

ANALYSIS PORTFOLIO ASSIGNMENT

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Authors Note:

There is no known conflict of interest to disclose regarding this document. Information regarding this document should be forwarded to Anita Woods, awoods38@liberty.edu, 1971 University Boulevard, Lynchburg, VA 24515.

Analysis Portfolio Assignment

Independent Samples T-Test

(H₁) Individuals diagnosed with CSA will yield higher narcissism scores than individuals who have not experienced CSA.

(H₀) Individuals diagnosed with CSA will not yield higher narcissism scores than individuals who have not experienced CSA.

T-Test

Group Statistics					
	Victim of Childhood Sexual Abuse	N	Mean	Std. Deviation	Std. Error Mean
NPI16_16	1.00	317	.32	.467	.026
	.00	1413	.28	.451	.012

Independent Samples Test											
Levene's Test for Equality of Variances			t-Test for Equality of Means								
		F	Sig.	t	df	Significance One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
NPI16_16	Equal variances assumed	5.249	.022	1.208	1728	.114	.227	.034	.028	-.021	.089
	Equal variances not assumed			1.183	458.020	.119	.237	.034	.029	-.023	.091

Independent Samples Effect Sizes					
		Standardizer ^a	Point Estimate	95% Confidence Interval Lower Upper	
NPI16_16	Cohen's d	.454	.075	-.047	.197
	Hedges' correction	.454	.075	-.047	.197
	Glass's delta	.451	.076	-.046	.197

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control group.

An independent samples t-test was conducted to compare the Narcissistic Personality Inventory 16 (NPI16_16) scores between those who have had childhood sexual abuse (CSA 1) and those who have not (CSA 0). Levene's Test for Equality of Variances was significant $F(1, 1728)=5.249, p=.022$, signifying that equal variances cannot be assumed. Yet the mean differences of both CSA 1 (.32) and CSA 0 (.28) resulted in similar mean differences.

The T-Test Equality of Means reveals no significant differences in NPI16_16 scores for either group $t(1728)=1.208, p=.227$ (equal variances assumed), and $t(458.02)=1.18, p=.237$ (equal variances not assumed). The mean difference for both groups is the same, .034.

The results indicate that the null hypothesis must be accepted as there are no significant differences between the scores of those who have experienced childhood sexual abuse and those who have not.

Repeated Measures (Paired Samples) Test

H_1 Individuals who intentionally viewed pornography online had a higher monthly usage than weekly usage.

H_0 Individuals who intentionally viewed pornography online did not have a higher monthly usage than weekly usage.

➔ T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Within the past week, how many times have you intentionally viewed pornography online?	2.05	8153	1.168	.013
	Within the past month, how many times have you intentionally viewed pornography online?	2.78	8153	1.450	.016

Paired Samples Correlations

		N	Correlation	Significance	
				One-Sided p	Two-Sided p
Pair 1	Within the past week, how many times have you intentionally viewed pornography online? & Within the past month, how many times have you intentionally viewed pornography online?	8153	.753	<.001	<.001

Paired Samples Test

		Mean	Std. Deviation	Std. Error Mean	Paired Differences		t	df	Significance	
					95% Confidence Interval of the Difference	Lower			Upper	One-Sided p
Pair 1	Within the past week, how many times have you intentionally viewed pornography online? - Within the past month, how many times have you intentionally viewed pornography online?	-.732	.958	.011	Lower: -.752	Upper: -.711	-68.957	8152	<.001	<.001

Paired Samples Effect Sizes

		Cohen's d	Standardizer ^a	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	Within the past week, how many times have you intentionally viewed pornography online? - Within the past month, how many times have you intentionally viewed pornography online?		.958	-.764	-.788	-.739
		Hedges' correction	.958	-.764	-.788	-.739

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

This Paired Samples test was executed to determine if there is a mean difference between how many times the participant intentionally viewed pornography within the last week and the last month. The results of this test reveal a considerable mean difference $t(8,152) = -68.96$, $p < .001$, Cohen's $d = .958$ denoting that participants reported viewing pornography more within a month's time frame ($M = 2.78$, $SD = 1.45$) than within a week ($M = 2.05$, $SD = 1.17$). The $Md = -.732$

indicating participants reported intentionally watching pornography at a much lower frequency in the past week (when averaging the month’s frequency into weeks) than within the past week, thus accepting H_u .

