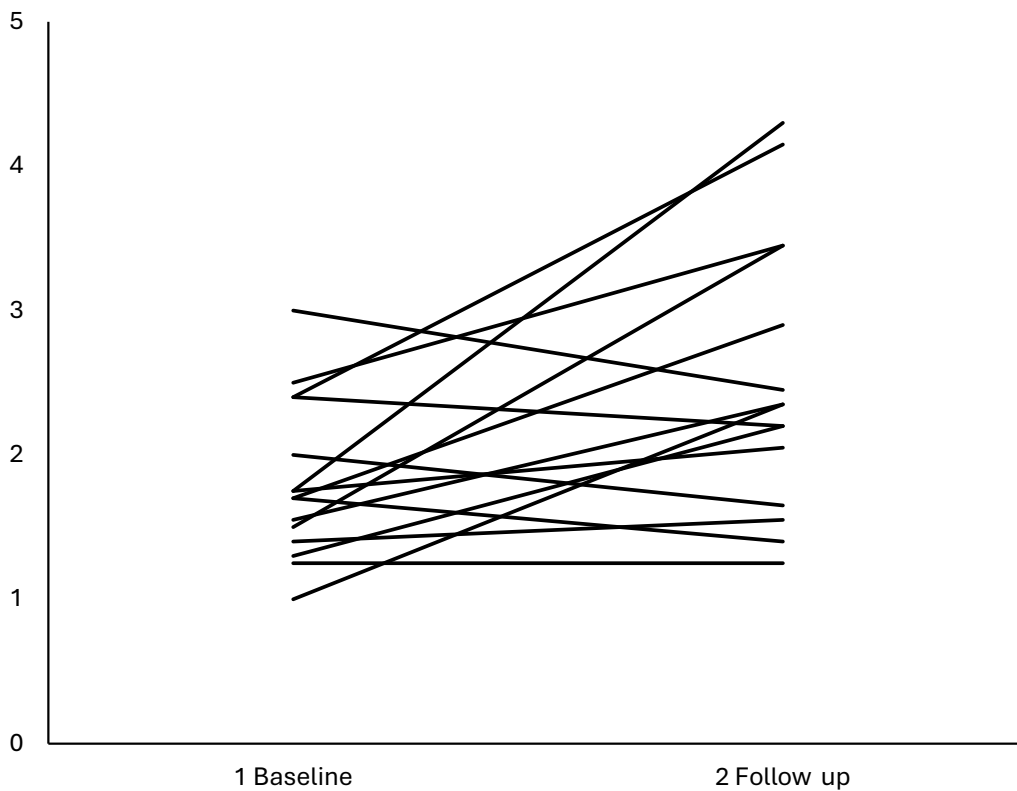


Figure 2. Change in smoking abstinence self-efficacy between baseline and follow up. Note: n = 15.

Table 2. Topics in Smoking Cessation Counseling Sessions

Topics in inpatient sessions (n = 39)	% ^a	Topics in phone sessions (n = 81)	% ^a
StayQuit goal	97%	StayQuit goal	99%
Experience of not smoking in the hospital	95%	Schedule next StayQuit call	69%
Discussion of Veteran's thoughts about quitting smoking	92%	Discussion of Veteran's thoughts about quitting smoking	79%
Personal reasons for staying quit	87%	Personal reasons for staying quit	62%
Plans to use NRT after leaving the hospital	59%	Using NRT	89%
Review of past quit attempts and what was helpful	77%	Review of past quit attempts and what was helpful	32%
Coping strategies	62%	Coping strategies	84%
High-risk smoking situations	54%	High-risk smoking situations	63%
StayQuit phone session preparation	31%	Asking for support	43%
Decisional balance	26%	Setting a quit date	25%
Discharge-related high-risk smoking situations	23%	Using community smoking cessation resources	21%
Readiness ruler	10%	Changing environment	14%
Smoking reduction	3%	Smoking reduction	33%
Other	0%	Other	9%

Note. Inpatient sessions represent 23 patients, and phone sessions represent 15 patients.

^aProportion of sessions across all participants that discussed each topic.

Suggestions for Improving StayQuit

Participants had some suggestions for improving StayQuit. One suggested incentivizing program completion with a monetary award; another suggested incentives for reaching abstinence milestones; and another suggested extending StayQuit to six months. Three participants suggested incorporating groups with the rationale that hearing others' challenges and successes could help those trying to quit. Three participants suggested offering face-to-face post-discharge sessions. Some wondered whether electronic nicotine delivery systems were a form of harm reduction, and some were interested in learning about varenicline.

