It is illegal to post this copyrighted PDF on any website. Barriers to and Facilitators of Delivering Brief Tobacco and Alcohol Interventions in Integrated Primary Care Settings

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ABSTRACT

Objective: Tobacco and excessive alcohol use are 2 of the top 3 preventable causes of death in the United States, yet most patients using these substances do not pursue treatment. Most patients do visit their primary care provider (PCP) annually, but PCPs report that they are not very effective in addressing behavior change with patients. Brief interventions for alcohol and tobacco use are effective and can be delivered by behavioral health providers (BHPs) embedded in the primary care setting. However, BHPs do not report frequent use of these interventions. The aim of the current study was to conduct the first examination of barriers to and facilitators of implementing brief interventions for at-risk drinking and tobacco use among integrated BHPs.

Methods: BHPs (N = 285) working in a primary care setting for at least 6 months with at least 10% effort allocated to clinical activities were recruited through professional listservs (August–September 2016) and completed an online survey that assessed barriers to and facilitators of delivering brief tobacco and alcohol interventions in routine clinical practice.

Results: BHPs were primarily psychologists (48%) and social workers (33%) with cognitive-behavioral orientation (51%). The primary barriers to addressing tobacco use and at-risk drinking reported by BHPs was the perception that patients did not want to discuss or did not want to change these behaviors. The primary facilitators of addressing tobacco use and at-risk drinking were patients identifying cessation or reduction as a treatment goal, positive provider-patient relationship, and receiving referrals specifically for tobacco or alcohol use.

Conclusions: Clinicians, researchers, and administrators should focus on strategies to increase the regularity with which BHPs assess and provide intervention for smoking and alcohol use in the context of other primary presenting concerns.

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^dDepartment of Psychology, Syracuse University, Syracuse, New York ^eDepartment of Psychiatry, University of Rochester, Rochester, New York ^fDepartment of Psychology, University at Buffalo, Buffalo, New York **Corresponding author:* Jennifer M. Wray, PhD, Mental Health Service 116, Ralph H. Johnson VA Medical Center, 109 Bee St, Charleston, SC 29401 (jennifer.wray@va.gov). **T** obacco use and at-risk drinking are among the top preventable causes of death in the United States,¹ and quitting tobacco and reducing alcohol use to recommended limits can have substantial health benefits.^{2,3} Brief interventions for tobacco use and at-risk drinking (alcohol use above National Institute on Alcohol Abuse and Alcoholism [NIAAA] guidelines: >4 drinks/day or >14 drinks/week for men and >3 drinks/day or >7 drinks/week for women and men over age 65 years) are efficacious.^{4,5} As such, primary care has long been identified as a promising setting for the delivery of interventions for these behaviors.

Unfortunately, rates of implementing brief interventions for at-risk drinking and tobacco use are low.^{6–8} Primary care providers (PCPs) cite barriers to addressing tobacco and alcohol use such as multiple competing demands, lack of training in interventions for these behaviors, not having sufficient time to address these concerns, and feeling ineffective at addressing behavior change with patients.^{9,10} PCPs have the option of referring patients who are at-risk drinkers or who use tobacco to behavioral health providers (BHPs; such as psychologists, clinical social workers, or other mental health providers) in clinics in which a BHP is part of the patient's treatment team (eg, in integrated primary care settings) for interventions that target these behaviors.

BHPs embedded in the primary care setting could fill a gap between PCPs and specialty services by administering brief alcohol and tobacco interventions.¹¹ BHPs have the potential to deliver effective brief interventions for tobacco use and at-risk drinking due to their background and expertise in behavior change strategies.¹² In addition, while interventions administered by BHPs in primary care are intended to be brief, BHPs have more time (relative to a PCP) to work with patients. However, BHPs in primary care typically do not report delivering these types of interventions in their clinical practice.¹³ Preliminary work with BHPs working in specialty mental health programs has demonstrated that training in tobacco cessation treatments increases both implementation of these services and quit attempts among patients,¹⁴ which suggests that training BHPs working in the primary care setting may increase utilization of interventions for tobacco use and at-risk drinking.

