Demographic Differences between Mothers with and without Substance Use Disorders

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Abstract

The present study investigates the demographic differences between mothers with Substance Use Disorders (SUD) (n=67) and mothers without (n=84). The data was collected as part of a larger study that aimed to identify differences in brain activity between the two groups when looking at happy and sad faces of their own and unknown infants. Age of the mother, ethnicity, mother's education level, employment, annual family income, and marital status were collected for each participant in both groups via a self-report questionnaire. The differences between groups on all of these variables, except for age, was statistically significant. This finding indicates that brain activation results need to be adjusted for these factors, in order to determine differences solely related to drug use. Further, it may imply that these demographic variables are themselves risk factors for the development of SUDs.

Methods and Materials

67 mothers with SUDs, aged 20 to 42 years, were recruited from an inpatient treatment facility. 84 mothers without SUDs, aged 20 to 47 years, were recruited from the Houston area.

Mothers were assigned to a group based on their Mini International Neuropsychiatric Interview (MINI) results.

After the mothers enrolled in the study, they completed a self-report demographics questionnaire.

Results

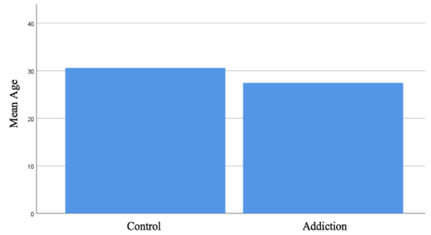

Figure 1. Mean Age of Mothers by Group

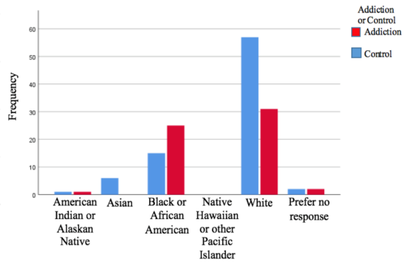

Figure 2. Race/Ethnicity

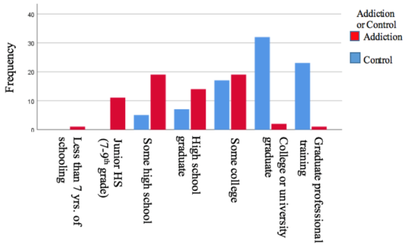

Figure 3. Highest Level of Education of the Mother

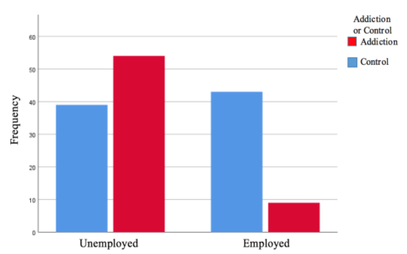

Figure 4. Employment Status

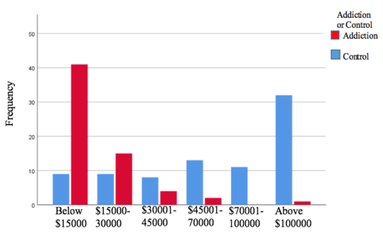

Figure 5. Annual Family Income

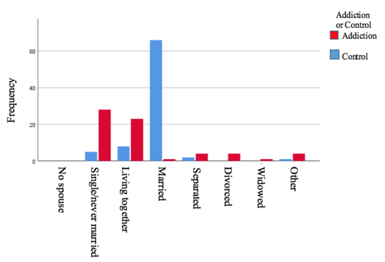

Figure 6. Marital Status

An independent samples t-test was used to compare mean ages between groups. Between group differences on all other variables were assessed using a Pearson's chi-squared test.

Table 1
Demographic Descriptive and Inferential Statistics

	Addiction		Control		
	Mean ± St. Dev		Mean ± St. Dev		p value
Age	27.45 ± 4.97		30.56 ± 4.72		.759
	N	Valid Percent	N	Valid Percent	x^2
Race/Ethnicity					.011*
Am. Indian/Alaskan Native	1	1.69	1	1.23	
Asian	0	0	6	7.40	
Black/African American	25	42.37	15	18.50	
Native Hawaiian/Pacific Islander	0	0	0	0	
White	31	52.54	57	70.37	
Prefer no response	2	3.39	2	2.47	
Highest Level of Education					.000**
Less than 7 years	1	1.49	0	0	
Junior HS (7-9th grade)	11	16.42	0	0	
Some HS	19	28.36	5	5.95	
HS graduate	14	20.90	7	8.33	
Some college	19	28.36	17	20.24	
College/university graduate	2	2.30	32	38.10	
Graduate/professional training	1	1.49	23	27.38	
Employment Status					.000**
Employed	9	14.29	43	42.44	
Unemployed	54	85.70	39	47.56	
Annual Income					.000**
Below $15000	41	65.08	9	10.98	
$15000-30000	15	23.81	9	10.98	
$30001-45000	4	6.35	8	9.77	
$45001-70000	2	3.17	13	15.85	
$70001-100000	0	0	11	13.41	
Above $100000	1	1.59	32	39.01	
Marital Status					.000**
No spouse	0	0	0	0	
Single/never married	28	43.08	5	6.10	
Living together	23	35.38	8	9.76	
Married	1	1.54	66	80.49	
Separated	4	6.15	2	2.44	
Divorced	4	6.15	0	0	
Widowed	1	1.54	0	0	
Other	4	6.15	1	1.22	

** p < .001

Conclusions

Ethnicity, education, employment, income and marital status were significantly different between the two groups.

These variables must be statistically controlled for in the final analysis of brain imaging data between groups.

These demographic differences may indicate risk factors for the development of SUDs.

More research must be done with demographically similar control mothers in order to conclude that differences between the two groups are the result of SUD status.

References

Kim, S., Iyengard, U., Mayese, L. C., Potenzae, M. N., Rutherford, H. J. V., & Strathearn, L. (2017). Mothers with Substance Addictions Show Reduced Reward Responses When Viewing Their Own Infant's Face. *Human Brain Mapping*. 38(*11*) 5421–5439