

Mists, vapors and other illusory volatilities of electronic cigarettes

Névoas, vapores e outras volatilidades ilusórias dos cigarros eletrônicos

Nieblas, vapores y otras volatilidades ilusorias de los cigarrillos electrónicos

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Abstract

In this article, we analyze the discourse of electronic cigarette suppliers directed at convincing potential users (smokers, former smokers or never smokers) to acquire and use the new product. This is a qualitative, descriptive and exploratory study on sellers' discourse found in eight on-line sales websites which, between 2011 and 2013, had the highest search frequencies. The websites were identified through Google Trends based on the number of accesses and search frequencies related to electronic cigarettes. Our methodological reference was dialectical-hermeneutics. We categorized the empirical material within the "understanding/interpretation" scheme within four broad meanings: appropriation of the anti-smoking discourse; comparison between conventional and electronic cigarettes; appeal to the trustworthiness of science and projection of e-cigarettes' image. The analysis of these meanings configured the argumentative elements of the marketing discourse used by electronic cigarette makers and suppliers.

Nicotine Dependence; Social Marketing; Electronic Cigarettes; Qualitative Research

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Introduction

The marked advancements in electronics technology in the past decades have produced artifacts that are highly seductive to consumers. This seduction is that much greater the more the industry is capable to track consumer needs and translate them into accessible products that are sufficiently versatile to meet different groups' demands. Electronic cigarettes, or e-cigs, as they are also known, are one of many such technological artifacts currently available for purchase in commercial establishments or through the Internet.

Electronic cigarettes were designed as a therapeutic innovation and have been presented in the market as an aid to smokers who are attempting to quit using tobacco products, whose nefarious health consequences have been exhaustively demonstrated by science. However, over the course of their dissemination, electronic cigarettes also came to be viewed by consumers as an alternative for those who wish to continue smoking.

The commercial strategy projected e-cigs as the main product in this market, accompanied by a series of accessories, such as batteries, atomizers and cartomizers, all in varying potencies, colors and shapes, car adapters and stylized cigarette holders, in addition to e-liquids with different flavors which allow for customization according to consumers' needs and desires.

After the initial patent was filed by their creator, the Chinese pharmacist Hon Lik ^{1,2}, dozens of brands appeared in China, with a few modifications. Though several have since disappeared or changed their commercial names, new companies constantly enter the market. The market only entered a phase of greater stability after big tobacco companies bought the brands with the highest acceptance. Currently, hundreds of artisanal factories in China produce the devices' electronic base and export them to the entire world, especially to Europe and North America, where they receive brand packaging.

The tobacco industry has significantly bet on this new segment. In 2012, Lorillard Tobacco Company ³ acquired Blu (Fontem US, Inc., Charlotte, USA) electronic cigarettes for USD 135 million. In 2013, Imperial Tobacco Inc. bought the patent for e-cigs for EUR 75 million. Since then, the market has expanded exponentially due to these companies' distribution chains and due to aggressive marketing campaigns ^{3,4}. In order to test the market, RJ Reynolds (RJ Reynolds Vapor, Winston-Salem, USA) launched its e-cig VUSE in 2013. Its results exceeded expectations. A few months later, the VUSE brand established a 55.6% market quota in Colorado, leaving Blu with 25.6% and NJOY (Scottsdale, USA) with 7.3%, which led the company to announce its distribution in the entire country in 2014 ⁴. Despite having its own brand, NuMark, the Altria Group (Richmond, USA) decided to buy a popular e-cigs brand, Green Smoke, for USD 110 million ^{5,6}. Green Smoke mainly acted through online sales of rechargeable and disposable electronic cigarettes. It was scarcely present in stores, but this changed once it had access to Altria's distribution chains ⁴. Big Tobacco controls more than half of the sector with the brands Blu, VUSE and Green Smoke. The Lorillard Tobacco Company (Greensboro, USA) also announced it was acquiring SKYCIG, a sales champion in the United Kingdom, demarcating its space in the British market ⁴.

These facts indicate a strategic change in the tobacco industry's position. It had closely monitored the business's evolution over the past ten years and now seem to realize that this new industry is easier and more profitable and may, in the future, guarantee its profit margins.

Little is known regarding electronic cigarettes' impact on health. There are case-control studies under way, but more consistent results will only be available over the next decades, after we overcome current difficulties related to the profusion of e-cigs models currently available in the market and the lack of knowledge regarding their composition. These obstacles may restrict the generalizability of study results.

However, e-cigs makers have seized upon the lack of scientific knowledge on the product's action, safety and efficacy and mobilized to position e-cigs as a saving antithesis, a beneficial counterpart to conventional cigarettes, which are widely known to be harmful.

Market positioning refers to the image products obtain in consumers' minds as a result of three elements: the type of offer by the supplier; the target audience and the competition ⁷. Positioning encompasses a set of activities which seek to induce the target audience to identify an offer in relation to others, in addition to emphasizing its greater value in comparison to values offered by the competition ^{8,9}.

In Brazil, in 2009, the Brazilian Health Regulatory Agency (Anvisa, in Portuguese) ¹⁰ ruled against the commercialization of e-cigs, due to the lack of scientific evidence regarding their efficacy and safety. However, consumers have bought them through the Internet, in the illegal market and in other countries where sales of e-cigs are legal.

This study seeks to describe and analyze the discourse used by on-line e-cigs sellers in order to convince potential consumers (smokers, former smokers or never smokers) to acquire and use the product.