In integrated primary care clinics, professionals from different disciplines collaborate on a shared treatment plan individualized for each primary care patient,¹⁵ and each provider on the team plays a unique and complementary role in patient care. Based on the literature,²⁻¹³ one role of PCPs may be to identify patients who are appropriate for

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Clinical Points

- Brief interventions for tobacco and alcohol use should be delivered in the context of integrated behavioral health appointments.
- Quality training in the delivery of brief alcohol and tobacco interventions may benefit behavioral health providers.
- Team approaches to interventions for tobacco and alcohol use should be considered.

brief interventions for tobacco use and at-risk drinking and connect them with BHPs. Subsequently, BHPs could use their expertise in behavior change strategies to implement an appropriate intervention with the patient. Strategies to help BHPs more effectively target tobacco use and alcohol misuse could increase rates of brief treatments for tobacco use and at-risk drinking in the primary care setting.

An abundance of research has identified barriers to implementing brief alcohol intervention and tobacco cessation services among medical and behavioral health professionals.^{9,16-18} However, barriers have not yet been assessed among integrated BHPs, who may experience unique challenges with delivering these interventions in primary care. As such, the purpose of this study was to identify barriers to and facilitators of implementing brief alcohol and tobacco interventions among integrated BHPs.

METHODS

BHPs working in integrated primary care clinics were recruited via e-mail (by sending out a description of the study) to participate in an online survey administered through PsychData. This e-mail was sent through several listservs relevant to BHPs in integrated primary care clinics (ie, Society for Behavioral Medicine's Integrated Primary Care [IPC] Special Interest Group [SIG], Collaborative Family Healthcare Association listserv, UMass Center for IPC, APA Division 38 IPC, ABCT Behavioral Medicine and IPC SIG, and VA Mental and Behavioral Health Patient Aligned Care Team). At the time of recruitment, 3,429 individuals were signed up for these listservs (note, we were unable to calculate the number of unique providers the survey reached, as BHPs may have been participating in multiple listservs). BHPs were eligible if they worked in a primary care setting for at least 6 months and allocated at least 10% effort to clinical activities.

Eligible BHPs who agreed to participate in the study answered questions about barriers to and facilitators of implementing brief tobacco and alcohol interventions in their clinical practice. The survey items were created for the purposes of this study by combining variables previously identified in the literature with factors identified by unstructured interviews with practicing BHPs working in primary care settings (n=5), as we were interested in identifying barriers and facilitators that may be unique to practice in the primary care setting. In the survey instructions

"At-risk drinking can be defined as drinking above NIAAArecommended guidelines (more than 14 drinks per week or 4 drinks per day for males; more than 7 drinks per week or 3 drinks per day for females) or through a positive screen for at-risk drinking (eg, a score of 4 or more for males and a score of 3 or more for females on the AUDIT-C)."¹⁹

Potential barriers were 22 items (eg, lack of training/ guidance, poor knowledge of an intervention, lack of time) rated on a scale from 1 to 4 (1 = not a barrier, 2 = minor barrier, 3 = moderate barrier, 4 = significant barrier). Participants also rated facilitators of implementing brief interventions (10 items such as having a good relationship with the patient, having an appropriate setting for the discussion, education on alcohol/tobacco treatment) on a scale from 1 to 4 (1 = does/would not help at all, 2 = a little helpful,3 = moderately helpful, 4 = extremely helpful). Barriers and facilitators were rated separately for brief tobacco and brief alcohol interventions.

BHPs also answered questions about their backgrounds, including number of years practicing in primary care, number of patients treated per week, and professional degree. BHPs were offered educational materials about ways to implement brief tobacco and alcohol interventions in their clinical practice in exchange for their participation.

