

The Impact of a Virtual Tobacco Prevention and Advocacy Training Among Youth in Appalachian Kentucky Communities

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ABSTRACT

BACKGROUND: Engaging youth is an important component of comprehensive tobacco control programs.

PURPOSE: This paper describes the impact of a virtual tobacco prevention training program to encourage and prepare youth in Appalachia to support tobacco prevention policies, to strengthen interpersonal confidence to address tobacco use within their communities and enhance advocacy self-efficacy for tobacco control.

METHODS: A two-part evidence-informed peer-led tobacco prevention and advocacy training was implemented among 16 high school students from Appalachian counties in Kentucky. The initial training (January 2021) included an overview of the e-cigarette landscape, advocacy skills related to policy change, developing messages to decision makers, and media advocacy. A follow-up session (March 2021) included a breakdown of advocacy skills and overcoming barriers.

RESULTS: Overall, participants held strong beliefs that tobacco use is an issue that needs to be addressed in their community. There was a statistically significant average difference in student interpersonal confidence between baseline and post-surveys ($t = 2.016$, $P = .062 < .1$). Students who participated in at least 1 of the provided advocacy events indicated higher self-reported advocacy.

CONCLUSION: Youth in Appalachia expressed an interest to advocate for stronger tobacco policy in their communities. Youth who participated in the tobacco advocacy policy trainings reported improvements in attitudes, interpersonal confidence, advocacy self-efficacy, and self-reported advocacy. Youth engagement in tobacco policy advocacy is promising and needs to be further supported.

KEYWORDS: tobacco prevention, e-cigarettes, youth, virtual, advocacy, self-efficacy, Appalachia

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Introduction

Tobacco use is 1 of the leading causes of preventable death and disease.¹ Yet youth are increasingly using tobacco products such as electronic cigarettes.^{2–4} According to data from the 2021 National Youth Tobacco Survey, approximately 2.06 million youth in grades 8–12 reported current e-cigarette use, with 27.6% of high school and 8.3% of middle school students currently using any tobacco product.⁴ As tobacco products continue to evolve, implementing comprehensive tailored tobacco control and prevention strategies at the national, state, and local levels can support the reduction and prevention of tobacco product initiation and use among youth.⁵

Kentucky is particularly burdened by tobacco use, in part due to weak tobacco control policies and continued positive norms

surrounding tobacco use. In the 2021 annual American Lung Association “State of Tobacco Control” report, Kentucky received an ‘F’ in 4 of the 5 areas, including tobacco prevention and cessation funding, smoke-free air laws, state tobacco excise taxes, and state laws to end the sale of flavored tobacco products.⁶ Kentucky received a grade of ‘C’ for tobacco cessation services, primarily because of the significant decrease in tobacco cessation funding from approximately \$3.5 million to \$2 million/year, well below the recommended levels. Tailored, state-specific tobacco prevention efforts are essential, now more than ever, particularly those which incorporate youth voice to support future generational changes.⁵

Youth in Appalachian regions are disproportionately influenced by tobacco use.⁷ In addition to the lack of tobacco control policies,



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youth in Appalachia face added community-related barriers to increased tobacco use. Previous research indicates increased tobacco use in Appalachian communities ties back to adult behavior, access to tobacco, culture, and tobacco retail marketing.^{8,9} Such factors are not only well-established as predictors of adolescent tobacco initiation for the overall population, but they also tend to be more prevalent in rural populations (Roberts, 2020).

In addition, tobacco is easily accessible to youth as age restrictions on sales are often ignored, or family members or friends provide products to youth.^{8,9} Likewise, symbols of tobacco are prevalent in Appalachian communities, such as festivals celebrating tobacco heritage, tobacco barns, and tobacco marketing logos.^{8,10} Lastly, retail tobacco advertising targets marginalized populations such as Appalachia communities.¹¹⁻¹³ Both community and policy-based strategies are needed to help prevent and reduce tobacco use among youth in Appalachia.⁵ Few studies have examined how youth can participate in advocacy efforts to create stronger tobacco control policies.¹⁴ As there is limited research to date that evaluates tobacco policy attitudes and advocacy of Appalachian youth, this study begins to address this critical gap in the literature.

