Examination of sex differences in the association of interpersonal violence and symptoms of depression and anxiety among college students

Rowan K. O'Hara 1, 2

☞ @RowanKOHara

oharark@vcu.edu

Eva E. Lancaster, PhD,¹ The Spit for Science Working Group, Christina Sheerin, PhD,¹ Elizabeth Prom-Wormley, PhD,^{1, 3} Roseann E. Peterson, PhD¹

Introduction

- The lifetime occurrence rates of depression and anxiety are two times higher in women than men (Altemus, Sarvaiya, and Neill Epperson 2014).
- One factor that could contribute to this phenomenon is exposure to interpersonal violence (IPV).
- Survivors of IPV have a greater chance of developing mental illness following exposure (Hebenstreit, DePrince, and Chu 2014).

Methods

- Data were from the Spit for Science project collected from college students (N = 7196, 62% female).
- Participants' depression and anxiety symptom scores were calculated based on an abbreviated Symptoms Checklist-90 (SCL-90), and IPV exposure was self-reported if the participant had ever experienced physical assault, sexual assault, or other uncomfortable sexual experiences.

Table 1: Demographics

	N	IPV Exposure*	
Sex			
Female	4470 (62%)	1699 (38%)	
Male	2726 (38%)	866 (32%)	
Race/Ethnicity			
White	3707 (52%)	1370 (37%)	
Black/African American	1313 (18%)	461 (35%)	
Asian	1131 (16%)	318 (28%)	
Hispanic/Latino	436 (6%)	164 (38%)	
More than One Race	431 (6%)	185 (50%)	
Unknown	93 (1%)	36 (39%)	
Pacific Islander	50 (<1%)	18 (36%)	
Native American	35 (<1%)	13 (37%)	
Total	7196 (100%)	2565 (37%)	

^{*} prior to starting college

Interpersonal violence is associated with symptoms of depression and anxiety and is moderated by sex.



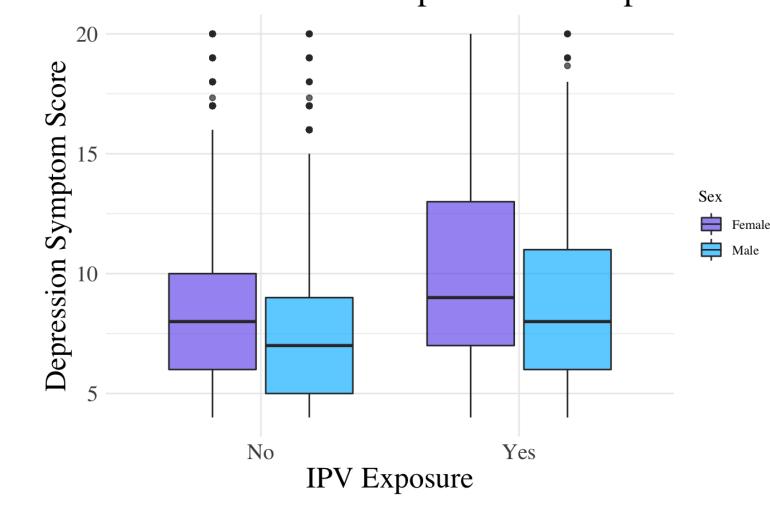
Virginia Institute for Psychiatric and Behavioral Genetics





Results

Sex Differences in IPV Exposure and Depression



Sex Differences in IPV Exposure and Anxiety

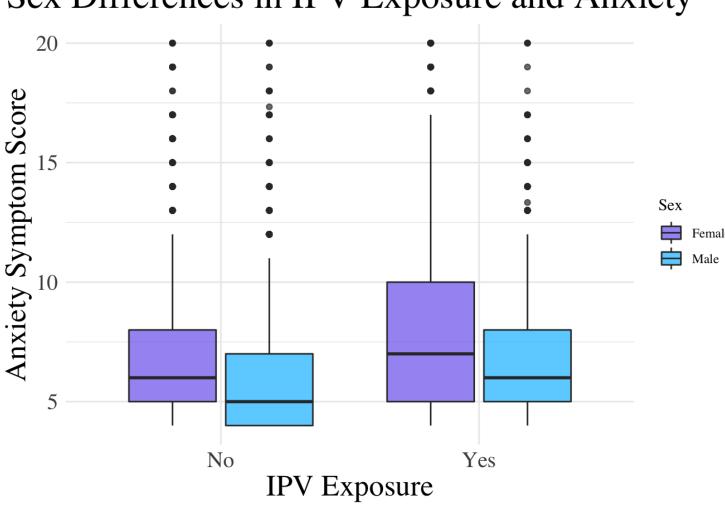


Table 2: Welch Two Sample t-test Results

	Female		Male			
	M	SD	M	SD	t	p
Depression Symptoms	9.07	3.68	8.03	3.54	11.97	6.17×10^{-33} *
Anxiety Symptoms	7.08	3.20	6.15	2.76	13.03	$1.32\times10^{-38}~^*$
	N	%	N	%	t	p
IPV	1699	38%	866	32%	5.43	2.99×10^{-8} *

^{*} p<.001

Table 3: Linear Regression Results

Predictor(s)	Coefficient	Standard Error	P-value
Predicts Depress	sion Symptom Score		
IPV	8.12	0.05	1.37×10^{-91} *
Sex	9.07	0.05	3.79×10^{-32} *
IPV and Sex	8.48	0.06	8.51×10^{-112} *
Predicts Anxiety	Symptom Score		
IPV	6.27	0.04	8.47×10^{-87} *
Sex	7.08	0.05	7.12×10^{-36} *
IPV and Sex	6.60	0.05	1.84×10^{-110} *

^{*} $p^{<}.001$

Conclusions

- Mean depression and anxiety symptom scores were statistically significantly higher in female participants than males.
- Female participants also had statistically significant higher rates of exposure to IPV than males.
- Symptoms of depression and anxiety are associated with IPV and are moderated by sex.

References

Altemus, Margaret, Nilofar Sarvaiya, and C. Neill Epperson. 2014. "Sex Differences in Anxiety and Depression Clinical Perspectives." Frontiers in Neuroendocrinology, Sex Differences in Neurological and Psychiatric Disorders, 35 (3): 320–30. https://doi.org/10.1016/j.yfrne.2014.05.004.

Hebenstreit, ClaireL., AnneP. DePrince, and AnnT. Chu. 2014. "Interpersonal Violence, Depression, and Executive Function." Journal of Aggression, Maltreatment & Trauma 23 (2): 168–87. https://doi.org/10.1080/10926771.2014.872749.

¹ Virginia Institute for Psychiatric and Behavioral Genetics, Department of Psychiatry, School of Medicine.

² Center for Biological Data Science, VCU Life Sciences.

³ Division of Epidemiology, Department of Family Medicine and Population Health, School of Medicine.