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Research Article

Exploring the Relationship Between Family Income and Youth Substance Abuse

Sayan Bhattacharya [1], Prabir Mandal [2]*

[1]Allen D. Nease High School, 10550 Ray Road, Ponte Vedra Beach, Florida 32081, USA.

[2]Edward Waters University, 1658 Kings Road, Jacksonville, Florida 32209, USA

***Corresponding Author:** Prabir K. Mandal, Ph.D., Professor of Biology, Edward Waters University, 1658 Kings Road, Jacksonville, Florida 32209, USA.

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Abstract

Addiction affects all socioeconomic groups. Little consensus exists regarding the relationship between socioeconomic status (income, wealth, and parental education) and substance use alcohol use, smoking, and marijuana use). Youth from low-income families face unique stressors that can increase the risk of substance abuse which can have substantial adverse outcomes.

Key Words: adolescents; alcohol; smoking; socioeconomic status, substance abuse

Introduction

The relationship between family income and youth substance abuse is complex. Youth substance abuse is defined as a repeated use of substances, such as alcohol, marijuana, and other illicit drugs among minors, which can lead to harmful addictions and negative physiological changes. Previous literature has shown that adolescents with low socioeconomic status (SES) are more likely to engage in substance use. However, there is growing evidence that adolescents with high SES are also at high risk for substance abuse (Humensky, 2010). The relationship between family income and substance abuse is nuanced, with some research suggesting that low SES is associated with higher drug usage among teens. Among those who reported ever using illicit drugs in their lifetime, those who were in the lowest annual family income category (<$20,000) (Baptiste-Roberts and Hossain, 2018; Moustgaard *et al*., 2025). However, there is also evidence that high SES may lead to higher risk for developing substance abuse, or that SES has no visible effect on substance abuse. Frequent family meals are related to lower substance use in female but not male adolescents (Rahal *et al*., 2025). Regardless of income level, several risk factors increase a young person's vulnerability to substance abuse (genetics, family history of addiction, mental health issues, lack of parental supervision etc.). A constellation of socio-relational and other environmental factors plays a role in the intergenerational transmission of substance use (Meulewaeter *et al*., 2022). Treatment dropout in substance use disorder programs poses a significant challenge to achieving successful outcomes (Zhang and Wu, 2025). The purpose of this research is to investigate possible relationships between substance use among High School students and familial income in Florida.

Method

Median family income data was procured from the National Institute of Minority Health and Health Disparities (NIMHD). In addition, Youth Substance Abuse Data was procured from the Florida Youth Substance Abuse Survey 2024 State Report. One limitation of this method is that the NIMHD data population does not include 2024 data, only 2019-2023. By cross referencing Table C3 Methods (Contd.) created to assess any relationships between family income and a variety of different substances (Marijuana, Cigarettes, Nicotine Vapes, and Coefficient Alcohol/Illicit of Drugs.) Determination calculated using linear regressions. Figure A: was Figure B: Results (Contd.) References Executive Office of the Governor 2024 State Report Florida Youth Substance Abuse Survey. www.myflfamilies.com/sites/default/files/2025-06/2024%20Florida%20Youth%20Substance%20Abuse%20Survey%20State%20Report.pdf. Accessed 13 July 2025. Figure D: Illicit Drug/Alcohol use and family income are not related Results and Table C5 (Figures A & B respectively) with the Income Data, multiple scatter plots were created to assess any relationships between family income and a variety of different substances (Marijuana, Cigarettes, Nicotine Vapes, and Coefficient Alcohol/Illicit of Drugs.) Determination calculated using linear regressions.

Result

The dataset from Figure A seemed to have a statistically significant negative correlation for all substances, as seen by Figure C. However, Figure C also depicts a lack of statistical significance when finding correlations with Figure B

Table C3. Past-30-day prevalence of alcohol, binge drinking, cigarettes, vaping nicotine, and vaping marijuana, among high school students, by county, 2024

