

Electronic Cigarettes: The Perceptions of Pharmacists and Physicians

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Background

Significance

- Electronic cigarettes, also known as e-cigarettes, have been increasing in popularity in recent years. From 2010 through 2013, the number of first-time users of e-cigarettes increased from 3.3% to 8.5% in adults.^{1,2} While many manufacturers of e-cigarettes advertise their product as a smoking cessation aid, there is insufficient evidence to support this claim. The long-term health outcomes associated with e-cigarette use remain unknown.

- Pharmacists and physicians will be called upon to serve as informational resources for patients seeking advice on these products as well as care providers for patients who use them. However, due to the previous lack of FDA regulation and the scarcity of clinical data, many pharmacists and physicians may be under-informed on e-cigarettes and their associated risks of use.

Practice Innovation

- This survey promotes a better understanding of current opinions among pharmacists and physicians on e-cigarette products and provides consensus on whether further steps should be taken to increase product training and information dissemination.
- This proactive assessment highlights the upward trend in e-cigarette use, and enhances patient care by presenting the topic in a forum that provides pharmacists and physicians the opportunity to become more familiar with the products when counseling patients.

Objective

- The study aimed to evaluate pharmacists' and physicians' perception and knowledge of e-cigarettes, including comfort level in counseling patients on these products. The study assessed if, and to what extent, patient e-cigarette usage is collected by these healthcare professionals as a marker of tobacco use status.

Table 1. Study Population Demographics

	Pharmacists	Physicians
Gender	<ul style="list-style-type: none"> Female: 32 (46.4%) Male: 37 (53.6%) 	<ul style="list-style-type: none"> Female: 9 (24.3%) Male: 28 (75.7%)
Years in practice	<ul style="list-style-type: none"> < 5 years: 16 (23.2%) 5-10 years: 17 (24.6%) 10-15 years: 7 (10.1%) > 15 years: 29 (42.0%) 	<ul style="list-style-type: none"> < 5 years: 4 (12.1%) 5-10 years: 4 (12.1%) 10-15 years: 1 (3.0%) > 15 years: 24 (72.7%)

Methods

Study Design

- This cross-sectional study implemented a survey methodology with surveys distributed to two focus groups: pharmacists and physicians.
- Approved by the Institutional Review Board (IRB) under expedited review.

Table 2. Inclusion Criteria

Pharmacists	Physicians
Practicing in community pharmacy	Practicing in family medicine
Practice located within a 15 mile radius of Pittsburgh, PA	Practice located within a 15 mile radius of Pittsburgh, PA

Exclusion Criteria

- Pharmacists providing indirect patient care or working in an acute care setting.
- Physicians providing indirect patient care or practicing in a specialized area of medicine.
- No pharmacist or physician was permitted to complete the survey more than once.

Study Population

- Pharmacists were identified using the GPS system on mobile devices to locate community pharmacies within 15 miles of Duquesne University's address.
- Family medicine physicians were identified using the Pennsylvania Academy of Family Physicians website to locate physician practices within 15 miles of Duquesne University's address.

Intervention Procedure

- Identical surveys were distributed to the identified pharmacy and physician practices for the practitioners to complete.
- If time permitted, pharmacists and physicians were encouraged to complete the survey while survey distributors were present. If participants were unable to complete the survey while the surveyor was present, a pick up time was established or a fax number was provided to send completed surveys.
- Pharmacists and physicians were asked to provide an e-mail address in order to receive an educational electronic handout with information about e-cigarettes to share with patients.

Statistical Analysis

- Information collected from pharmacist and physician survey responses was analyzed utilizing descriptive and inferential statistics, as appropriate.

