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Vaping Isn't *Really* Dangerous

Recreational use of vaporizers and e-cigarettes has become a wildly popular trend among the American teenagers of the 21st century. Originally invented as an alternative to traditional smoking cessation techniques, these devices have rapidly occupied a new niche (Ridley par.1). The recreational use of e-cigarettes among students has increased greatly since the concept was first introduced. In just one year, the rate of high school students who vaped nearly tripled (Raloff par.6). Advertised as alternatives to smoking, students ignorantly assume e-cigarettes are completely risk-free. This misconception is invasive to the health of teens; vaping was not meant for recreational use and is dangerous when treated as such. Vaping among adolescents has detrimental health implications and should not be tolerated.

For the purpose of this essay, the words adolescent, teen, and student refer to the same group of people; middle and high-school aged Americans. To further specify this group, Generation Z, or Gen Z for short, is primarily the focus. These are individuals born between 1995 and 2012 (“Keep an Eye on Gen Z” par.1-2). E-cigarette and vaporizer likewise refer to the same general device; a mechanism requiring vapor fluid, both nicotine and non-nicotine containing, and heating it to produce a cloudy smoke when the user exhales. “E-cig” is a common abbreviation of e-cigarette. Vaping and smoking, however, are not the same, smoking in the context of this essay

is the use of a traditional, tobacco cigarette. Because various sources use a diverse range of vocabulary, the interchangeability of these terms is key to centralizing the issue of vaping.

Vaping is not as safe as it is promoted to be. While a number of the toxic elements in cigarettes are omitted from e-cigarettes, nicotine remains a common denominator. Morean's team of researchers focused on the nicotine concentration in e-cigarettes finding around 37 percent of the surveyed students to be users of nicotine containing vapor fluid (Morean et al. 226). Additionally, Morean's team found, around 34 percent of the adolescents surveyed were uninformed of the actual nicotine concentration of the vapor fluid they used (Morean et al. 227). The team concurrently found that when nicotine is included in the vapor fluid, opposed to nicotine free vapor fluid, the person is more likely to be a cigarette smoker; i.e. more nicotine-using e-cigarette users are smokers when compared to e-cigarette users who do not use nicotine in conjunction with their e-cigarettes (Morean et al. 226). Unfortunately, despite mounting evidence, drawing a tie between nicotine dependency and e-cigarette use remains difficult and highly controversial.

Upon observation of other research, Morean's team thought it necessary to include that nicotine has two important relationships with adolescent bodies, aside from its highly addictive nature: "nicotine exposure has detrimental effects on the developing brain," and a lower amount of nicotine is required to cause dependency in adolescents (Morean et al. 224). Vogel's research concludes that, "smoking at an early age is known to be associated with greater likelihood of regular smoking and future nicotine dependence" (Vogel et al. 187). Raloff's article adds to this saga in asserting that e-cigarette vapor, whether nicotine or non-nicotine containing, causes damage to lung cells and furthermore lung tissue (Raloff par.4). Chemicals present in vapor fluids cause cell membranes to become more permeable to carcinogenic compounds (Raloff par.4).

These alarming facts in conjunction with the other research conducted by Morean's team should compel society to take a stand against the adolescent use of vaporizers and e-cigarettes. Vaping is a pointless vice that only damages youth. Smoking (cigarettes) is widely accepted in society to be a "bad habit" so why should recreational vaping, which may lead to smoking, be viewed differently?

Parents should be advisors against this trend. Sadly, the discreet nature of these devices often prevents their detection (TobaccoFreeCA. "Real California Teens Talk About Vaping"). Some devices, like the Juul, are materialized in such a way to appear as merely a flash drive. Given the health risks, students should be the biggest advocates against vaping in their peer groups. Teens who participated in TobaccoFreeCA's video commented that they vaped because it was considered "cool" in their peer circles (TobaccoFreeCA. "Real California Teens Talk About Vaping"). Students may feel intimidated by the judgements they would receive upon speaking out against e-cigarettes. Teenagers often align their behaviors with those of their peer groups. The National Center for Education Statistics notes that students are deeply impacted by the actions of the people they choose to befriend. While the study did not focus specifically on students with peers who vape versus those with non-vaping peers, it broadly showed that students will follow in the actions and values of their peers ("Students' Peer Groups in High School: The Pattern and Relationship to Educational Outcomes"). If health risks were mainstreamed, perhaps these students would feel more comfortable diverging from the norm among their friends. A student led crusade against vaping could catalyze a change within adolescent peer groups across the nation.

