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Tobacco Treatment Delivery in Healthcare Clinics Serving Medicaid Members

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Abstract

Introduction: Tobacco use prevalence among Medicaid recipients remains stubbornly and disproportionately high in the United States. This prevalence persists despite improvements in Medicaid coverage for tobacco dependence treatment. Many issues have been identified as contributing to this disparity, some of which involve health systems factors. The purpose of this study was to explore the delivery of evidence-based tobacco treatment services and provider training from the perspective of healthcare practices serving Medicaid members.

Methods: A cross-sectional survey of practice managers in a state where full Medicaid coverage for cessation counseling and medications has been in place for over 5 years was conducted using a cluster random sampling design.

Results: A total of 292 practice managers completed the survey. Clinics in each of 15 regions of the state were represented. About three-fourths of the practice managers reported at least one person was designated to provide tobacco treatment counseling at the practice level, and the number of providers who offer tobacco counseling was positively associated with implementation of all 5 As, though only a third reported recent training. Training in tobacco treatment was associated with increased use of the 5 As for counseling, and 61% reported provider interest in tobacco treatment education. Urban practices were less likely to assess the need for and prescribe cessation medication than rural clinics.

Conclusions: Despite improvements in tobacco treatment benefits for Medicaid members, barriers preventing access to treatment remain. Opportunities to enhance evidence-based treatment include increased designation of and training for providers to deliver cessation counseling on-site.

Implications: Enhancing coverage for tobacco dependence treatment does not ensure that Medicaid members can access these treatments. This study explores access concerns from the perspective of key practice manager personnel to identify their perceived needs to enhance tobacco treatment for their patients. The majority of practice managers identified interest in and a need for increased training for their clinic personnel to improve cessation counseling and treatment opportunities within their clinic settings.

Keywords

Tobacco treatment, Tobacco cessation, Medicaid

Introduction

Tobacco use prevalence is declining overall in the United States, yet these declines are not experienced universally among subgroups of the population [1]. Notably, state and national data indicate that Medicaid members smoke at rates more than twice the national average [2,3]. This disparity has been attributed to several factors, including reduced availability of and access to cessation counseling and medications for Medicaid members [4]. While it is well established that the use of and insurance coverage for counseling and medication significantly improves cessation outcomes, [5,6] only a small percentage of tobacco users trying to quit, including Medicaid members, receive counseling or medication [7-11]. Reasons for this include barriers related to co-pays and prior authorizations, [4] lack of Medicaid member awareness of cessation benefits, [12] and provider-specific factors such as competing priorities and lack of training in treating tobacco dependence [13].

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Healthcare providers can have a powerful impact on promoting quit attempts and cessation among tobacco users. Asking about tobacco use and advising patients to quit can result in a modest increase in cessation, with greater treatment intensity resulting in improved outcomes [14,15]. Conversely, smoking rates are higher in persons who do not receive physician advice to quit [9]. Medicaid members with a high prevalence of tobacco use are more likely to have chronic conditions and severe psychological distress than the general population, [1] increasing the likelihood of interacting with healthcare providers on a regular basis. These interactions present opportunities to address and treat tobacco dependence in vulnerable populations. To reduce the disparities in tobacco use prevalence, it is critical to explore the missed opportunities to engage Medicaid members in tobacco dependence treatments that work.

The purpose of this study was to explore factors associated with the delivery of tobacco dependence treatment as identified by healthcare practices in a state with full Medicaid coverage of cessation counseling and medications since 2017. Specific aims were to: 1) Explore the use of the 5 As components (Ask, Advise, Assess, Assist and Arrange for follow-up), an evidence-based framework for delivering cessation treatment in healthcare settings, and 2) Correlate the use of the 5 As with practice characteristics and clinician training in tobacco treatment.

