JHGD
Journal of Human Growth and Development

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EDITORIAL

# Electronic cigarettes: a new social practice and the challenge of tobacco control policies

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Open acess

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*Manuscript received: august 2022*
*Manuscript accepted: august 2022*
*Version of record online: august 2023*

**Abstract**

Smoking is a chronic disease and is considered a serious public health problem and has been the target of many preventive and health promotion actions over time. The most consumed tobacco product among adults and young people is the conventional cigarette, however, the consumption of smokeless tobacco or other smoked tobacco products, such as electronic cigarettes, has been increasingly observed in the world. Electronic smoking devices (ESD), which have increasingly attracted the attention of young consumers, involve different equipment and technologies. Based on the precautionary principle, since 2009, Brazil has prohibited the sale, importation and advertising of all types of DEF that offer the replacement of cigarettes, cigarillos, cigars, pipes and the like or that aim at an alternative to the treatment of smoking, through RDC n 46, of August 28, 2009. Even though it is prohibited in Brazil, the use of electronic cigarettes as an alternative is evident, revealing a new challenge to be faced by tobacco control policies. The knowledge gaps inherent to a new social practice, as well as the need to build references that contribute to better decision-making, whether in the scope of professional intervention or the management of public policies, with a view to protecting the health of the population, in itself, it already makes it relevant to expand knowledge on this topic. However, it is necessary to understand that prevention, promotion and control actions must be understood in a transversal and interdisciplinary way, so that one can reflect on the processes that involve political, socioeconomic and cultural aspects that interact directly with the health process -illness. Thus, based on the problem presented and considering the relevance of the issue in question, as a field little faced in this area, it is emphasized that the expansion of investigations and the deepening of discussions about it, will allow a better understanding and visibility of the problem.

**Keywords:** Smoking, electronic cigarette, public policies.

**Suggested citation:** Delanos FCO, Bezerra IMP. Electronic cigarettes: a new social practice and the challenge of tobacco control policies. *J Hum Growth Dev. 2023; 33(2):158-163.* DOI: 10.36311/jhgd.v33.14897

Smoking is a chronic disease, caused by dependence on nicotine, a psychoactive substance present in various tobacco-derived products and which is even part of the group of behavioral or neurodevelopmental mental disorders (ICD 11)[1]. It is a serious public health problem and has been the target of many preventive and health promotion actions over time.

According to the World Health Organization (WHO), tobacco kills more than 8 million people a year in the world, with 7 million direct users and 1.2 million passive smokers, which means that it is the largest single preventable cause of illness and early death worldwide. Added to this, it has a significant impact on impoverishment. In this sense, a relevant fact is that almost 80% of the more than 1.1 billion smokers worldwide live in low- and middle-income countries. Premature deaths of smokers have an impact on the family's socioeconomic condition, mainly because, once deprived of income, they increase the cost of health care and impede economic development[1,2] .

In addition, smoking is a risk factor for several non-communicable chronic diseases, including respiratory infections, gastrointestinal ulcers, sexual impotence, infertility in women and men, osteoporosis, cataracts, diabetes, among others. It is also related to the development of several types of cancer, being responsible for approximately 90% of deaths from lung cancer[1].

The pattern of tobacco consumption was built over centuries by market strategies. The strategies used by the media, added to the ability of nicotine to cause addiction, made these products socially accepted, desired and accessible, contributing to the expansion and perpetuation of the consumption of tobacco products, the point of being classified as a pandemic , exposing millions of consumers to more than 60 carcinogenic substances generated by burning tobacco while consuming cigarettes, cigars and the like. Such media resources tended to associate tobacco use with sports activities, cool and irreverent teenagers, modernity and beauty[3].

Contrary to this process, Brazil has been investing heavily in the control, monitoring, care and treatment of smoking. INCA, which since 1997 has been a WHO Collaborating Center for Tobacco Control and carries out population studies whose results contribute to monitoring trends in the consumption of tobacco products in Brazil and the knowledge, beliefs and attitudes of the population regarding the different measures of the National Tobacco Control Policy, points out that the country has a research and surveillance system that enables the production of national and regional estimates regarding tobacco use, "environmental exposure to its smoke, cessation, exposure to pro and anti-tobacco, knowledge and attitudes, average price and average monthly expenditure on manufactured cigarettes, among other information"[1].

Since 2001, treatment for smoking in Brazil has been offered through the Unified Health System - SUS. Added to this, over the years, investment in tobacco control policies and programs in Brazil has achieved surprising success, reaching excellent rates, with significant declines in recent decades. However, new social practices of tobacco use emerge in this context.

Evidences indicate that the most consumed tobacco product among adults and young people is the conventional cigarette, however, the consumption of smokeless tobacco or other smoked tobacco products, such as electronic cigarettes, water pipes or hookah, has been observed on an increasing basis in the world[4].

Electronic smoking devices (ESD), which have increasingly attracted the attention of young consumers, involve different equipment and technologies, but in general, they are devices powered by a lithium battery and a rechargeable cartridge or refills, which store the liquid. This device consists of an atomizer that, when heated, releases a liquid vapor similar to a conventional cigarette, vaporizing the nicotine. At the moment of drag, a sensor is activated, activating the battery (some have LED light)[5].