Methods

This was an Internet-based research. We used Google Trends (<https://www.google.com/trends/explore>) and the search terms “electronic cigarettes” and “buy electronic cigarettes” to identify on-line electronic cigarettes stores from 2011 to 2013. These websites formed the discursive corpus for our interpretive analysis. Using Google Trends was important because it shows search volume and patterns (search terms) of Internet users in Google Brazil over time. We followed the following steps: (1) we carried out an initial search with the term “electronic cigarette”, identifying the most commonly used search terms connected to the initial term – “electronic cigarette” – through the option “related searches”; (2) based on the “related searches” option, we identified the term “buy electronic cigarette” as the most commonly used search term in the research period; (3) based on the “buy electronic cigarette” term, we identified 52 electronic cigarette sales websites on Google Brazil; (4) we selected the websites for analysis through a convenience sample among the 52 identified websites. The inclusion criteria were: Brazilian sales websites with technical information and additional use recommendations regarding the products. The exclusion criteria were: foreign Portuguese-language websites, websites with no technical information or additional use recommendations regarding the products and mirror websites, that is, duplicates and/or copies of other sites already identified in the search; (5) we obtained a list of 8 sales websites, namely: *Vapor On-line* (<http://www.vaporonline.com.br>); *Meu Vapor* (<http://meuvapor.com>); *Saúde e Vapor* (<https://ecigs.lojaintegrada.com.br>); *Cigarro Eletrônico* (<http://cigarroeletronicocomprar.com>); *Vapor Elétrico* (<http://vaporeletrico.simplesite.com.br>); *Farmácia Brasil* (<https://www.farmaciabrazil.com.br>); *Qismoke* (<https://qismoke.wordpress.com>); *EcigFacil* (<https://www.ecigfacil.com>). The information available on these websites regarding product definition, product function, product benefits, use in closed environments, risks of nicotine use and product safety were then stored and constituted the *corpus* for the analysis.

We carried out an analysis of this empirical material within the “understanding/interpretation” perspective, which presupposes hermeneutic (extraction of empirical categories and attributed senses) and dialectic (confronting empirical categories and theoretical categories, text and context and discourse and social practice) exercises. The methodological conjugation between hermeneutic and dialectics enabled us to carry out an analysis that was at once understanding and critical ¹¹ of the marketing positioning ^{8,9} discourse, intended by electronic cigarette sellers in the social context of health and the tobacco market. The analysis is based on the National Tobacco Control Policy (PNCT, in Portuguese), expressed in the World Health Organization Framework Convention on Tobacco Control (WHO-FCTC) ¹², specifically the aspects which deal with regulating advertisements for tobacco products (Article 13) ^{1,2,12,13}. In summary, we chose Dialectic Hermeneutics as our methodological reference and the PNCT as our theoretical reference.

Results

We identified four broad empirical categories, namely: appropriation of the anti-smoking discourse; comparison between conventional and electronic cigarettes; appeal to the trustworthiness of science and projection of e-cigs’ image. Within each, discursive excerpts were regrouped within empirical subcategories, based on convergences of meaning.

The empirical category *appropriation of anti-smoking discourse*, which contains two subcategories, consists of excerpts which strategically appropriate the anti-smoking discourse for electronic cigarettes’ marketing positioning (Table 1).

Table 1

Empirical category *appropriation of the anti-smoking discourse* and respective excerpts and empirical subcategories.

| Excerpts from the websites | Empirical subcategories |
|--|---|
| <p>"What you get if you don't smoke for.... 2 hours: nicotine is no longer circulating in your blood" (https://qismoke.wordpress.com). "Electronic Cigarettes only have Nicotine (in the Nicotine versions), just like pharmaceutical products used to quit smoking" (http://www.vaporonline.com.br/sobre-o-produto).</p> <p>"Electronic cigarettes are an excellent, tobacco-free alternative for smoking" (http://farmaciabrasil.com/anti-tabagismo/cigarro-eletronico).</p> | Emphasis on the benefits of not smoking |
| <p>"Cigarettes may cause up to 50 different diseases, especially problems related to the heart and circulation, several types of cancer and respiratory diseases" (https://qismoke.wordpress.com).</p> <p>"The main health risks related to smoking are cardiovascular diseases, myocardial infarction (heart attack), respiratory diseases, like chronic obstructive pulmonary disease (COPD) and emphysema, and cancer, especially lung, throat and mouth cancer" (http://www.vaporonline.com.br/sobre-o-produto).</p> <p>"[Smoking] causes diseases related to tobacco cigarettes, such as: pneumonia, cancer (lung, bladder, laryngeal, pharyngeal, mouth, stomach), myocardial infarction, chronic bronchitis, pulmonary emphysema, stroke, thrombosis, stomach ulcers, impotence" (http://ecigs.lojaintegrada.com.br).</p> | Emphasis on the harms of smoking |

Source: e-cig sales websites selected for analysis.

The empirical category *comparison between conventional and electronic cigarettes*, which contains ten subcategories, consists of excerpts which strategically compare advantages and disadvantages of conventional and electronic cigarettes for the latter's marketing positioning (Table 2).

The empirical category *appeal to the trustworthiness of science*, which contains two subcategories, consists of excerpts which strategically appeal to the social belief in the trustworthiness of science for electronic cigarettes' marketing positioning (Table 3).

The empirical category *projection of e-cigs' image*, which contains two subcategories, consists of excerpts which strategically seek to consolidate a commercial image of electronic cigarettes for their marketing positioning (Table 4).

