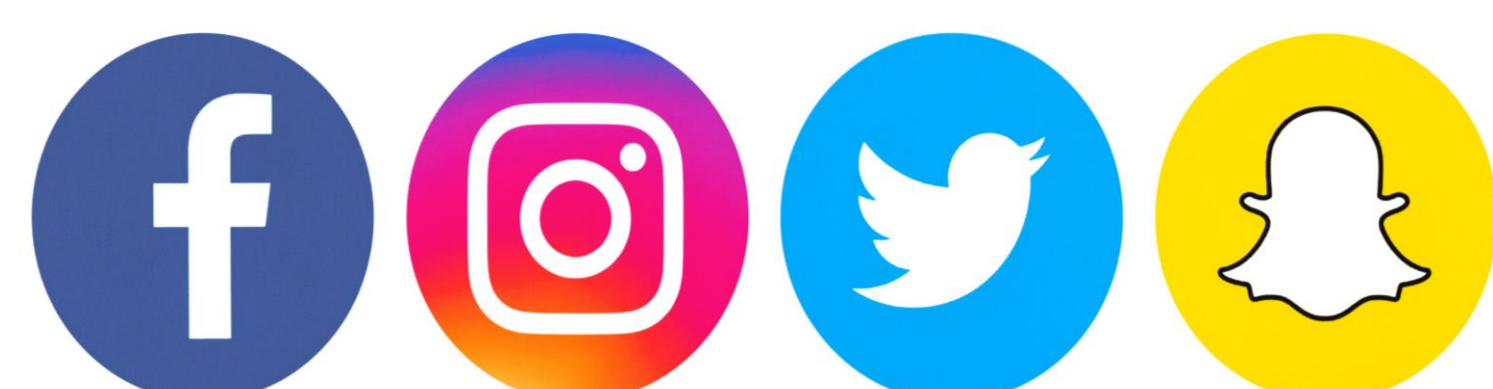


Caroline C Salafia<sup>1</sup>; Nicole K Watkins<sup>1</sup>, and Christine M Ohannessian<sup>1,2</sup>  
<sup>1</sup>Connecticut Children's Medical Center; <sup>2</sup>University of Connecticut School of Medicine

## BACKGROUND

- ❖ Electronic cigarettes are reported as the most commonly used tobacco product among adolescents (Wang et al., 2018), raising a public health concern of future nicotine addiction and long-term adverse effects.
- ❖ Prevention of electronic cigarette/vape use and nicotine addiction requires the examination of potential risk factors and predictors of use.
- ❖ Social media use has been associated with substance use, with greater use linked to more problematic alcohol use and frequent drug use (Ohannessian et al., 2017).
- ❖ Additionally, peer influence in adolescence plays an important role in substance use initiation. More specifically, cyber victimization has been associated with increased frequency of substance use in adolescents (Mehari et al., 2019).
- ❖ However, little is known about the relationship between social media use, social media victimization, and vape use in adolescents.



## OBJECTIVE

To examine whether social media victimization moderates the association between social media use and vape use among adolescents.

## METHODS

### Participants:

- ❖ 438 early adolescents in seventh and eighth grade from public middle schools in the New England area
- ❖ 51% girls
- ❖ Age: M = 12.74, SD = 0.70, Range = 11-14 years
- ❖ 51% Non-Hispanic White

### Procedure:

- ❖ Self-report questionnaires were administered twice to students during school separated by a 6-month interval between Fall 2016 (T1) and Spring 2017 (T2).
- ❖ Students received a \$10 movie pass as an incentive for completing the survey at each time point.

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## METHODS

### Measures:

The following validated self-report measures were administered at T1 and T2:

| Construct                  | Measure   | Scale  |
|----------------------------|---|--|
| Social Media Use           | Technology Use Questionnaire (TUQ) (Facebook, Instagram, Snapchat, Twitter) | Average frequency of social media use of the four applications |
| Social Media Victimization | Social Network Peer Experience Questionnaire (SN-PEQ)                       | Presence of Relational Victimization                           |
| Vape Use                   | First Use – Smoked electronic vaporizers or e-cigarettes                    | Coded as yes or no for ever use (0 = no, 1 = yes)              |

### Analytic Plan:

- ❖ Hierarchical Logistic Regression Model
  - ❖ Independent Variable: TUQ Score (T1)
  - ❖ Dependent Variable: Vape Use (T2)
  - ❖ Moderator Variable: Social Media Victimization (T1)
  - ❖ Covariates: Gender, Age, Race/Ethnicity (T1)