Significance of study

Apart from avoiding tobacco, important strategies to help overcome tobacco use include strengthening youth interpersonal confidence to address tobacco use and supporting self-efficacy to advocate for more robust tobacco control policies in their communities, and ultimately, in their state.¹⁵ Advocating and skill-building to improve self-efficacy for stronger tobacco control policies has the potential to better overall health. While there have been a limited number of studies on youth advocacy programs and tobacco control,¹⁴⁻¹⁶ our study focuses specifically on youth in rural Appalachia. This exploratory study describes the impact of a virtual youth tobacco advocacy training to encourage and prepare youth in Appalachia to support tobacco prevention policies, strengthen interpersonal confidence and advocacy self-efficacy to prevent tobacco use in the community, and increase participation in advocacy opportunities.

Methods

The university Institutional Review Board approved all research. This exploratory study incorporating a one-group, pre- and post- design, describes the collaborative peer-led advocacy training and resulting measured outcomes among students representing rural Appalachian communities across Kentucky.

Participants and setting

Participants previously applied and were accepted to the [University of Kentucky for review] Appalachian Career Training in Oncology (ACTION) Program. The program offers Appalachian Kentucky high school and undergraduate students the opportunity to gain skills in cancer research, clinical education, and community outreach and education

experiences that will enrich their interest in pursuing a cancer-focused career.¹⁷ The ACTION Program Director assessed student needs and interests at the beginning of the year and determined advocacy was a desired skill among the participating high school students.

The virtual advocacy training was implemented by #iCANendthetrend college facilitators (described below) among 20 high school students from 12 different Appalachian counties in Kentucky. This specific training was only 1 part of the ACTION program, tied to the goals of community engagement and advocacy. Of the 18 students who completed the baseline survey, 16 completed both the baseline and the post training survey (88.88% retention rate) and are reported here. Overall, 11 students were female (61.11%); and the majority of all participating youth (88.89%) were White and all were non-Hispanic. Half of all baseline respondents were in 10th grade (55.56%) compared to 38.89% of all baseline respondents in 9th grade (Table 1).

Intervention

The iCANendthetrend program was developed by researchers and college students at the University of Kentucky engaged in tobacco prevention^{18,19} and is conceptually based on the Youth Empowerment Theory.²⁰ The program aims to educate elementary, middle, and high school students on the dangers of e-cigarette use among youth while empowering youth to make a difference in their local communities through a near peer approach. This tailored advocacy training for the ACTION group built on previous lessons learned with advocacy training conducted with Kentucky rural youth, which reinforced the need for community-engaged opportunities to apply advocacy skills.¹⁴

Table 1. Demographic statistics of trained students who responded to pre- & post surveys (N = 16).

	N (%)
Gender	
Female	11 (68.75%)
Male	5 (31.25%)
Race	
White	15 (93.75%)
More than one race	1 (6.25%)
Ethnicity	
Not Hispanic/Latino	16 (100.00%)
Grade	
9th grade	7 (43.75%)
10th grade	8 (50.00%)
11th grade	1 (6.25%)
Age	
15 years old	11(68.75%)
16 years old	5 (31.25%)

College facilitators led 2 virtual sessions (1 4-hours and the other 2-hours) through Zoom. The tailored presentation approach, content, and empowerment activities in the trainings were designed to be developmentally appropriate for high school grade levels by aligning with the National Health Education Standards.²¹ The initial training (January 2021) included an overview of the e-cigarette landscape, advocacy skills related to policy change, developing messages to decision-makers, and media advocacy. Additional content included tobacco prevention and nicotine dependence education, tobacco product retail targeting and manipulation strategies, with additional hands-on activities to support skill-building (ie Kahoot, PSA creation). [Table 2](#) illustrates a description of the activities used in the training sessions. Sessions were conducted virtually in 2021 when in person student programming was prohibited due to COVID limitations.

