

PURPOSE

To educate K-12 grade teachers and school administrators about the dangers of adolescent vaping.

- Create a course on adolescent vaping and how it is dangerous for middle school and high school age students.
- Use gathered data to locate areas that may need additional vaping education
- Find school administrators who would like to have pharmacy students present to their students about the dangers of vaping

METHODS

- Course content to discuss vaping use among adolescents was created by researchers. The program modules included: what is vaping, hazards to vaping regarding social, legal and health concerns, how to combat this public health crisis through advocacy and policy creation and how to better serve students who are in need of cessation.
- This online module was developed in collaboration with the Illinois Principals Association (IPA).
- After IRB approval, participants were able to voluntarily take the pre-/post-course anonymous Qualtrics survey to assess their knowledge and beliefs regarding vaping.
- Assessment of the training was conducted from September 26, 2019 until February 1, 2020. Participants were K-12 teachers and administrators from most Midwestern states where IPA serves as a continuing education company for these participants.
- All completed and partially completed surveys were included in the analysis. Data was assessed using the pair Student-t-test.

RESULTS

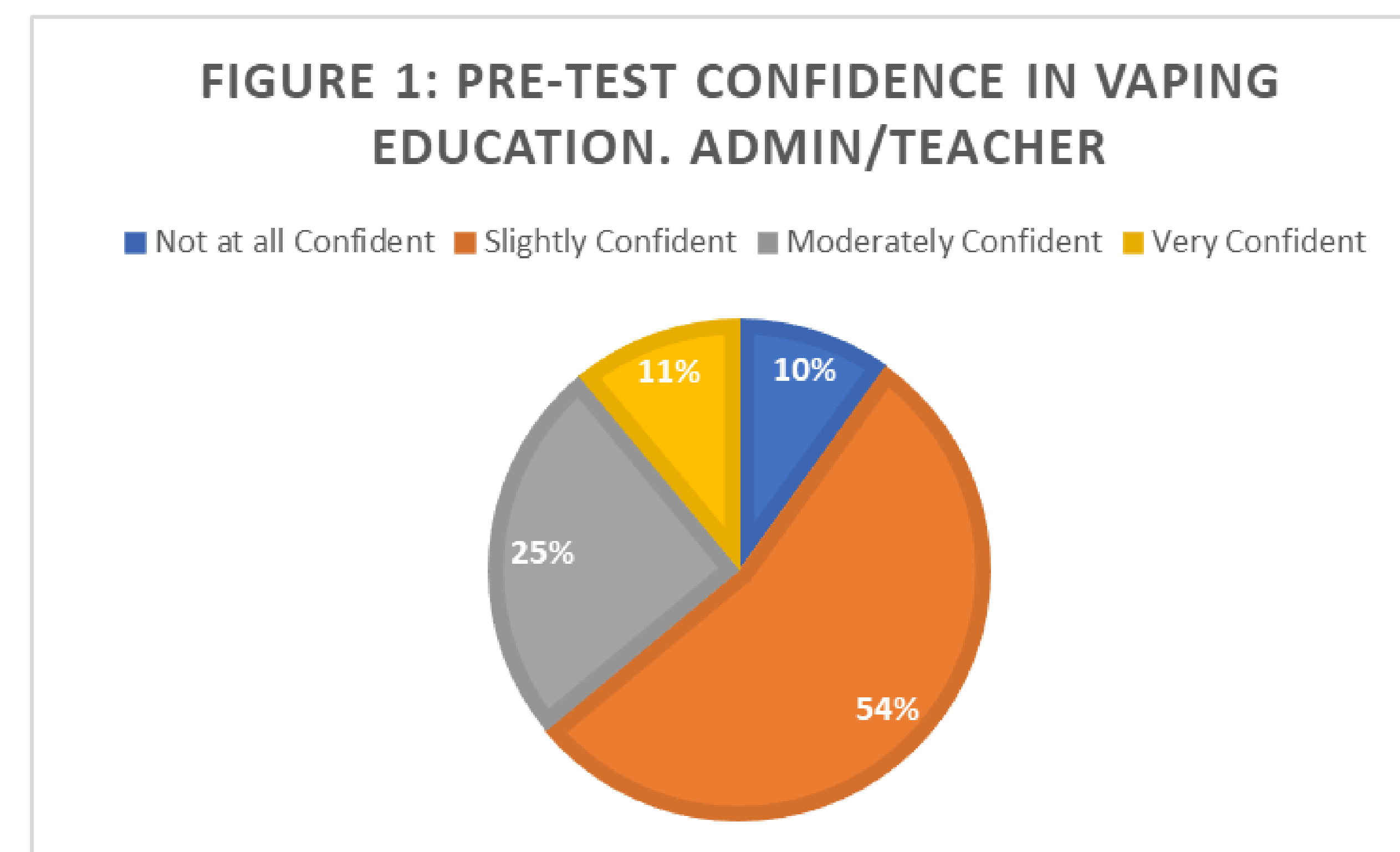
Total Course Enrollments	444
Total Number of surveys taken	340 (pre-test = 217 and post-test: 123)