Data analysis was largely descriptive. The frequency and percentage of each sample characteristic were calculated in addition to median and standard deviations for characteristics related to the type of clinic. Central tendency (mean, mode, and standard deviation) statistics were calculated from the numeric values for each barrier and facilitator. Barriers and facilitators were split into quartiles based on the average ratings given for each item.

RESULTS

Sample characteristics are presented in Table 1. BHPs (n = 285) who participated in this study were working in primary care clinics (median number of PCPs working in these clinics = 12) and reported seeing a mean of 23patients per week (median = 21, SD = 11.5, range, 0-60). BHPs reported that patients were typically seen through scheduled appointments (48.7%) and warm handoffs from another provider in the clinic (ie, unscheduled visits on the same day as the primary care appointment, 28.6%) and less frequently through "walk-in" visits (ie, unscheduled and without a same-day primary care appointment, 6.7%), as a conjoint appointment with the PCP (8.3%), or in the context of a group intervention (5.0%).

Only 13 BHPs (4.6%) reported no previous training in brief alcohol interventions or interventions targeting heavy or at-risk drinking, and only 38 BHPs (13.3%) reported no previous training in interventions targeting tobacco use. However, the most frequently reported training in these interventions was "independent reading" (62% for brief alcohol interventions and 58% for tobacco interventions). BHPs reported delivering a brief tobacco intervention to

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Table 1. Characteristics of Behavioral Health Providers (N = 285) Working in Integrated Primary Care Settings

Characteristic	Sample n (%) ^a
Sex	
Female	215 (75.4)
Male	68 (23.9)
Ethnicity	
Not Hispanic or Latino	260 (91.2)
Hispanic or Latino	16 (5.6)
Race	
White	241 (84.6)
Black	16 (5.6)
Asian	7 (2.5)
Native Hawaiian or Pacific Islander	1 (0.4)
American Indian or Alaska native	1 (0.4)
Provider type	
Psychologist	137 (48.1)
Social worker	95 (33.3)
Licensed mental health counselor	11 (3.9)
Psychiatrist	11 (3.9)
Marriage and family therapist	8 (2.8)
Other	22 (7.8)
Theoretical orientation	
Cognitive-behavioral	145 (50.9)
Eclectic/integrative	46 (16.1)
Acceptance and commitment therapy/mindfulness based	23 (8.1)
Behavioral	19 (6.7)
Other	52 (18.4)
Some type of training in brief alcohol intervention	
Independent reading	177 (62.1)
Attended a training workshop	136 (47.7)
Mentorship/clinical supervision	132 (46.3)
Online training	116 (40.7)
Course in graduate school	108 (37.9)
Some type of training in tobacco use interventions	
Independent reading	166 (58.2)
Mentorship/clinical supervision	119 (41.8)
Attended a training workshop	103 (36.1)
Online training	96 (33.7)
Course in graduate school	50 (17.5)
Primary work setting	
Veterans Health Administration	109 (38.2)
Federally qualified health center	88 (30.9)
Outpatient clinic or hospital	58 (20.4)
Community mental health center	11 (3.9)
Other	18 (6.4)

Percentages may not add up to 100% because participants could have selected "prefer not to answer" or because as many selections as applied could be made for some questions.

fewer than one-third of their patients who use tobacco (mean = 31.7%, SD = 32.7%, range, 0%–100%) and a brief alcohol intervention to only 40% of their patients who are positive for at-risk drinking (mean = 39.7%, SD = 35.8%, range, 0%-100%).

The items ranked as the most significant (top quartile) barriers to implementing brief interventions were similar for alcohol and tobacco and were as follows: (1) "patients have more immediate needs/problems to address than tobacco use" (top barrier for tobacco only), (2) "the patient is not interested in quitting/cutting down," (3) "the patient does not identify tobacco/alcohol use as a treatment goal," (4) "patients are not motivated to cut down/quit," (5) "I am not getting referrals specifically for tobacco/alcohol use," and (6) "Patients don't want to talk about their tobacco/alcohol use" (Table 2 provides descriptive statistics).