A follow-up session (March 2021) included a breakdown of advocacy skills and overcoming barriers to being a youth advocate, including those specific to youth in Appalachian communities, and those living in a preemptive state. The second training also reinforced specific actions youth could take in their community and/or school to support stronger tobacco control policies. To encourage engagement through a virtual platform, several features of Zoom were used, including chat and raise hand features, as well as Kahoot game-based learning and open discussion.

Following the training, through email and information sharing with ACTION program coordinators, participants were provided with opportunities to engage in advocacy within the following 3 months, including: Threw with Chew Week, Virtual Kentucky Cancer Action Network Advocacy Day (American Cancer Society), National Drugs & Alcohol Facts Week, and National Day of Action Roast (Take Down Tobacco). Participants were also encouraged to engage in media advocacy, PSA development, and talk with elected officials. Participants were not required to participate in any of these events listed above.

Procedures

All ACTION members who participated in the training were invited to participate in the study reported here. Student assent and parental consent procedures were already built into the ACTION program through its own Institutional Review Board protocol. However, students were permitted to opt out of the survey(s) and still participate in the training. In total, 3 online surveys were shared with the participants: (1) 3 weeks before the initial training (January 2021); (2) immediately after the initial training (January 2021) and; (3) over 4 weeks after the final training session (March 2021). Qualtrics Mailer was used to distribute the survey using participant email addresses. Participants received an email one-week following the initial distribution as a reminder to complete the survey. Individuals not participating after 2 weeks were considered non-responders.

Measures

As part of the baseline and post-survey, measures were included to assess the students' attitudes toward community tobacco use and tobacco policies, self-reported interpersonal confidence to address tobacco use, advocacy self-efficacy to support tobacco policy advocacy, and self-reported advocacy.^{14,16,22}

Community tobacco use and policy attitudes. Two items measured the degree to which the students perceived tobacco and e-cigarette use as an issue in their community: "I believe tobacco use is an issue that needs to be addressed in my community," and "I am concerned about e-cigarette use among people my age." Six items measured the degree an individual supports tobacco policies and 1 additional item assessed the perceived effectiveness of tobacco policy, using a 4-point scale from strongly disagree to strongly agree. An example item is, "I support a smoke-free law in my community that does not allow cigarette smoking in indoor workplaces and public places," (See [Table 3](#)). The tobacco policy items were adapted for the adolescent population from the Kentucky Health Issues Poll.²²

Table 2. Advocacy training activities.

ACTIVITY	DESCRIPTION
Media advocacy best practices	Facilitators provided the ACTION students evidence-based checklists of what to consider for message development on media based platforms such as social media or development of a PSA (Campaign for Tobacco Free Kids, 2021).
Message development or "Messaging Matters"	Facilitators went over three steps to create a message to make a difference as an advocate by influencing decision makers: aim, focus, and deliver. (Campaign for Tobacco Free Kids, 2021). Youth want to influence their audience successfully, and by having an outlined plan will help avoid barriers and remind them of their why and build their confidence to follow through.
The 5 Ws	The 5 W's activity introduced youth to how to build an Action Plan going over the 5 W's: Why are you doing the activity, who is the priority audience, what type of activity will reach your goal, where will you host the activity to reach your goal audience, when will the activity be?

Table 3. Different frequencies in community tobacco use & policy attitudes between baseline and post-surveys (N = 16).

