

E-cigarettes in airports and on flights: Europe and the US

Cigarrillos electrónicos en aeropuertos y en vuelos: Europa y EEUU

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Abstract

Background. While progress has been made to create smoke-free airports, sales of e-cigarettes at airports and airplanes and the presence of advertisements might detract from these smoke-free policies. The objective of this study is to describe the presence of policies, advertising, sales and use of e-cigarettes in airports and on flights in Europe and the US.

Methods. A cross-sectional study was conducted between March-May, 2014. The study included 21 large and mid-sized airports of Europe and the US as well as 19 flights. A standardised protocol was used to observe points of sales and advertisements and to collect information on the implementation of policies on e-cigarette use. In addition, a series of questions were developed to obtain policy details from airport personnel and flight attendants.

Results. Retail outlets selling e-cigarettes in airports were present in approximately 20% and 40% of the observed pre and post-security areas, respectively. In post-security, 27.8% of the airport staff reported that the use of e-cigarettes indoors was not allowed, 22.2% reported that they did not know, 27.8% reported that it was only allowed in the smoking room, and 22.2% reported that it was allowed anywhere. Smoking ban announcements were made on all flights. However, only 15.8% of the flights made a specific announcement regarding the ban of using e-cigarettes.

Conclusions. In light of our results, it seems necessary to reinforce in-flight e-cigarette smoking ban announcements and to instruct airport employees about the existence of e-cigarette smoking policies. Furthermore, airports themselves should also be encouraged to adopt smoke-free policies.

Key words: Electronic cigarettes; Advertisements; Points of sale; Airports; Aircraft.

Resumen

Antecedentes. Pese a los avances en las políticas libres de humo en los aeropuertos, las ventas de cigarrillos electrónicos en aeropuertos y aviones y la presencia de publicidad pueden suponer un paso atrás en la implementación de dichas políticas. El objetivo de este estudio es describir la presencia de políticas, publicidad, ventas y el uso de cigarrillos electrónicos en aeropuertos y en vuelos de Europa y los EE.UU.

Métodos. Estudio transversal realizado entre marzo y mayo del año 2014. El estudio incluyó 21 aeropuertos grandes y medianos de Europa y los EE.UU., así como 19 vuelos. Se utilizó un protocolo estandarizado para observar puntos de venta y publicidad y se recogió información sobre la implementación de políticas sobre el uso de cigarrillos electrónicos. Además, obtuvo información más detallada del personal del aeropuerto y de los asistentes de vuelo sobre las políticas de uso de cigarrillo electrónico.

Resultados. Los puntos de venta de cigarrillos electrónicos en los aeropuertos estaban presentes en aproximadamente el 20% y el 40% de las áreas observadas antes y después del control de seguridad, respectivamente. Después del control, el 27,8% del personal del aeropuerto declaró que no estaba permitido el uso los cigarrillos electrónicos en el interior, el 22,2% declaró que no sabía si se podían usar, el 27,8% declaró que sólo estaba permitido en el área de fumadores y el 22,2% declaró que se podía fumar en cualquier parte. Todos los vuelos anunciaron la prohibición de fumar. Sin embargo, sólo el 15,8% de los vuelos específicamente anunció la prohibición de usar cigarrillos electrónicos.

Conclusiones. Nuestros resultados muestran que sería necesario reforzar los avisos de prohibición del uso de cigarrillos electrónicos durante los vuelos y de instruir a los empleados del aeropuerto sobre la existencia de políticas sobre el uso de cigarrillos electrónicos. Además, también se debería promover políticas libres de humo sin excepciones en todos los aeropuertos.

Palabras clave: Cigarrillos electrónicos; Publicidad; Puntos de venta; Aeropuerto; Vuelo.

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Electronic cigarettes (e-cigarettes) are battery-operated products designed to turn nicotine and other chemicals into vapor and particles. There has been some controversial regarding different issues, such as the efficacy of their use as a tool for smoking cessation and harm reduction, or their marketing and advertisement and their use in public places (Grana, Benowitz & Glantz, 2014a). Despite the recent increase in popularity, only limited data is available on their safety (Mayor, 2014). In addition to potential health effects (Grana et al., 2014a), e-cigarette use in non-smoking areas might also undermine smoking denormalisation efforts (Tan, Bigman & Sanders-Jackson, 2015).

A recent study conducted in 34 major international airports showed that airports represent a public and occupational space that is often overlooked in smoke-free policies (Stillman, Soong, Kleb, Grant & Navas-Acien, 2015b). According to another study carried out in the same 21 airports studied in this paper, tobacco advertising, promotion, and sponsorship are widespread and might be associated with outdoor smoking (Soong et al., 2016). While progress has been made to create smoke-free airports, the widespread sales of tobacco products including e-cigarettes and the presence of advertisements detract from these smoke-free policies. Millions of passengers pass through airports yearly and the unrestricted sales and promotion of these products does pose a public health issue.