County	Alcohol	Binge Drinking	Cigarettes	Vaping Nicotine	Vaping Marijuana
Alachua	13.3	5.4	1.8	8.5	8.7
Baker	22.3	14.2	4.3	13.7	9.5
Bay	15.8	8.5	1.7	13.3	10.5
Bradford	8.7	7.5	2.6	11.1	6.2
Brevard	12.6	6.3	2.4	10.6	11.3
Broward	10.0	4.4	0.1	5.1	6.5
Calhoun	17.1	9.1	4.3	22.0	12.4
Charlotte	13.0	9.1	1.8	11.0	11.2
Citrus	17.2	11.4	3.3	17.6	14.6
Clay*	--	--	--	--	--
Collier	17.5	7.1	1.1	8.0	4.3
Columbia	13.4	5.3	3.9	11.3	9.9
DeSoto	7.1	3.7	2.8	8.8	7.3
Dixie	21.6	13.6	3.8	25.9	18.2
Duval	10.4	5.8	0.9	9.4	8.5
Escambia	12.5	4.9	1.8	8.5	6.5
Flagler	10.1	3.6	0.6	6.9	4.7
Franklin	17.4	13.1	2.0	31.1	21.4
Gadsden	20.4	11.4	1.4	7.8	6.8
Gilchrist	13.1	6.8	1.7	9.8	7.0
Glades	9.7	2.5	--	3.4	5.6
Gulf	17.7	7.5	1.6	21.1	13.3
Hamilton	13.1	8.2	2.3	6.8	5.6
Hardee	13.8	8.2	1.9	11.8	9.2
Hendry	7.3	4.2	0.6	3.7	3.5
Hernando	15.1	4.0	1.7	11.8	10.4
Highlands***	--	--	--	--	--
Hillsborough	9.2	4.9	1.4	7.3	8.4
Holmes	14.2	11.6	3.9	16.3	9.9
Indian River	9.3	2.8	1.1	4.4	4.2
Jackson	15.0	11.1	3.7	13.8	8.6
Jefferson**	--	--	--	--	--
Lafayette**	--	--	--	--	--
Lake	13.2	3.4	1.3	8.2	8.4

County	Alcohol	Binge Drinking	Cigarettes	Vaping Nicotine	Vaping Marijuana
Lee*	--	--	--	--	--
Leon	9.8	4.3	2.0	8.2	7.3
Levy	18.2	4.7	1.5	6.0	6.3
Liberty	13.0	7.2	3.8	14.9	6.0
Madison	7.3	6.3	3.6	11.4	7.1
Manatee	14.1	4.4	0.9	8.8	7.1
Marion	11.9	5.1	1.2	10.1	8.7
Martin	13.7	7.7	1.0	11.7	10.9
Miami-Dade	14.2	5.7	1.2	8.4	5.3
Monroe	11.0	7.1	1.8	7.8	4.8
Nassau*	--	--	--	--	--
Okaloosa	16.0	6.4	1.8	10.5	9.6
Okeechobee	7.2	3.7	1.0	6.2	6.4
Orange	9.1	4.9	1.0	3.9	5.5
Osceola	12.2	8.1	1.0	9.5	8.4
Palm Beach	16.5	6.8	1.1	8.2	7.3
Pasco	14.1	6.9	1.1	12.6	12.3
Pinellas*	--	--	--	--	--
Polk	12.0	2.9	1.8	8.6	6.9
Putnam	11.4	7.5	2.2	7.5	6.4
Saint Johns*	--	--	--	--	--
Saint Lucie	5.0	4.4	1.4	3.1	3.9
Santa Rosa	15.2	5.4	1.9	10.3	9.2
Sarasota*	--	--	--	--	--
Seminole	15.8	7.2	1.4	11.0	8.5
Sumter	8.8	5.1	1.6	6.5	4.2
Suwannee	14.0	7.8	4.8	14.9	7.8
Taylor	8.1	10.1	3.2	9.3	4.6
Union****	--	--	--	--	--
Volusia	21.9	10.3	1.0	13.5	13.7
Wakulla*	--	--	--	--	--
Walton	16.5	8.8	3.5	13.8	12.6
Washington	12.6	8.0	3.9	12.9	5.7

* These seven counties did not participate in the 2024 Florida Youth Survey. ** For these counties, results are only presented for middle school because an insufficient number of surveys were completed in grades 9 through 12. *** In Highlands County, neither middle school nor high school results are presented because an insufficient number of surveys were completed across all grade levels. **** Union County did not survey high school students.

