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# **Accepted Manuscript**

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POINT: Are advanced practice professionals more likely to achieve better tobacco cessation results than physicians? Yes

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<u>Abbreviations</u>: US = United States, COPD = chronic obstructive pulmonary disease, APP = advanced practice professional

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Despite the prevalence of smoking among adults in the United States (US) and many other high income countries reaching historic lows (15.1% in the US¹), smoking continues to be the single largest preventable cause of disease and premature death. The decline in smoking has not occurred equally across society. Rates remain much higher among certain groups, such as people living with mental health and/or substance use problems. Consequently, there are major disparities in incidence and prognosis of smoking-related respiratory diseases, including chronic obstructive pulmonary disease (COPD). Specialty health care settings such as those providing respiratory therapy offer a unique yet still untapped potential to address smoking behavior. 3,4

As recommended in the 2008 US Public Health Service guideline for treating tobacco use and dependence, every patient at every visit should be assessed for smoking, advised to quit, and offered treatment consisting of behavioral counseling and pharmacotherapy. In general health care settings, behavioral counseling added to medication improves smoking cessation outcomes. We believe that physicians can provide effective treatment, and should continue to do so within the time they have available. However, we argue that advanced practice professionals (APPs), interpreted broadly to include behavioral health specialists such as psychologists, clinical social workers, and addiction counselors, are generally better suited than physicians to provide smoking cessation treatment in specialist settings and likely to achieve better results. In this editorial, we describe our rationale for this position based on provider and patient characteristics in the specialty respiratory clinic setting.

Importantly, APPs are more likely to employ a collaborative versus prescriptive counseling style, enhancing establishment of a good relationship with patients, the vast majority of whom may be unable or unwilling to commit to making a quit attempt in response to physician advice. In contrast, physicians are often more directive in their communication style

and tend to provide specific advice for quitting smoking, not having the time or behavioral training to work on shaping behavior change towards this goal. These types of interactions could potentially lead to reluctance on the part of the patient to be forthcoming in communication, fully disclose their smoking status or behavior, and form a therapeutic alliance. As some patients, including those with COPD<sup>7</sup>, are susceptible to underreporting of smoking status or smoking behavior, fostering a strong therapeutic alliance is essential to effective treatment.

There are other advantages that make APPs uniquely qualified to address smoking (see Table 1). First, their expertise in the psychological theory and skills involved in assessment and counseling render them uniquely qualified as front-line smoking cessation providers. Second, APPs are better equipped to customize patient care to incorporate the unique features of nicotine dependence with the psychological comorbidities that often accompany it. Smokers are more likely than nonsmokers to experience mood, anxiety<sup>8</sup> and alcohol/drug use disorders, and these comorbidities need to be taken into consideration. Smokers with COPD are especially likely to present with depression and anxiety, 9,10 which may affect adherence to treatment and interfere with quitting. 11 Given their experience in treating a range of chronic behavioral conditions, APPs are more likely than physicians to view nicotine dependence as a chronic condition requiring long-term treatment and relapse prevention. As smoking usually begins in adolescence, it represents a longstanding addiction for many patients in the respiratory health setting. For these patients, optimal treatment may require longer duration treatment or adjunctive behavioral treatments that target smoking behavior in the context of psychological distress. 12,13 Third, APPs may be more likely than physicians to be able to link behaviors that cluster together to enhance readiness to quit smoking. For example, strategies for stress, weight, and fatigue management include healthy eating and walking and other forms of exercise, all of which dovetail into

treatment strategies for COPD and smoking cessation.<sup>14</sup> COPD patients in particular may be better served by APPs who are more likely to work with a patient across an extended period of time to foster motivation. APPs are also more equipped than physicians to work with patients on proximal goals, such as reducing number of cigarettes smoked per day and/or considering their medication options.

Another important aspect of APPs is that they are well-versed regarding building a patient's readiness to quit smoking and identifying barriers and facilitators of behavior change. For example, while physicians can prescribe smoking cessation medications, APPs are better suited to promote medication adherence, help patients overcome side effects, and partner with the physician to modify the patient's medication regimen, as needed. Due to limited time, the physician is usually unable to work with each patient at this level to consider these treatment issues. This is particularly important in the context of a patient's respiratory treatments and how best to fit new smoking cessation medications into the person's existing routine. As misperceptions about the safety and efficacy of nicotine replacement therapies among racial minorities are an important barrier to use and proper use, this issue cannot be underscored enough in clinics that treat a diverse patient population.<sup>15</sup>

Medication adherence is enhanced when: 1) the provider seeks patient questions and understanding of the role and benefits of the medicines prescribed; 2) the patient is encouraged to ask such questions; and 3) the rationale for taking the medicines is clearly stated and consistent with the patient's values. Such discussion is best implemented within a collaborative action plan framework to discuss how the patient can best fit the new medications and implement related lifestyle changes into their daily life. As previously stated, physicians have limited time and skills in behavioral techniques, and this extends to medication adherence goals. One

behavioral technique for patient self-monitoring involves using a simple daily diary to record use of medicines to review at each visit and troubleshoot barriers to adherence. Text messaging also may be helpful in this process as reminders to support adherence. See Table 2 for motivation enhancement counseling strategies tailored to respiratory therapy patients.