	STRONGLY AGREE			AGREE			DISAGREE		
	PRE	POST	CHANGE	PRE	POST	CHANGE	PRE	POST	CHANGE
I believe tobacco use is an issue that needs addressed in my community.	13 (81.25%)	13 (81.25%)	0	3 (18.75%)	3 (18.75%)	0	0	0	0
I am concerned about e-cigarette use among people my age.	15 (93.75%)	10 (62.5%)	-5	1 (6.25%)	6 (37.5%)	+5	0	0	0
I support a smoke-free law in my community that does not allow cigarette smoking in indoor workplaces and public places.	13 (81.25%)	13 (81.25%)	0	3 (18.75%)	3 (18.75%)	0	0	0	0
I support a policy in my community that does not allow e-cigarette use (e.g. Juul and vaping) in indoor workplaces and public places.	13 (81.25%)	13 (81.25%)	0	3 (18.75%)	3 (18.75%)	0	0	0	0
I support a policy that does not allow use of any tobacco product inside and outside on school property.	14 (87.5%)	14 (87.5%)	0	2 (12.5%)	2 (12.5%)	0	0	0	0
I support a policy that does not allow e-cigarette use (e.g. Juul and vaping) inside and outside on school property.	14 (87.5%)	14 (87.5%)	0	2 (12.5%)	2 (12.5%)	0	0	0	0
I support a law in Kentucky that increases taxes on all tobacco products to discourage tobacco use.	10 (62.5%)	11 (68.75%)	+1	5 (31.25%)	4 (25%)	-1	1 (6.25%)	1 (6.25%)	0
In order to lower tobacco use, tobacco policy is the most effective strategy.	8 (50%)	7 (43.75%)	-1	5 (31.25%)	8 (50%)	+3	3 (18.75%)	1 (6.25%)	-2

Note: + indicates the number of students increases in a specific response category (i.e., “strongly agree,” “agree,” or “disagree”) in post-survey; - indicates the number of student decreases in a specific response category (i.e., “strongly agree,” “agree,” or “disagree”) in post-survey.

Interpersonal confidence. Three validated survey items measured the belief in the participant's ability to lower tobacco and e-cigarette use and encourage others their age to want to make a difference in youth e-cigarette use in their community or school, using a 4-point Likert scale, with response options ranging from strongly disagree to strongly agree.¹⁶ An example item included was, "There are things I can do to lower tobacco use in my community." In addition, 5 items assessed individuals' belief in their ability to talk with others about issues they believe in, using a similar 4-point Likert scale.¹⁶ For instance, "I am confident talking with ___ about issues I believe in." Finally, the participants ranked their confidence in talking with "adults in my community, leaders in my community, adults in my school, my friends, and family members." See [Table 4](#).

Advocacy self-efficacy. Three validated items assessed confidence in ability to advocate for policies to lower tobacco use, select effective advocacy strategies, and develop an advocacy action plan, with responses on the 4-choice scale ranging from strongly disagree to strongly agree.¹⁶ The 3 items were "I am confident in my ability to advocate for policies to lower tobacco use in my community," "I am confident that I can select effective strategies to help advocate for policies to lower tobacco use in my community," and "I am confident in my ability to develop an action plan to advocate for policies to lower tobacco use in my community."

Post-only, participants were asked about 3 specific advocacy skills (ie, developing effective messaging, media advocacy, and overcoming barriers) which were focused on during the booster session using a similar Likert-scale. The items were "I am confident in my ability to develop a convincing message to a decision maker (politician, principal, parent, etc.)," "I am confident in my ability to develop a social media post or public service announcement (PSA) using the 3 I's: Inform, Involve, Include," and "I am confident I can overcome barriers to engaging in advocacy efforts in my community."

Self-reported advocacy. First, participants were asked if they wanted to advocate for policies to lower tobacco use in their community (4-point Likert, Strongly Disagree to Strongly Agree). At post-only, participants were asked about participation in advocacy-related events and activities during the past 4 months, which included events and opportunities shared with the group during the training as well as general advocacy strategies (eg, media advocacy, talk with elected officials).