DISCUSSION

Psychiatric hospitalizations are common for individuals with mental illness⁴ and provide a unique opportunity to initiate quit treatment.⁶ This study's focus on Veteran perspectives of the feasibility, acceptability, and efficacy of evidence-informed tobacco treatment initiated during psychiatric hospitalization is a unique contribution to the literature. Even in our small sample, it was clear that Veterans who participated in follow-up interviews found StayQuit to be highly acceptable, with interventionist rapport and evidence-informed behavioral strategies being important contributors.

In contrast, there were considerable feasibility obstacles. First, only four of 26 study participants completed all three inpatient sessions. Often, participants were discharged before three StayQuit sessions could be completed. Second, participants described barriers

to attending post-discharge phone sessions due to conflicting obligations, the ease of missing or ignoring calls, and limited phone reception. Interviewees directly named financial and housing insecurity as barriers to participating in StayQuit phone sessions. Beginning sessions in-person, while hospitalized, may have facilitated rapport and promoted post-discharge engagement in phone sessions. Some participants also said they would have preferred face-to-face support after discharge. Integrating post-discharge tobacco counseling into a Veteran's on-site, face-to-face outpatient treatment would align with the VA's²² and World Health Organization's²³ recommended clinical practices for tobacco treatment and with the stated preferences of many participants.

Finally, although a majority of Veterans wanted to sustain smoking abstinence after discharge, this outcome was rare; at the same time, this outcome is consistent with the profile of individuals who are nicotine dependent.²¹ However, StayQuit supported smoking reduction through evidence-informed strategies designed to manage cravings, withdrawal, and triggers that disproportionately impact individuals with mental illness, such as returning to environments where others smoke.²⁴ StayQuit shows promise as a clinical intervention to sustain tobacco treatment following psychiatric discharge. The plan is to refine StayQuit's delivery to maximize its feasibility for Veterans and inpatient staff. Next steps include (1) evaluating barriers and facilitators to implementation by inpatient staff, (2) implementing strategies to address these

Table 3. Participant Quotes by Theme

Theme	Interviewee (pseudonym)	Quote
Participant perceptions of intervention	Riley	"I'd rather see face-to-face physically who I'm talking to. You get more a definitive image as to who you're talking to and what you're talking about."
	Avery	"When I was in the hospital that helped me out...I couldn't smoke, and she was giving me pointers to where I didn't have the cravings to smoke. So that was a big help, you know, 'cause see [otherwise] I probably would have asked for an earlier discharge just to get a cigarette."
	Logan	"I kind of had my doubts at the time because I didn't know exactly how I was going to feel once I walk out the door...how I was going to react, would I want to grab a cigarette. [But] before I left here I made myself determined that I was going to quit."
	Quinn	"...it was really good to know that people cared about me and my smoking."
	Jordan	"Someone coming who is concerned about your health [was meaningful] 'cause at the time I wasn't a whole lot concerned about that. She had me really thinking about making changes in my life."
	Quinn	"It was good to go through it with somebody, like compared to going through it myself where I could have easily given up. This way I had to be more accountable for what I was trying to achieve."
	Cameron	"It helped me be more mindful of how much I was smoking...and some of my triggers and stuff."
	Logan	"It was very helpful for me. I had tried to quit before and never was able to stay quit.... This was more helpful I guess because of the support I got...the information that I got...was very useful as well. Different things that I could use to keep from going back to smoking cigarettes."
	Experiences using NRT and other abstinence strategies	Avery
Ezra		"My heart wasn't really in it."
Logan		"Keeping myself busy. Doing a certain thing like going for walks, reading, listening to music. Anything that would take my mind off of it. That's the thing that mostly helped me."
Returning to smoking	Logan	"I did struggle for a little bit in the beginning. I was talked to and told how to handle certain situations – you know being...around people that smoke. That helped me learn how to deal with those situations without going back to smoking cigarettes."

barriers, and (3) re-evaluating efficacy, feasibility, and acceptability in a larger trial to determine if StayQuit's delivery by inpatient staff, instead of research staff, is sustainable and impacts Veteran outcomes.²⁵ We also plan to examine ways to offer patients choices for follow up after discharge – in-person counseling, telephone counseling, or digital tobacco intervention – to give patients options for tobacco treatment that fit with their needs and preferences.