One Way Between Subjects Anova

H_1 Individuals who have experienced childhood sexual abuse (CSA) have a higher level of anger towards God.

H_0 There is no difference in the level of anger towards God in individuals who have experienced childhood sexual abuse (CSA).

Univariate Analysis of Variance

Between-Subjects Factors

	Value Label	N
Felt angry at God	1 Not at all/does not apply	261
	2	214
	3	310
	4	338
	5 a great deal	188

Descriptive Statistics

Dependent Variable: Victim of Childhood Sexual Abuse

Felt angry at God	Mean	Std. Deviation	N
Not at all/does not apply	.1954	.39727	261
1	.1916	.39447	214
2	.2065	.40541	310
3	.2485	.43280	338
4	.2181	.41405	188
5 a great deal	.2143	.41052	1311

Levene's Test of Equality of Error Variances^{a,b}

	Levene Statistic	df1	df2	Sig.	
Victim of Childhood Sexual Abuse	Based on Mean	3.519	4	1306	.007
	Based on Median	.921	4	1306	.451
	Based on Median and with adjusted df	.921	4	1299.306	.451
	Based on trimmed mean	3.519	4	1306	.007

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Victim of Childhood Sexual Abuse

b. Design: Intercept + RSS_2

Tests of Between-Subjects Effects

Dependent Variable: Victim of Childhood Sexual Abuse

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.621 ^a	4	.155	.921	.451	.003
Intercept	56.163	1	56.163	333.179	<.001	.203
RSS_2	.621	4	.155	.921	.451	.003
Error	220.149	1306	.169			
Total	281.000	1311				
Corrected Total	220.770	1310				

a. R Squared = .003 (Adjusted R Squared = .000)

Estimated Marginal Means

Grand Mean

Dependent Variable: Victim of Childhood Sexual Abuse

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
.212	.012	.189	.235

Post Hoc Tests

Felt angry at God

Multiple Comparisons								
Dependent Variable: Victim of Childhood Sexual Abuse								
	(I) Felt angry at God	(J) Felt angry at God	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
LSD	Not at all/does not apply	2	.0038	.03786	.920	-.0705	.0781	
		3	-.0110	.03449	.749	-.0787	.0566	
		4	-.0531	.03383	.117	-.1195	.0133	
		a great deal	-.0227	.03927	.564	-.0997	.0544	
		5						
	1	Not at all/does not apply	2	-.0038	.03786	.920	-.0781	.0705
			3	-.0149	.03649	.684	-.0864	.0567
			4	-.0569	.03587	.113	-.1273	.0134
			a great deal	-.0265	.04104	.519	-.1070	.0540
			5					
	2	Not at all/does not apply	1	.0110	.03449	.749	-.0566	.0787
			2	.0149	.03649	.684	-.0567	.0864
			3	-.0421	.03229	.193	-.1054	.0213
			a great deal	-.0116	.03795	.759	-.0861	.0628
			5					
	3	Not at all/does not apply	1	.0531	.03383	.117	-.0133	.1195
			2	.0569	.03587	.113	-.0134	.1273
			3	.0421	.03229	.193	-.0213	.1054
			a great deal	.0304	.03735	.415	-.0428	.1037
			5					
4	Not at all/does not apply	1	.0227	.03927	.564	-.0544	.0997	
		2	.0265	.04104	.519	-.0540	.1070	
		3	.0116	.03795	.759	-.0628	.0861	
		a great deal	-.0304	.03735	.415	-.1037	.0428	
		5						
Bonferroni	Not at all/does not apply	2	.0038	.03786	1.000	-.1026	.1103	
		3	-.0110	.03449	1.000	-.1080	.0859	
		4	-.0531	.03383	1.000	-.1482	.0420	
		a great deal	-.0227	.03927	1.000	-.1331	.0877	
		5						
	1	Not at all/does not apply	2	-.0038	.03786	1.000	-.1103	.1026
			3	-.0149	.03649	1.000	-.1175	.0877
			4	-.0569	.03587	1.000	-.1578	.0439
			a great deal	-.0265	.04104	1.000	-.1419	.0889
			5					
	2	Not at all/does not apply	1	.0110	.03449	1.000	-.0859	.1080
			2	.0149	.03649	1.000	-.0877	.1175
			3	-.0421	.03229	1.000	-.1329	.0487
			a great deal	-.0116	.03795	1.000	-.1183	.0951
			5					
	3	Not at all/does not apply	1	.0531	.03383	1.000	-.0420	.1482
			2	.0569	.03587	1.000	-.0428	.1037
			3	.0421	.03229	1.000	-.0213	.1054
			a great deal	.0304	.03735	1.000	-.0428	.1037
			5					
4	Not at all/does not apply	1	.0227	.03927	1.000	-.0544	.0997	
		2	.0265	.04104	1.000	-.0540	.1070	
		3	.0116	.03795	1.000	-.0628	.0861	
		a great deal	-.0304	.03735	1.000	-.1037	.0428	
		5						

