Published in final edited form as:

Am J Health Behav. 2015 November ; 39(6): 794–798. doi:10.5993/AJHB.39.6.7.

Tobacco Attitudes and Behaviors of Vape Shop Retailers in Los Angeles

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Abstract

Objectives—The growing popularity of e-cigarettes has been accompanied by the proliferation of vape shops in the US. Vape shops are devoted to the sale and use of e-cigarettes, allowing customers to sample flavors and learn about different hardware from retailers. Research on vape shop retailers is lagging behind their popularity. This study documented the attitudes and behaviors regarding e-cigarettes and other tobacco products of retailers located in Los Angeles.

Methods—Surveys were conducted among retailers at 78 vape shops in 2014.

Results—The majority of retailers (76%) believed e-cigarettes are safer than combustible cigarettes, with about one-fourth believing e-cigarettes are completely safe. Retailers believed e-cigarettes are, on average, safer than products (eg, nicotine patch, gum, and inhaler) that have been approved for cessation by the FDA. About 14% of retailers reported dual use of cigarettes and e-cigarettes in the past month.

Conclusion—This is the first study to investigate tobacco-related behaviors and attitudes of vape shop retailers located in Los Angeles. Educating vape shop retailers on the benefits and harms of e-cigarettes is important, especially if retailers are to be informed about a product that is only now being considered to receive regulation from the FDA.

Keywords

vape shop; electronic cigarette; retail; tobacco control

Electronic cigarettes (e-cigarettes) have grown in popularity since their development in the early 2000s. E-cigarettes are battery-powered devices that aerosolize a solution comprised of propylene glycol, and/or vegetable glycerin, flavorings, and nicotine (there also are zero-nicotine brands). E-cigarettes include first-generation products or disposables, often referred to as cig-a-likes, and second-generation products such as vape pens, or open tank systems,

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Human Subjects Statement

The University of Southern California Institutional Review Board approved all procedures.

Conflict of Interest Statement

All authors of this article declare they have no conflicts of interest.

that are reusable and modifiable to user preference for flavoring and nicotine concentration.¹ The growing popularity of second-generation e-cigarettes has been accompanied by the proliferation of vape shops in the United States (US) and elsewhere.² Vape shops are devoted to the sale and use of e-cigarettes alone, allowing customers to sample flavors and learn about different hardware from shop retailers (eg, owners and staff).³

Research on vape shop retailers is lagging behind their popularity.⁴ Research has demonstrated that vape shop retailers use marketing strategies similar to restricted (eg, TV and radio advertisements) or current tobacco industry strategies.⁵ Multiple retailers have described that increasing the size of their signage and word of mouth were their most effective marketing tools.⁵ Research has suggested that retailers have loyal customers who continually frequent their shops seeking out e-cigarette support and advice on products.⁶ It has been suggested that vape shop retailers can promote healthier lifestyle changes in smokers,⁶ although retailers have been reported to provide unsubstantiated health claims to their customers,⁷ and the efficacy of e-cigarettes as a cessation device is unclear.¹

Whereas it is likely that vape shop retailers favor the use of e-cigarettes over combustible cigarettes, there is a paucity of research on what these individuals' attitudes and behaviors are regarding tobacco products. The present study is the first of its kind to document tobacco-related attitudes and behaviors of vape shop retailers located in different ethnic neighborhoods in Los Angeles. Because tobacco-related behaviors vary by ethnicity,⁸ we explored how attitudes and behaviors vary across retailers from different ethnic groups, focusing on groups that experience tobacco-related health disparities. Findings should prove valuable when forming public education campaigns as well as local tobacco control efforts.

METHODS

Initially 104 shops were in the sampling area approached to be a part of the study. The sampling area was identified by using published data that described the ethnicity percentages of the Los Angeles Basin. Yelp also was used to identify the sampling area because it was the most feasible way to locate vape shops in different ethnic locations. When using the search term "vape shop" along with a specific neighborhood, Google search results provided similar vape shops to those found on Yelp (see Sussman et al,³ for further details). Several websites returned from the Google search were for e-cigarette distributors and not vape shops; therefore Yelp was deemed more appropriate to locate vape shops by neighborhood. Of the 104 identified shops, 17 were found to be out of business at the time of the interview, and 4 declined to be a part of the study. Of the 83 remaining shops identified for survey participation, one was a distributor and 4 were smoke shops (shops that sell tobacco and tobacco related products) and not vape shops. The final sample included 78 vape shops (23 in non-Hispanic white areas, 18 in Korean areas, 17 in Hispanic/Latino areas, and 20 in African-American areas) in Greater Los Angeles. This study focused on these 4 ethnic communities because they are important vulnerable populations for tobacco control and each of these ethnic groups has a unique tobacco use profile.⁸ Retailers were approached by data collectors between 10 am and 5 pm during workdays and were asked to participate in this study in return for a \$50 gift certificate. A brief anonymous interview was conducted to determine tobacco related behaviors and document the attitudes and beliefs of retailers

towards e-cigarettes relative to other tobacco products. Data collection occurred from June 19, 2014 to December 8, 2014.