## RESULTS

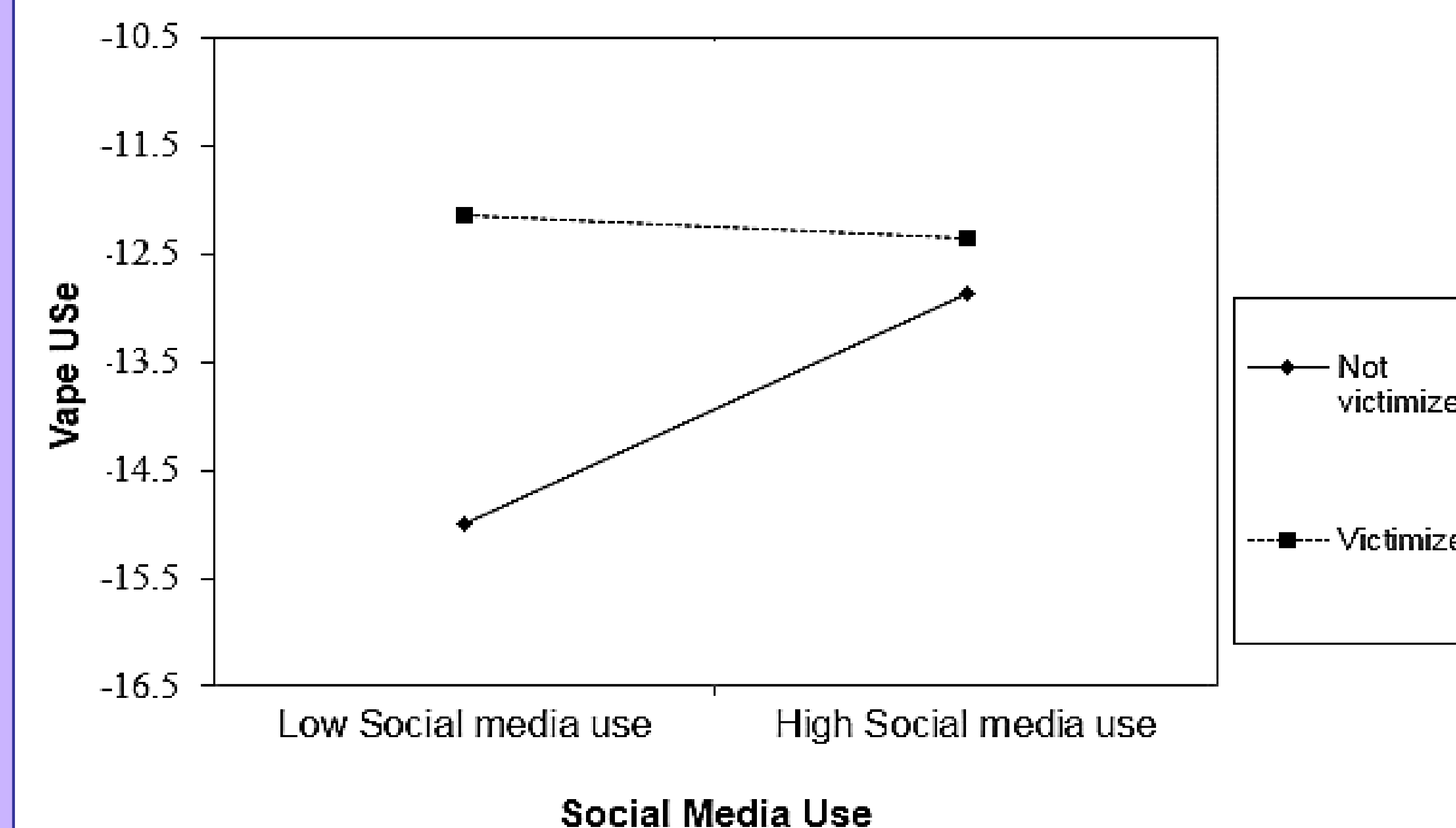
Table 1. Logistic Regression Analysis Results

|   | Vape Use (n = 438) |      |         |               |
|---|--------------------|------|---------|---------------|
|   | b                  | SE   | OR      | 95% CI        |
| Age                                     | 0.78               | 0.33 | 2.17*   | [1.14, 4.13]  |
| Female <sup>a</sup>                     | -0.22              | 0.47 | 0.80    | [0.32, 2.01]  |
| White, non-Hispanic <sup>b</sup>        | 0.91               | 0.49 | 2.47    | [0.95, 6.43]  |
| Social Media Use                        | 0.57               | 0.13 | 1.77*** | [1.37, 2.28]  |
| Social Media Victimization <sup>c</sup> | 1.68               | 0.60 | 5.39**  | [1.66, 17.48] |
| SMU*SM Victimization                    | -0.63              | 0.25 | 0.53*   | [0.33, 0.87]  |
| $\chi^2(df)$ – step 1                   | 27.99(5)***        |      |         |               |
| $\chi^2(df)$ – step 2                   | 6.48(1)*           |      |         |               |

Notes. <sup>a</sup>Male is the referent group. <sup>b</sup>non-White is the referent group.  
 \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