	1					
	2	.0569	.03587	1.000	-.0439	.1578
	3	.0421	.03229	1.000	-.0487	.1329
	a great deal	.0304	.03735	1.000	-.0746	.1355
	5					
a great deal	Not at all/does not apply	.0227	.03927	1.000	-.0877	.1331
5						
	1					
	2	.0265	.04104	1.000	-.0889	.1419
	3	.0116	.03795	1.000	-.0951	.1183
	4	-.0304	.03735	1.000	-.1355	.0746

Based on observed means.
The error term is Mean Square(Error) = .169.

A one-way ANOVA was conducted to examine the relationship between individuals who have experienced childhood sexual abuse (CSA) and whether they experience high levels of anger toward God. The results found that there is no meaningful difference in individuals who have experienced CSA across levels of anger at God $F(4, 1306) = .921, p = .451, \eta^2 = .003$. The effect size of .003 indicates no significant difference between those who experienced CSA and their level of anger with God. Because of the above, I fail to reject the null hypothesis is being accepted.

Two Way Between Subjects ANOVA

A two-way between-subjects ANOVA was conducted to examine the relationship between individuals who experienced childhood sexual abuse (CSA), gender, and marital frequency. Levene's Test of Equality of Error Variances showed that there is a violation of the assumption of homogeneity of variances across the different groups $F(7, 1675) = 51.744, p < .001$, which indicates an unequal variance of CSA between the different groups. When considering gender and descriptive statistics, women ($n = 978$) have a higher prevalence of reporting CSA as

well as those married more frequently than those who did not.

Between-Subjects Factors

	Value	Label	N
How many times have you been married?	1	Once	1350
	2	Twice	275
	3	Three	47
	4	More than three times	11
What is your gender?	1	Male	705
	2	Female	978

Levene's Test of Equality of Error Variances^{a,b}

		Levene Statistic	df1	df2	Sig.
Victim of Childhood Sexual Abuse	Based on Mean	51.744	7	1675	<.001
	Based on Median	11.194	7	1675	<.001
	Based on Median and with adjusted df	11.194	7	1425.107	<.001
	Based on trimmed mean	51.744	7	1675	<.001

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Dependent variable: Victim of Childhood Sexual Abuse
- b. Design: Intercept + MarNum + Gender + MarNum * Gender

Descriptive Statistics

Dependent Variable: Victim of Childhood Sexual Abuse				
How many times have you been married?	What is your gender?	Mean	Std. Deviation	N
Once	Male	.0694	.25443	576
	Female	.2067	.40521	774
	Total	.1481	.35538	1350
Twice	Male	.0776	.26868	116
	Female	.2516	.43529	159
	Total	.1782	.38336	275
Three	Male	.1111	.33333	9
	Female	.3158	.47107	38
	Total	.2766	.45215	47
More than three times	Male	.2500	.50000	4
	Female	.4286	.53452	7
	Total	.3636	.50452	11
Total	Male	.0723	.25923	705
	Female	.2198	.41435	978
	Total	.1581	.36490	1683

