

## INTRODUCTION

- Previous research reports that sexual minorities, including lesbian, gay, and bisexual (LGB) individuals, are at increased risk for substance use.<sup>1,2</sup>
- Emerging adulthood, a period of transition from adolescence to adulthood between the ages of 18 and 25, is a critical period of identity development and sexual relationship exploration.
- Besides sexual orientation related discrimination, Hispanic LGB people also may experience acculturative and developmental stressors during emerging adulthood, which could lead to a higher risk of depression and/or substance use.
- Minority Stress Theory suggests that self-identified as LGB could be a stressor evoking depressive symptoms among Hispanic emerging adults, which could gradually or immediately exacerbate their susceptibility to later substance use.<sup>3</sup>
- Few studies have discussed how depression mediates the relationship between sexual orientation and substance use among Hispanic emerging adults.

## METHODS

- Project RED (Reteniendo y Entendiendo Diversidad para Salud, or Retaining and Understanding Diversity for Health) is a longitudinal study of acculturation patterns and substance use among Hispanics/Latinos in Southern California.
- Data for this study were collected from Hispanic/Latino emerging adults who were initially enrolled in Project Red during their adolescence, when they were attending one of seven high schools in the Los Angeles area from 2005 to 2007.
- From 2010 to 2014, previous participants were re-contacted via mailed letters, phone calls, e-mails, social media posts, and communication with family or friends listed as contacts.
- So far, three waves of emerging adulthood (EA) survey have been completed, including 1390 (EA 1), 1416 (EA 2), and 1406 (EA 3) participants respectively. Of those, 1267 emerging adults provided complete data on all variables in this analysis.

### Measures:

- Demographic Characteristics
- Sexual Orientation
- Depressive Symptoms (10-item CES-D)<sup>4</sup>
- Substance Use

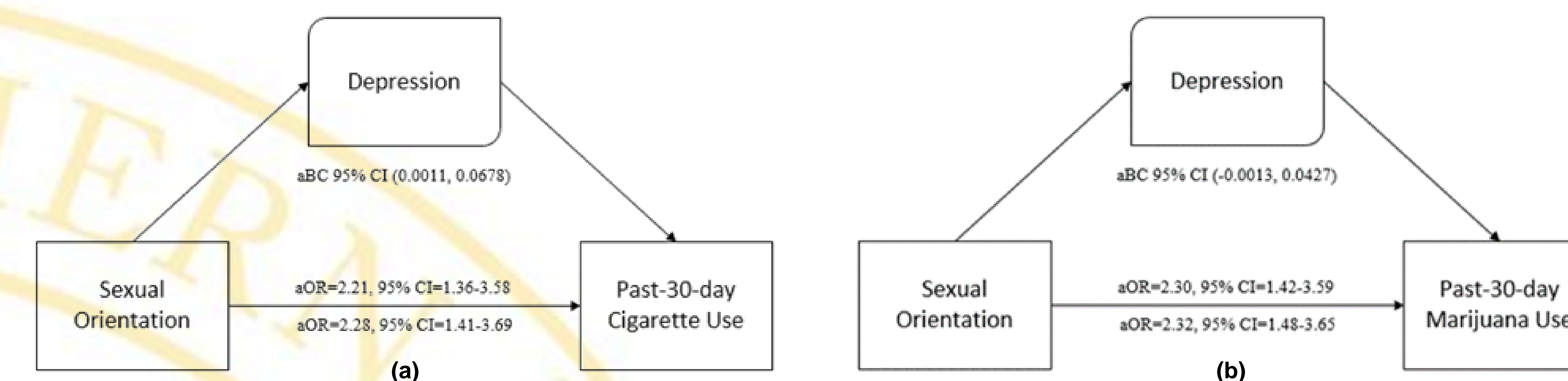
### Analysis:

- Chi-square tests were conducted to examine potential gender differences in demographics, sexual orientation, depressive symptoms, and substance use.
- Multivariate logistic regression models were applied to evaluate the hypothesized association between sexual orientation at EA 1 or 2 and substance use at EA 3 controlling for age, gender, and SES.
- Bootstrapping was used to determine whether levels of depressive symptoms mediated the aforementioned relationship between sexual orientation and substance use among Hispanic emerging adults. In our analysis, a mean CES-D score from EA 2 and EA 3 was used, and we resampled the data 5000 times.<sup>5</sup>

## RESULTS

- All the participants were Hispanic/Latino. Most of them were aged 23 (85.4%), and 59.6% of them were female (n=761) in the assessments of EA 3.
- The proportion of emerging adults identifying as LGB during at EA 1 and EA 2 were 7.1% (n=90) overall, with 3.4% homosexual 3.7% bisexual respectively.
- Specifically, 20 men (4.0%) self-identified as gay and 8 (1.6%) as bisexual; 23 women (3.0%) self-identified as lesbian and 39 (5.1%) as bisexual in contrast. This difference in sexual orientation by gender was found to be statistically significant (p<0.05).
- Among Hispanic emerging adults, sexual minorities were more likely to report past-30-day use of cigarettes (aOR=2.28, 95% CI=1.41-3.69), and marijuana (aOR=2.32, 95% CI=1.48-3.65), compared to those who identified as heterosexuals. Notably, bisexuals showed even higher risks of substance use.
- No significant association between sexual orientation and alcohol or other illicit drugs use was observed.
- Depressive symptoms significantly mediated the relationship between sexual orientation and past-30-day cigarette use (adjusted bias-corrected bootstrap 95% CI=0.0011-0.0678). Specifically, depressive symptoms partially mediated the associations between sexual orientation and past-30-day cigarette use, by causing a decrease of 3.07% (aOR= 2.21, 95% CI=1.36-3.58) in the odds ratio.

Figure 1 Mediation Effect of Depression.



**aBC 95% CI:** Adjusted bias-corrected bootstrap 95% confidence interval. If zero is not in the interval, the indirect effect under evaluation is statistically different from zero and the proposed factor is a significant mediator of the main effect.  
**aOR:** Adjusted odds ratio.  
 Covariates include age, gender, and SES.

Table I Associations between Sexual Orientation (EA 1 & EA 2) and substance use (EA 3) among Hispanic/Latino Emerging Adults

Substance Use Patterns	Overall (Males & Females)				Bootstrapping aBC 95% CI†	Further Adjustment for Depression			
	Heterosexual	LGB aOR (95% CI)*		Heterosexual		LGB aOR (95% CI)*			
		Homosexual aOR (95% CI)*	Bisexual aOR (95% CI)*			Homosexual aOR (95% CI)*	Bisexual aOR (95% CI)*		
Cigarette									
Past-30-day Use	Ref.	2.28 (1.41, 3.69)		(0.0011, 0.0678)	Ref.	2.21 (1.36, 3.58)			
Alcohol									
Past-30-day Use	Ref.	1.31 (0.79, 2.18)		N/A		N/A			
Marijuana									
Past-30-day Use	Ref.	2.32 (1.48, 3.65)		(-0.0013, 0.0427)		N/A			
Other Illicit Drugs									
Past-30-day Use	Ref.	1.61 (0.74, 3.50)		N/A		N/A			

\*Adjusted Odds Ratio; adjusting for participants' age, gender, and SES

†Adjusted Bootstrapping 95% Confidence Interval; adjusting for participants' age, gender, and SES

## DISCUSSION

- Our research evaluated the substance use patterns among Hispanic youths during the transitional stage of emerging adulthood by empirically examining the sexual orientation disparities in substance use among Hispanic emerging adults.
- Among Hispanic emerging adults, sexual minorities have elevated risks of substance use, and bisexuals could be even more vulnerable to substance-related health concerns.
- This study also revealed that levels of depressive symptoms partially mediated the relationship between sexual orientation and past-30-day cigarette use.
- Future studies are needed to determine how youths who are both sexual and ethnic minorities can develop resilience skills to cope with stress without experiencing depression and/or resorting to substance use.

## REFERENCE

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