Measures

We obtained self-reported measures of age, sex, and ethnicity from retail operators of vape shops.

Attitudes

The attitude of retailers regarding safety of e-cigarettes was measured by the question: “What are your feelings about e-cigarettes in terms of their safety?” Response options were “completely safe,” “safer than regular cigarettes,” “about as safe or dangerous as regular cigarettes,” and “more dangerous than regular cigarettes.”

Retailers also were asked: “How safe do you think each of the following nicotine-containing products are on a scale to 1-to-10?” A “1” indicated “no danger/quite safe” and a “10” indicated “dangerous/not safe at all.” The nicotine-containing items were: (1) cigarettes without filters; (2) cigarettes with filters; (3) e-cigarettes (disposables); (4) e-cigarettes (rechargeable); (5) cigars; (6) regular hookahs; (7) tobacco pipes; (8) Beedies or kreteks; and (9) nicotine patch, gum or inhaler.

Behaviors

Retailers were asked: “Have you ever used a nicotine-containing product?” Response options included “yes” and “no.” Those who answered “yes” then indicated the tobacco products they have used in their lifetime. Retailers also were asked: “Have you used a nicotine-containing product in the last 30-days?” Those who answered “yes” then indicated the tobacco products they have used in the past month.

Additionally, retailers were asked: “Did you cut down on cigarette smoking by using e-cigarettes instead?” as well as “Did you quit cigarette smoking by using e-cigarettes instead?” Response options were “yes” and “no” to each question, respectively.

Analyses

We tabulated the frequencies of responses from each question, and where appropriate, means and standard deviations as well. Responses were compared across ethnicity of retailers using ANOVA, and chi-square tests.

RESULTS

Among retailers, 85% were male, with a mean age of 28 (Standard deviation [SD] = 8.0); 27% were Korean, 28% were non-Hispanic white, 9% were Hispanic/Latino, and 35% were of other ethnicities (eg, Filipino, Middle Eastern). In some cases, the ethnicity of the respondent did not match the predominant ethnicity of the neighborhood.

About 76% of retailers believed e-cigarettes were safer than regular cigarettes, and 24% believed e-cigarettes were completely safe. When asked to rank the safety of nicotine-containing products on a scale to 1 to 10 (1 = no danger/quite safe to 10=dangerous/not safe

at all), cigarettes without filters were ranked the most dangerous (9.59 [SD = .99]), and rechargeable e-cigarettes were ranked the least dangerous 2.78 (SD = 1.74) (Figure 1).

About 98% of retailers reported using a nicotine-containing product in their lifetime, with 58% reporting use of cigarettes without filters, 92% use of cigarettes with filters, 79% use of disposable e-cigarettes, 99% use of rechargeable e-cigarettes, 74% use of cigars, 78% use of hookahs, 44% use of tobacco pipes, 26% use of Beedies or kreteks, and 43% use of nicotine patch, gum, and inhaler.

About 98% of retailers reported using a nicotine-containing product in the past 30 days, with 1% reporting use of cigarettes without filters, 14% use of cigarettes with filters, 8% use of disposable e-cigarettes, 96% use of rechargeable e-cigarettes, 4% use of cigars, 7% use of hookahs, 1% use of tobacco pipes, 0% use of Beedies or kreteks, and 1% use of nicotine patch, gum, and inhaler. Additionally, 14% of retailers could be classified as “dual users” or those who reported both 30-day use of rechargeable e-cigarettes and 30-day use of cigarettes with filters.

About 93% of retailers reported that they cut down on cigarette smoking by using e-cigarettes instead, and 84% reported that they quit cigarette smoking by using e-cigarettes instead. Additionally, 91% of retailers who reported they cut down on cigarettes by using e-cigarettes also reported that they quit cigarette smoking by using e-cigarettes.

Attitudes and behaviors varied by ethnicity in 3 cases. First, the perceived safety of cigars was statistically significantly different across ethnic groups ($F_{(3)} = 2.85$, $p < .05$), with Korean retailers ranking cigars more dangerous on average than other groups. Second, lifetime use of cigarettes with filters varied by ethnicity, ($\chi^2_{(3)} = 9.0141$, $p < .05$) with 100% of non-Hispanic white and Korean retailers reporting use. Third, lifetime use of cigarettes without filters varied by ethnicity, ($\chi^2_{(3)} = 8.4016$, $p < .05$) with non-Hispanic white and Korean retailers reporting higher use. All other attitudes and behaviors did not vary by ethnicity.

DISCUSSION

The vast majority of vape shop retailers believed that e-cigarettes are safer than combustible cigarettes, with about one-fourth believing e-cigarettes are completely safe. Whereas the former may be true,⁹ there is growing evidence that the latter is inaccurate.^{10–12} Most interestingly, retailers believed e-cigarettes are, on average, safer than products (eg, nicotine patch, gum, and inhaler) that have been approved for cessation by the US Food and Drug Administration (FDA) (<http://www.fda.gov/TobaccoProducts/ResourcesforYou/ucm168231.htm>).