Data Analysis

We explored whether student attitudes regarding items of personal confidence, self-efficacy, and community tobacco use improved after attending at least 1 of the virtual training sessions. To compare the differences in student perception between baseline and post surveys, we transformed the ordinal data into the interval data by using Rasch stacking analysis,

which is used to compare the changes in the measures of person attitude at different times. To assist with interpretation, we converted the original Rasch "logit" scale to a 100-point scale, where 100 is the highest value for student ability to agree on the relevant survey items and 0 is the lowest value. After gaining individual scores for the measures mentioned above, we conducted a paired sample t-test to explore the difference in student perception between post-survey and the baseline survey.

Descriptive statistics, including frequency distribution, were included to summarize the demographic features and main outcomes. Group differences were compared through cross tabulation, including differences in agreement between pre- and post-survey respondents and different agreement levels between the respondents who attended an advocacy event and those who did not. Data analysis was conducted with SPSS 26 version.

Results

Community tobacco use and policy attitudes

[Table 3](#) shows overall, participants held strong beliefs that tobacco use is an issue that needs to be addressed in their community, before and after the training. There was an increase in the number of students who support a law in Kentucky that increases taxes on all tobacco products to discourage tobacco use. In addition, post-training, a majority (93.8%) of participants agreed/strongly agreed to lower tobacco use, tobacco policy is the most effective strategy. Although the remaining items suggested no significant change from pre- to post-, most students generally agreed that tobacco use is an issue that needs to be addressed in their community. After Rasch analysis, there was a statistically significant average difference in student perception of community tobacco use between baseline and post-surveys at a 10% significance level ($t = -1.77, P = .096 < .1$).

Interpersonal confidence

After the 2 training sessions, more students changed from agree to strongly agree regarding their confidence about things they can do to change the trend of vaping in their school and community. [Table 4](#) shows the change of participant's interpersonal confidence in talking with adults, leaders, family, and friends about issues they believed in. More specifically, participants reported feeling more confident talking about tobacco use with their friends and family than teachers and administrators in their community. Post survey, 2 students (18.7% increase) strongly agreed they were confident in talking about tobacco use with adults in their communities. In addition, 5 more students strongly agreed (37.5% increase) they were confident they can encourage others their age to want to make a difference in their community related to use of e-cigarettes or vaping products post-training.

Table 4. Different frequencies in interpersonal confidence between baseline and post-surveys (N = 16).

	STRONGLY AGREE			AGREE			DISAGREE		
	PRE	POST	CHANGE	PRE	POST	CHANGE	PRE	POST	CHANGE
There is something I can do to change the trend of using e-cigarette or vaping products in my school.	3 (18.75%)	8 (50%)	+5	11 (68.75%)	7 (43.75%)	-4	2 (12.5%)	1 (6.25%)	-1
I am confident I can encourage others my age to want to make a difference in their community related to use of e-cigarettes or vaping products.	2 (12.5%)	8 (50%)	+6	9 (56.25%)	8 (50%)	-1	3 (18.75%)	0 (0%)	-3
There are things I can do to lower tobacco use in my community.	5 (31.25%)	7 (43.75%)	+2	9 (56.25%)	7 (43.75%)	-2	2 (12.5%)	2 (12.5%)	0
I am confident talking with adults in my community about issues I believe in.	5 (31.25%)	8 (50%)	+3	10 (62.5%)	6 (37.5%)	-4	2 (12.5%)	0 (0%)	-2
I am confident talking with leaders in my community about issues I believe in.	4 (25%)	9 (56.25%)	+5	8 (50%)	7 (43.75%)	-1	1 (6.25%)	1 (6.25%)	0
I am confident talking with adults in my school about issues I believe in.	8 (50%)	8 (50%)	0	8 (50%)	7 (43.75%)	-1	0 (0%)	1 (6.25%)	+1
I am confident talking with my friends about issues I believe in.	9 (56.25%)	12 (75%)	+3	7 (43.75%)	4 (25%)	-3	0	0	0
I am confident talking with family members about issues I believe in.	10 (62.5%)	12 (75%)	+2	5 (31.25%)	4 (25%)	-1	1 (6.25%)	0 (0%)	-1

Note: + indicates the number of students increases in a specific response category (ie, "strongly agree," "agree," or "disagree") in post-survey; - indicates the number of student decreases in a specific response category (ie, "strongly agree," "agree," or "disagree") in post-survey.