Brief Tobacco and Alcohol Interventions **hted PDF on any website.** The items ranked as the most important facilitators (top quartile) of implementing brief alcohol and tobacco interventions were the same for alcohol and tobacco and were as follows: (1) "the patient identifying tobacco/alcohol cessation/reduction as a treatment goal," (2) "having a good relationship with the patient," and (3) "getting referrals from the PCP or other primary care staff specifically for tobacco/ alcohol use" (see Table 2).

DISCUSSION

The primary barrier to addressing tobacco and alcohol use identified by BHPs was the perception that patients did not want to discuss or change these behaviors. The BHPs reported that the patient identifying cessation or reduction as a primary goal of treatment, having a good relationship with the patient, and receiving direct referrals for these concerns would facilitate the implementation of brief alcohol and tobacco interventions.

BHPs' perceptions that primary care patients presenting with other concerns are uninterested in cutting down or quitting or not motivated to do so are generally not supported in the literature. For instance, 1 study²⁰ found that two-thirds of smokers reported that quitting smoking was either very or extremely important to their health. Similarly, alcohol users in primary care settings have been found to have moderate motivation to cut down or quit drinking.¹² Among individuals with other behavioral health concerns (eg, depression, anxiety, posttraumatic stress disorder [PTSD], substance use), motivation to quit smoking and drinking has been repeatedly demonstrated to be at least moderate.21-23

Related to the barrier of patients not identifying tobacco or alcohol use as a treatment goal, there is evidence that if a provider does not bring up a topic, patients will often not initiate a conversation in that area. This finding suggests that it may be the BHP who is responsible for initiating conversations around these behaviors in patients presenting with other primary concerns.²⁴ Further, regular assessment can lead to increased motivation to make a change.^{25,26} Thus, we recommend that BHPs in primary care regularly engage in discussions about tobacco and alcohol use with patients, including assessing readiness and motivation to make a change to these behaviors.²⁷

Most patients who use tobacco and alcohol do not present to BHPs in integrated primary care settings with tobacco or alcohol reduction or cessation as their primary concern.^{13,28} However, these behaviors are often comorbid with other psychiatric concerns. There is evidence that tobacco and excessive alcohol use are primary contributors to early death in patients with psychiatric comorbidities²⁹ and that quitting smoking and reducing drinking leads to positive mental health outcomes (eg, reduced depression and anxiety symptom severity^{30–32}).

In general, the highest-rated barriers and facilitators were the same for tobacco and alcohol with one notable discrepancy. BHPs reported that the primary barrier to

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Table 2. Participant-Rated Barriers to and Facilitators of Implementing Brief Tobacco and Alcohol Interventions Routine Clinical Practice