Figure A (Florida Youth Substance Abuse Survey 2024 State Report):

Table C5. Past-30-day prevalence of marijuana, prescription pain relievers, prescription depressants, any illicit drug except marijuana, and alcohol or any illicit drug, among high school students, by county, 2024

County	Marijuana	Prescription Pain Relievers	Prescription Depressants	Any Illicit Drug Except Marijuana	Alcohol or Any Illicit Drug
Alachua	9.0	0.4	0.5	5.5	20.4
Baker	10.5	0.4	0.0	3.0	26.8
Bay	12.1	0.6	0.5	5.1	23.5
Bradford	5.4	1.0	0.7	0.6	14.0
Brevard	10.8	0.9	1.3	3.9	20.7
Broward	6.4	0.6	0.2	2.8	15.2
Calhoun	14.0	1.6	0.2	6.2	28.3
Charlotte	11.1	0.7	0.9	4.6	20.7
Citrus	16.5	0.7	0.6	7.1	27.6
Clay*	--	--	--	--	--
Collier	5.9	1.0	0.9	3.2	20.9
Columbia	11.9	0.1	0.7	2.5	21.9
DeSoto	9.0	0.2	0.8	4.1	14.8
Dixie	17.8	0.0	0.0	3.4	35.0
Duval	11.8	0.2	0.6	3.9	20.7
Escambia	8.3	1.1	0.1	3.9	17.9
Flagler	6.1	0.0	0.0	3.1	15.1
Franklin	25.8	1.7	0.0	8.5	50.0
Gadsden	11.1	2.9	0.3	8.2	27.6
Gilchrist	10.6	0.2	0.4	1.9	19.5
Glades	5.9	0.0	0.0	2.8	14.9
Gulf	13.5	0.9	1.3	2.9	26.9
Hamilton	1.1	0.7	0.0	0.7	14.3
Hardee	8.5	0.7	0.4	2.8	18.9
Hendry	3.4	0.3	0.0	2.0	11.1
Hernando	11.1	0.2	0.2	2.8	22.9
Highlands***	--	--	--	--	--
Hillsborough	9.4	0.2	0.0	2.6	16.5
Holmes	13.2	1.3	0.6	5.3	19.0
Indian River	5.0	0.5	0.0	2.6	14.7
Jackson	9.9	1.9	1.0	4.9	21.5
Jefferson**	--	--	--	--	--
Lafayette**	--	--	--	--	--
Lake	8.8	0.6	0.7	4.4	18.4

County	Marijuana	Prescription Pain Relievers	Prescription Depressants	Any Illicit Drug Except Marijuana	Alcohol or Any Illicit Drug
Lee*	--	--	--	--	--
Leon	11.4	0.7	0.4	3.2	19.3
Levy	7.2	0.0	0.1	1.8	16.2
Liberty	7.2	0.0	0.0	2.6	16.4
Madison	8.0	0.8	0.3	2.9	14.2
Manatee	8.4	0.8	0.4	1.9	20.3
Marion	10.7	0.4	0.6	3.3	20.3
Martin	11.7	0.6	0.9	2.6	19.3
Miami-Dade	5.7	0.6	0.0	1.8	18.7
Monroe	4.9	0.2	0.4	1.9	13.3
Nassau*	--	--	--	--	--
Okaloosa	9.8	0.5	0.6	3.5	21.7
Okeechobee	7.2	0.0	0.0	2.6	14.3
Orange	5.5	0.6	0.0	2.3	13.6
Osceola	7.6	1.0	0.3	3.7	16.7
Palm Beach	8.8	0.2	0.0	2.8	21.2
Pasco	13.5	1.3	0.4	5.0	21.7
Pinellas*	--	--	--	--	--
Polk	9.0	0.4	0.0	2.9	19.2
Putnam	7.8	0.0	0.2	3.4	18.9
Saint Johns*	--	--	--	--	--
Saint Lucie	6.2	0.2	0.2	4.4	9.3
Santa Rosa	9.9	0.5	0.2	3.5	21.1
Sarasota*	--	--	--	--	--
Seminole	11.1	0.7	0.7	4.8	24.6
Sumter	5.9	0.4	0.0	1.7	12.0
Suwannee	9.2	0.5	1.0	2.3	18.6
Taylor	5.4	0.0	1.0	1.2	10.2
Union****	--	--	--	--	--
Volusia	17.4	0.1	0.4	3.0	29.1
Wakulla*	--	--	--	--	--
Walton	13.2	0.4	0.2	4.0	26.7
Washington	7.0	0.1	0.6	4.3	18.4

* These seven counties did not participate in the 2024 Florida Youth Survey. ** For these counties, results are only presented for middle school because an insufficient number of surveys were completed in grades 9 through 12. *** In Highlands County, neither middle school nor high school results are presented because an insufficient number of surveys were completed across all grade levels. **** Union County did not survey high school students.