Discussion

A more attentive observation of e-cigs sales websites allows us to identify how sellers seek to stimulate electronic cigarette use^{1,2,14}. Structured around apparently acceptable, socially justifiable arguments, the marketing positioning's discursive strategy largely obeys a sequence of four argumentative blocks: the first block points out and highlights the harms of smoking and the benefits of not smoking; the second block compares conventional and electronic cigarettes, emphasizing the latter's supposed advantages over the former; the third block concentrates exclusively on electronic cigarettes as a technological application, appealing to the social belief in the trustworthiness of science as an argument; lastly, the fourth block is dedicated to consolidating a supposedly positive image of electronic cigarettes as a commercial product.

Marketing positioning through substitution of the original object of the anti-smoking discourse with another for which there is no established objective discourse

In the first argumentative block, the appropriation of the anti-smoking discourse by e-cig sellers is made evident by a discursive set which is strategically transgressive insofar as it appropriates a historically established and scientifically consolidated discourse and subtly substitutes its original object (conventional tobacco products) with an object for which there is no historically and scientifically constituted objective discourse.

Table 2

Empirical category comparison between conventional and electronic cigarettes and respective excerpts and empirical subcategories.

| Excerpts from the websites | Empirical subcategories |
|--|--|
| <p><i>"In a normal cigarette, there are over 400 harmful toxins, something you won't find in an electronic cigarette"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the health-disease relationship</p> |
| <p><i>"A substitute for (analogical) cigarettes, making it possible to satisfy the desire for nicotine in a healthier, safer way that is as similar as possible to the act of smoking a cigarette"</i> (http://www.vaporonline.com.br/sobre-o-produto).</p> | <p>Emphasis on the health-disease relationship</p> |
| <p><i>"Electronic Cigarettes only contain Nicotine (in the Nicotine versions), just like pharmaceutical products used to quit smoking. The remaining ingredients e-cigarettes' liquid solutions are totally harmless. The ingredient with the highest percentage is Propylenglycol, which is responsible for creating the fog that simulates smoking a conventional cigarette and for transporting nicotine (if there is any) to the lungs"</i> (http://www.meuvapor.com/p/sobre-os-cigarros-eletronicos.html).</p> | <p>Emphasis on the health-disease relationship</p> |
| <p><i>"With an electronic cigarette, after smoking for a certain amount of time, you can store it to smoke again later. And with this you will naturally smoke less than with a normal cigarette"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the quantity-time relationship</p> |
| <p><i>"Electronic cigarettes are much cheaper than normal cigarettes. A 20ml cartridge of liquid for OVALE electronic cigarette is equivalent to 16 packs of tobacco"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the quantity-time relationship</p> |
| <p><i>"By stopping to smoke traditional cigarettes and choosing electronic cigarettes your insurance rates will be cheaper because [you] will no longer be consider a tobacco smoker"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the cost-benefit relationship</p> |
| <p><i>"According to the expert the study shows that electronic cigarettes have the potential to increase the percentages of people who quit smoking and to reduce costs overall. This includes former smokers, health care services, since electronic cigarettes are cheaper than conventional cigarettes"</i> (http://vaporeletrico.simplesite.com.br).</p> | <p>Emphasis on the cost-benefit relationship</p> |
| <p><i>"Have a healthy experience without the toxins, tar and other poisons that traditional cigarettes contain. Your body will notice the relief in cutting all of those poisons"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the cost-benefit relationship</p> |
| <p><i>"With Electronic Cigarettes you not only save on health, but also with the monthly payments that all smokers have with conventional cigarettes"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the cost-benefit relationship</p> |
| <p><i>"No more worrying about bothering people around you when you smoke. Electronic cigarettes emits something that looks like smoke, but in reality is just water vapor that disappears after a few seconds, without releasing any carbon monoxide and other harmful toxins"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the active smoker-passive smoker relationship</p> |
| <p><i>"What looks like smoke is only water vapor. While you smoke electronic cigarettes, you won't release the pollutants that are usually released when you smoke a traditional cigarette"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the active smoker-passive smoker relationship</p> |
| <p><i>"It is not harmful to the people around you – there is no passive smoker"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the active smoker-passive smoker relationship</p> |
| <p><i>"We present the 'green' alternative to traditional cigarettes"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the smoker-environment relationship</p> |
| <p><i>"Electronic cigarettes enable you to smoke anywhere without harming the environment"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the smoker-environment relationship</p> |
| <p><i>"Forget smelly clothes and hair. When you use an electronic cigarette, you're only exhaling water vapor without any unpleasant smells"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the smoker-social image relationship</p> |
| <p><i>"By using an electronic cigarette, no longer will people say that you have bad breath or that your clothes smell of tobacco. People will never notice you have a habit"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the smoker-social image relationship</p> |
| <p><i>"Some e-liquids have strong aromatic additives, which can create a delicate perfume floating in the mist. It is generally not perceived by people around a vaper as uncomfortable, but rather as something curious"</i> (http://www.meuvapor.com/p/sobre-os-cigarros-eletronicos.html).</p> | <p>Emphasis on the smoker-social image relationship</p> |
| <p><i>"Electronic cigarettes enable you to smoke anywhere, even places where smoking traditional cigarettes is forbidden. You will be able to enjoy electronic cigarettes at work, at restaurants, cafés, airports, without having to take a 'smoke break'..."</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the smoker-collectivity relationship</p> |
| <p><i>"No more worrying about bothering people around you when you smoke"</i> (https://qismoke.wordpress.com).</p> | <p>Emphasis on the smoker-collectivity relationship</p> |
| <p><i>"It isn't harmful to people around you – there is no passive smoker and it can be safely used in designated "non-smoking" areas"</i> (http://www.meuvapor.com.br/p/sobre-os-cigarros-eletronicos.html).</p> | <p>Emphasis on the smoker-collectivity relationship</p> |