	Tobacco	Alcohol
Demission Accessed	Mean (SD): Mode	Mean (SD): Mode
	(range, 1–4)	(range, 1–4)
Items with agreement in modal ratings between alcohol and tobacco	2.04/1.01), 2	276 (105). 2
The patient is not interested in quitting/cutting down	2.84 (1.01): 3	2.76 (1.05): 3
The patient does not identify tobacco/alconol use as a treatment goal	2.03 (1.01): 3	2.04 (1.08): 3
Patients are not motivated to cut down/quit	2.01 (0.97): 3	2.49 (1.01): 3
Patients don't want to talk about their tobacco/alconol use	2.17 (0.95): 2	2.38 (1.01): 2
Tam not getting referrals specifically for tobacco/alconol use	2.50 (1.19): 1	2.11(1.05):1
Lack of time in appointments to deliver a brief intervention for tobacco/alconol use	1.95 (0.92): 1	1.76 (0.90): 1
Someone else in my ractility offers tobacco/alconol services	1.74 (1.02): 1	1.44 (0.83): 1
Patients usually fail to quit/cut down	1.63 (0.81): 1	1.61 (0.85): 1
Lack of knowledge about how to deliver a brief intervention for tobacco/alcohol use	1.61 (0.89): 1	1.61 (0.89): 1
Other (write in)	1.41 (0.87): 1	1.13 (0.49): 1
I don't have any educational resources/materials to give the patient	1.41 (0.81): 1	1.54 (0.89): 1
If the patient quits tobacco/alcohol use, his/her psychiatric symptoms would worsen	1.38 (0.64): 1	1.21 (0.46): 1
here is nowhere to refer the patient for further assistance with tobacco/alcohol use	1.36 (0.76): 1	1.4/ (0.8/): 1
Concern that the patient would not come back to another appointment	1.34 (0.63): 1	1.44 (0.65): 1
This type of intervention would not be reimbursed	1.31 (0.75): 1	1.28 (0.69): 1
Tobacco/alcohol cessation/reduction would interfere with other treatment goals	1.31 (0.59): 1	1.19 (0.51): 1
Concern about offending the patient	1.28 (0.60): 1	1.39 (0.64): 1
I don't know which of my patients use tobacco/alcohol	1.27 (0.66): 1	1.47 (0.79): 1
It's difficult to bring up the topic of a patient's tobacco/alcohol use	1.21 (0.52): 1	1.27 (0.59): 1
I don't think brief interventions for tobacco/alcohol use are effective	1.16 (0.52): 1	1.19 (0.50): 1
I don't like working with this population	1.13 (0.46): 1	1.26 (0.58): 1
I don't think tobacco/alcohol use is problematic	1.09 (0.43): 1	1.08 (1.13): 1
Items with discrepant modal ratings between alcohol and tobacco		
Patients have more immediate needs/problems to address than tobacco/alcohol use	2.94 (1.03): 4	2.08 (1.04): 1
	Tobacco	Alcohol
	Mean (SD): Mode	Mean (SD): Mode
Facilitators Assessed ^b	(range, 1–4)	(range, 1–4)
Items with agreement in modal ratings between alcohol and tobacco		
The patient identifying tobacco/alcohol cessation/reduction as a treatment goal	3.82 (0.46): 4	3.83 (0.46): 4
Having a good relationship with the patient	3.34 (.081): 4	3.51 (0.73): 4
Getting referrals from the primary care provider or other primary care staff specifically for tobacco/alcohol use	3.29 (0.87): 4	3.00 (0.96): 4
Having educational handouts or self-help materials to share with patients	3.02 (0.98): 4	2.76 (1.02): 4
Feeling confident that the intervention would be effective	2.91 (1.03): 4	2.67 (1.11): 4
Knowing there was somewhere I could refer patients for more intensive tobacco/alcohol services	2.60 (1.15): 4	2.72 (1.16): 4
Increased insurance coverage for tobacco/alcohol interventions	2.37 (1.28): 1	2.21 (1.27): 1
Receiving a financial incentive for delivery of an intervention	2.08 (1.22): 1	1.95 (1.17): 1
Other (write in)	1.38 (0.88): 1	1.95 (1.17): 1
Items with discrepant modal ratings between alcohol and tobacco		
Receiving more education or training in brief tobacco/alcohol interventions	2.71 (1.02): 3	2.70 (1.05): 2
Having more time in the appointment	2.65 (0.98): 2	2.63 (1.03): 3
^a Barriers rating scale: 1 = not a barrier, 2 = minor barrier, 3 = moderate barrier, 4 = significant barrier. ^b Facilitators rating scale: 1 = does/would not help at all, 2 = a little helpful, 3 = moderately helpful, 4 = extremely hel	pful.	

addressing tobacco use was the perception that the patient has more immediate needs than smoking; this item was not a highly rated barrier for addressing alcohol use. This finding suggests that providers believe tobacco use is not as pressing a concern as other problems discussed within the appointment. However, tobacco use accounts for half a million annual deaths in the United States and worsens the prognosis for nearly any medical diagnosis.³³ Furthermore, tobacco use has been shown to exacerbate the symptoms of common presenting concerns in primary care¹³ such as chronic pain³⁴ and insomnia³⁵ and is associated with higher levels of psychiatric symptomatology and dysfunction.³⁰

