

# The Association Between Adverse Childhood Experiences, Herpes Simplex Virus, & Sexual Behaviors in Adults

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## Background

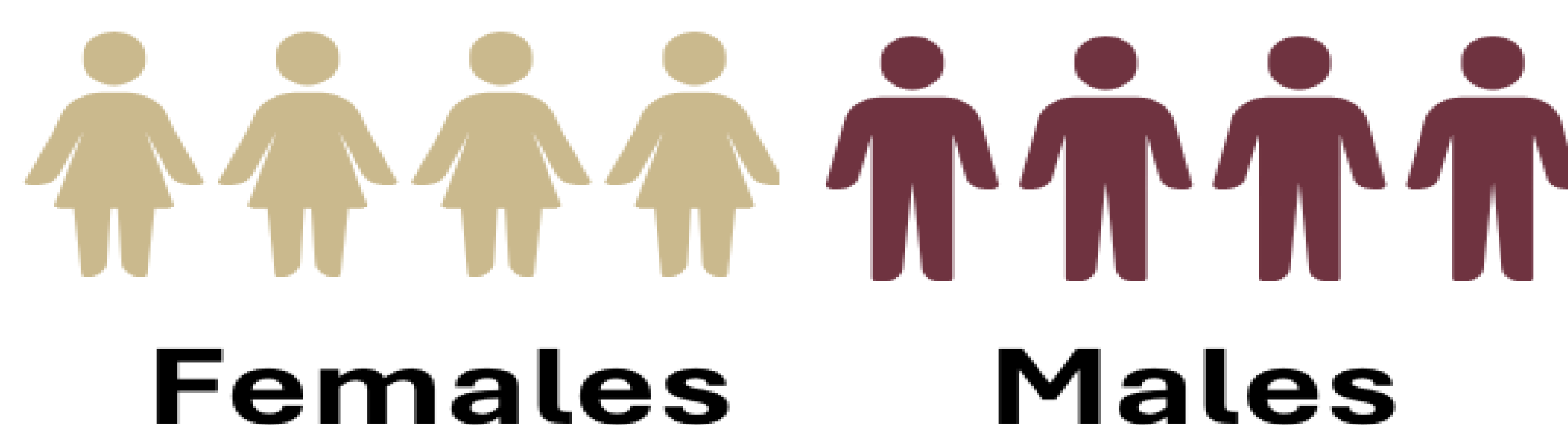
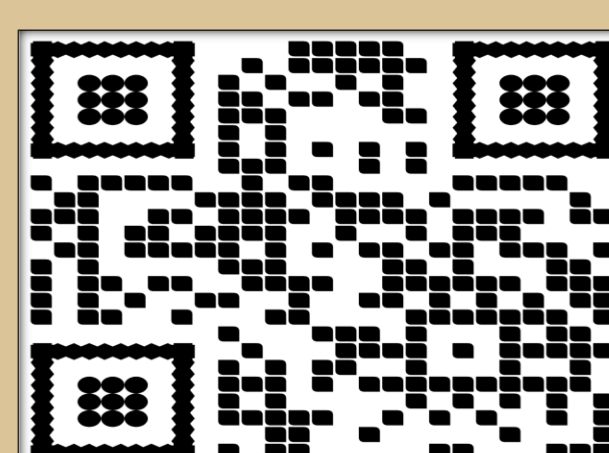
- Adverse childhood experiences (ACEs) include witnessing or experiencing violence, emotional/sexual/physical abuse, neglect, household substance abuse, household mental illness, and parental incarceration.
- Herpes simplex virus (HSV-2) is a sexually transmitted disease that causes painful sores on the genitals. It is incurable, yet manageable.
- Both ACEs and HSV display increased rates of risky sexual behaviors, a higher number of sexual partners, and higher occurrence of sexual coercion (Wu et al, 2025; Nowotny et al, 2019; Haahr-Pedersen, 2020).
- The purpose of this study was to examine the psychosocial impact of ACEs and herpes on sexual practices by focusing on the relationship between ACEs, HSV status, and sexual behaviors.
- It was hypothesized that individuals with ACEs and individuals with HSV would report a lower frequency of condom use and a higher number of opposite-sex sexual partners in the last 12 months.