Tests of Between-Subjects Effects

Dependent Variable: Victim of Childhood Sexual Abuse

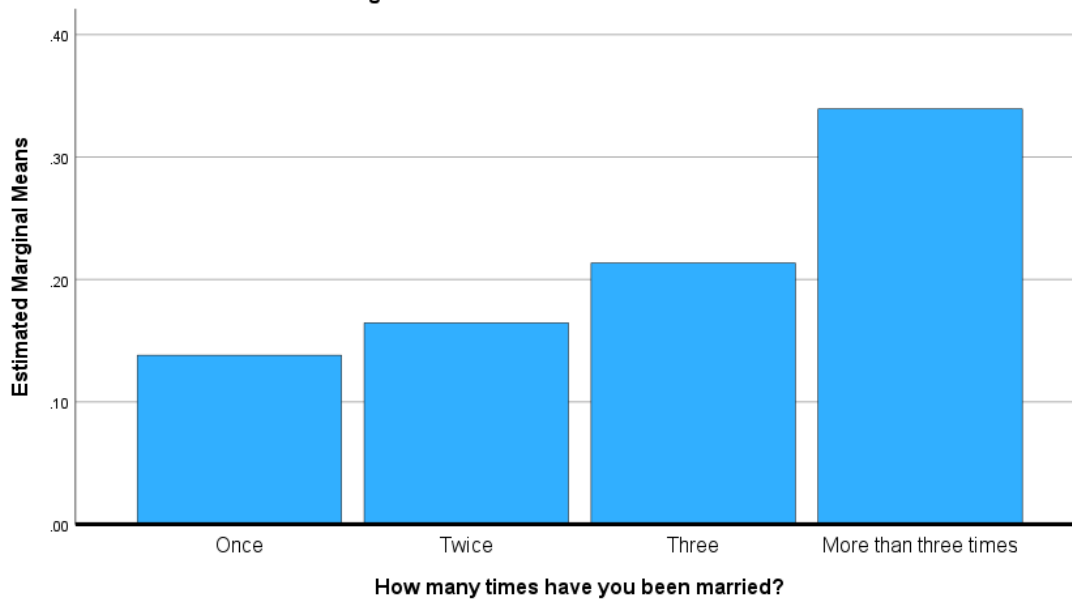
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	10.009 ^a	7	1.430	11.194	<.001	.045	78.357	1.000
Intercept	5.339	1	5.339	41.797	<.001	.024	41.797	1.000
MarNum	.687	3	.229	1.792	.147	.003	5.377	.469
Gender	.880	1	.880	6.888	.009	.004	6.888	.746
MarNum * Gender	.105	3	.035	.274	.844	.000	.821	.103
Error	213.950	1675	.128					
Total	266.000	1683						
Corrected Total	223.958	1682						