Finally, in the present study, we found that BHPs in primary care settings are delivering brief interventions for at-risk drinking less than half of the time and brief interventions for tobacco use less than a third of the time when patients are positive for at-risk drinking and tobacco use, respectively. This is unfortunate, as even brief interventions increase the likelihood that an individual will attempt behavior change.^{4,36} Therefore, at least brief discussions are recommended even for patients who do not present with tobacco or alcohol use as their primary concern.³⁷

Limitations of the Current Research

The majority (69%) of the BHPs who participated worked in a Veterans Affairs setting or federally qualified health care center, which have important differences from other settings (eg, billing). However, the Veterans Health Administration has the largest integrated health care system in the United States,³⁸ and thus the high proportion of these providers in our survey was expected. Similarly, social workers and psychologists made up most of the sample, and thus responses may not be generalizable to other BHPs (such as prescribers, licensed marriage and family therapists). Future

and training can include psychoeducation about research

demonstrating improved mental health outcomes among

those who quit or reduce use, as well as intervention strategies

that BHPs can use with patients not presenting for concerns

related to alcohol or tobacco use. For example, motivational interviewing strategies⁴⁰ are recommended for patients not

ready to make a change. Further, simply assessing tobacco

and alcohol use can have a demonstrable effect on readiness

addressing these behaviors. Educational efforts may thus be

most efficacious when they include PCPs and other primary care team members. Efforts to increase the number of referrals

for tobacco use and at-risk drinking are integral to increasing

the likelihood of these individuals receiving behavioral

health services.⁴¹ As part of team-based care, PCPs and their team members meet regularly to discuss patient care.

In this context, referral to and from PCPs (who can provide

medication support) and BHPs (who can provide behavioral

support) can seamlessly occur. Further, clarification of roles

within the team as to how best to approach patient care

when alcohol or tobacco use should be a treatment target as

well as routine delivery of brief interventions for all patients

who screen positive for tobacco use or at-risk drinking are

recommended. Finally, use of conjoint appointments (ie,

PCP and BHP meeting together with a patient) should be

considered to help facilitate collaboration between the PCP

and BHP while working with patients on health behavior

BHPs in this study noted that having an increased number of referrals for tobacco and alcohol use is a facilitator for

to change and future cessation outcomes.^{25,26}

It is illegal to post this copy work might examine the impact of site or provider type on barriers to and facilitators of implementing brief tobacco and alcohol interventions. An additional limitation is that this research specifically examined BHPs working in primary care settings, and the conclusions cannot necessarily be generalized to BHPs in specialty mental health care settings. However, there is a breadth of evidence demonstrating that in specialty mental health and substance use clinics, tobacco use is often not addressed^{21,39} for similar reasons described by the BHPs in our sample, suggesting convergence. Finally, BHPs who have some interest in tobacco or alcohol use may have been more likely to respond to this survey, potentially biasing results.

Future Directions

On the basis of the findings of the current study in conjunction with results of previous research, we encourage BHPs in integrated settings to discuss tobacco and alcohol use even when these issues are not the patient's primary concern, are not the referral question, or are perceived by the BHP to be of low importance to the patient. As evidenced by the mean number of patients seen per week and reported past training in interventions for alcohol and tobacco use, BHPs have more time and training (relative to PCPs) to address these concerns.

It is likely that BHPs in integrated primary care settings would benefit from higher-quality training (and institutional support for such training or opportunities for continuing medical education), as the most commonly cited type of training was independent readings. Increased education

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REFERENCES

1. Johnson NB, Hayes LD, Brown K, et al; Centers for Disease Control and Prevention (CDC). CDC National Health Report: leading causes of morbidity and mortality and associated behavioral risk and protective factors—United States, 2005-2013. MMWR suppl. 2014;63(4):3-27.