Vaping's popularity is enhanced through the customization of experience users claim to chase. Gen Z students are particularly characterized by their preference for individualization in the marketplace (Ryan par.1-3). Students want their shopping experiences to be meaningfully tailored

to their individual wants. E-cigarettes can be individualized by type, vapor fluid and furthermore nicotine concentration (Vogel 110). The *type* of the e-cigarette refers to different popular models and brands like juul, njoy, and blu. Vapor fluid can be personalized through different flavor options and nicotine concentration. Two students who vape expectedly have two completely different experiences depending on which of the different variables they engage with. One student may use vapor fluids with a nicotine concentration of 20mg while their peer prefers a fruitier but less nicotine-concentrated vapor fluid. Added with the pressure to fit in to peer groups in middle and high school specifically, perhaps this is the reason for vaping's recent popularity among students.

Initial exposure to vaping mechanism also provides insight into how and why vaping first came to be a popular activity among adolescents. It is understandable, while not acceptable, that some parents may not take issue with their child's vaping habits if they also vape. While this is a small portion of those who vape, six and a half percent, it remains an issue. In no case should parents tolerate or introduce their child to vaping. Parents may not understand the health risks themselves, further explaining why they take no issue with their student's practice of such. Introduction to vaping strongly influences the continuation of the habit. Of the students surveyed in Vogel's research, nearly 80 percent of the current adolescent vapers had been introduced to the habit through their peers (Vogel 110). As previously mentioned, peer promotion and acceptance of any fad or practice encourages its juvenile popularity. When students obtain vaping devices, they likely show them off to their friends. This practice is evident given the widespread nature of vaping as a social experience. Sharing of vapes in social atmospheres e.g. parties, is prevalent in adolescent life. About nine percent of students first heard about vaping through the media. While this figure is significantly less than that of students introduced by their peers, it remains an area of concern. Media promotion of a practice with such devastating health implications should be

abolished. Gen Z individuals spend a significant amount of time on media outlets and are robustly swayed by a company's media advertising ("Keep an Eye on Gen Z" par.1-2). The media's authority in adolescent livelihood distorts the true risks associated with any practice, especially vaping¹.

Interestingly, many still argue that e-cigarettes are primarily used as a smoking cessation technique and are significantly safer than smoking a traditional cigarette. These paradigms are laden with false claims. Some critics of vaping comment that it poses as many risks as cigarettes while others note that many carcinogens present in cigarettes are absent from vapor fluids—particularly those containing no nicotine. Regardless, recreational use, especially among youth, was never the agenda e-cigarette pioneers. "E-cigarettes, he [Mitch Zeller] says, are among the products that should be kept firmly out of the hands — and mouths — of adolescents" (Raloff par.5). Additionally, other experts in the field note that vaping is not safer than smoking in many capacities. "Studies by his group and others, Rahman says, suggest that vaping is not safer than smoking: 'It's equally bad' (Raloff par.25). Rahman has done extensive research relating to vaping and its impact on adolescent lungs. Despite the convincing research against vaping, some still argue that its use among teens is nothing to be worried about. Christopher Snowdon, a popular British journalist, claims that the concern about vaping is fallacy in his article "Stop the junk science on vaping. E-cigarettes don't turn kids into smokers" (par.1-2). Snowdon, who is by no means an expert in this field, claims that these are 'zombie arguments' (par. 1). Snowdon's smoke and mirror claims are more targeted toward discrediting scientists than the evidence they offer against vaping. As a result of his conceitedness, he fails to recognize the real issue. Cigarette use has dropped among adolescents, but e-cigarette use has sharply increased and is saddled with a

¹ It should be noted that four percent of the students surveyed first heard about vaping through a nameless source labelled "other" in the data table

multitude of health consequences. Snowden does not mention anything about the health risks of vaping or the dangers of nicotine to adolescent brains, given that it is highly addictive. Snowden's ignorance to accept vaping's danger regards his arguments as misinformed and invalid. He, and critics alike, claim that vaping does not lead to smoking when research suggests otherwise. It is true that not every person who vapes will then turn to traditional smoking, but the situation is becoming more of a normality than Snowden is willing to acknowledge.

