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Assessing Parent and Guardian Outcomes for the Be Epic, Escape the Vape Program in Rural Southeast Utah

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Cover Page Footnote

We would like to thank the Southeast Utah Health Department for continued funding for this important work. Additionally, we appreciate our community partners, collaborators, and the Utah State University Extension Be Epic faculty, staff, and project personnel serving Carbon, Emery, and Grand Counties in supporting the success of this program.

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Authors: Ashley C. Yaughner, Christina Pay, Josie Hatch, Cris Meier

Abstract

Be Epic is a multi-component youth vape prevention program for rural youth, teachers, and parents. Annual parent/guardian events provide vape prevention education during a single session. Evaluation results showed that the program led to an increase in parents' knowledge and intention to talk with their youth about e-cigarettes.

Introduction & Problem

Over 2.1 million youth in the U.S. reported current e-cigarette use in 2023 despite known health risks (Birdsey et al., 2023; U.S. Department of Health and Human Services [HHS], 2016). Preventing the initiation and future use of e-cigarettes or "vape" use is a top priority, particularly in areas such as Southeast Utah, where rates of youth e-cigarette use are among the highest in the state (Utah Department of Health & Human Services Office of Substance Use and Mental Health [SHARP], 2023). In 2023, approximately 33% of 12th graders in the Carbon, Emery, and Grand Counties (Southeast Utah) reported ever using e-cigarettes, compared to 20% in Utah (SHARP, 2023). Additionally, more than 20% of 12th graders in Southeast Utah reported past 30-day, or current, e-cigarette use, compared to 10% in Utah (SHARP, 2023). Educating parents and guardians on the dangers of youth vaping may result in the prevention of e-cigarette and other substance use in youth (Kuntsche & Kuntsche, 2016).

Be Epic, Escape the Vape (henceforth referred to as "Be Epic") is a youth e-cigarette prevention program that utilizes a multi-component approach to prevent the initiation and use of e-cigarettes among youth in Southeast Utah. A fundamental aspect of Be Epic's prevention program includes education targeted to parents/guardians. Be Epic seeks to support parents by educating them on their critical role in preventing youth e-cigarette use and instilling confidence in parents to communicate with their youth effectively.

Response & Target Audience

The Utah State University (USU) Extension project team created the Be Epic program in 2020 and has continually offered programming since its inception. This multi-component program has ongoing funding from the Southeast Utah Health Department and utilizes the CATCH My Breath curriculum and other evidence-based resources (see catch.org/program/vaping-prevention). Each year, the project team employs local Health and Wellness Prevention Coordinators to implement program activities for teachers, parents/guardians, youth, and the community.

The Health and Wellness Prevention coordinators each facilitate at least one parent session annually in the three counties. Typically, the session is one hour long, and the information presented is informed by evidence-based resources (e.g., CATCH, 2020; SHARP, 2023). While

the sessions target parents and guardians, anyone is welcome to attend. The session includes up-to-date information about vaping, state and local e-cigarette prevalence data, protective factors, tobacco marketing strategies, tools for conversations surrounding substance use with youth, and future resources via the program website (see extension.usu.edu/be-epic/parents).

Target Audience

Be Epic's parent/guardian component was provided annually at least once in the three-county service area. Additionally, it was provided as a statewide webinar during the first and second year of programming, which explains attendance from individuals in other counties. A total of 309 people attended the sessions across all three years. The session was delivered virtually in 2021 and 2022, followed by in-person delivery in 2023. Participants mainly resided in the three service counties: Carbon (50.9%), Emery (29.1%), and Grand (17.0%). Overall, participants most often identified as female (69.8%), white (82.7%), and had never smoked (81.8%).

Outcomes

Pre- and post-surveys were conducted to examine short-term outcomes of the program: (a) parents' knowledge about e-cigarettes and (b) parents' intentions to talk with their youth about e-cigarettes. A total of 156 participants completed the pre-post-tests ($n = 156$).

Participants first answered a true-false knowledge test. Table 1 shows the percentage of participants who answered the question correctly during the pre-and post-test and the change in correct responses. For all the questions, the number of participants who responded correctly increased from pre-test to post-test, suggesting increased participants' knowledge about e-cigarettes.

Table 1.

Parent/Guardian Percent Change in Correct Responses from Pre- to Post-Survey Intervals

Knowledge Test Item	% Correct^{PRE}	% Correct^{POST}	% Change
Nicotine is addictive.	99.1	99.4	+0.3
E-cigarette vapor contains mostly water.	59.6	98.8	+39.2
Flavored e-cigarettes contain nicotine.	75.7	98.2	+22.5

We also asked participants to complete a self-assessment of their knowledge. Participants rated their knowledge of each item using a Likert scale ranging from 1-5 (1 = strongly disagree to 5 = strongly agree). Table 2 shows the pre-median rating and the post-median rating across all participants. The table also shows the z-statistic and p-value, which identifies if there was a statistically significant difference in pre- to post-survey scores for each item. The Wilcoxon Signed Rank Test results showed significant differences between pre-and post-survey responses for each knowledge area in the self-assessment.

Table 2.

Results of the Wilcoxon Signed Rank Test of self-assessment (n = 156).

	Median ^{PRE}	Median ^{POST}	z statistic (p-value)
I know the names and brands of e-cigarettes and could identify them in a conversation.	1	4	-10.76 (<i>p</i> < 0.001)
I know the current restrictions in place about purchasing e-cigarettes in Utah.	2	4	-10.56 (<i>p</i> < 0.01)
I know the ingredients in e-liquids.	2	4	-10.84 (<i>p</i> < 0.001)
I know the physical effects e-cigarettes have on youth.	3	4	-9.88 (<i>p</i> < 0.001)
E-cigarette use can be harmful to my youth's mental health.	5	5	-4.16 (<i>p</i> < 0.001)

Finally, there was a statistically significant difference in participants' likeliness to talk to their youth about the risks of vaping ($z = -6.04, p < 0.001$) from pre- (*Median* = 4) to post-survey (*Median* = 5).

Public Value/Next Steps

Evaluation results of the parent/guardian education component of the *Be Epic, Escape the Vape* program showed positive progress towards improving parents' knowledge about e-cigarettes as well as increasing participants' likelihood of discussing these risks with their youth after the training ($n = 156$). Findings demonstrate the effectiveness of the parent/guardian session and support using this one-time training format to educate parents/guardians on preventing youth e-cigarette use.

Be Epic, Escape the Vape continues to be funded, and evaluation results are continuously used to improve the program each year. In Year Four of programming efforts, the parent/guardian education component has been updated to focus on strengthening parent/child relationships to build on protective factors, as well as the risks of e-cigarette use in youth. In 2023, we also saw the need to offer additional programming for parents and teens through parenting workshops using the Active Parenting of Teens, Families in Action program (Popkin, 2009). Both parents and their teens participated in separate workshop groups that strengthened parent/child communication skills and protective factors among families. These courses were well attended and received positive feedback.

To share our successful approach with broader audiences, including schools and youth, an online [Toolkit](#) was developed to support adaptation of our programming in other communities, particularly rural communities that face similar issues. *Be Epic, Escape the Vape* continues to be a valuable Extension program with merit for prevention efforts focusing on parent/guardian populations.

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