Taylor DH Jr, Hasselblad V, Henley SJ, et al. 2 Benefits of smoking cessation for longevity. Am J Public Health. 2002;92(6):990-996.

change.

- Whitlock EP, Polen MR, Green CA, et al; US Preventive Services Task Force. Behavioral counseling interventions in primary care to reduce risky/harmful alcohol use by adults: a summary of the evidence for the US Preventive Services Task Force. Ann Intern Med. 2004;140(7):557-568.
- 4. Fiore M, Jaen CR, Baker TB, et al. Treating Tobacco Use and Dependence: 2008 Update. Rockville, MD: US Department of Health and Human Services; 2008.
- 5. Moyer VA; Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse: US Preventive Services Task Force recommendation statement. Ann Intern Med. 2013;159(3):210-218.
- 6. O'Donnell A, Anderson P, Newbury-Birch D, et al. The impact of brief alcohol interventions in primary healthcare: a systematic review of reviews. Alcohol Alcohol. 2014;49(1):66-78.
- 7. Quinn VP, Stevens VJ, Hollis JF, et al. Tobaccocessation services and patient satisfaction in nine nonprofit HMOs. Am J Prev Med. 2005;29(2):77-84.
- 8. Schnoll RA, Rukstalis M, Wileyto EP, et al. Smoking cessation treatment by primary care physicians: an update and call for training. Am J Prev Med. 2006;31(3):233-239.
- 9. Physician Behavior and Practice Patterns Related to Smoking Cessation: A Report Prepared for the American Legacy Foundation. Washington, DC:

Association of American Medical Colleges (AAMC); 2007.

- 10. Vogt F, Hall S, Marteau TM, General practitioners' and family physicians' negative beliefs and attitudes towards discussing smoking cessation with patients: a systematic review. Addiction. 2005;100(10):1423-1431.
- 11. Post EP, Metzger M, Dumas P, et al. Integrating mental health into primary care within the Veterans Health Administration. Fam Syst Health, 2010:28(2):83-90.
- 12. Williams JM, Ziedonis DM. Snuffing out tobacco dependence: ten reasons behavioral health providers need to be involved. Behav Healthc. 2006;26(5):27-31.
- 13. Funderburk JS, Sugarman DE, Labbe AK, et al. Behavioral health interventions being implemented in a VA primary care system. J Clin Psychol Med Settings. 2011;18(1):22-29.
- 14. Williams JM, Miskimen T, Minsky S, et al. Increasing tobacco dependence treatment through continuing education training for behavioral health professionals. Psychiatr Serv. 2015;66(1):21-26.
- 15. Rosenthal TC. The medical home: growing evidence to support a new approach to primary care. J Am Board Fam Med. 2008;21(5):427-440.
- 16. Himelhoch S, Riddle J, Goldman HH. Barriers to implementing evidence-based smoking cessation practices in nine community mental health sites. Psychiatr Serv. 2014;65(1):75-80.
- 17. Johnson M, Jackson R, Guillaume L, et al. Barriers and facilitators to implementing screening and brief intervention for alcohol misuse: a systematic review of qualitative evidence. J Public Health (Oxf).