(continues)

Table 2 (continued)

| Excerpts from the websites | Empirical subcategories |
|---|--|
| <p>"No more lighters! Electronic cigarettes are not flammable (...)" (https://qismoke.wordpress.com).</p> <p>"No more lighters! Electronic cigarettes are not flammable and there is no need for a lighter or matchbox to light the cigarette" (https://qismoke.wordpress.com).</p> <p>"This series of electronic cigarettes (Ego) are some of the most famous and highest-selling in the world. The reasons are many and simple: good construction material, sturdiness, long-life batteries and excellent design. Fluids are all nicotine-free, except. All liquids have a balanced combination for getting a good amount of vapor and flavor" (http://www.cigarroeletronicocomprar.com).</p> | Emphasis on the technology-practicality relationship |
| <p>"It isn't flammable, which eliminates the more than 4000 chemical substances. It also eliminates the risk of fires" (http://vaporonline.com.br).</p> <p>"E-cigs produce a nearly sterile vapor. Their "smoke" have practically no harmful particles. Even an FDA study on the presence of nitrosamines has been considered erroneous" (http://www.ecigfacil.com.br).</p> <p>"They are chemically controlled and used lithium-ion batteries, generate mist by heating a specifically-designed liquid (e-liquids), with or without nicotine" (http://www.meuvapor.com/p/sobre-os-cigarros-eletronicos.html).</p> | Emphasis on the exposure-safety relationship |
| <p>"It enables you to get the same feeling of relaxation as a conventional cigarette" (https://qismoke.wordpress.com).</p> <p>"Electronic cigarettes are a true innovation! They feel and taste like conventional cigarettes" (https://qismoke.wordpress.com).</p> <p>"Electronic cigarettes were designed for smokers as a substitute to (analogical) cigarettes. They enable you to satisfy the desire for nicotine in a healthier and safer manner that is as close as possible to the act of smoking a cigarette" (http://www.meuvapor.com/p/sobre-os-cigarros-eletronicos.html).</p> | Emphasis on the consumption-satiety relationship |

Source: e-cig sales websites selected for analysis.

The subverted use of the anti-smoking discourse in order to stimulate the adoption of e-cigs instead of conventional tobacco products basically conjugates the emphasis on the benefits of not smoking with the emphasis on the harms of smoking, as can be viewed in the slogans below: "Electronic cigarettes are an excellent, tobacco-free alternative for smoking" (*Farmácia Brasil*).

"Cigarettes may cause up to 50 different diseases, especially problems related to the heart and circulation, several types of cancer and respiratory diseases" (*Qismoke*).

E-cigarettes are presented as unconnected to negative aspects associated with conventional tobacco products. This is a strategy that fallaciously appropriates both the discourse on the benefits of not using tobacco and the harms of its obstinate use, both arguments that are strongly based on the epidemiological discourse of tobacco prevention and control^{15,16}.

Marketing positioning through the pseudo-scientific discourse that presents e-cigs as a safe, practical, functional and socially adequate alternative

The second argumentative block strategically compares advantages and disadvantages of conventional and electronic cigarettes. The comparison, exhaustively presented by producers and sellers, counters conventional cigarettes' already-consolidated negative image with the supposed innovation of e-cigs, presented as a definitive, problem-solving alternative for smokers' and bystanders' health, in addition to having the potential to win over new, eager consumers who desire novelty, flavors and style.

The historic battle between the network of tobacco industry stakeholders and the network led by the WHO, the fact that e-cigs were invented by a pharmacist and patented by the pharmaceutical industry^{1,2}, in addition to a mixture of research and marketing surrounding them, suggest that the actors involved are, on the one hand, the pharmaceutical industry, which wants to commercialize e-cigs as a smoking cessation aid, and, on the other, e-cigarette manufacturers who wish to see the product being sold everywhere as harmless to humans. The truth is that most of the arguments presented in favor of e-cigs in this block are unlikely, amassed as convenient, according to marketing

Table 3

Empirical category *appeal to the trustworthiness of science* and respective excerpts and empirical subcategories.

| Excerpts from the websites | Empirical subcategories |
|---|--|
| <p><i>"After analyzing more than 9000 observations on the chemical makeup of Electronic Cigarette liquid's vapor, Dr. Burstyn concluded that the levels of contamination to which Electronic Cigarette users are exposed are insignificant, far below levels that pose any health risk"</i> (http://vaporeletrico.simplesite.com.br).</p> <p><i>"The amount of nicotine effectively inhaled through electronic cigarettes is much smaller than that inhaled through classic cigarettes according to a study by an important American laboratory"</i> (http://farmaciabrasil.com/anti-tabagismo/cigarro-eletronico).</p> <p><i>"Recently a new study on the makeup of the vapor emitted by Electronic Cigarettes was conducted by professor Igor Burstyn of the School of Public Health of the Department of Environmental and Occupational Health, Drexel University, in the United States"</i> (http://vaporeletrico.simplesite.com.br).</p> <p><i>"The aforementioned 2008 study by Dr. Murray Laugesen had already concluded that traces of TSNAs found in electronic cigarettes are nowhere near carcinogenic levels and that the same amounts of TSNAs are found in nicotine replacement treatments already approved by the US Food Drugs and Administration, such as nicotine chewing gum"</i> (https://qismoke.wordpress.com).</p> | Pseudo-scientific discourse |
| <p><i>"By using an electronic cigarette, the only thing you'll inhale is water vapor with a little nicotine until you no longer need nicotine, and then you can choose the ZERO nicotine level"</i> (http://farmacia-brasil.com/anti-tabagismo/cigarro-eletronico).</p> <p><i>"In most e-liquids, the main component in propylenglycol, followed by glycerin, water, nicotine and flavor and aroma additives. E-liquids therefore have no tar, carbon monoxide or any of the other substances commonly found in tobacco products"</i> (https://qismoke.wordpress.com).</p> <p><i>"In fact, it's not smoke, but rather a mist resulting from heating the e-liquid, including its components. The mist is often incorrectly called smoke or vapor. Electronic cigarettes' mist has no harmful products"</i> (http://www.meuvapor.com/p/sobre-os-cigarros-eletronicos.html).</p> | Technological application and pseudo-science |