## Methods

- A secondary analysis was conducted using a cross-sectional data from the 2022-2023 National Survey of Family Growth (NSFG) data files, comparing variables such as sex, ACEs factors, and HSV status.
- ACEs and HSV status were the main predictors, while condom use and number of sexual partners were the outcome variables.
- The analysis was processed using Stata 14.0, a statistical software system.
- The samples included all males (n=5424) and females (n=4277) who reported herpes status.
- To control for confounding variables, such as race, age, educational background, and medical insurance, a multiple logistic regression model was developed to test the association between the predictor variables with condom use (yes/no).
- A linear regression model was estimated to test association between predictor variables with number of sexual partners in the past year.

## References

- Scan QR code



Females	Males
92% reported condom use.	77% reported condom use.
61% reported 1-3 ACEs.	65.7% reported 1-3 ACEs.
52.2% identified as white.	56.2% identified as white.
60.4% had private health insurance.	63.2% had private health insurance.

	Females			Males		
	Coefficient	P value	[95% Conf. Interval]	Coefficient	P Value	[95% Conf. Interval]
<b>HERPES</b>	.275	0.000	[.153, .399]	.201	0.124	[-.055, .457]
<b>ACE SCORE</b>						
<b>1-3 ACEs</b>	.143	0.019	[.024, .263]	.054	0.458	[-.089, .197]
<b>4-10 ACEs</b>	.259	0.000	[.135, .383]	.147	0.055	[-.003, .297]
<b>RACE</b>						
<b>BLACK</b>	.046	0.241	[-.031, .124]	.257	0.000	[.158, .357]
<b>HISPANIC</b>	-.007	0.853	[-.080, .066]	.109	0.017	[.020, .197]
<b>INSURANCE</b>						
<b>PRIVATE</b>	.086	0.076	[-.009, .181]	-.175	0.001	[-.278, -.072]
<b>PUBLIC</b>	.058	0.258	[-.043, .160]	-.180	0.004	[-.302, -.059]

	Females			Males		
	Odds Ratio	p>z	[95% Conf. Interval]	Odds Ratio	p>z	[95% Conf. Interval]
<b>HERPES</b>	1.996	0.062	[.153, .399]	.886	0.832	[.289, 2.72]
<b>ACE SCORE</b>						
<b>1-3 ACEs</b>	2.567	0.000	[.024, .263]	1.599	0.161	[.829, 3.08]
<b>4-10 ACEs</b>	3.705	0.000	[.135, .383]	.701	0.305	[.355, 1.38]
<b>RACE</b>						
<b>BLACK</b>	.887	0.480	[-.031, .124]	1.035	0.876	[.669, 1.60]
<b>HISPANIC</b>	.680	0.011	[-.080, .066]	1.022	0.917	[.681, 1.53]
<b>INSURANCE</b>						
<b>PRIVATE</b>	1.849	0.001	[-.009, .181]	1.217	0.401	[.770, 1.92]
<b>PUBLIC</b>	1.257	0.195	[-.043, .160]	1.687	0.079	[.941, 3.02]

## Results

### Females:

- Herpes status** was not significantly associated with condom use. **Herpes status** was significantly associated with higher number of opposite-sex partners.
- Reporting **1-3 ACEs** was associated with 157% higher odds of condom use. **ACEs** were significantly associated with a higher number of opposite-sex partners. There is a positive yet weak association.

### Males:

- Herpes status** was not significantly associated with condom use. **Herpes status** was significantly associated with number of sexual partners in the past 12 months.
- ACEs** were not significantly associated with condom use. **ACEs** were not significantly associated with number of sexual partners in the past 12 months.

## Discussion

- While there have been investigations of the psychosocial impact of HSV and ACEs in the past, not much is published about their association to sexual behaviors.
- This correlational analysis aimed to examine the relationship between ACEs and HSV different sexual practices and frequency of sexual behaviors. The results exclude a causal direction between the variables.
- The logistic regression model showed a significant difference in condom usage in females who reported ACEs.
- The linear regression model showed:
  - females who reported ACEs are significantly associated to the number of opposite-sex partners compared to those who reported no ACEs.
  - females who reported HSV are significantly associated to number of opposite-sex partners compared to those who reported no HSV status.
- Both regression models yielded no significant differences in condom use and number of sexual partners for males who reported HSV status and ACEs compared to those who reported no ACEs and those who reported no HSV.
- These findings suggests that knowing HSV status does not lead to the adoption of safe sexual practices among males.
- These results indicate the need for more sexual health resources designed for men as awareness of HSV status or trauma history may not influence safe sexual practices among men.
- Targeted educational and behavioral interventions addressing ACEs and HSV risk factors may help promote safer sexual practices.
- Further research may provide insight into the directionality or causality of these associations.