## RESULTS

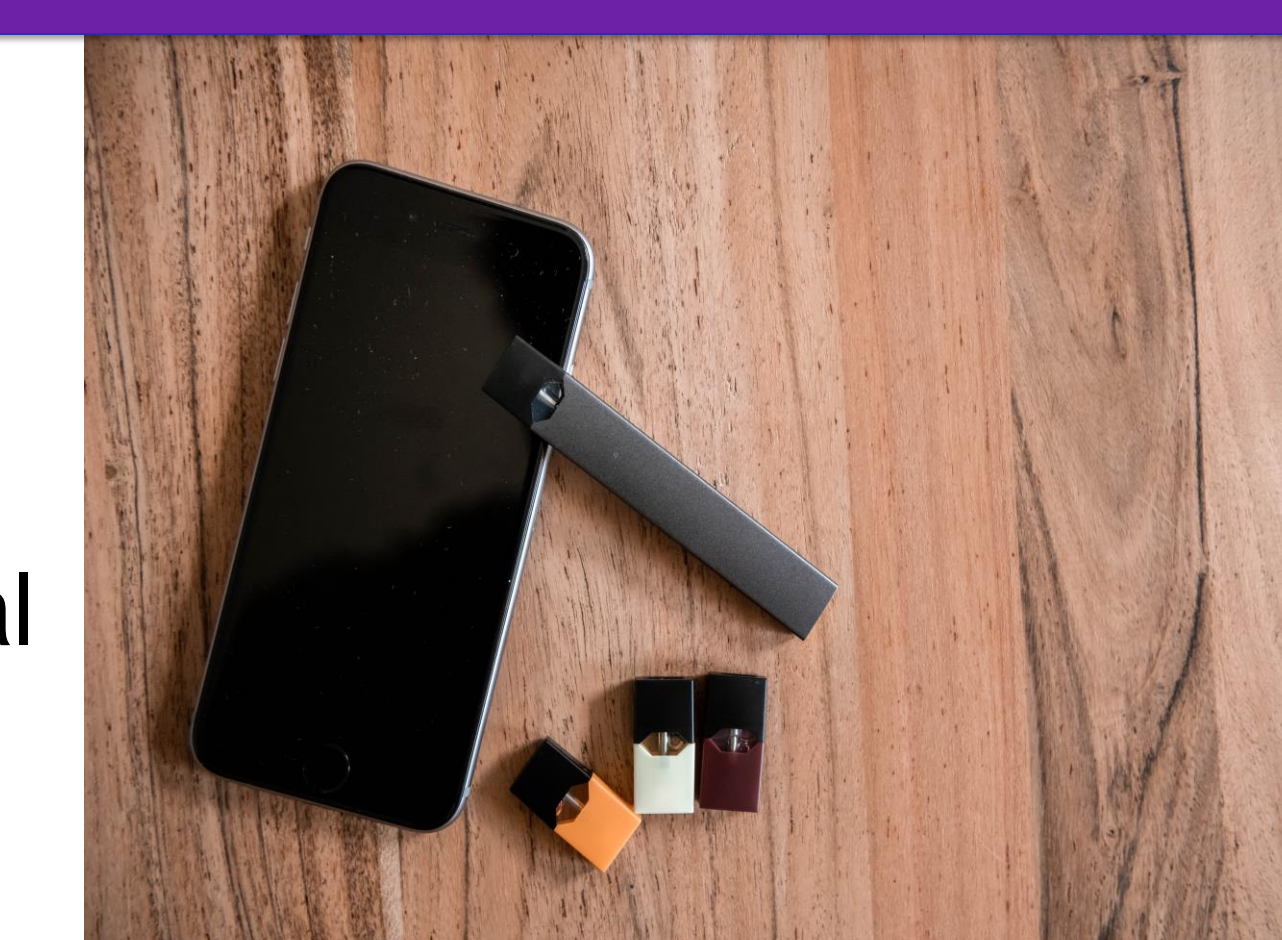
Figure 1. Social Media Use and Vaping, Moderated by Social Media Victimization



- ❖ The interaction between social media and victimization was significant, such that when social use was low, the odds of vaping increased for those who had been victimized.
- ❖ When social media use was high, vape use did not depend on whether the adolescent was victimized or not.

## RESULTS AND CONCLUSIONS

- ❖ Findings indicated social media victimization moderated the association between social media use and vape use.
- ❖ Adolescents who reported social media victimization were at an increased odds of vape use.
- ❖ For individuals who have not been victimized, findings suggest a concern over the mere frequency of use. Greater frequency of social media use was associated with greater odds of vape use.



### Implications:

- ❖ Recognizing and addressing cybervictimization and perpetrators of cyberbullying may help to decrease individuals' odds of vape use.
- ❖ Limiting exposure to social media in general may help to reduce odds of vape use in adolescents who are not victimized on social media.