Materials and Methods

This was a cross-sectional observational study with clinics across Kentucky. Survey data were collected via a phone interview conducted by a research assistant or self-administered by the respondent using an online survey between May 2019 and September 2020. We used a cluster random sampling design from 15 Area Development Districts (ADDs) divided regionally, with each ADD comprised of 5 to 17 counties. This approach allowed us to recruit a representative sample of practice managers from across the state without obtaining data from each individual county. Each ADD was represented in the database, and 90 of the 120 counties were represented (75%). Potential participants were contacted at least three times through phone calls or email reminders to complete the online survey.

Survey questions included demographic information about the clinics (such as size, provider type, number of providers in the clinic providing tobacco treatment counseling, and percentage of Medicaid recipients served). Survey items assessed providers' experiences and interest in tobacco training, preferred method of training and use of the 5 A's (Ask, Advise, Assess, Assist, Arrange). For use of the 5 A's, respondents were asked to indicate how often their clinic or practice provides each of the services (Ask, Advise, etc.), with responses ranging from 1) 'never' to 4) 'always.' Additionally, practice managers were asked to indicate which modes of behavioral support they currently recommend to patients (Quit line, individual counseling, group counseling, online programs). Practice managers were also asked to rank preferred methods of training using a 4-item Likert style scale ranging from 1) 'most preferred' to 4) 'least preferred'.

Data Analysis

Descriptive analysis, including frequency distributions or means and standard deviations, summarized demographic and practice characteristics. A series of multiple linear regression models evaluated the practice characteristics associated with use of each of the five A's. Variance inflation factors were used to assess for multicollinearity. All data analysis was conducted using SAS, version 9.4 (Cary, NC), with an alpha level of 0.05.

Results

A total of 292 practice managers participated in the survey. Nearly all managers were female (91%), identified their race/ethnicity as White, non-Hispanic (93%) and the majority practiced in a rural location (61%). Approximately two-thirds (67%) of the practice managers reported over 30% of their patients received Medicaid (Table 1). Practice managers reported a wide variety of professionals serving patients (25% identified physicians in their practices, 27% advanced practice providers, 31% nursing professionals, 9% counseling professionals, 2% dental professionals, 2% health educators, 2% pharmacists, 1% respiratory therapists, 1% physical/occupational therapists, 2% other). Slightly less than half (41%) of practice managers reported their clinics served 1-75 patients per week; three in 10 saw 76-150 per week; and 3 in 10 served over 150 patients per week. About three-fourths of the practice managers reported at least one person was designated to provide tobacco treatment counseling. Few practice managers reported having a Tobacco Treatment Specialist (TTS) in their clinic (5%), and over one-third (34%) had someone who had attended continuing education (CE) in tobacco dependence treatment in the past two years.

Practice managers reported relatively high frequency of Asking about tobacco use and providing Advice to quit. Fewer practice managers reported their clinics consistently Assess readiness, Assist and Arrange for follow-up (Table 1). Based on a rating of 1) 'never' to 4) 'always,' the most commonly used services by providers were 'ask and document current tobacco use' and 'provide advice to quit tobacco', while fewer reported 'use motivational interviewing with those who are unwilling to quit' and 'provide and prescribe cessation medication'. The most frequently recommended service to patients was individual counseling (54%), followed by Quit line (36%) and group counseling (32%).

Over half of the practice managers (61%) reported their providers would be interested or very interested in tobacco treatment training. When asked to rate the preferred method of training ranging from 1) 'most preferred' to 4) 'least preferred', the most preferred methods were online (M = 1.8, SD = 0.9) and webinar (M = 2.0, SD = 1.0).

In the series of multiple linear regression modeling on the use of each of the 5 A's, the overall models were significant (Table 2). In general, clinics that reported greater numbers of providers who delivered counseling for tobacco treatment were more likely to use all 5 A's with patients. Clinics with at least one TTS and those that reported providers had attended a CE on tobacco treatment in the past two years were more likely to Assess the need for and prescribe cessation

Table 1: Descriptive summary of practice characteristics among survey respondents (*N* = 292).