No studies to date have reported data on the use of e-cigarettes nor the sales, marketing and promotion of these products in airports. Stillman et. al. (2015b) reported confusion among flight attendant and passengers about e-cigarette use during flights but did not include any further information concerning airline policy or approach to these products. The objective of this study is to describe the presence of policies, advertising, sales and use of e-cigarettes in airports and on selected flights in Europe and the US.

Methods

A cross-sectional observational study was conducted in March-May 2014. 21 large and mid-sized airports of Europe (N=11) and the US (N=10), as well as 19 flights between these airports, were selected on a convenience basis.

We used a standardized protocol to observe points of sales and advertisement and gathered information concerning presence or absence of policy regarding e-cigarette use. A checklist of observational variables for airports and flights was designed and tested at one airport in Europe (Madrid Barajas) and one airport in the US (Baltimore Washington International). In addition to the observational variables collected, a series of questions were develo-

ped to obtain policy details from airport personnel and flight attendants. Data collectors were trained on study procedure.

The following variables were collected in both pre-security and post-security areas of the studied airports: presence of points of sales and e-cigarette advertising. In addition, data collectors asked airport personnel located in both areas the following open-ended question: "Where can I use e-cigarettes?". The observational variables collected during flights between airports were: presence of tobacco and e-cigarette control policies, presence of e-cigarette advertisements (either through audio announcements or through duty-free magazines), and duty-free tobacco and e-cigarette sales. Additionally, data collectors asked flight attendants the following questions: "Can I use e-cigarettes in the flight?" and "Have you ever seen someone using an e-cigarette during a flight?"

The Institutional Review Board at the Johns Hopkins Bloomberg School of Public Health approved all study protocols and materials. A descriptive analysis according to airport location (Europe/USA) was carried out.

Results

Retail outlets for e-cigarettes were present in approximately 20% and 40% of the pre- and post-security areas, respectively. Pre-security, 50% of the airport staff reported that using e-cigarettes was not allowed, 37.5% reported they did not know and 12.5% reported it was only allowed in the smoking room. Post-security, 27.8% of the airport staff reported it was not allowed to use e-cigarettes indoors, 22.2% reported they did not know, 27.8% reported it was only allowed in the smoking room, and 22.2% reported it was allowed anywhere (Table 1).

Smoking ban announcements were made on all flights. However, only 15.8% of the flights made a specific announcement regarding the ban of using e-cigarettes. There were no in-flight announcements or advertisements of e-cigarettes in airlines magazines. All the flight attendants said that using e-cigarettes was banned during the flight, but 26.3% reported having ever seen someone using e-cigarettes in-flight (Table 1).

Discussion

The results of the study show that points of sale of e-cigarettes are more common in the post-security area (40%) than in the pre-security area (20%). We also found substantial heterogeneity regarding where e-cigarettes are allowed among the different airports studied. Furthermore, a high percentage of airport staff did not seem to know the e-cigarette policy of the airport where they were working. There were announcements of in-flight smoking policies in all flights studied. However, the spe-

cific e-cigarette policy was announced only in 15% of the flights. All the flight assistants reported that the use of e-cigarettes was not allowed, although 1 out of 4 flight attendants reported having ever seen at least one passenger trying to use one.

Marketing for e-cigarettes often describes them as emitting only “harmless water vapor.” (Grana & Ling, 2014c). This message is frequently coupled with claims that they can be used anytime and anywhere (Grana, Ling, Benowitz & Glantz, 2014b). In this sense, a study carried out in 2011 showed that 88% of e-cigarette websites claimed that e-cigarettes could be smoked anywhere, including smoke-free

environments (e.g., bars and airplanes) (Grana & Ling, 2014c). This type of marketing combined with the fact that, according to our data, specific e-cigarette policy on board is infrequently announced, could result in a misunderstanding by e-cigarette users, who may believe that e-cigarette use is allowed during a flight. This fact could explain why one fourth of flight attendants had seen at least one passenger trying to use e-cigarettes in-flight. In a previous study (Stillman, Soong, Zheng & Navas-Acien, 2015a), this percentage was even higher, with almost 50% of flight attendants reporting ever seeing e-cigarette use on a flight or an airport.