TSNAs: tobacco-specific nitrosamines.

Source: e-cig sales websites selected for analysis.

and commercialization interests, resulting in a fallacious discourse that only appears valid, true and justifiable.

In order to attribute argumentative consistency to the marketing positioning discourse, e-cig producers and sellers emphasize different aspects and dimensions of consumers' relationship to the product. When they project e-cigs as safe, healthy products, emphasizing the health-disease relationship, this discourse takes on a fallacious sense of health prevention: *"A substitute for (analogical) cigarettes, making it possible to satisfy the desire for nicotine in a healthier, safer way that is as similar as possible to the act of smoking a cigarette"* (Vapor On-line).

In the same way, by projecting e-cigs as artifacts that are adaptable to users' vaping habits and emphasizing the amount-time relationship, this discourse presents a fallacious sense of reduction of both consumption and of the time dedicated to "vaping":

"With an electronic cigarette, after smoking for a certain amount of time, you can store it to smoke again later. And with this you will naturally smoke less than with a normal cigarette" (Qismoke).

At the same time, it also emphasizes the economic cost-benefit relationship and financial advantages of e-cigs:

"According to the expert the study shows that electronic cigarettes have the potential to increase the percentages of people who quit smoking and to reduce costs overall. This includes former smokers, health care services, since electronic cigarettes are cheaper than conventional cigarettes" (Vapor Elétrico).

By emphasizing the active smoker-passive smoker relationship and projecting the idea of non-harming those in proximity to the smoker, the fallacious sense intended is the pacification of the intolerance between smokers and non-smokers: *"No more worrying about bothering people around you when*

Table 4

Empirical category projection of e-cigs' image and respective excerpts and empirical subcategories.

| Excerpts from the websites | Empirical subcategories |
|---|------------------------------------|
| <p>"The electronic cigarette of Hollywood stars. The new revolution in the smoking markets" (http://qismoke.com.br).</p> <p>"Electronic cigarettes, also called e-cigarettes or e-cigs, are a mechanical-electronic devices developed with the purpose of simulating cigarettes and the act of smoking" (https://qismoke.wordpress.com).</p> <p>"Electronic cigarettes go beyond providing an alternative to those who smoke conventional cigarettes, since devices such as cigars, cigarillos, pipes, among others, already exist" (https://qismoke.wordpress.com).</p> <p>"Electronic cigarettes are a true innovation! They feel and taste like conventional cigarettes" (https://qismoke.wordpress.com).</p> | Innovative technological artifacts |
| <p>"You will see how people are quitting smoking with Qismoke" (https://qismoke.wordpress.com).</p> <p>"Electronic cigarettes mimic the habit of smoking, which for many smokers is one of the obstacles to succeeding in quitting smoking tobacco" (https://qismoke.wordpress.com).</p> <p>"Quit smoking with an Effective Method (effective method for quitting smoking)" (http://vaporeletrico.simplesite.com.br).</p> <p>"As to electronic [cigarettes], despite the fact that their health impacts are not totally known to science, several studies have shown that this device has enormous advantages when compared with tobacco cigarettes, precisely because, since it has no tobacco or combustion, containing only nicotine, it has a series of benefits" (http://www.saudevapor.com).</p> <p>"Electronic cigarettes were designed for smokers as a substitute to (analogical) cigarettes. They enable you to satisfy the desire for nicotine in a healthier and safer manner that is as close as possible to the act of smoking a cigarette" (http://www.vaporonline.com.br/sobre-o-produto).</p> | |

Source: e-cig sales websites selected for analysis.

you smoke. Electronic cigarettes emits something that looks like smoke, but in reality is just water vapor that disappears after a few seconds, without releasing any carbon monoxide and other harmful toxins" (Qismoke).

The same occurs with the emphasis on the smoker-environment relationship through a fallacious pacification of the contradictions between individual interests and environmental conscience. In this case, the discourse claims that smokers' responsibility to the quality of the environment is satisfied due to the assumption that e-cigarettes are not pollutants: "We present the 'green' alternative to traditional cigarettes" (Qismoke).

Conventional cigarettes began to lose the glamor once projected through Hollywood myths after they came to be associated with their observable health effects. In emphasizing the smoker-social image relationship, this discourse attempts to regain the lost glamor, incorporating technological seduction into its strategy: "Some e-liquids have strong aromatic additives, which can create a delicate perfume floating in the mist. It is generally not perceived by people around a vaper as uncomfortable, but rather as something curious" (Meu Vapor).