Retailers may overestimate the benefit of e-cigarettes for cessation when they attempt to quit combustible cigarettes, and they might underestimate the potential harm of e-cigarettes. Although our data indicated that retailers believed e-cigarettes helped them quit, or helped reduce their cigarette intake, the cross-sectional nature of our study prevented us from determining whether individual retailers struggled with relapse. It should be noted that 14% of retailers were dual users of combustible cigarettes and e-cigarettes, which could increase

their total exposure to nicotine. E-cigarette retailers attempting to quit cigarettes may be reluctant to use FDA approved cessation due to the nature of their businesses.

Vape shop retailers may serve as a point of reference for potential consumers looking for information on e-cigarettes. Regardless of whether they attempt to provide cessation counseling, they might express their beliefs about the effectiveness of e-cigarettes as a cessation device to customers seeking information on e-cigarette use at vape shops.⁷ Retailers' personal attitudes and behaviors may dictate what they communicate to their customers regarding the safety of e-cigarettes and their efficacy in cessation. These personal narratives may resonate with their customers, and subsequently, influence their attitudes and behaviors.¹³ Given that the literature on the effects of e-cigarettes is still in development, attitudes and behaviors that favor e-cigarette use without clarification of potential risks could pose dangers to consumers.

Public education campaigns should be designed to communicate the difference between products that have been approved for cessation and those that have not. Campaigns also should describe regulatory processes that help to determine whether a product is safe as well as effective in cessation. Targeted interventions, educational materials, and specific training that is designed for vape shop retailers also may be necessary to communicate the potential harms and benefits of e-cigarettes. Retailers may be unaware of the scientific literature that distinguishes between the harms and benefits of these products. Informing retailers may help those looking to quit or may lead to comprehensive information being communicated to consumers. Future research will need to determine whether retailers and consumers discuss the potential harms and benefits of e-cigarettes, and whether consumers perceive retailers as accurate sources of information.

Almost all retailers used a nicotine-containing product in the past month. Whereas cigarette use varied by ethnicity, which is consistent with prior research,⁸ use of e-cigarette products did not vary across racial/ethnic groups among retailers. Interestingly, use of disposable e-cigarettes was rare, especially when compared to the use of rechargeable e-cigarettes (8% versus 96%). This may be a result of retailers perceiving disposable e-cigarettes as a specific product of the tobacco industry. For example, Lorillard owns the disposable e-cigarette brand Blu, RJ Reynolds owns Vuse, and Altria owns Green Smoke and Mark Ten. Vape shop retailers may try to distinguish their second-generation e-cigarette products from first-generation products sold by tobacco companies. Future research should investigate whether retailers market their businesses to their customers as small enterprises competing against big tobacco companies. Similar to personal narratives on cessation, these narratives may resonate with consumers and influence behavior.¹³

Limitations

The attitudes and behaviors of vape shop retailers described herein may not represent retailers in other areas, or those of regular tobacco retailers that may also sell e-cigarettes. Whereas these findings may provide insight on vape shop retailers' tobacco behaviors, their specific interactions with customers were not observed. For example, retailers may tell customers that they have quit combustible cigarettes by using e-cigarettes, and that they believe e-cigarettes are safer than FDA regulated products for cessation, but this study did

not directly observe this communication. Other studies, however, have reported that such communications occur between retailers and customers.⁷ Vape shop customers should be surveyed in the future to determine how they perceive their local vape shop retailers. It may be the case that customers perceive retailers as health experts or experts in cessation, or they may be seen as small businesses owners trying to make a profit. Longitudinal studies are needed to see how retailer-consumer interactions influence behavior of both the retailer and consumer over time. Future research should focus on sampling vape shops from different regions of the country to compare and contrast the attitudes and behaviors of the individuals operating them.

Despite these limitations, this study is the first of its kind to document attitudes and behaviors regarding e-cigarettes and other tobacco products of vape shop retailers located in different ethnic neighborhoods in Los Angeles. Findings should prove valuable when forming public education campaigns as well as local tobacco control efforts. These data also can be informative regarding potential future regulation of e-cigarettes by local and federal authorities, and have implications for retailers of nicotine-containing products.

Acknowledgments

Research reported in this publication was supported by Grant # P50CA180905 from the National Cancer Institute and the FDA Center for Tobacco Products (CTP), and Grant # T32CA009492 from the National Cancer Institute. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or FDA.

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Figure 1. Ranking Mean Scores of Retailers on Safety of Nicotine-containing Products

Note.

Bars represent mean scores of retailers when asked to rank the safety of nicotine-containing products on a scale to 1 to 10 (1 = no danger/quite safe and 10=dangerous/not safe at all).

No filters = cigarettes without filters. Filters = cigarettes with filters. Dispos = Disposable e-cigarette. Recharge = Rechargeable e-cigarette.