Characteristics	**n (%) or *mean* (*SD*)**
Percent of patients Medicaid recipients	
Less than 30%	94 (32.6%)
31% or more	194 (67.4%)
Patients seen per week	
1-75	107 (41.3%)
76 -150	80 (30.9%)
> 150	72 (27.8%)
Number of designated people providing tobacco cessation counseling	
None	70 (24.5%)
1	52 (18.2%)
2	49 (17.1%)
3	28 (9.8%)
4 or more	87 (30.4%)
Tobacco treatment specialist in your clinic	
Yes	12 (4.6%)
No	222 (84.1%)
Don't know	30 (11.4%)
Anyone attended CE in tobacco dependence treatment	
Yes	75 (34.4%)
No	143 (65.5%)
Interest in receiving tobacco dependence training	
Not interested at all/not very interested	103 (39.3%)
Somewhat/very interested	159 (60.7%)
Preferred format for training (range: 1 [most preferred] to 4 [least preferred])	
Face to face	2.2 (1.1)
Online	1.8 (0.9)
Webinar	2.0 (1.0)
Lunch and learn	2.1 (1.0)
Podcast	2.9 (0.8)
Use of Five A's (range: 1 [never] to 4 [always])	
Ask	3.7 (0.7)
Advise	3.3 (0.9)
Assess	2.2 (1.0)
Assist	2.1 (1.0)
Arrange for follow up	2.3 (1.0)
Services recommended to patients (select all that apply)	
Quit line	84 (36.1%)
Individual counseling	126 (54.1%)
Group counseling	75 (32.2%)
Online programs	41 (17.6%)

medications than those without a TTS or those who had not attended a CE. Clinics located in rural settings were also more likely than those in urban locations to Assess the need for and prescribe cessation medications. These three practice characteristics (TTS, CE attendance, and urban/rural location) were not associated with the other 5 A's (Ask, Advise, Assist, or Arrange for follow-up). Whether or not practices saw more Medicaid members was not associated with the use of the 5 A's. Variance inflation factors for all models were less than 1.2, suggesting multicollinearity was not a concern.

Table 2: Multiple linear regression modeling frequency of offering Five A services.

	Ask and document current tobacco use (*n* = 246)		**Advise to quit tobacco (*n* = 246)**		**Assess need for and prescribe cessation medications (n = 239)**		**Assist by using motivational interviewing with those who are unwilling to quit (*n* = 241)**		**Arrange referrals for cessation support (*n* = 243)**	
Practice characteristics	est. b (SE)	*p*	est. b (SE)	*p*	est. b (SE)	*p*	est. b (SE)	*p*	est. b (SE)	*p*
Over 30% of patients on Medicaid	-0.11 (0.10)	0.29	-0.07 (0.12)	0.54	-0.02 (0.14)	0.89	0.15 (0.14)	0.28	0.09 (0.14)	0.52
Patients seen per week	0.05 (0.06)	0.39	0.02 (0.07)	0.77	0.16 (0.08)	0.047	< 0.01 (0.08)	0.97	0.02 (0.08)	0.78
Number providing counseling	0.11 (0.03)	< 0.001	0.19 (0.04)	< 0.001	0.18 (0.04)	< 0.001	0.09 (0.04)	0.035	0.14 (0.04)	0.001
Tobacco treatment specialist in clinic	0.09 (0.24)	0.71	0.11 (0.28)	0.68	0.69 (0.32)	0.029	0.15 (0.33)	0.66	0.32 (0.33)	0.33
Anyone attended CE in tobacco dependence treatment	0.03 (0.11)	0.77	0.13 (0.12)	0.30	0.29 (0.14)	0.043	0.24 (0.15)	0.10	0.26 (0.15)	0.076
Urban practice geographic location	-0.02 (0.10)	0.87	-0.14 (0.11)	0.20	-0.47 (0.13)	< 0.001	-0.25 (0.13)	0.07	-0.09 (0.13)	0.48