Table 1. *E-cigarette policy, use, sales and advertisement in European and US airports and flights, 2014.*

	Europe (N = 11) ^a	USA (N = 10) ^a	Total (N = 21) ^a
	% (n)	% (n)	% (n)
AIRPORTS			
Pre-security area			
E-cigarette points of sale	36.4 (4)	0.0 (0)	21.1 (4)
E-cigarette promotions or advertisements	0.0 (0)	0.0 (0)	0.0 (0)
Answers to the question “where can I use e-cigarettes in the pre-security area?” ^b			
Not allowed indoors	36.4 (4)	80.0 (4)	50.0 (8)
In a smoking room	18.2 (2)	0.0 (0)	12.5 (2)
Anywhere	0.0 (0)	0.0 (0)	0.0 (0)
Do not know	45.4 (5)	20.0 (1)	37.5 (6)
Post-security area			
E-cigarette points of sale	36.4 (4)	44.0 (4)	38.1 (8)
E-cigarette promotions or advertisements	10.0 (1)	11.1 (1)	10.5 (2)
Answers to the question “where can I use e-cigarettes in the post-security area?” ^b			
Not allowed indoors	10.0 (1)	50.0 (4)	27.8 (5)
In a smoking room	30.0 (3)	25.0 (2)	27.8 (5)
Anywhere	30.0 (3)	12.5 (1)	22.2 (4)
Do not know	30.0 (3)	12.5 (1)	22.2 (4)
FLIGHTS			
Announcement of in-flight smoking policy	100.0 (11)	100.0 (8)	100.0 (19)
Announcement of in-flight e-cigarette policy	9.1 (1)	25.0 (2)	15.8 (3)
Announcement of tobacco products	100.0 (11)	100.0 (8)	100.0 (19)
Announcement of e-cigarette sales/e-cigarette advertisement in airline magazine	0.0 (0)	0.0 (0)	0.0 (0)
Tobacco products/e-cigarettes visible in duty free cart	0.0 (0)	0.0 (0)	0.0 (0)
E-cigarettes can be used in-flight ^c	0.0 (0)	0.0 (0)	0.0 (0)
The flight attendant has ever seen passengers using an e-cigarette in-flight ^c	27.3 (3)	25.0 (2)	26.3 (5)

Note. ^a Missing values were excluded from the analysis in each variable; ^b Reported by the airport staff; ^c Reported by the flight attendant.

In Europe, The Tobacco Products Directive (2014/40/EU) entered into force on 19 May 2014 and became applicable in EU countries on 20 May 2016. Among other measures, the directive bans promotional and misleading elements on tobacco products, e-cigarettes and herbal products for smoking and sets out safety, quality and notification requirements for electronic cigarettes (Tobacco Products Directive, 2014). In 2012, the International Air Transport Association (IATA) recommended prohibiting the use of e-cigarettes on board aircraft. Later, in May 2015, IATA extended the recommendation to encourage airlines to widely communicate their e-cigarette policy to passengers (IATA, 2016). In October 2015, the US Department of Transportation prohibited passengers from carrying e-cigarettes in checked baggages and charging these devices on board for safety reasons (Federal Register, 2015). In March 2016, a rule banning the use of e-cigarettes on board of all flights of US was announced. Policies about the use of e-cigarettes in airports vary across countries. In 2014, according to a report of the American nonsmokers' rights foundation, 23 of the 35 busiest US airports (6 out of 10 of the US airports evaluated in our study) included e-cigarettes in smoking policies. It is important to notice that in Europe, more than 30% of the time we asked staff about e-cigarettes, they did not know if using e-cigarettes was allowed or not. These data show that policies are not clear regarding the use of e-cigarettes in airports, and there is an important lack of knowledge among the staff that is in charge of informing the passengers as well as enforcing the airport policies.

One of the potential limitations of the study is the convenience sampling approach used. Although the study gathers information about airports in Europe and the US, the situation could be very different in other areas of the world, where tobacco control policies are less developed than in Europe or the US. Among the strengths, it is important to consider that this is the first study that provides evidence of policies, advertising, sales and use of e-cigarettes on flights and airports. Furthermore, all the variables were systematically collected by trained researchers, minimizing a potential instrumental bias regarding the data collected. In addition, the study gathered information from more than 20 airports in Europe and the US.

In light of our results, it seems necessary to reinforce in-flight e-cigarette smoking ban announcements and to instruct the airport employees about the existence of e-cigarette smoking policies. Furthermore, airports themselves should also be encouraged to adopt policies to protect all persons who work or use their facilities (Grana et al., 2014a; Stillman et al., 2015b). Banning the use of e-cigarettes in airports and flights will help to ensure the compliance with smoke-free laws and reduce the exposure to aerosols among passengers, crewmembers and airport employees.

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Conflict of interests

None declared.

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