This topic, included in the Regulatory Agenda in Brazil, has been discussed by ANVISA. As an example , a panel organized in 2018, with the participation of different interested segments (scientists from Brazil and other countries, public servants involved with this issue and entrepreneurs in the field of tobacco products , among others. Dr. Stella Bialous , from the University of California, stated at this event that although new to the market, DEFs have existed for decades, and they were not placed on the market because he would be an admission that conventional cigarettes were harmful to health[6].

DEF 's , which are now in their fourth generation, were created in 2003 and popularized under different names: electronic cigarettes, vaper , pod , e- cigarette , e-ciggy , e- pipe , e- cigar , heat not burn (heated tobacco), among others[6, 7].

Based on the precautionary principle, since 2009, Brazil has prohibited the sale, importation and advertising of all types of DEF that offer the replacement of cigarettes, cigarillos, cigars, pipes and the like or that aim at an alternative to the treatment of smoking, through RDC n 46, of August 28, 2009. It is worth noting that the precautionary principle goes beyond the principle of prevention, since it imposes mandatory action on the part of the State and makes it clear that the measures are of a provisional nature, in the sense of stimulating research for greater security and clarification of doubts. The absence of risk is not advocated by this principle, for which the main and most important focus is public health issues, that is, in the absence of certainties, precaution is necessary to avoid further damage[8].

Even though it is banned in Brazil, data from the International Project for the Evaluation of Tobacco Control Policies (ITC-Brazil Project) reveal that 40% of Brazilian smokers identify electronic cigarettes as an alternative and 30% have already tried the product (INCA), revealing a new challenge to be faced by tobacco control policies[8].

Although a study published in 2016, carried out in partnership between PAHO, the Ministry of Health, the Cancer Institute (INCA) and ANVISA, shows the lack of scientific evidence and safety regarding the use of this product, the use of DEF's has been presented, mainly by companies interested in this market, as a data reduction strategy for those who want to stop using conventional cigarettes[7].

It is worth noting that the reduction of individual harm is acceptable when it does not generate collective harm and does not increase the use of tobacco. The few existing clinical studies point to inconclusive and uncertain results regarding the effects on the health of smokers and non-smokers. The doctor. stellsa Biolous , indicates that it is necessary to evaluate the impacts of these products on the immune system, as well as on other comorbidities. In addition, he presented studies that demonstrate that there is a transition from young users of electronic cigarettes to the use of conventional cigarettes[5].

Researcher Silvana Turci , from the Center for Studies on Tobacco and Health, at ENSP/FIOCRUZ, refutes this argument, noting that electronic cigarettes are high-risk products and cause addiction, not to mention cardio / vascular and respiratory diseases and cancer . Turci points out that the electronic cigarette, as well as any product that involves heating tobacco, generates nicotine and in some cases, in an even greater amount than the traditional cigarette. She also points out that the consumption of devices has increased worldwide and changed the profile of the cigarette user. There is a technological appeal of colors, flavors and smells, awakening the interest of the younger public[7].

You epidemiologists Neilane Bertoni and André Szklo , from INCA, in Rio de Janeiro, published a study in 2021, in the scientific journal Cadernos de Saúde Pública, which analyzed the prevalence of DEF use in the 26 Brazilian capitals and the Federal District, as well as the profile of users , using data from the 2019 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (VIGITEL). Consumption is more frequent among young people, as 80% are between 18 and 34 years old. Among this public, their study revealed that one in five young people aged 18 to 24 have used these devices in their lives, in contrast, among individuals aged 35 years or more, this proportion does not reach 3 in 100 9

The prevalence of daily use among 18- to 24-year-olds is almost ten times the prevalence among older age groups. Corroborating the harmfulness of such a practice, an alarming data from the aforementioned study, it shows that more than half of these individuals have never smoked, in addition to the fact that DEF users have shown higher alcohol abuse. These findings go against the tobacco industry's argument that the target audience for DEF's are adult smokers and that groups, in principle, less prone to the use of conventional cigarettes are starting to use DEF and warn of a possible impact negative effect on Brazil's successful experiences in combating smoking[9].

Regarding consumption among adolescents, the National School Health Survey ( PeNSE ) revealed that in 2019, 16.8% of students aged 13 to 17 had already tried electronic cigarettes, 13.6% of those aged 13 to 15 of age and 22.7% in those aged 16 and 17 years. In a comparison between the regions of Brazil, the experimentation of electronic cigarettes in the Midwest Regions was 23.7%, with the Southeast in third place in the ranking with 18.4%. As for the use of hookah, 26.9% said they had already tried it. The survey also reveals that the Federal District has the highest rate in the country, pointing out that 30.8% have already tried electronic cigarettes and the second in the use of hookah, revealing that 50.6% of young people said they had already used[4].