Chemical dependence, understood as an individual need, is pitted against collective interests, since non-smokers are significantly more numerous than smokers. By emphasizing the smoker-collectivity relationship, the marketing positioning presents a fallacious definitive pacification of the difficult confrontation between individual and collective interests and rights: "It isn't harmful to people around you – there is no passive smoker and it can be safely used in designated "non-smoking" areas" (Meu Vapor).

Given the value attributed to the practicality of technological artifacts, this marketing positioning also emphasizes the technology-practicality relationship as one of the product's features, which presents a fallacious sense of technological innovation and practicality: "This series of electronic cigarettes (Ego) are some of the most famous and highest-selling in the world. The reasons are many and simple: good construction material, sturdiness, long-life batteries and excellent design. Fluids are all nicotine-free, except when stated otherwise. All liquids have a balanced combination for getting a good amount of vapor and flavor" (Cigarro Eletrônico).

Along with e-cigs' practicality, this discourse argues from the standpoint of users' health and physical integrity, emphasizing the exposure-safety relationship and fallaciously claiming e-cigarettes eliminate risks: "E-cigs produce a nearly sterile vapor. Their "smoke" have practically no harmful particles.

Even an Dood and Drug Administration study on the presence of nitrosamines has been considered erroneous” (EcigFácil).

In this discursive block, we may further highlight a final aspect which is, perhaps, of greatest interest to consumers, which is satiety when compared with the satisfaction of smoking conventional cigarettes. E-cigarettes’ marketing positioning strategy emphasizes the consumption-satiety relationship as rewarding, fallaciously claiming an equivalent pleasure and satisfaction as what is attributed to conventional cigarettes: *“It enables you to get the same feeling of relaxation as a conventional cigarette” (Qismoke).*

In this context, Anvisa may be pressured to authorize e-cigarettes’ commercialization in Brazil, as was the case in Great Britain, where campaigns and pro-electronic cigarette studies have suggested they benefit health and help smoking cessation^{17,18}. This was suggested in an article in the *O Dia* newspaper, on 20/Aug/2015: *“Ignoring Anvisa’s omission regarding electronic cigarettes, an informal import and sales market of vaporizers and accessories has spread over the Internet (...) The large offer suggests a lucrative business. If it fails to prevent buyers from accessing electronic cigarettes, the lack of regulation has two obvious consequences: one the one hand, it does not generate taxes which could fund treatment of smoking-related diseases; on the other, it does not allow doctors to openly recommend the device as an alternative to those who wish to quit smoking”*¹⁹.

If electronic cigarettes are allowed to be commercialized as a product not classified as toxic and harmful, they could be sold anywhere. However, if their nicotine is proved to be obtained from tobacco, they will be subjected to current legislation which restricts advertising, use in closed public spaces and sales to minors, in addition to being heavily taxed¹⁷.

Marketing positioning through the pseudo-scientific discourse which attempts to corroborate e-cigs as a pro-health technological device

The third argumentative block is based on exploiting the social belief in the trustworthiness of science^{14,18}. From this, two complementary senses emerge: the pseudo-scientific defense of electronic cigarettes and, through this pseudo-scientific discourse, their ratification as a technological innovation.

This pseudo-scientific discourse in favor of electronic cigarettes is socially constructed within the vacuum of scientific knowledge regarding e-cigs’ safety and efficacy^{14,18}. E-cig producers and sellers’ strategy resorts to a kind of technological efficacy logic, in which the reasons of science and the virtues of technology endorse the purchase and use of e-cigarettes based on “qualities” and “scientific discourses”^{14,18,20,21}.

We must note that this marketing positioning strategy is geared towards common sense views, despite being clothed in an apparent scientificity which proclaims e-cigarettes’ supposed qualities: *“The amount of nicotine effectively inhaled through electronic cigarettes is much smaller than that inhaled through classic cigarettes according to a study by an important American laboratory” (Farmácia Brasil).*

Just as it also exalts e-cigs’ technological novelty as a pro-health application: *“By using an electronic cigarette, the only thing you’ll inhale is water vapor with a little nicotine until you no longer need nicotine, and then you can choose the ZERO nicotine level” (Farmácia Brasil).*

It is clear that the struggle against the tobacco epidemic faces new challenges, especially those dressed in new, subtle clothing, as is the case with e-cigs. E-cigs may reach all social segments even more intensely, but will likely be concentrated among those with lower income and lower educational levels, who are historically more vulnerable to the tobacco industry’s advertisements¹⁵.

Marketing positioning through the projection of a commercial image of e-cigs as an innovative, therapeutic technological application

Finally, the fourth discursive block attempts an argumentative “check-mate”. It is dedicated to consolidating the projection of e-cigs’ definitive and supposedly positive image as an innovative, therapeutic commercial product which surpasses conventional cigarettes.

E-cigs are at once presented as an innovative technological device and an artifice of their technological application, since they are projected to be the product of the most advanced science applied to

surpassing conventional cigarettes: *“The electronic cigarette of Hollywood stars. The new revolution in the smoking markets”* (Qismoke).

In other words, e-cigs are instruments for ingesting chemical substances ^{1,2,22}. However, the advertisement does not provide consistent data on any scientific research which informs of the consequences of inhaling these substances. However, the fact that it is an innovative technology does not guarantee that its application is harmless to human health. In this case, it lacks the methodological rigor and adherence to legislation required of applied science.