Figure B (Florida Youth Substance Abuse Survey 2024 State Report):

Figure C:

	Table C3 & Median Family Income Data					Table C5 & Median Family	
	Median Family income vs. Cigarettes	Median Family income vs. Vaping Nicotine	Median Family income vs. Alcohol	Median Family income vs. Binge Drinking	Median Family income vs. Vaping Marijuana	Median Family income vs. Marijuana	Median Family income vs. Alcohol/Illicit Drug Use
Pearson r							
r	-0.3778	-0.5401	-0.4508	-0.4742	-0.4523	-0.0598	-0.02235
95% confidence interval	-0.6020 to -0.09823	-0.7178 to -0.2962	-0.6553 to -0.1846	-0.6720 to -0.2132	-0.6564 to -0.1865	-0.3354 to 0.2252	-0.3016 to 0.2605
R squared	0.1427	0.2917	0.2032	0.2248	0.2046	0.003576	0.0004995
P value							
P (two-tailed)	0.0096	0.0001	0.0017	0.0009	0.0016	0.6832	0.8789
P value summary	**	***	**	***	**	ns	ns
Significant? (alpha = 0.05)	Yes	Yes	Yes	Yes	Yes	No	No
Number of XY Pairs	46	46	46	46	46	49	49

Figure C

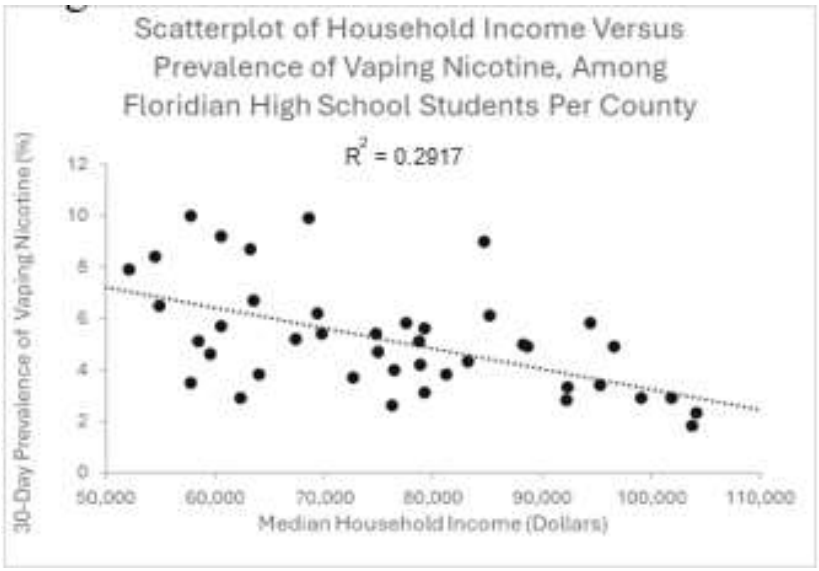

Figure D

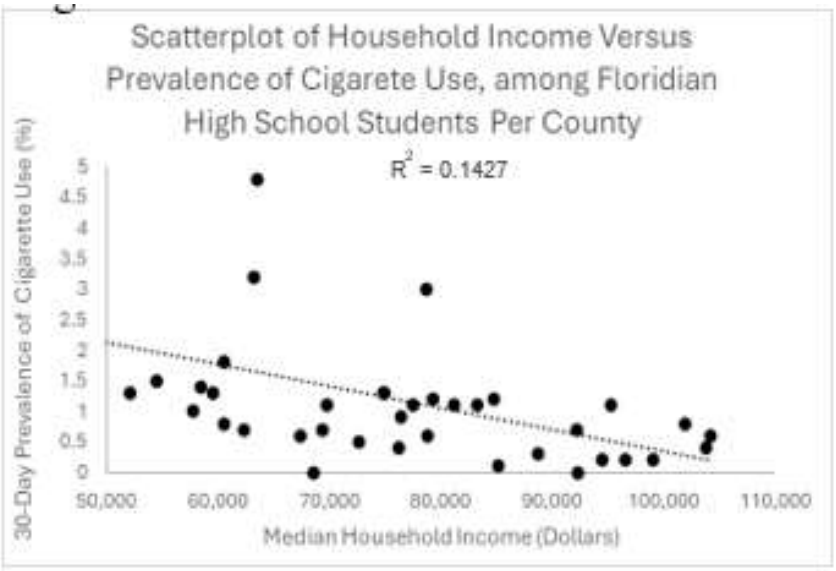

Figure E

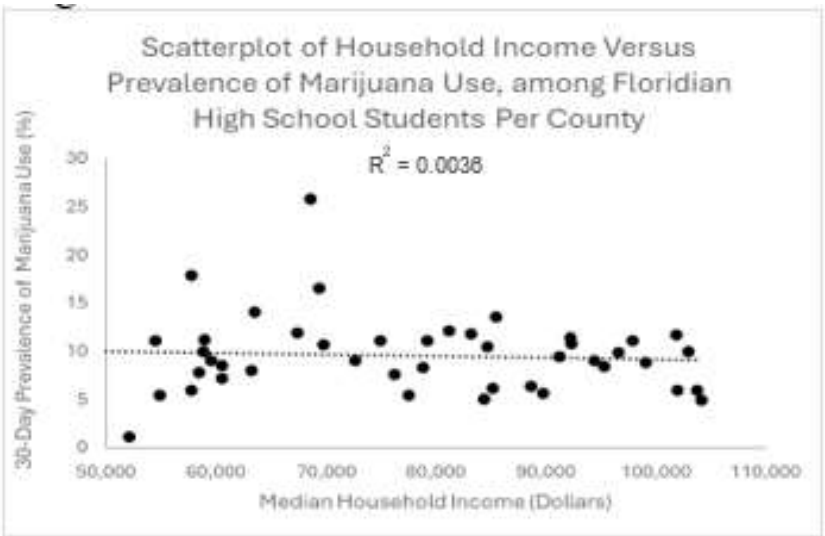

Figure F