Limitations

One limitation of this study was low retention at follow up. Thus, data from the 15 interviewees may not generalize to all 26 StayQuit participants and may disproportionately reflect the experiences of those who faced fewer engagement barriers or found the intervention particularly useful. Second, the small sample size may increase the potential for Type I errors that could overestimate efficacy. Third, the intervention was delivered by

Table 4. Interviewee Characteristics

Pseudonym	Age	Sex	Race	Cigarettes per day	# sessions
Riley	58	Male	Black or African American	30.0	1
Avery	56	Male	Black or African American	31.0	13
Logan	60	Male	Black or African American	10.0	13
Quinn	59	Male	American Indian or Alaska Native	5.0	14
Jordan	60	Male	Black or African American	8.0	4
Cameron	34	Female	White	30.0	14
Ezra	45	Female	White	12.5	2
Parker	42	Male	Multiracial	20.0	4
Casey	55	Male	White	20.0	6
Rowan	67	Male	White	20.0	3
Emory	34	Male	Black or African American	10.0	3
Angel	59	Male	Black or African American	5.0	5
Carter	60	Male	Black or African American	10.0	4
August	51	Female	Black or African American	8.0	4
Raymond	27	Male	White	10.0	5

research, not clinical, staff; clinical staff should deliver the intervention to maximize sustainability. Finally, NRT was the only medication that the research team encouraged the inpatient staff to prescribe to Veterans at discharge because, at the time of the study, the black box warning for neuropsychiatric adverse events for varenicline and bupropion had recently been removed and there was still concern in the VA about prescribing these medications to Veterans with mental illness.²⁶

CONCLUSIONS

Randomized controlled trials of multicomponent tobacco treatment extended after psychiatric hospitalization have produced superior smoking abstinence or reduction rates compared to treatment as usual, but none evaluated patient experiences.^{11,13,14} Our findings provide critical insight into patient experiences and can guide improvements to tobacco treatment after psychiatric hospitalization. While some Veterans faced barriers to engagement, those who participated credited personalized support and practical guidance from interventionists with helping them reduce smoking after mandated abstinence. These findings underscore the importance of integrating cessation treatment into real-world settings and the need to address engagement barriers.

Author Contributions

Study design: Medoff, Dickerson, Kreyenbuhl, Bennett. Data acquisition or analysis: Kacmarek, Smith, Lucksted, Li, Wilkins, Coakley, Phalen, Bennett. Manuscript drafting: Kacmarek, Smith, Lucksted, Bennett. Critical revision: Li, Wilkins, Coakley, Phalen, Medoff, Dickerson, Kreyenbuhl.

Conflicts of Interest

None.

Funding Sources

This work was supported by the VISN 5 MIRECC Pilot Grant. ClinicalTrials.gov ID: NCT03367520. The Department of Veterans Affairs Office of Academic Affiliations Advanced Fellowship Program in Mental Illness Research and Treatment and resources from the University of Maryland, Baltimore, Department of Psychiatry, Division of Psychiatric Services Research, supported writing of this manuscript. Views expressed herein are those of the authors and not necessarily those of the US Department of Veterans Affairs or United States Government.

References

1. US Dept of Health and Human Services. *Smoking Cessation: A Report of the Surgeon General*. Public Health Service: Office of the Surgeon General, US Dept of Health and Human Services; 2020. <https://www.hhs.gov/sites/default/files/2020-cessation-sgr-full-report.pdf>
2. Duffy SA, Kilbourne AM, Austin KL, et al. Risk of smoking and receipt of cessation services among veterans with mental disorders. *Psychiatr Serv*. 2012;63:325-32. [CrossRef](#)
3. Dickerson F, Origoni A, Rowe K, et al. Risk factors for natural cause mortality in a cohort of 1494 persons with serious mental illness. *Psychiatry Res*. 2021;298:113755. [CrossRef](#)
4. Heslin KC, Weiss AJ. *Hospital Readmissions Involving Psychiatric Disorders, 2012*. Agency for Healthcare Research and Quality; 2015. <https://hcup-us.ahrq.gov/reports/statbriefs/sb189-Hospital-Readmissions-Psychiatric-Disorders-2012.pdf>
5. US Dept of Veterans Affairs. *Smoke-Free Policy for Patients, Visitors, Contractors, Volunteers, and Vendors at VA Health Care Facilities*. Veterans Health Administration, US Dept of Veterans Affairs; 2019.

