

# Cannabis Vaping among LGBTQ+ and Cisgender Heterosexual Young Adults in Southern California

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### Introduction

- Evidence that LGBTQ+ persons exhibit:
  - greater use of electronic vaping devices<sup>1</sup>
  - elevated rates of cannabis use<sup>2-3</sup>
- Cross-sectional data suggest **LGBTQ+ youth** have greater odds of vaping cannabis products (delta-9-THC)<sup>4</sup>
- Psychosocial factors (e.g., depression, minority stressors) may underlie disparities<sup>5</sup>

*Longitudinal data on cannabis vaping in LGBTQ+ emerging adults is scarce.*

**Purpose:** to examine cannabis vaping among LGBTQ+ and cisgender heterosexual young adults

### Method

#### Sample Population

- Happiness & Health Study
  - Recruited Los Angeles-area high school students beginning 2013
  - Post-high school follow ups: Wave 9 (2019); Wave 10 (2020); Wave 11 (2021)
  - 2,006 participants with complete data at 3 waves
  - 6,018 unique observations

#### Measures

- LGBTQ+ Status**
- Outcomes**
  - Past 6-month cannabis vaping (yes vs. no)
  - Past month cannabis vaping days (ordinal scale: 0-30)
- Moderators**
  - Center for Epidemiological Studies Depression; CESD
  - General Anxiety Disorder-7; GAD-7
  - Everyday Discrimination Scale; EDS

#### Data Analysis

- Generalized Linear Mixed Modeling (GLMM)** with robust estimators
  - Binary Logistic Regression (6-month vaping)
  - Negative Binomial regression (past month vaping days)
  - Adjusted for sex, ethnicity, and lifetime e-cigarette device use

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## Results

### Cross-Sectional Findings

Table 1.	Wave 9	Wave 10	Wave 11
<b>LGBTQ+ Status</b>			
Cisgender Heterosexual	77.4%	76.3%	74.7%
LGBTQ+	18.4%	1.0%	22.5%

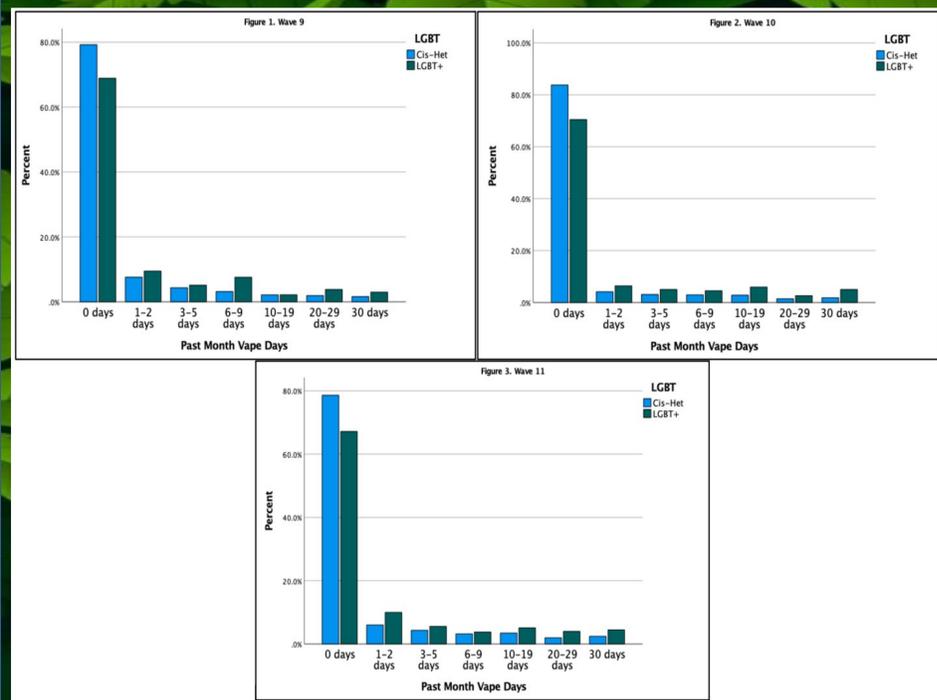
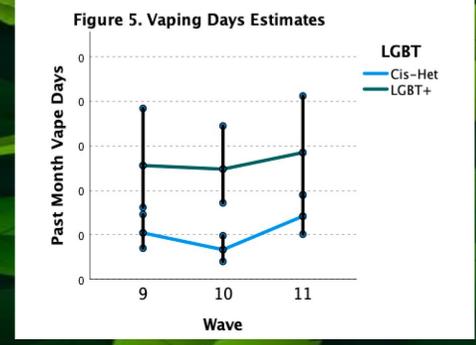
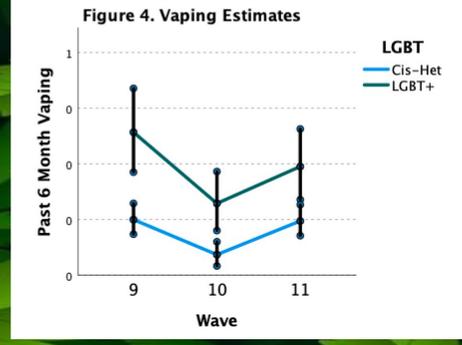


Table 2.	Cisgender Heterosexual	LGBTQ+	Overall
<b>Wave 9</b>			
Past 6-month Vaping	27.5%	43.8%	30.6%
CESD	9.07	11.63	9.59
GAD	5.34	7.93	5.85
EDS	6.60	8.66	6.99
<b>Wave 10</b>			
Past 6-month Vaping	22.1%	38.0%	25.7%
CESD	8.47	12.03	9.27
GAD	4.91	7.79	5.57
EDS	6.24	8.62	6.77
<b>Wave 11</b>			
Past 6-month Vaping	26.4%	41.8%	30.1%
CESD	9.29	12.88	10.16
GAD	5.57	8.27	6.20
EDS	6.66	8.74	7.17

### Longitudinal Findings

Table 3. Vaping	F	p	Odds Ratio	95% CI
<b>LGBTQ+ Status</b>	7.94	.005		
LGBTQ+			2.54	1.40 – 4.60
Cisgender Heterosexual			(ref)	-
<b>LGBTQ+ Status *</b>				
CESD	0.15	.698	0.99	0.94 – 1.04
GAD	0.08	.780	1.01	0.95 – 1.08
EDS	2.25	.134	0.97	0.94 – 1.01

Table 4. Vaping Days	F	p	Odds Ratio	95% CI
<b>LGBTQ+ Status</b>	8.50	.004		
LGBTQ+			1.79	1.13 – 2.84
Cisgender Heterosexual			(ref)	-
<b>LGBTQ+ Status *</b>				
CESD	0.55	.457	0.99	0.95 – 1.02
GAD	4.03	.045	1.04	1.00 – 1.08
EDS	10.05	.002	0.97	0.94 – 0.99



### Conclusions

- LGBTQ+ identity** associated with:
  - greater odds of cannabis vaping in past 6 months
  - greater frequency of cannabis vaping in past month
- Participants at **Wave 10** demonstrated:
  - lower odds of cannabis vaping in past 6 months
  - fewer cannabis vaping days in past month
- Moderation effects for *past-month cannabis vaping days*
  - Higher GAD scores associated with greater days among LGBTQ+ participants
  - Lower EDS scores associated with fewer days among LGBTQ+ participants

- #### Limitations & Future Directions:
- Impact of COVID-19 (Wave 10)
  - Examine within-subject effect of LGBTQ+ identity
  - Incorporate additional random effects (e.g., time, CESD, GAD, EDS)