The recent nature of vaping restricts science to a certain degree when seeking resolve to vaping. As a fad that has only emerged in the last 15 years, long-term effects of prolonged and recreational e-cigarette use is largely unknown. Speculations at best, researchers are only at the cusp of discovering the dangers associated with this habit. It truly unknown of what e-cigarettes can do to both adult and adolescent bodies.

The advertisement of vaping products seems to revolve around a younger target market. Several sources have noted the prevalence of youth-focused features related to e-cigarette advertisement e.g. flavors like "cherry crush and cotton candy" (Simon par.14). Exposure to ads promoting e-cigarettes and their use increases the likelihood of adolescent experimentation with e-cigarettes for the first time. The American Cancer Society (ACS) estimates that 80 percent of middle and high school students were exposed to e-cigarette ads in 2016. Celebrity endorsements and health claims are just two of the ways the ACS suspects teens' attentions are drawn (Simon par.8). Traditional tobacco advertisements market to youth in a similar fashion. Barbara Lynch and Richard Bonnie's *Growing Up Tobacco Free*, published in 1994, comments on tobacco's prevalence in the media:

"Three trends have caused a growing number of public health professionals to call to the role of marketing (advertising and other promotional approaches) in making

tobacco use attractive to children and youths and in encouraging them to use cigarettes and smokeless tobacco” (105).

Cigarettes are known to lead to lung cancer and other respiratory complications, but the early advertisements raved about their refined taste and health benefits. The public awareness of potential threats of e-cigarettes is likewise clouded by faulty advertising. Traditional cigarette advertisements targeted towards youth were deemed illegal in 1998 with the Master Settlement Agreement (MSA) although subtle forms could still be found (“Limiting Tobacco Advertising to Youth”). The sort of advertisement that is made illegal for tobacco companies is being used largely by e-cigarette companies today.

To assess the advertising practices of big vaping companies, I visited the websites of three popular e-cig companies; Juul, Njoy, and Blu. I was relieved to see each company acknowledge the danger of nicotine and presence of such in their products at the top of each page. Juul’s website mentions their commitment to end smoking and rehabilitate current smokers. Juul also noted on their support of laws regulating nicotine for its addictive nature. Contrary to their mission, Juul uses pictures of seemingly happy humans and they discuss the “Juul community” both of which may appeal to teens. Another company, Blu, does not make their mission as clear. I could not find anything on Blu’s website explicitly stating support for regulation or anti-recreational use of e-cigarettes. Njoy, the third website I visited immediately offered me 20 percent off of my first order. This is an enticing offer to any consumer and speaks to the company’s underlying initiative to foster vaping dependencies regardless of the public health costs.

Using Juul as an example, they explicitly state in their mission that they do not support adolescent vaping, but this does not mean that adolescents do not use their products. Teens don’t necessarily have to have a Juul, or any other vape of their own, to be users of e-cigarettes. This

raises question as to how students have obtained these vapes. Juul may claim that no one under the age of 21 can purchase their products, but vaping is one of the most prevalent issues among students. Age verification is currently required by these three sellers online, but underage students can gain access to vaporizers through friends, online marketplaces such as Ebay, loop holes in age verification, and other media outlets (Sifferlin par.2-3). Sifferlin comments:

“but of the 98 orders, only five were rejected based on a failed age verification.

Eighteen orders failed for problems unrelated to age, like website issues. Overall, the minors made 75 successful orders” (Par.2).

The success of these students, aged 14 to 17, speaks to the industry’s disinterest in protecting student health.