6. Tobacco Use and Dependence Guideline Panel. *Treating Tobacco Use and Dependence: 2008 Update*. US Dept of Health and Human Services; 2008. <https://www.ncbi.nlm.nih.gov/books/NBK63952/>
7. Walsh R, Schweinfurth L, Dickerson F. Smoking and smoking cessation treatment among hospitalized psychiatric patients. *Psychiatr Serv*. 2015;66:442-3. [CrossRef](#)
8. Solty H, Crockford D, White WD, Currie S. Cigarette smoking, nicotine dependence, and motivation for smoking cessation in psychiatric inpatients. *Can J Psychiatry*. 2009;54:36-45. [CrossRef](#)
9. Shmueli D, Fletcher L, Hall SE, et al. Changes in psychiatric patients' thoughts about quitting smoking during a smoke-free hospitalization. *Nicotine Tob Res*. 2008;10:875-81. [CrossRef](#)
10. Lawn S, Pols R. Smoking bans in psychiatric inpatient settings? A review of the research. *Aust N Z J Psychiatry*. 2005;39:866-85. [CrossRef](#)
11. Brown RA, Minami H, Hecht J, et al. Sustained care smoking cessation intervention for individuals hospitalized for psychiatric disorders: the helping HAND 3 randomized clinical trial. *JAMA Psychiatry*. 2021;78:839-47. [CrossRef](#)
12. Duffy SA, Ewing LA, Louzon SA, et al. Evaluation and costs of volunteer telephone cessation follow-up counseling for Veteran smokers discharged from inpatient units: a quasi-experimental, mixed methods study. *Tob Induc Dis*. 2015;13(1):4. [CrossRef](#)
13. Metse AP, Wiggers J, Wye P, et al. Efficacy of a universal smoking cessation intervention initiated in inpatient psychiatry and continued post-discharge: a randomised controlled trial. *Aust N Z J Psychiatry*. 2017;51:366-81. [CrossRef](#)
14. Stockings EAL, Bowman JA, Baker AL, et al. Impact of a postdischarge smoking cessation intervention for smokers admitted to an inpatient psychiatric facility: a randomized controlled trial. *Nicotine Tob Res*. 2014;16:1417-28. [CrossRef](#)
15. Baker A, Kay-Lambkin FJ, Richmond R, et al. Study protocol: a randomised controlled trial investigating the effect of a healthy lifestyle intervention for people with severe mental disorders. *BMC Public Health*. 2011;11(1):10. [CrossRef](#)
16. Fagerström KO, Heatherton TF, Kozlowski LT. Nicotine addiction and its assessment. *Ear Nose Throat J*. 1990;69:763-5.
17. Condiotte MM, Lichtenstein E. Self-efficacy and relapse in smoking cessation programs. *J Consult Clin Psychol*. 1981;49:648-58. [CrossRef](#)
18. Hamilton AB, Finley EP. Qualitative methods in implementation research: an introduction. *Psychiatry Res*. 2019;280:112516. [CrossRef](#)
19. Velicer WF, Diclemente CC, Rossi JS, Prochaska JO. Relapse situations and self-efficacy: an integrative model. *Addict Behav*. 1990;15:271-83. [CrossRef](#)
20. Averill JB. Matrix analysis as a complementary analytic strategy in qualitative inquiry. *Qual Health Res*. 2002;12:855-66. [CrossRef](#)
21. Fagerström KO, Schneider NG. Measuring nicotine dependence: a review of the Fagerstrom Tolerance Questionnaire. *J Behav Med*. 1989;12:159-82. [CrossRef](#)
22. US Dept of Veterans Affairs. *VHA Directive 1056: National Smoking and Tobacco Use Cessation Program*. Veterans Health Administration, US Dept of Veterans Affairs; 2019.
23. World Health Organization. *Tobacco Use and Mental Health Conditions: A Policy Brief*. WHO; 2020. <https://www.who.int/europe/publications/i/item/WHO-EURO-2020-5616-45381-64939>
24. Lum A, Skelton E, Wynne O, Bonevski B. A systematic review of psychosocial barriers and facilitators to smoking cessation in people living with schizophrenia. *Front Psychiatry*. 2018;9:565. [CrossRef](#)
25. Ritchie MJ, Dollar KM, Miller CJ, et al. *Using Implementation Facilitation to Improve Healthcare (Version 3)*. US Dept of Veterans Affairs, Behavioral Health Quality Enhancement Research Initiative (QUERI); 2020. <https://www.queri.research.va.gov/tools/Facilitation-Manual.pdf>
26. Gerlach LB, Van T, Kim HM, et al. Trends in incident varenicline prescribing among veterans following the US Food and Drug Administration drug safety warnings. *J Clin Psychiatry*. 2021;83:20m13763. [CrossRef](#)
27. Jensen E. *Measuring Racial and Ethnic Diversity for the 2020 Census*. US Census Bureau; 2021. Accessed June 29, 2024. <https://www.census.gov/newsroom/blogs/random-samplings/2021/08/measuring-racial-ethnic-diversity-2020-census.html>

© 2026 Advocate Aurora Research Institute