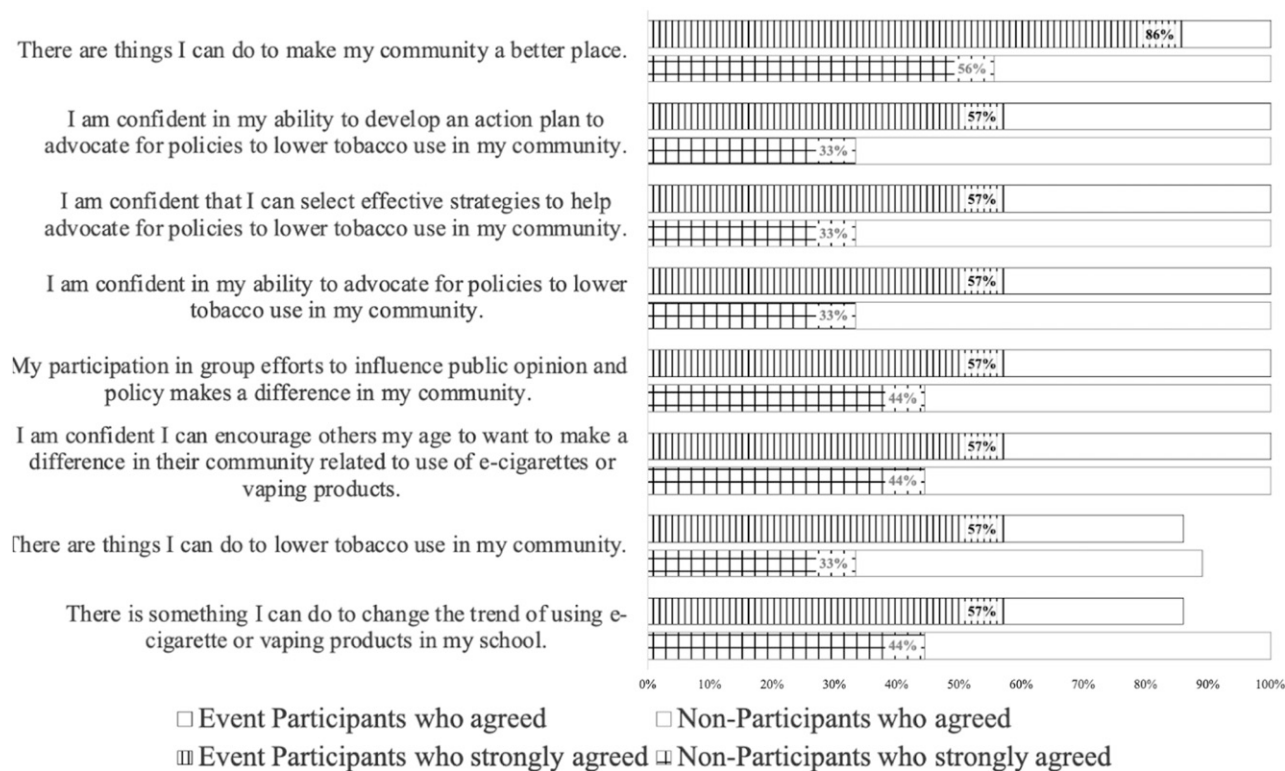


Figure 1. Different proportions of agreement in interpersonal confidence and advocacy self-efficacy between advocacy event participants and non-participants.