Adequate regulation of e-cigarettes and vapor fluids does not currently exist. Before 2016, few states required customers of e-cigarettes and related products to be 18 to purchase; but this changed with new FDA regulations classifying e-cigarettes as tobacco products due to the presence of nicotine. However, these regulations do not serve as a universal solution. Adolescents are still able to order e-cigarettes online with little difficulty by falsifying their age (Raloff par.41). Many states, like Tennessee, do not have statewide laws regulating the use of e-cigarettes in public places. This means that vapers are able to use their vaporizers and e-cigarettes wherever they please. Other states, like Hawaii, are leaders in vaping legislation, where vaping in public places is strictly prohibited (Martin). E-cigarettes’ similar severity in health associated risks should regard them as the same when it comes to public use. They should be restricted to private use only as the effects of second hand vape are completely unknown. It is unfair to force vapor into the lungs of innocent bystanders.

Laws limiting vaping in public places are especially important when it comes to schools. Teachers and principals both have commented on the prevalence of Juuls in their schools. Teachers led discussions in CNN's interviews about their experiences with students vaping on school property and in classrooms ("Vaping: An Epidemic in US High Schools"). One teacher commented that it is difficult to pin vaping accusations on specific students unless they are caught red handed. E-cigarettes are silent and their use can be masked by taking quick "hits" of the Juul, or shortening the time a student inhales on the vape. Quietness and brevity are bars to the enforcement of rules banning e-cigarette use in schools. The small size of some models, notably the juul, affords students the ability to have and use these products during instruction time. Not only is this habit a disruption to the participants education, it also disrupts other students' ability to focus in a classroom. Students who vape in classrooms are inconsiderate to their peers being asthmatic or having any other respiratory problem which may be flared up by indoor vaping. This issue has an entire set of its own ethical and moral implications and is controversial to discuss. Even students who are indifferent towards vaping may find e-cigarette use during instruction interfering with their educational experience. A majority of schools nationwide claim to stand against vaping but it is difficult to be 100 percent vape free when the devices are elusive to authority.

The culture of vaping has caused a complexity to the potentials for resolve. No single solution or method will be able to wipe out recreational adolescent use of e-cigarettes and vaporizers. First, advertisement should appropriately represent the true nature of this habit; health risks included. E-cigarette ads should mainstream the intense danger that are believed to be associate with the habit. Second, advertisements as well as the sale of e-cigarette paraphernalia should be restricted to adults. With so many students easily obtaining access to e-cigarettes and

being influenced by their ads, stricter regulatory practices should be introduced. Under no circumstances should students be advertised to by greedy e-cigarette companies in the way of big tobacco companies. To help aid in this department, legislation should be brought forth to restrict harmful aspects of this industry. Punishments should be brought upon establishments and companies found selling and/or advertising e-cigarette use to adolescents. Education on health risks to all individual shaping the lives of adolescents, e.g. students, parents, and teachers, needs to be implemented to fully address the gravity of this health concern.

Vaping is one of the most alarming challenges facing adolescent health in modern America. The medical risks could turn into health crises should the trend continue. Students who vape are broadly uninformed about the danger related to their social habit. The “cool” factor associated with vaping in many peer groups promotes the recreational use of vaporizers further, crippling students who want to speak against this habit. The hindrance to a healthy lifestyle could be eliminated if the industry support of adolescent vaping was revoked. Companies who do not actively restrict youth vaping culture inadvertently support it. To turn a blind eye to this subject is to be ignorant to its countless dangers. In no facet should recreational vaping in adolescents be supported. All students suffer educationally from this practice either by coercion into vaping via their friends or interruption of their education through free public use of e-cigarettes. Public vaping creates discomfort for those who choose not to vape. Vaping was never intended for this audience or the context in which it is currently used. Intention is important when discussing vaping. Created as an aid to quit traditional smoking, the capacity at which vaping is being used and promoted today in society discourages healthy habits. Elimination of widespread recreational vaping can only stand to benefit society and the students who partake in the activity. Recreation vaping in adolescents is dangerous and carries disturbing health implications. It is unfair to students to allow them to

continue in this habit without the proper means to fully understand with what they are involved.

The issue of vaping is far more than an annoyance; it is a health hazard.

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