When they are presented as therapeutic devices, e-cigs may also be viewed as another artifice of their technological application to health, since the market positioning intends to incorporate into their image the idea of a modern, therapeutic product, when there are as of yet no significant conclusions on their supposed ability to promote smoking cessation: *“As to electronic [cigarettes], despite the fact that their health impacts are not totally known to science, several studies have shown that this device has enormous advantages when compared with tobacco cigarettes, precisely because, since it has no tobacco or combustion, containing only nicotine, it has a series of benefits”* (Saúde Vapor).

Note that, under the pretext of offering a therapeutic product, this discourse highlights a specific e-cig brand, seeking to affix the positive image to the brand. This argument is presented despite the fact that little is known regarding e-cigs' impact on smoking cessation. This impact will only be recognized through continuous monitoring and, in the long run, through study replication, so as to guarantee finding consistency ¹⁶.

An important phenomenon is that e-cig sales websites in Brazil are not permanent (at least in part because they are illegal) and are constantly disappearing or undergoing modifications to their names, presentations and addresses. Exemplifying this trend, some of the websites analyzed in this article later migrated to Facebook.

Final considerations

For over 100 years, the tobacco industry's economic survival was guaranteed by the commercialization of a non-essential product that is harmful to human life. With the worldwide organized mobilization against tobacco consumption, the industry realized its profit margins were at risk. Currently, the invention of electronic cigarettes, which did not happen by chance, provides indications that this same industry is watching the entry of possible, seductive products into the market, as an opportunity to eternalize its profits. These are products for which very little is known regarding their possible health impacts and which must be more rigorously evaluated.

In this scenario, it is suspected that a very large risk is on the horizon and threatens to undermine the global effort of the past 20 years to inform the public of the harms associated with smoking. This effort concerns not only the inherent risks of smoking itself, but also the changes in attitude in terms of making smoking in closed spaces socially unacceptable, something that may be lost with the re-introduction of new products in these environments.

The social conscience regarding the risks of smoking may be clouded by the fragrant, flavored fogs, mists and vapors of e-cigs, since the return to the (already surpassed) behavior of smoking in social environments and the reassuring belief in their harmlessness may lead an old evil to reappear. In the medium and long term, they may even reintroduce smokers of conventional tobacco products into collective closed environments. But, unfortunately, this risk cannot yet be measured, only felt.

This study sought to describe and analyze the marketing positioning discourse used by electronic cigarette sellers to convince potential users to buy and use them. This analysis reveals interconnected meanings that extrapolate the mere act of presenting and projecting a new product. In fact, it even suggests a sort of social rescue of the tobacco industry's image, which, in a subtle transgression, has substituted an object charged with a negative, harmful image (cigarettes and other tobacco products) for another, supposedly clean, modern, healthy, glamorous and acceptable product. All of this under the auspices of a pseudo-scientific, technologically seductive speech. It is not just a positive projection of e-cigs' image in the tobacco market, but, above all, an attempt to remake the tobacco industry's historically negative image.

In the case of e-cigs, this discourse corroborates that strategy by moving towards a commercial and marketing scenario which fuses itself to the conventional tobacco products market, since it presents them not so much as a means to quitting smoking, but rather as an alternative to keep/use nicotine with no risks and greater social acceptance. In this scenario, the product may come to feed and maintain a huge legion of individuals dependent on tobacco and its derivatives.

It is up to government health agencies, health workers and researchers to carry out studies, both quantitative and qualitative, which not only prove or disprove e-cigs' efficacy and safety, but also probe the meanings and cultural processes underlying the tobacco industry's new languages and commercial strategies.

Contributors

L. M. de Almeida coordinated project formulation, data production, organization and analysis, article conception and writing. R. P. Silva, A. T. C. Santos, J. D. Andrade contributed to data production, organization and analysis, article conception and writing. M. C. Suarez contributed to project formulation, data production and to writing the article.

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References

1. Knorst MM, Benedetto IG, Hoffmeister MC, Gazzana MB. The electronic cigarette: the new cigarette of the 21st century? *J Bras Pneumol* 2014; 40:564-72.
2. Cahn Z, Siegel M. Electronic cigarettes as a harm reduction strategy for tobacco control: a step forward or a repeat of past mistakes? *J Public Health Policy* 2011; 32:16-31.
3. Reynolds American Inc. RAI acquires Lorillard, 2014. <http://www.lorillard.com/> (accessed on 20/Feb/2014).
4. Vape ranks: e-cigarette reviews and rankings. Tobacco Giant Altria acquires green smoke e-cigarettes for \$110 Million. <http://vaperanks.com/tobacco-giant-altria-acquires-green-smoke-e-cigarettes-for-110-million/> (accessed on 20/Feb/2014).
5. Bond S, Robinson D. Grandes fabricantes investem no cigarro eletrônico. <http://www.abrasnet.com.br/clipping.php?area=18&clipping=37983> (accessed on 20/Feb/2014).
6. Imperial Tobacco lançará cigarros eletrônicos para conter queda nas vendas. *UOL Economia* 2013; 5 nov. <http://economia.uol.com.br/noticias/reuters/2013/11/05/imperial-tobacco-lancara-cigarros-eletronicos-para-conter-queda-nas-vendas.htm> (accessed on 20/Feb/2014).
7. Rocha A, Christensen C. *Marketing: teoria e prática no Brasil*. São Paulo: Editora Atlas; 1999.
8. Mühlbacher H, Dreher A, Gabriel-Ritter A. MIPS – managing industrial positioning strategies. *Industrial Marketing Management* 1994; 23:287-97.
9. Oliveira B, Campomar MC. Revisitando o posicionamento em marketing. *REGE Revista de Gestão* 2007; 14:41-52.
10. Agência Nacional de Vigilância Sanitária. Resolução RDC nº 46, de 28 de agosto de 2009. Proíbe a comercialização, importação e propaganda de quaisquer dispositivos eletrônicos para fumar, conhecidos como cigarro eletrônico. *Diário Oficial da União* 2009; 31 aug.

11. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 8ª Ed. São Paulo: Editora Hucitec; 2002.
12. United Nations. WHO Framework Convention on Tobacco Control. <https://treaties.un.org/doc/Publication/MTDSG/Volume%20I/Chapter%20IX/IX-4.en.pdf> (accessed on 22/Apr/2016).
13. Silva ST, Martins MC, Faria FR, Cotta RMM. Combate ao tabagismo no Brasil: a importância estratégica das ações governamentais. *Ciênc Saúde Coletiva* 2014; 19:539-52.
14. Foulds J, Veldheer S, Berg A. Electronic cigarettes (e-cigs): views of aficionados and clinical/public health perspectives. *Int J Clin Pract* 2011; 65:1037-42.
15. Wunsch Filho V, Mirra AP, Lopez RVM, Antunes LF. Tabagismo e câncer no Brasil: evidências e perspectivas. *Rev Bras Epidemiol* 2010; 13:175-87.
16. Almeida LM. So it is, if it seems... *Cad Saúde Pública* 2015; 31:226-8.
17. Tobacco Tactics. E-cigarettes: at the pharmacy – imperial at boots, BAT at Lloyds Pharmacy. <http://www.tobaccotactics.org/index.php/E-cigarettes> (accessed on 20/Feb/2014).
18. Tobacco Tactics. E-cigarettes: mixing research and marketing. http://www.tobaccotactics.org/index.php/E-cigarettes:_Mixing_Research_and_Marketing (accessed on 20/Feb/2014).
19. Mattos G. Pesquisa revela que cigarro eletrônico é 95% menos prejudicial à saúde. *O Dia* 2015; 19 aug. <http://odia.ig.com.br/noticia/mundo-ciencia/2015-08-19/pesquisa-revela-que-cigarro-eletronico-e-95-menos-prejudicial-a-saude.html> (accessed on 25/Apr/2016).
20. Bazzo WA. Ciência, Tecnologia e Sociedade e o contexto da educação tecnológica. 2ª Ed. Florianópolis: Editora UFSC; 2010.
21. Pinheiro NAM, Silveira RMC, Bazzo WA. O contexto científico-tecnológico e social acerca de uma abordagem crítico-reflexiva: perspectiva e enfoque. *Revista Iberoamericana de Educación* 2009; 49:1-14.
22. Associação Médica Brasileira; Conselho Federal de Medicina. Posição das entidades médicas sobre o cigarro eletrônico. http://www.hospitaldopulmao.com.br/site/public/upload/image/pdf/parecer_tecnico_cigarroeletronico_cfm_amb_sbpt_2014.pdf (accessed on 25/Apr/2016).

Resumo

Neste artigo, analisa-se o discurso de fornecedores de cigarros eletrônicos para convencer potenciais usuários (fumantes, ex-fumantes ou nunca fumantes de cigarros) a adquirir e usar o novo produto. É um estudo qualitativo, descritivo e exploratório acerca do discurso de vendedores em oito sites de venda on-line que, entre 2011 e 2013, tiveram maior frequência de buscas na Internet. Os sites foram identificados pela ferramenta Google Trends, com base no número de acessos e frequência de buscas ao tema cigarro eletrônico. Tendo como referencial metodológico a hermenêutica-dialética, a categorização do material empírico sob o esquema “compreensão/interpretação” apontou quatro abrangentes sentidos: apropriação do discurso antitabagista; comparação entre cigarros convencional e eletrônico; apelo à crença na fidedignidade da ciência; e projeção da imagem do cigarro eletrônico. A análise desses sentidos configurou os elementos argumentativos do discurso de posicionamento de marketing utilizado por fabricantes e fornecedores de cigarros eletrônicos.

Dependência à Nicotina; Marketing Social; Cigarros Eletrônicos; Pesquisa Qualitativa

Resumen

En este artículo, se analiza el discurso de proveedores de cigarrillos electrónicos para convencer a potenciales usuarios (fumadores, ex-fumadores o no fumadores) a adquirir y usar el nuevo producto. Es un estudio cualitativo, descriptivo y exploratorio acerca del discurso de vendedores en ocho sitios de venta on-line que, entre 2011 y 2013, tuvieron una mayor frecuencia de búsquedas en Internet. Los sitios fueron identificados por la herramienta Google Trends, en base al número de accesos y frecuencia de búsquedas sobre el asunto cigarrillo electrónico. Teniendo como referencia metodológica la hermenéutica-dialéctica, la categorización del material empírico bajo el esquema “comprensión/interpretación” apuntó a cuatro sentidos más amplios: apropiación del discurso antitabaquista; comparación entre cigarrillos convencionales y electrónicos; apelo a la creencia en las cualidades fidedignas de la ciencia; y proyección de la imagen del cigarrillo electrónico. El análisis de esos sentidos configuró los elementos argumentativos del discurso de posicionamiento de marketing, utilizado por fabricantes y proveedores de cigarrillos electrónicos.

Dependencia a la Nicotine; Mercadeo Social; Cigarrillos Electrónicos; Investigación Cualitativa

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