After Rasch analysis, there was a statistically significant average difference in student interpersonal confidence between baseline and post-surveys at a 10% significance level ($t = 2.016$, $P = .062 < .1$). In particular, on average, participants in the post-survey had a more substantial belief in their ability to lower tobacco and e-cigarette use and to encourage others their age to make a difference in youth e-cigarette use in their community or school (mean difference = 15.52 points) after the training.

Advocacy self efficacy

At baseline, most students (93%) agreed/strongly agreed that they were confident in their ability to advocate for policies to help address tobacco policy in their community. At baseline, most students (93%) agreed/strongly agreed that they were confident in selecting effective strategies to help advocate for policies to lower tobacco use in their community. After the 2 trainings, all (100%) of the students agreed/strongly agreed that they could select effective strategies to help advocate for policies to lower tobacco use in their community. At baseline, most students (87%) agreed/strongly agreed that they were confident in their ability to develop an action plan to advocate for policies to help address cancer rates in their community. After the 2 trainings, all (100%) of the students agreed/strongly agreed that they were confident in their ability to develop an action plan to advocate for policies to help address cancer rates in their community. However, there was no statistically significant

difference in advocacy self-efficacy, given the higher baseline averages.

Self-reported advocacy

Seven events focused on tobacco prevention-related advocacy were shared with the participating youth from February to April in 2021. Of the 16 trained students, 43.8% ($n = 7$) students attended at least 1 of the 7 events regarding tobacco prevention-related advocacy. Figure 1 shows the differences in agreement level of advocacy self-efficacy in attitudes towards community tobacco use between students who attended at least 1 event and those who attended none of the events. Overall, almost all students agreed with the items regarding personal confidence and self-efficacy in community tobacco use in the post-survey. The percentage of choosing “strongly agree” for students who attended at least 1 event is greater than the percentage of those who did not attend any events in 2021. Overall, the students who participated in at least 1 of the provided advocacy events indicated higher self-reported advocacy.

Discussion

Although there is national support to involve youth in tobacco policy advocacy efforts,⁵ there is little research on how to support youth in tobacco policy advocacy efforts and the impact of advocacy programs to promote tobacco control policies in underserved Appalachian communities. Our study supports engaging youth living in rural Appalachian Kentucky whose

communities are disproportionately burdened by tobacco-related consequences and where tobacco control policies are weaker.^{6,7} Students participating in the advocacy training agreed unanimously that tobacco use is an issue that needs to be addressed in their community. Youth believe they can also improve their communities by taking action. Investing in an infrastructure to strengthen existing evidence-based tobacco policies is a promising strategy to promote health equity in high-risk regions, such as Appalachia.

Overall, this intervention demonstrated that a peer-led advocacy training could encourage youth to support policies to lower tobacco use in their community and encourage engagement in advocacy-related activities. Interpersonal confidence increased after the tailored advocacy trainings. While the majority of the participating high school students (15-16 years old) agreed at baseline that they were confident they could influence others, after the 2 training sessions their confidence in their ability to encourage others their age to want to make a difference in their community related to the use of e-cigarette products increased. Considering the perpetual existence of tobacco culture prevalent in Appalachian communities, talking with others in the community about this topic may be challenging.⁸ Therefore, improved interpersonal confidence after 2 advocacy sessions is promising. There is a need to determine if this interpersonal confidence is sustained, particularly when advocating for tobacco policies and/or coming up against barriers.

Throughout the advocacy training, content primarily focused on youth talking with elected officials and adults in their communities, which might not directly apply to communicating with peers and family members. Therefore, different strategies may be needed to encourage youth to influence their peers and family members as additional barriers or cultural norms may inhibit these discussions.⁸ There is a need to explore practical strategies to engage youth with these community groups since family and peers are highly influential and may drive advocacy involvement in the future.