João Paulo Lotufo, a member of the Brazilian Society of Pediatrics, warned about what is behind the "exchange" discourse, present in the strategies of industries to win over young people, who behave with the feeling that they can stop whenever they want . The psychologist from the Brazilian Association for the Study of Alcohol and Other Drugs (ABEAD) states that the industry's investment in formats that are easily confused with other technological devices, such as pens and pendrives , makes it difficult for parents and educators to identify their use . , not to mention flavors to attract new consumers[7].

Studies have also revealed that young consumers of e-cigarettes are less likely to quit smoking, while adult smokers who use DEF have a high tendency to dual use (e-cigarettes and regular cigarettes), exposing themselves to greater health risks. Under the motto that DEF's emit a "harmless vapor", manufacturers run advertisements that claim DEF pollute the air less when compared to conventional cigarettes, however, research has found, in people passively exposed to the vapor of electronic cigarettes, cotinine , a nicotine metabolite found in passive smokers[8].

Many questions regarding DEFs still lack explanation, especially regarding the effects on the health of their users or those who are exposed to the vapor. There is a need to move forward on the issue of regulation in production, in order to standardize its composition and formulation, to avoid the many variations, which make studies and research difficult[6-8].

Expanding scientific knowledge about the use of DEFs , consumption patterns, as well as consumers' sociocultural contexts is essential to understand and explore the impacts of the use of such devices, as well as to correlate them with the use of conventional cigarettes. This corroborates with Cavalcante[3] regarding the fact that the object of study is still loaded with complexities, as it is a very recent phenomenon, still in the process of scientific elaboration, lacking several answers and crossed by uncertainties and scientific inconclusions, still unknown in many aspects and surrounded by controversy.

The knowledge gaps inherent to a new social practice, as well as the need to build references that contribute to better decision-making, whether in the scope of professional intervention or the management of public policies, with a view to protecting the health of the population, for itself already makes the expansion of knowledge about this theme relevant.

However, based on the understanding that prevention, promotion and control actions must be understood in a transversal and interdisciplinary way, so that one can reflect on the processes that involve political, socioeconomic and cultural aspects that interact directly with the health-care process. illness. Thus, based on the problem presented and considering the relevance of the issue in question, as a field little faced in this area, it is emphasized that the expansion of investigations and the deepening of discussions about it, will allow a better understanding and visibility of the problem.

In this context, the Journal of Human Growth and Development is an important instrument for scientific dissemination that has been discussing topics relevant to public health, in addition to being one of the main vehicles for expanding themes as important as the one exposed.

For more than 30 years, the Journal has given visibility to discussions about smoking and its impacts on the population's health[10-24], and in this edition various themes -have been presented from an interdisciplinary perspective in the field of public health and begins with a reflection on the use of electronic cigarettes as a device, which, although still without scientific evidence, already presents concern for the health-disease process and, which, in turn, requires studies that bring discussions about the use and its harms, as well as the political, socioeconomic and social aspects. cultures related to the problem in question. This scenario promotes a need for (re)orientation of public policies in Brazil and in the world, with regard to tobacco control and the new social practice.

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**Resumo**
O tabagismo é uma doença crônica e é considerado um grave problema de saúde pública e tem sido alvo ao longo do tempo de muitas ações preventivas e de promoção à saúde. O produto do tabaco mais consumido entre adultos e jovens é o cigarro convencional, entretanto, o consumo de tabaco sem fumaça ou outros produtos do tabaco fumado, como os cigarros eletrônicos, têm sido observados de forma crescente no mundo. Os dispositivos eletrônicos para fumar (DEF), que tem despertado cada vez mais a atenção de consumidores jovens, envolvem diferentes equipamentos e tecnologias. Fundamentado no princípio da precaução, desde 2009, o Brasil proibiu a comercialização, importação e propaganda de todos os tipos de DEF que oferecessem a substituição de cigarro, cigarrilha, charuto, cachimbo e similares ou que objetivem alternativa ao tratamento do tabagismo, por meio da RDC n 46, de 28 de agosto de 2009. Mesmo proibido no Brasil, evidencia-se o uso dos cigarros eletrônicos como uma alternativa, revelando um novo desafio a ser enfrentado pelas políticas de controle do tabagismo. As lacunas de conhecimento inerentes a uma prática social nova, bem como da necessidade de construção de referenciais que contribuam para a melhor tomada de decisões seja no âmbito da intervenção profissional ou da gestão das políticas públicas, com vistas a proteger a saúde da população, por si só já torna relevante a ampliação de conhecimentos acerca desta temática. Contudo, é necessário a compreensão de que as ações de prevenção, promoção e controle devem ser compreendidas de forma transversal e interdisciplinar, a fim de que se possa refletir sobre os processos que envolvem aspectos políticos, socioeconômicos e culturais que interagem diretamente com o processo saúde-doença. Deste modo, com base na problemática apresentada e considerando a relevância da temática em questão, como campo pouco enfrentado deste âmbito, destaca-se que a ampliação de investigações e o aprofundamento de discussões sobre ela, possibilitarão uma melhor compreensão e visibilidade do problema.
**Palavras-chave:** tabagismo, cigarro eletrônico, políticas públicas.