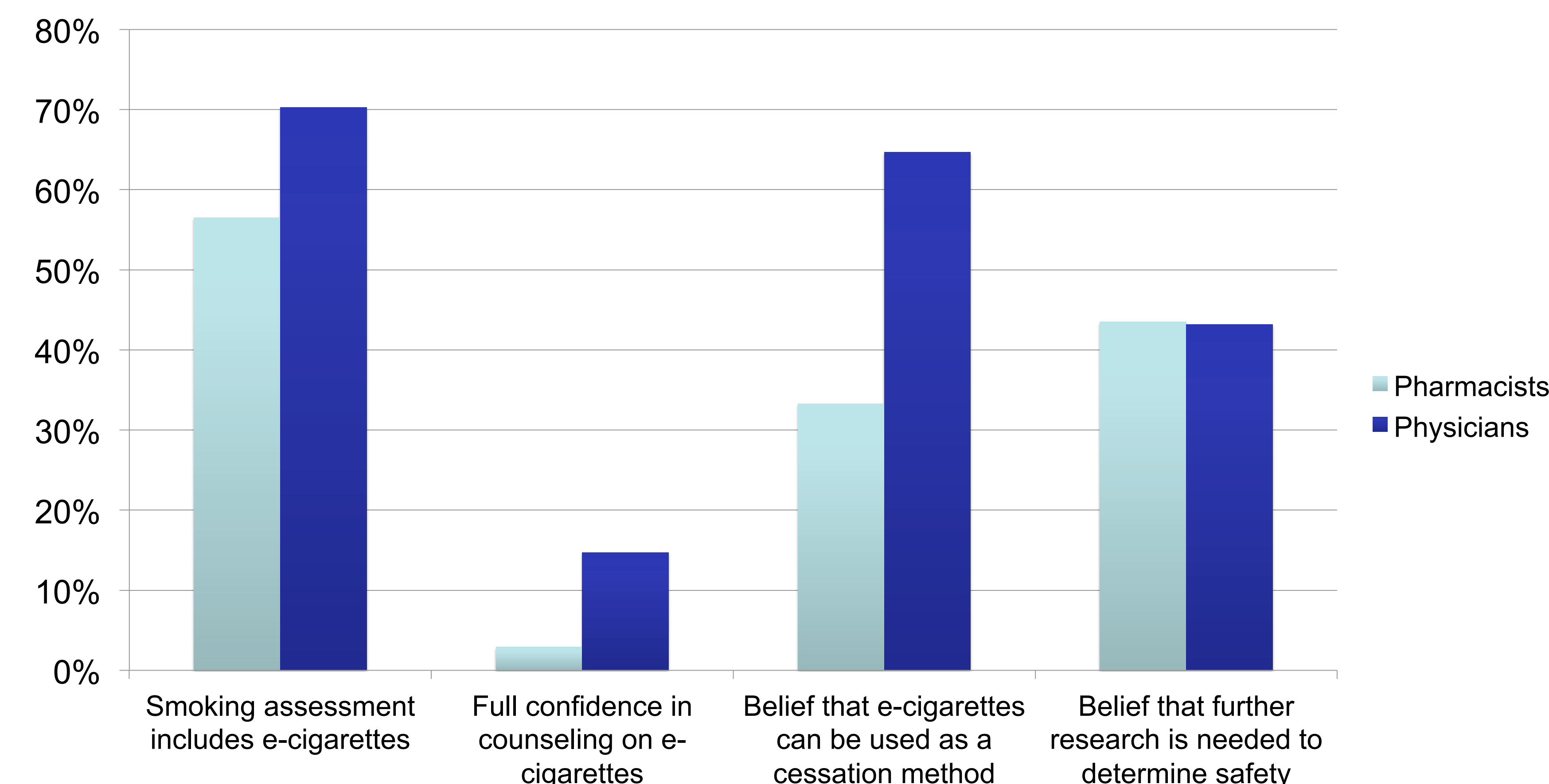
Outcomes

- Outcomes included knowledge of e-cigarettes, level of comfort with counseling patients on e-cigarettes, and opinion on the use of e-cigarettes as a cessation tool.

Results

- Data was collected and analyzed from a total of 69 pharmacist and 37 physician surveys. Participant demographics are noted in Table 1.
- A total of 75 surveys were distributed to pharmacists (response rate = 92.0%) and a total of 109 surveys were distributed to physicians (response rate = 33.9 %).

Figure 1. Survey Response Results



Discussion

- Learning gaps were identified in both pharmacist and physician groups relating to the physiological effects associated with e-cigarettes, which likely warrants further education.
- Physicians most commonly quantified e-cigarette use by assessing the frequency of use by the patient, while pharmacists most commonly assessed frequency of use and nicotine content.
- Several physicians and pharmacists also were unaware if e-cigarettes are addictive and if they produce secondhand emissions or not.
- Future research in this area could include educational interventions on e-cigarettes for healthcare professionals and their resulting influence on patient assessment and care, as well as further research into the impact of the new FDA regulations on e-cigarettes and other novel forms of nicotine delivery systems.

References

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