

Understanding Factors Influencing High School Staff Members' Knowledge, Self-Efficacy, and Intent to Intervene in Student Vaping: A Study in Rural Virginia

Sara Headley, MSN, APRN, CPNP-PC, CNE, DNP Student Old Dominion University

Dr. Kelli Garber, DNP, APRN, PPCNP-BC, Director DNP APRN Program, Old Dominion University

Dr. Carolyn Rutledge, PhD, FNP-BC, APRN, Executive Director of Faculty Dev., Innovation & Research, Old Dominion University

Purpose

This study aimed to evaluate whether there is a significant difference in school staff members' level of knowledge, self-efficacy, and intent to intervene when students are found vaping based on:

- Participation in vaping education
- Type of vaping education
- Personal experience with vaping
- Experience with vaping intervention

Background

- Fastest growing form of tobacco use in young people.
- Negatively impacts cognition and may cause development of mood disorders.
- School staff is uniquely positioned to intervene.

Methods

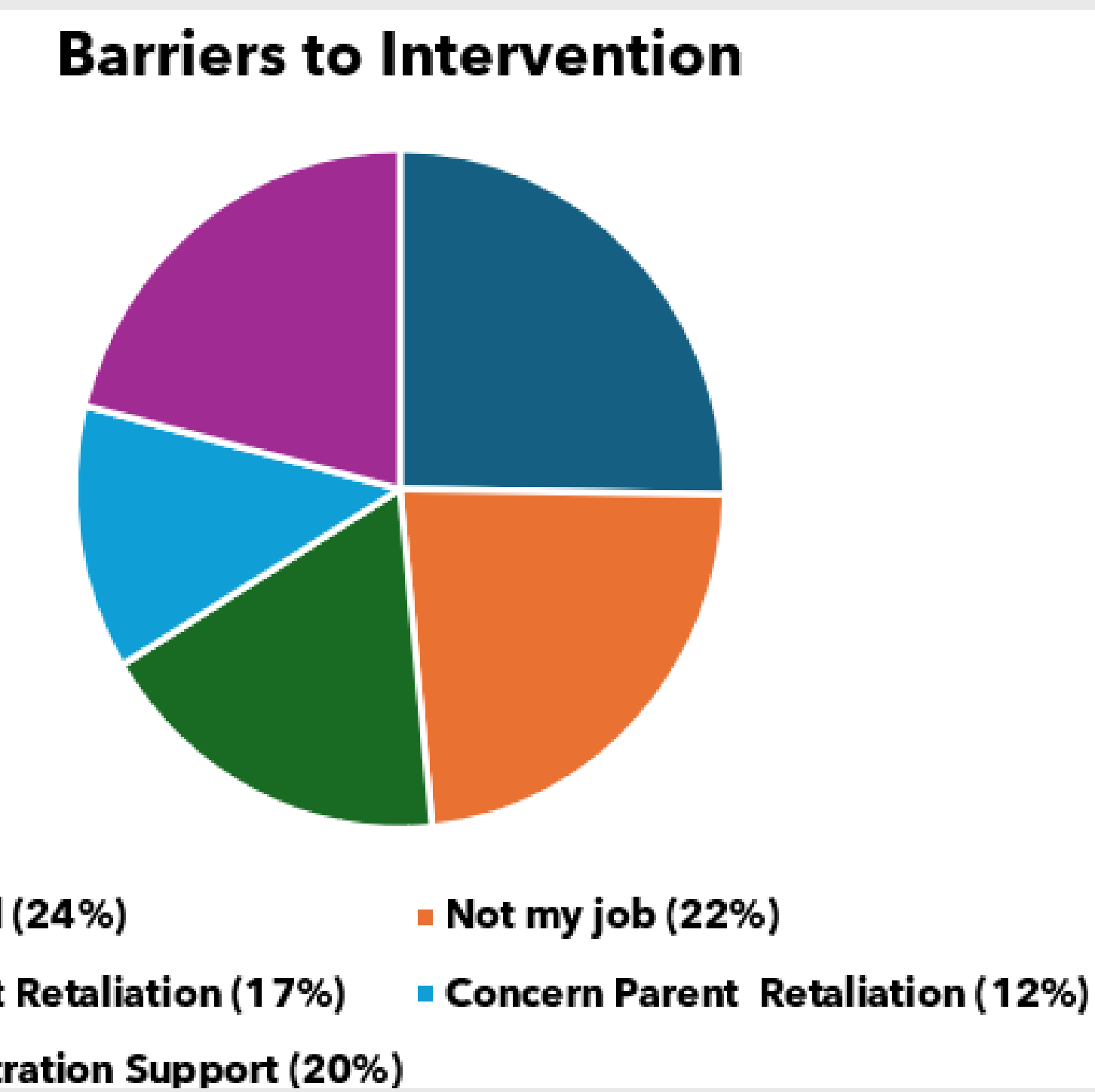
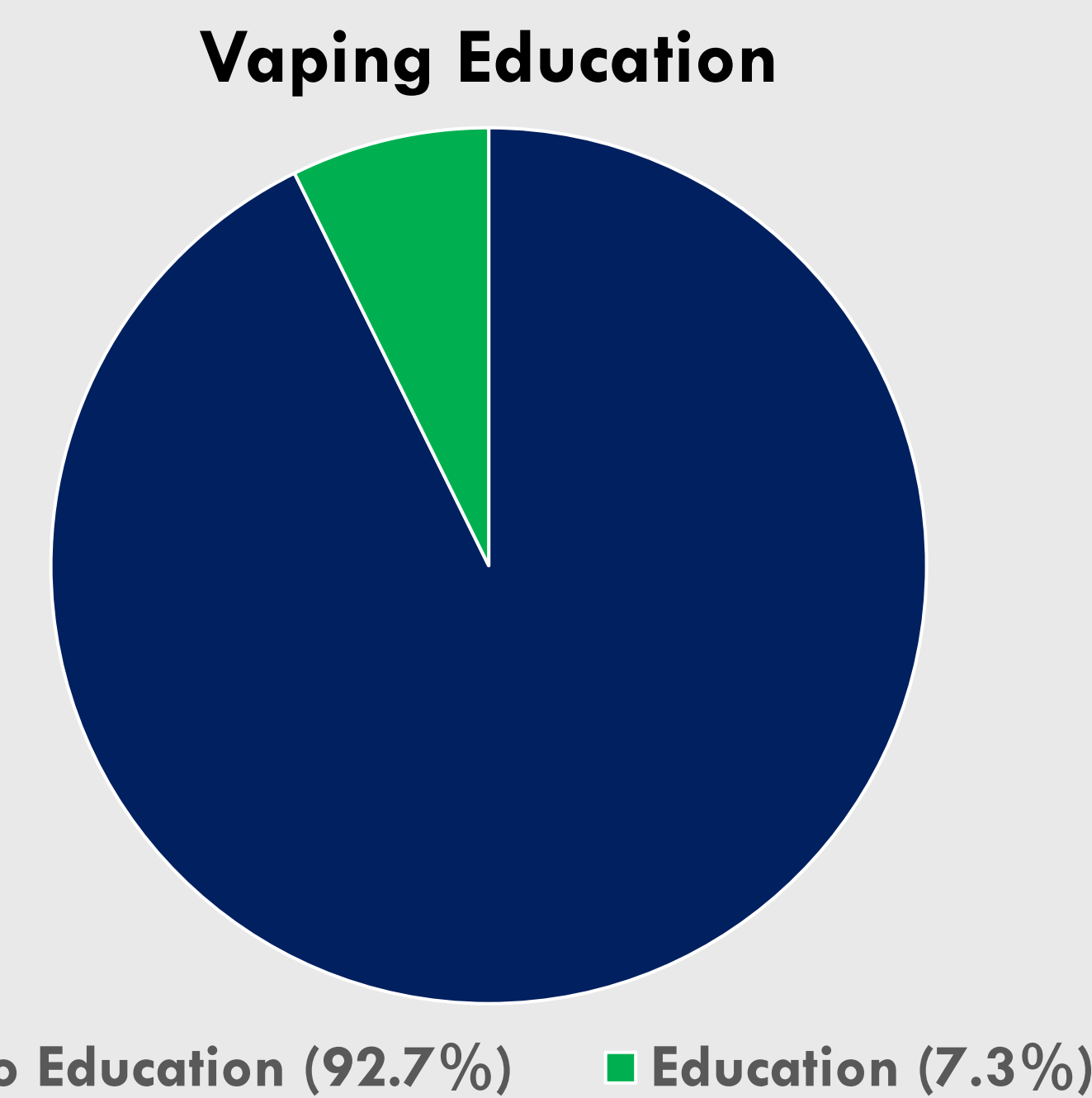
Non-experimental causal comparative design with researcher-developed survey.

