The Effects of Adverse Childhood Experiences (ACEs) on poor Mental and Physical Health Outcomes in Asian LGB students

William Vang, BA Ruby Nguyen, PhD
School of Public Health I Department of Epidemiology
College of Liberal Arts

Objective

Research Questions

- Do Asian LGB Minnesota college students have a higher prevalence of ACEs compared to Asian heterosexual students?
- Are Asian LGB students who have experienced ACEs more likely than non-LGB Asian students to exhibit poorer mental health and physical health outcomes

Introduction

- LGB members correlate to higher risk factors, such as higher levels of depression, compared to non-LGB members
- LGB individuals experiences nearly twice the rate of ACEs compared to heterosexual individuals

Although many studies have shown the correlation between stressors and psychological distress of the dominant white LGB community, there are few researches regarding the unique characteristics of the Asian LGB community. Finding unique risk factors can lead to best clinical approaches to understand this research adversity

Methods

The College Health Survey implemented by Boynton Health Survey was analyzed.

Participants

Total: n=12,220

For data analysis of hypothesis one and two, which is to determine the group with higher prevalence of violence, a frequency table will be created between the histories of violence of the two corresponding groups. Chi-square tests with resultant p-values and 95% confidence intervals will be used to compare the prevalence of the histories of violence between groups. The null hypothesis will be generated stating that there is no difference in the histories of violence between the two groups. If the p-value is less than 0.05, that will reflect the rejection of the null hypothesis, and provide evidence that there is statistical difference between the two groups.

Results

Ace Table

	White			Asian/Pacific Islander		
ACE Category	GLB	Hetero.	P-	GLB	Hetero.	P-
	No. (%)	No. (%)	value	No.	No. (%)	value
				(%)		
Physical abuse (Q31)	147	1,042	<0.001	10 (31)	115	0.231
	(24)	(13)			(22)	
Sexual abuse, were touched (Q33)	106	610 (8)	<0.001	8 (25)	56 (11)	0.015
	(18)					
Sexual abuse, forced to touch (Q34)	80 (13)	419 (5)	<0.001	7 (23)	28 (5)	< 0.001
Sexual abuse, forcible rape (Q35)	40 (7)	186 (2)	<0.001	3 (6)	18 (3)	0.090
Emotional abuse (Q32)	352	3,275	<0.001	20 (63)	245	0.093
	(58)	(42)			(47)	
Parental separation or divorce (Q29)	206	2,032	<0.001	12 (40)	107	0.018
	(36)	(27)			(21)	
Adult mental illness (Q25)	299	2,497	<0.001	13 (50)	115	0.005
	(57)	(35)			(25)	
Adult substance abuse, alcohol	200	1,812	<0.001	15 (48)	65 (13)	<0.001
(Q26)	(34)	(24)				
Adult substance abuse, drugs (Q27)	130	1,064	<0.001	5 (18)	42 (8)	0.09
	(22)	(14)		/	,	
Incarcerated household member (Q28)	73 (12)	642 (8)	0.001	2 (6)	36 (7)	0.855
Violence between adults (Q30)	101 (17)	966 (12)	0.002	10 (31)	115 (22)	0.241

GLB = Self-identified as gay, lesbian or bisexual Hetero. = Self-identified as heterosexual

Asian/Pacific Islander = Non-international student self-identified as Asian or Pacific Islander

P-value = Race-specific p-value using a chi-square test

* Q codes will be removed prior to submission

Findings

The attached table shows the prevalence of different ACE categories in relation to both racial (Asian/Pacific Islander and White) identity and sexual (GLB or Hetero) identity. Overall, the attached table shows that white, heterosexual members have the highest reporting of ACE categories when compared to their white, GLB counterparts along with Asian GLB and hetero members. Although the survey conducted managed to reach more than 12,000 respondents, the results show that only a sliver of the total respondents were Asian/Pacific Islanders. The most reported cases of ACEs happen to be emotional abuse in white, heterosexual persons with 3,275 respondents, followed by an adult having mental illness in the household, again, in white, heterosexual members. The highest prevalence of any one ACE category was emotional abuse amongst GLB Asian/Pacific Islanders, that being a prevalence of 63%. The lowest prevalence of any one ACE category was sexual abuse or forcible rape amongst white, heterosexual members, that being a prevalence of 2%.

When looking at the different ACE categories solely in conjunction to sexual orientation, GLB members showed higher prevalence percentages of ACEs compared to non-GLB or heterosexual members in all categories except one which appeared in Asian/Pacific Islanders and of which was the ACE category of having an incarcerated household member. The highest difference in the prevalence of ACE categories between GLB members and Hetero members seem to be in the category of sexual abuse and forced touch among Asian/Pacific Islanders. This ACE category showed a four-fold difference in prevalence of this abuse in GLB members compared to Hetero members, that being a 23% prevalence and 5% prevalence respectively.

Conclusion

In conclusion, LGB persons from either racial group, whites or Asian/Pacific Islander exhibit a higher prevalence of ACEs. Asian/Pacific Islanders has shown even higher prevalence rates of ACEs compared to whites. This means that even though there is higher abuse in LGB persons compared to heterosexual persons, the risk factors are different when it comes to the two racial groups.

When analyzing the p-values, a null hypothesis signifies that there is no difference between the two sexuality groups (GLB and Heterosexual) in terms of prevalence of the accorded ACE category. When comparing the two racial groups, it is evident that there is a difference between GLB and heterosexual persons within the white group. All of the values are highly statistically important because the p-values of all the ACE categories are less than 0.002. When looking at the Asian/Pacific Islander students, six out of eleven ACE categories are highly statistically important. However, this could be due to the sample size of Asian/Pacific Islanders being quite small compared to Whites and there needs to be more information to truly indicate whether there truly is no difference between the two groups. Along with that, these pvalues could represent an emphasis of certain ACE categories over others categories such as the importance of sexual abuse over physical abuse.

Future Directions

Results could be disaggregated even further to focus on specific ethnicities so that data will be specific instead of generalizable. Other identies like transgender should be included because disparities may be made more clear. Also, a larger sample size would be needed to determine the prevalence of ACEs in Asian/Pacific Islanders.

Acknowledgements

University of Minnesota Boynton Health: 2015 College Health Survey (CSHS)

University of Minnesota: Undergraduate Research Opportunities Program

Collaborators include Lynette Renner, Ph. D., Traci Thomas-Card, Ph. D.