Students also demonstrated confidence in their abilities to advocate for tobacco policies in their community. Confidence in advocacy-related skills, including selecting effective advocacy strategies and developing an action plan remained the same between baseline and post training. At post, all students agreed they were able to select effective advocacy strategies, which is a unique and specific skill that is necessary for policy advocates to be successful. It is clear that the training helped youth maintain confidence in these skills, similar to other research among Kentucky youth.¹⁵ The youth included in this training are also very engaged students who have been involved in health-related advocacy efforts throughout their time with the ACTION program. It would be helpful to replicate the training with other youth groups who may have less knowledge and experience with policy advocacy at baseline. In addition, our sample only included 15 and 16-year-old students so there is a need to determine if similar strategies work with all adolescents/young adults or if adaptations need to be made.¹⁴

Youth elicited a desire for more training and support to help put the skills into action. Long-term booster trainings and follow-up are warranted, particularly given the complexity of tobacco policy change. This reinforces the need for adequate resources and infrastructure to sustain youth advocacy efforts. The majority of tobacco prevention programs do not introduce policy as an integral component to tobacco prevention. Incorporating these concepts into all prevention programming, including school-based tobacco prevention, as well as tailored advocacy trainings, would be beneficial, as there is alignment with health education standards, and there is great potential for engaging youth in these efforts. Statewide partnerships are needed to support sustainability, expand the reach of such initiatives, and to fully engage youth in advocacy efforts that align with statewide priorities.

Importantly, self-reported advocacy increased between baseline and post evaluation. Presented with opportunities to engage in varying levels of advocacy, almost half of the students attended at least 1 of the 7 events regarding tobacco prevention-related advocacy. Students who engaged in these opportunities reported greater percentage increase in thinking there are things they can do to make their community a better place and reported greater confidence in their ability to make a positive influence on their community/school. Not only do advocacy opportunities help support and prepare youth to surround themselves with other advocates, but it also demonstrates the promise that youth influence can have on policy changes. Further exploration is needed to determine what types of engagement might elicit the greatest impact, not only on youth self-efficacy toward advocacy, but also continued engagement in these efforts, as well as ties to community impact. While the findings are promising, expanded reach and subsequent evaluation across other rural communities in Kentucky (and beyond) is needed to determine the potential of widespread impact both short- and long-term to impact policy change.

Strengths and Limitations

The strengths of this study include the inclusion of students from rural, Appalachian communities. We were also able to build lessons learned from the first training to the second to help improve measured outcomes, design of the training, and communication with adult mentors. Students participated virtually due to limitations of in person programming due to COVID. However, this was also a strength as it allowed us to reach students from across the state in often underserved Appalachian communities.¹⁴ The sample size is a limitation, but participation in both baseline and post surveys was relatively high for those attending the training. In addition, the study includes a non-probability sample of students already participating in the ACTION program. Students who were already interested in these efforts may have been more engaged than the general population of students in the state, so results may not be generalizable to all youth.

Implications for Research and/or Practice and Policy

Tobacco policies provide opportunities to positively influence groups that are disproportionately impacted by tobacco disparities. Specifically, youth in Appalachia expressed an interest to advocate for stronger tobacco policy in their communities. Youth who participated in the tobacco advocacy policy trainings reported improvements in attitudes, interpersonal confidence, advocacy self-efficacy, and self-reported advocacy. Health promotion and community health professionals may benefit from the lessons shared related to practical application, and implementation of a youth advocacy program. In a community with high tobacco use rates and a tobacco-growing heritage, advocating for stronger tobacco policies can be challenging, but youth involvement can help lay the groundwork for future tobacco control initiatives. Due to the nature of policy change, it may be of use to continue monitoring the progress of these youth and track community-engaged work and change in tobacco legislation over time.

In future research, specific topics to consider would be to expand on how virtual programming can be effective in strengthening advocacy skills, how to effectively address barriers in communities that have a strong tobacco culture, how peer and familial relationships influence tobacco use and policy, how to gain support from adults, and how future training can improve self-efficacy in addressing barriers associated with being an advocate in Appalachian communities.

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