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- Nilsen P. Brief alcohol intervention—where to from here? challenges remain for research and practice. *Addiction*. 2010;105(6):954–959.
- Bradley KA, DeBenedetti AF, Volk RJ, et al. AUDIT-C as a brief screen for alcohol misuse in primary care. *Alcohol Clin Exp Res*. 2007;31(7):1208–1217.
- Duffy SA, Biotti JK, Karvonen-Gutierrez CA, et al. Medical comorbidities increase motivation to quit smoking among veterans being treated by a psychiatric facility. *Perspect Psychiatr Care*. 2011;47(2):74–83.
- Gass JC, Morris DH, Winters J, et al. Characteristics and clinical treatment of tobacco smokers enrolled in a VA substance use disorders clinic. J Subst Abuse Treat. 2018;84:1–8.
- Haukkala A, Uutela A, Vartiainen E, et al. Depression and smoking cessation: the role of motivation and self-efficacy. *Addict Behav.* 2000;25(2):311–316.
- Siru R, Hulse GK, Tait RJ. Assessing motivation to quit smoking in people with mental illness: a review. Addiction. 2009;104(5):719–733.
- 24. van Rossem C, Spigt MG, Kleijsen JR, et al. Smoking cessation in primary care: exploration of barriers and solutions in current daily practice from the perspective of smokers and healthcare professionals. *Eur J Gen Pract*. 2015;21(2):111–117.
- Clifford PR, Maisto SA. Subject reactivity effects and alcohol treatment outcome research. J Stud Alcohol. 2000;61(6):787–793.
- 26. Schrimsher G, Filtz K. Assessment reactivity:

be an active treatment? *Alcohol Treat Q*. 2011;29(2):108–115.

- Beehler GP, Lilienthal KR, Possemato K, et al. Narrative review of provider behavior in primary care behavioral health: how process data can inform quality improvement. *Fam Syst Health*. 2017;35(3):257–270.
- Leung LB, Yoon J, Rubenstein LV, et al. Changing patterns of mental health care use: the role of integrated mental health services in Veteran Affairs primary care. J Am Board Fam Med. 2018;31(1):38–48.
- Erlangsen A, Andersen PK, Toender A, et al. Cause-specific life-years lost in people with mental disorders: a nationwide, register-based cohort study. *Lancet Psychiatry*. 2017:4(12):937–945.
- Prochaska JJ, Hall SM, Tsoh JY, et al. Treating tobacco dependence in clinically depressed smokers: effect of smoking cessation on mental health functioning. *Am J Public Health*. 2008;98(3):446–448.
- Farris SG, Allan NP, Morales PC, et al. Does successful smoking cessation reduce anxious arousal among treatment-seeking smokers? J Anxiety Disord. 2015;36:92–98.
- Taylor G, McNeill A, Girling A, et al. Change in mental health after smoking cessation: systematic review and meta-analysis. *BMJ*. 2014;348(feb13 1):g1151.
- Health Effects of Cigarette Smoking. CDC website. https://www.cdc.gov/tobacco/data_ statistics/fact_sheets/health_effects/ effects_cig_smoking/index.htm. Accessed

- Andersson H, Ejlertsson G, Leden I. Widespread musculoskeletal chronic pain associated with smoking: an epidemiological study in a general rural population. *Scand J Rehabil Med.* 1998;30(3):185–191.
- Brook DW, Rubenstone E, Zhang C, et al. Trajectories of cigarette smoking in adulthood predict insomnia among women in late midlife. Sleep Med. 2012;13(9):1130–1137.
- Maisto SA, Conigliaro J, McNeil M, et al. Effects of two types of brief intervention and readiness to change on alcohol use in hazardous drinkers. J Stud Alcohol. 2001;62(5):605–614.
- Rahm AK, Boggs JM, Martin C, et al. Facilitators and barriers to implementing screening, brief intervention, and referral to treatment (SBIRT) in primary care in integrated health care settings. Subst Abus. 2015;36(3):281–288.
- Evans L. Recognizing the 75th Anniversary of the Establishment of the Veterans Administration. House of Representatives. Washington, DC: US Government Printing Office; 2005.
- Knudsen HK. Implementation of smoking cessation treatment in substance use disorder treatment settings: a review. Am J Drug Alcohol Abuse. 2017;43(2):215–225.
- Miller RW, Rollnick S. Motivational Interviewing: Preparing People for Change. New York, NY: Guilford Press; 2002.
- Elder MQ, Silvers SA. The integration of psychology into primary care: personal perspectives and lessons learned. *Psychol Serv*. 2009;6(1):68–73.