Note: Only those with complete data on all variables were retained in the regression models

Discussion

Consistent with other studies assessing the implementation of the 5 A's model conducted over the past decade, [16,17] practice managers in this study reported their clinicians ask patients about tobacco use and advise them to quit. However, the use of the remaining 5 A's: Assess; Assist; and Arrange referrals for follow up, remains suboptimal despite improvements in Medicaid coverage for counseling and medication and widely available free Quit line support [4]. Notably, more consistent use of all the 5 A's was significantly correlated with higher numbers of persons providing tobacco treatment counseling, but not with higher numbers of patients seen. This finding illustrates the importance of dedicating personnel resources and/or having systems to prompt clinic personnel to go beyond asking about tobacco use and advising to quit and intervening with medications, motivational counseling, and referral for follow up.

In fact, we found that clinics with providers who are adequately trained in evidence-based tobacco treatment went beyond asking and advising. Clinics with at least one Tobacco Treatment Specialist (TTS) and those with providers who had earned CE on tobacco treatment in the past two years were more likely to Assess the need for and prescribe medications.

Increasing and expanding the use of TTSs, who are trained in providing a comprehensive approach to address disparities and reduce prevalence of tobacco use in healthcare systems, is one strategy to meet the need for increasing access to evidence-based tobacco treatment [18]. TTSs can provide individual and group treatment, consult, educate providers regarding the current evidence in tobacco treatment, and assist with formulating and implementing system strategies to improve services. It is promising that practice managers in this study expressed interest in improving their knowledge and skills to meet the tobacco treatment needs of their patients.

Importantly, practice managers were supportive of additional training in tobacco treatment and noted that clinicians are interested in training. The variety of healthcare providers working in clinics, as documented in this study, affords an opportunity for multiple points of patient contact to intervene in evidence-based tobacco treatment.

The finding that urban practices were less likely to Assess the need for and prescribe medications when treating tobacco dependence was unexpected, as rural regions are often cited as having greater barriers to treatment resources [19]. However, a recent study found that rural primary care practices had greater gains in using electronic health records to document smoking status than urban primary care practices [20]. Although we did not collect data on use of electronic health records by the clinics in our study, this may be one reason for the urban-rural difference in assessing and prescribing tobacco treatment medication. Urban-rural differences in tobacco treatment delivery and the differential patterns and use of electronic health records in these settings to facilitate tobacco treatment need further study.

While all tobacco users can benefit from treatment, it is critical to address the needs of subpopulations who continue to experience barriers to tobacco treatment. We recommend targeted efforts to ensure the declines in tobacco use are equitable. For low-income Medicaid recipients, opportunities to improve tobacco cessation outcomes persist. Reductions in financial barriers to treatment through improved Medicaid coverage needs to be accompanied by reductions in structural barriers in the provision of these services. This study found that practice managers are interested in addressing these barriers through increasing evidence-based provider education including investing in TTSs to effectively treat tobacco dependence.

Limitations

The study participants were from one state with high tobacco prevalence and state-mandated coverage for all cessation modalities, including counseling and medications. These findings may not be generalizable to other states where prevalence rates are lower, or Medicaid coverage is less than optimal. We administered a relatively brief survey to balance concerns regarding the time constraints of busy clinics, so we were not able to account for all potential factors in our analysis. However, our findings are generally consistent with other studies of delivery of tobacco treatment services to Medicaid recipients. We feel this adds to the robustness of our findings and recommendations.

Lastly, we experienced a decrease in responses midway through data collection due to the COVID-19 pandemic. Due to practices being overwhelmed with patient loads and short-staffed due to the pandemic, we paused data collection to be respectful of the challenges clinics were facing at that time, as well as to promote study participation.

Declaration of Interests

The authors have no conflicts of interest to report.

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Data Availability

Data are available on request.

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