Sample

- Two rural Title I High Schools in Eastern VA.
- 41 completed Surveys from staff

Results

Demographic	n	%
Age		
<30	9	22
30-39	8	19.5
40-49	14	34.1
50+	10	24.4
Gender		
Male	12	29.3
Female	29	70.7
Race		
White, non-Hispanic	34	82.9
Hispanic, Latino	2	4.9
African American	4	9.8
Other	1	2.4
Edu Level Completed		
Less than college	4	9.8
Undergraduate degree	18	43.9
Graduate degree	19	46.3
Role at School		
School staff	3	7.3
Teaching	26	63.4
Admin	12	29.3
Do you vape?		
No	40	97.6
Yes	1	2.4



Prior Vaping Education	Knowledge Score High (>82%)	Self-Efficacy Score (High SE 32+)	Intent to Intervene Score (High 29+)
No	71.1% (n=27)	57.9% (n=22)	57.9% (n=22)
Yes	100% (n=3%)	33.3% (n=1)	66.7% (n=2)
P value	0.276	0.409	0.767
Personal Exp w/Vaping	Knowledge Total Score	Self-efficacy Total Score	Intent to Intervene Total Score
No	N=31 Mean = 76.1 Std. Dev = 17.503	N=31 Mean = 30.39 Std. Dev = 8.11	N=31 Mean = 29.096 Std. Dev = 6.42
Yes	N=10 Mean = 69.9 Std. Dev = 15.14	N=10 Mean = 30.5 Std. Dev = 8.462	N=10 Mean = 28.096 Std. Dev = 4.3
T-value/p Value	1.003/0.322	-0.38/0.97	-1.377/0.177
Personal Exp. w/Vape Intervention	Knowledge Score	Self-Efficacy Score	Intent to Intervene Score
No	N=28 Mean=90.8 Std. Dev.=1.105	N=28 Mean=30.96 Std. Dev.=7.381	N=28 Mean=28.04 Std. Dev.=6.22
Yes	N=13 Mean=87.6 Std. Dev.0.87	N=13 Mean=29.23 Std. Dev.=9.662	N=13 Mean=30.54 Std. Dev.=5.56
T-value/p value	0.424/0.667	0.634/0.53	-1.238/0.223
Witness Vape Intervention	Knowledge Score	Self-Efficacy Score	Intent to Intervene Score
No	N=25 Mean=71.8 Std. Dev.=20.114	N=25 Mean=30.96 Std. Dev.=7.813	N=25 Mean=28.4 Std. Dev.=6.34
Yes	N=16 Mean=78.94 Std. Dev.=9.441	N=16 Mean=29.56 Std. Dev.=8.695	N=16 Mean=29.5 Std. Dev.=5.75
T-value/p-value	-1.325/0.193	0.535/0.596	-0.562/0.578

Conclusions

- Few school staff received vaping education.
- There was no significant difference in knowledge, self-efficacy, or intent to intervene based on:
 - Personal vaping experience
 - Personal experience with intervention
 - Age
 - Role
- Knowledge and self-efficacy were significantly higher in females.
- Most common barriers: Feeling unprepared, lack of support, and not included in my job role.

Implications

- Most rural high school staff do not have the education to intervene in teenage vaping.
- Addressing barriers to intervention may increase intervention in the future.