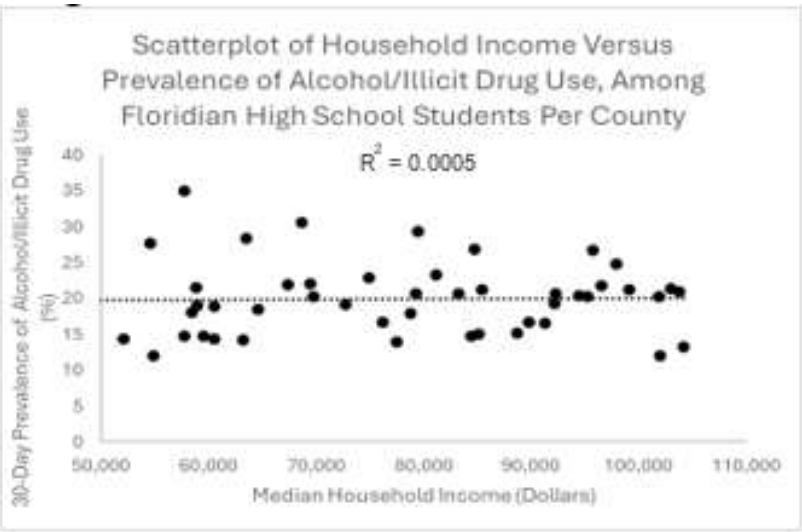

Figure G

Conclusion

Family income has a complex relationship with youth substance abuse. Both higher and lower family income are associated with increased risks by different factors. Youth from wealthier families are more likely to engage in using heavy alcohol, marijuana, and cocaine. In contrast, youth from low-income families are facing challenges viz., parental substance abuse, health disparities, limited resources, and environmental stress. Addiction crosses all boundaries of wealth and social status, affecting people from all socioeconomic groups. Numerous studies have shown that adolescents living with single parents, stepparents, or with neither parent are at risk of substance use. There is a need to gain further knowledge related to how various indicators of SES are associated with substance use and differential associations with different substances. Prevention and treatment may involve psychotherapy and/or pharmacotherapy. Effective programs need to be developed to avert detrimental forms of substance abuse by youth.

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