An Assessment of Current Resources to Help Adolescents Quit Vaping

Karen Del'Olio  
*University of Massachusetts Medical School*

Nanette Vitali  
*University of Massachusetts Medical School*

Lori Pbert  
*University of Massachusetts Medical School*

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An Assessment of Current Resources to Help Adolescents Quit Vaping

Karen Del'Olio, MPH, Nanette Vitali, MS & Lori Pbert, PhD
University of Massachusetts Medical School, Division of Preventive and Behavioral Medicine
Department of Population & Quantitative Health Sciences

Background

- E-cigarette use, more commonly known as vaping, has been a growing epidemic for adolescents in the United States. The U.S. Surgeon General’s recent advisory states we must act now to protect the health of our nation’s youth from a lifetime of nicotine addiction.
- A 2018 Center for Disease Control MMWR reported more than 3 million high school students (grades 9 – 12) and 570,000 middle school students (grades 6 – 8) in the US are currently vaping, defined as using an e-cigarette on 21 or more days.
- Researchers from the Monitoring the Future Survey (MTS) report current e-cigarette use of a nicotine substance among middle school and high school students increased nationally by 78% from the year 2017 to 2018. This is the largest increase ever recorded for any substance in the 44 years the MTF has tracked adolescent drug use.
- The 2017 Massachusetts Youth Risk Behavior Survey (MYSBS) found 41% of high schoolers ever used an e-cigarette and 20.1% of high schoolers currently used an e-cigarette in the past 30 days. The prevalence rate for middle schoolers ever using an e-cigarette was 9.9%.
- Given this epidemic, we conducted a literature search to identify potential interventions to assist adolescents to quit vaping.

Prevalence

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>US High School Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past 30 days - E-cigarette</td>
<td>9.5%</td>
<td>13.3%</td>
<td>14.2%</td>
<td>4.9%</td>
<td>10.2%</td>
<td>5.5%</td>
</tr>
<tr>
<td>US Middle School Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past 30 days - E-cigarette</td>
<td>2.9%</td>
<td>3.7%</td>
<td>3.4%</td>
<td>2.2%</td>
<td>4.0%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

| Data Source: National Youth Tobacco Survey, U.S. 2017 |

| MA High School Students | | | | | | |
| E-cigarette - Past 30 Days | 42.2% | 40.1% | 43.4% | 38.1% | 41.8% | 40.9% | 41.1% |
| MA Middle School Students | | | | | | |
| E-cigarette - Past 30 Days | 21.9% | 18.4% | 23.2% | 16.8% | 17.7% | 19.3% | 20.1% |
| Data Source: Massachusetts Youth Risk Behavior Survey 2017 |

Results

- The review identified 14 published articles and 13 websites. Among the articles and websites reviewed, only one website was identified as providing a vaping/e-cigarette cessation tool.
- Future research to provide evidence-based vaping cessation was recommended by 35.7% of the published articles and 7.7% of the professional websites organizations.
- 23.1% of the websites reviewed recommended using current tobacco cessation programs to quit vaping, while in comparison, only 7.7% of the authors of the published articles made a recommendation to use current cessation tools to help adolescents quit vaping.

| Literature Search and Professional Organizations Review Questions (Total N = 27) |
|-----------------------------|-----------------------------|-----------------------------|
| Article or Website Category | Yes | No |
| Total | 1 (7.7%) | 12 (82.3%) |
| Search | 2 (14.3%) | 14 (94.7%) |
| Prevention | 3 (23.1%) | 10 (76.9%) |
| Cessation | 1 (7.7%) | 13 (88.6%) |

| Do the authors recommend using current tobacco cessation programs to quit vaping? |
|-----------------------------|-----------------------------|
| Yes | No |
| Total | 1 (7.7%) | 13 (88.6%) |

Conclusions

- Based on the literature and website reviews, only one cessation tool was found that specifically targets vaping among adolescents. No other websites and no peer-reviewed published literature presented cessation tools to support teens in their efforts to quit vaping.
- This presents a significant gap in resources to assist adolescents who are already dependent on nicotine through vaping. It was interesting that less than 10% of professional organizations and one third of publications recommended research on vaping cessation, given the current dearth in evidence-based cessation tools.
- And lastly, it is striking that less than a quarter of the professional organizations and only a fraction of the peer-reviewed articles recommended using existing combustible tobacco cessation programs to assist adolescents in quitting vaping. One possible reason for this is that the professional organizations are focused on supporting individuals in their efforts to quit and recognize that, in the absence of tools specific to vaping, tailoring existing programs is the best available resource while programs specific to vaping are developed and tested.

Resources to help adolescents quit vaping

- quitSTART App
- Smokefree teen.org
- www.smokescreengame.org
- www.thisisquitting.com
- thetruth.org

Massachusetts Department of Public Health
Tool Kit for Schools
Makesmokinghistory.org
Getoutraged.org

Acknowledgements

Funding Source: MA Dept of Public Health Tobacco Cessation and Prevention Program

References:

Methods

- Peer-reviewed articles published in 2018 from the PubMed database and materials retrieved from professional tobacco cessation organization websites in 2018 were reviewed. The search included “E-cigarette Cessation” and “Vaping Cessation” as Medical Subject Headings (MeSH) for the PubMed literature review. The following search terms were used to search for professional organization websites: 2018 + vaping cessation + adolescents, vaping cessation, vaping + teens, youth vaping cessation and adolescent vaping cessation.
- The research questions for this literature and website review were: 1. Does this article or website provide any vaping/e-cigarette cessation tools? 2. Do the authors recommend future research for vaping/e-cigarette cessation? and 3. Do the authors recommend using current tobacco cessation programs to help adolescents quit vaping?

Results

“Recent surge in e-cigarette use among youth, which has been fueled by new types of e-cigarettes that have recently entered the market, is a cause for great concern. We must take action now to protect the health of our nation’s young people.”


E-cigarette use, more commonly known as vaping, has been a growing epidemic for adolescents in the United States. The U.S. Surgeon General’s recent advisory states we must act now to protect the health of our nation’s youth from a lifetime of nicotine addiction.

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