A final advantage for APPs is that they are well-positioned to provide psychological support integrated with smoking cessation counseling for patients with end-stage disease. People with end-stage disease should be informed of the health and psychological benefits of smoking cessation, and their decision whether or not to attempt to quit should be respected. For example, a patient may desire to reduce their smoking but not be ready to stop completely. This could represent an important indication to their family and caregivers that they want to make a behavioral change and improve their longevity or quality of life. Acceptance and commitment therapy he useful in such cases, assisting the patient to accept any nicotine withdrawal discomfort associated with cutting down while shoring up commitment to spend more time with family without smoking. There could be a significant sense of achievement for end-stage disease patients if they are able to partially address or even overcome their life-long battle with nicotine dependence. However, if the end-stage disease patient does not desire to quit smoking, that decision should be respected and counseling can be offered for support, as needed.

In conclusion, we argue that APPs, interpreted broadly to include psychologists and other behavioral health specialists, are particularly important in delivering smoking cessation treatment to patients in the respiratory care setting. However, all members of the clinical team, including physicians, can make meaningful contributions. There is no debate that smoking cessation treatment needs to be made a higher priority for respiratory disease patients. In a study of Veteran smokers who were hospitalized for COPD<sup>17</sup>, only 17.5% received smoking cessation

medication during hospitalization. The patients least likely to receive treatment were those who would benefit the most – patients with a history of psychosis, greater medical comorbidity, or greater COPD severity. Underutilization of treatment, especially behavior counseling, is a major problem even among smokers who are trying to quit. Smoking cessation treatment must be integrated into specialty care, especially respiratory therapy clinics. 19,20

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Table 1. Advantages that advanced practice professionals have over physicians with respect to smoking cessation treatment		
Characteristic	Physicians	Advanced Practice Professionals*
Style of working with patients, especially those with low motivation to change their behavior	Prescriptive	Collaborative/patient-centered
Time demands with respect to acute versus preventive care	High demand for management of acute health problems	More time, or even dedicated time for certain APPs, for preventive care services
Unique knowledge/skills relevant to smoking cessation treatment in clinical populations	Pharmacotherapy requiring prescription (varenicline, bupropion)	Psychological therapies, including brief motivational enhancement; OTC nicotine replacement therapies (patch, gum, lozenge)
Conceptualization of smoking/nicotine dependence	More likely to attribute persistent smoking to a lack of effort on the part of the patient and the futility of treatment	More likely to view smoking as a chronic condition requiring long-term monitoring/treatment
Ability to customize treatment to psychological factors that interfere with treatment adherence and long-term abstinence	Limited to pharmacotherapy	Strong behavioral treatment foundation with which to readily integrate other brief psychological approaches to manage psychological comorbidities, such as depression and anxiety

<sup>\*</sup>Interpreted broadly to include behavioral health specialists, including psychologists, clinical social workers, addiction counselors. OTC = over the counter

## Table 2. Counseling strategies to increase motivation to quit smoking among patients in the respiratory care setting

Check in with the patient about how they are finding treatment for their respiratory problems (avoid prematurely focusing on smoking).

Ask them about what lifestyle changes their physician has advised and how they feel about attempting these changes.

Raise the issue of smoking and seek permission to talk more about it. (Note: The patient may have reasons to want to continue to smoke despite respiratory problems. It is important to understand why they may still be smoking and what quit/reduction attempts they have made in the past.)

Ask them what they know about how smoking effects their respiratory condition (and other medical conditions).

Seek permission to provide information about smoking and their medical conditions, their values, and ask about their opinions and about smoking, medical or otherwise. What concerns them most? How does smoking fit (or not fit) with their values?

What do they see ahead for themselves in life?

Seek permission to give advice about the benefits of quitting:

- · Smoking cessation improves outcomes for respiratory treatment.
- · Some of the most damaging health effects from smoking decline rapidly after quitting.

Provide feedback to the patient: "On one hand, you said you want to live as long as possible to see your children and grandchildren grow up, but on the other hand, continuing to smoke may make the treatment you are receiving less effective and lower your overall quality of life. I wonder how these opposing views fit together for you?"

Discuss possible change options with the patient regarding quitting/reducing smoking and how they might start these.

Provide telephone or face to face smoking cessation counseling if possible, or refer to the relevant agency, and follow-up by telephone or face to face to monitor progress. Communicate optimism and congratulate any successes.