- Over half of participants work at a schools with 251-1000 students
- Half of the schools reported 40% of students receive free or reduced lunches

States of Participants (n=217)
Illinois (208), Indiana (3), Missouri (4), New Hampshire (1), Minnesota (1)

Administrator Demographics (73% of respondents)	Teacher Demographics (23% of respondents)
<ul style="list-style-type: none"> ▪ 50% from high school ▪ 30% from middle schools ▪ 20% from elementary schools 	<ul style="list-style-type: none"> ▪ 58% taught high school grade levels ▪ 25% taught middle school grade levels ▪ 17% taught elementary grade levels
<ul style="list-style-type: none"> ▪ 13% of schools did NOT have vaping policies ▪ 30% enforced the vaping policy weekly ▪ 82% enforced the vaping policy weekly ▪ 94% report all student receive the same consequences for violations 	<ul style="list-style-type: none"> ▪ 81% reported never receiving training about vaping or its effects ▪ 75% of the teachers have never seen a student vaping ▪ 82% reported having school policies regarding vaping

Difference in % correct between pre and post-test			
Question	Pre-Test	Post-Test	Difference
1	42	94	52
2	77	98	21
3	29	60	31
4	37	97	60
5	43	94	51
6	37	87	50
7	54	81	27
8	31	88	57
9	73	76	3
10	81	97	16
Pre-Test Mean			50.4
Post-Test Mean			87.2
p-Value of Mean			0.000231
Pre-Test Median			42.5
Post-Test Median			91
Avg Difference in % Correct			37
Standard Deviation of Differences			20
Median of Differences			41
Coefficient of Variation of Differences			0.5



LIMITATIONS

- Unable to stop participants from looking up answers online
- Not assessing confidence before and after taking course.
- Non-randomized study
- Did not adjust for confounding variable

STRENGTHS

- Large sample size allowing for statistical analysis
- Collaborative nature of study to allow for future implications to address needs
- Diverse sample

FUTURE IMPLICATIONS

- Development of live continuing education workshop for the Illinois Counselors Association in March 2020
- Submission for a Meridian Society Grant to enhance efforts to accomplish some of the needs that were noted in survey.
- Develop a train-the-trainer session on the SIUE Campus to high school students so they can learn about the dangers and provide education tools/games to middle school students.
- Increase access to middle schools and high schools to provide more interactive educational sessions with these students to inform on the dangers and ways to combat this public health crisis.
- Work with school to develop a peer mentor program with School of Pharmacy students to assist students who break school policy while addressing the addiction nature of these substances.

CONCLUSION

- Study demonstrates that this learning tool provides knowledge gained regarding educating teachers and administrators as well as enhancing their confidence in addressing issues associated with vaping and their students.