Limitations

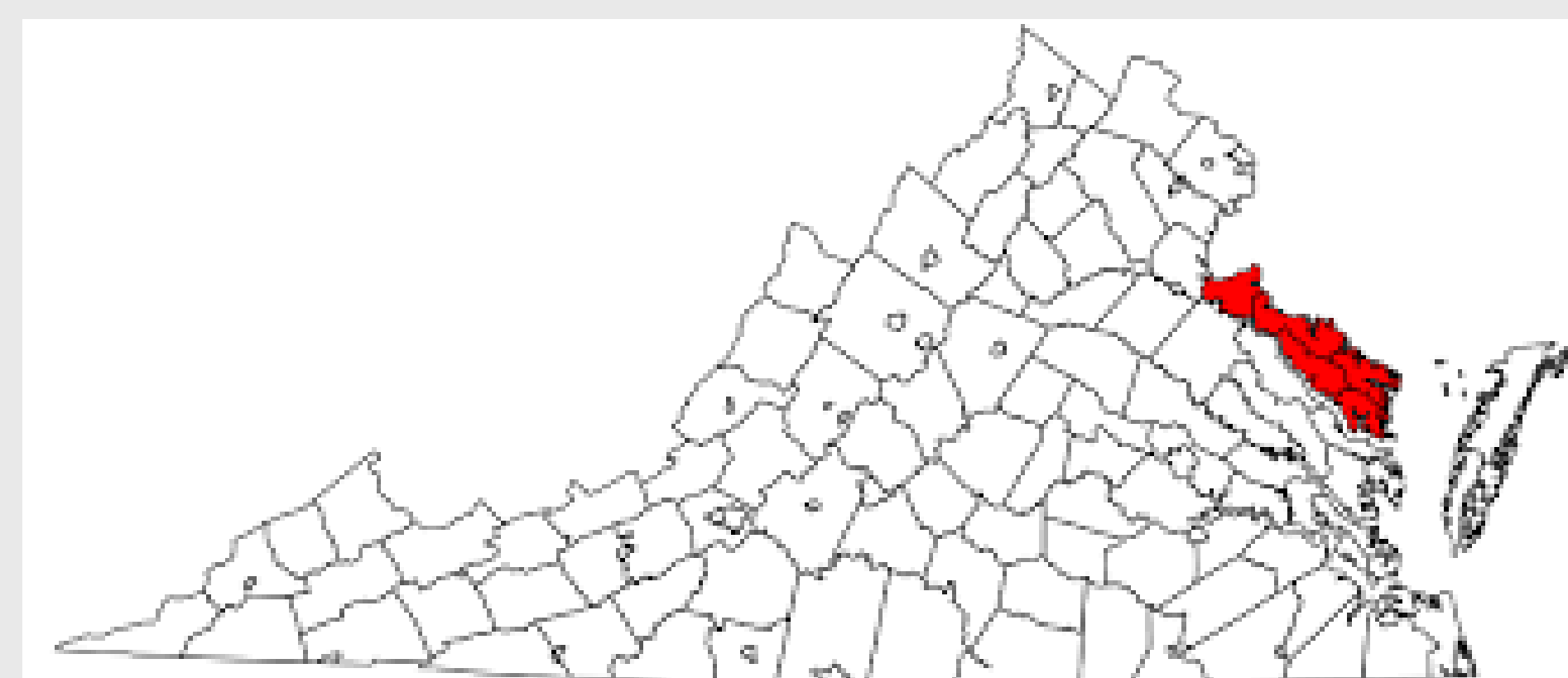
- Small sample size
- Only 3 out of 41 participants had education
- Only two schools utilized

Future Research:

- Larger sample size with many more rural high schools participating.
- Development and evaluation of future vaping cessation programs for high school staff members.

Gender	Knowledge Score High (>82%)	Self-Efficacy Score (High SE 32+)	Intent to Intervene Score (High 29+)
Male	N=12 Mean=62.42 Std. Dev.=24.63	N=12 Mean=25.5 Std. Dev.=10.449	N=12 Mean=28.25 Std. Dev.=8.39
Female	N=29 Mean=79.62 Std. Dev.=9.178	N=29 Mean=32.45 Std. Dev.=5.998	N=29 Mean=29.06 Std. Dev.=4.97
T-value/p-value	-2.353/0.036	-2.161/0.048	-0.389/0.699

Age	Knowledge Score High (>82%)	Self-Efficacy Score (High SE 32+)	Intent to Intervene Score (High 29+)
≤40yo	N=18 Mean=69.28 Std. Dev.=22.186	N=18 Mean=32 Std. Dev.=7.38	N=18 Mean=28.61 Std. Dev.=7.245
≥40yo	N=23 Mean=78.74 Std. Dev.=10.163	N=23 Mean=29.17 Std. Dev.=8.558	N=23 Mean=29 Std. Dev.=5.13
T-value/p-value	0.006/0.107	0.491/0.272	0.444/0.842



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