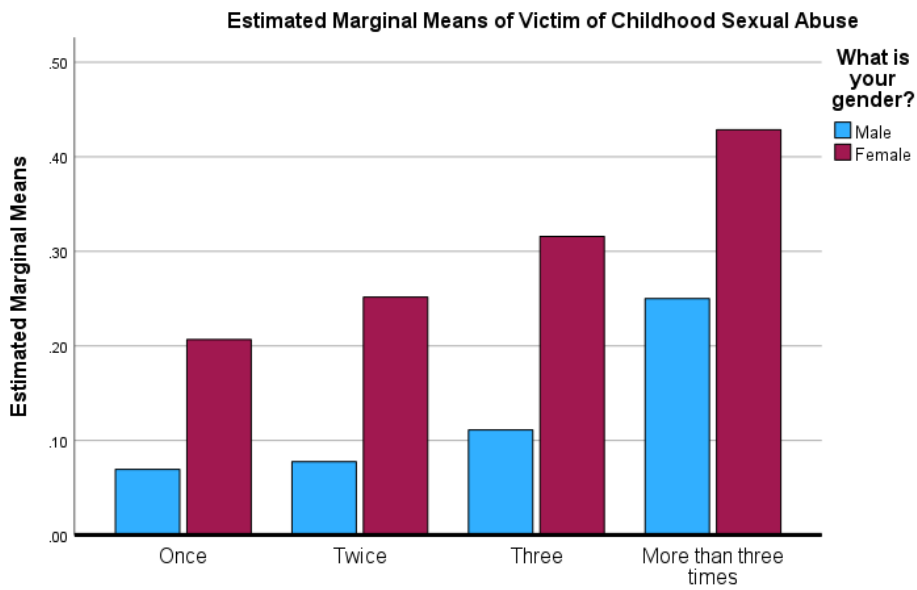
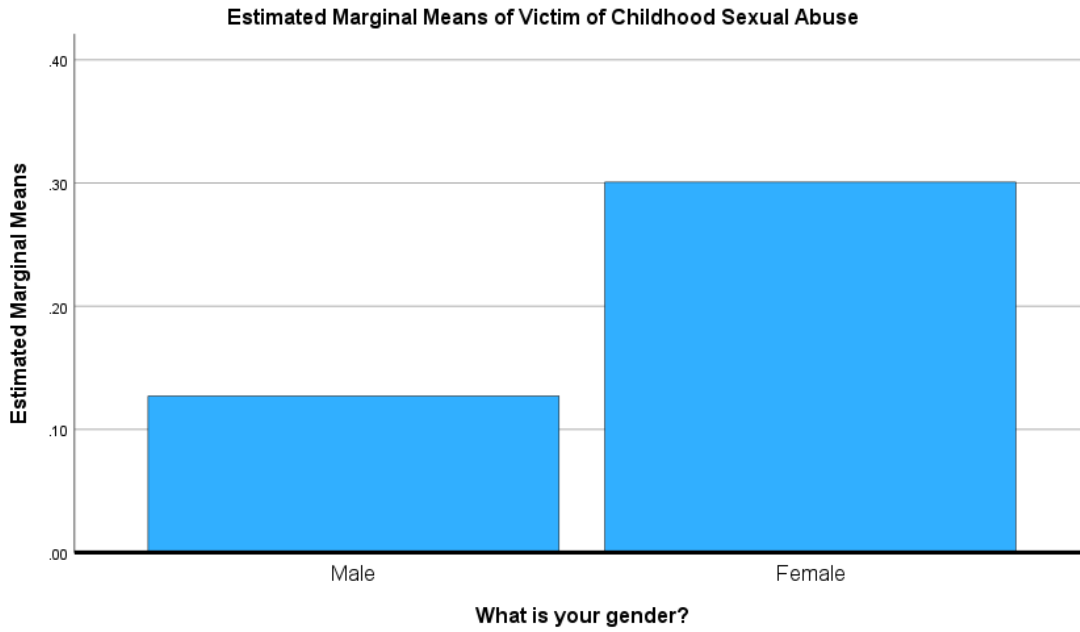
a. R Squared = .045 (Adjusted R Squared = .041)

b. Computed using alpha = .05

Profile Plots

Estimated Marginal Means of Victim of Childhood Sexual Abuse





How many times have you been married?

ANCOVA

An ANCOVA was conducted to examine whether depression (DASS-Depression) has an effect on race while controlling for masturbation pornography remorse (MSSSS) as the covariate. The results revealed race is having a significant impact on DASS-depression scores ($F(6,893)=4.354, p<.001, \text{partial } n^2=.0023$). Based on the results, statistically, there is a significant difference in DASS-depression scores across different races.

Estimates

Dependent Variable: DASS-Depression

What is your race?	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
White	16.714 ^a	.452	15.827	17.602
African American/Black	20.730 ^a	.833	19.094	22.365
American Indian and Alaska Native	15.491 ^a	3.790	8.053	22.929
Asian	15.506 ^a	1.245	13.062	17.949
Native Hawaiian or other Pacific Islander	9.185 ^a	10.711	-11.837	30.207
Hispanic, Latino or of Spanish Origin	20.250 ^a	1.328	17.642	22.857
Other	13.379 ^a	4.050	5.429	21.328

a. Covariates appearing in the model are evaluated at the following values:
MSSS-Masturbation/Pornography Remorse = 14.3563.

Levene's Test of Equality of Error Variances^a

Dependent Variable: DASS-Depression

F	df1	df2	Sig.
2.837	6	894	.010

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + MSSSMR + Race

Tests of Between-Subjects Effects

Dependent Variable: DASS-Depression

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	36346.974 ^a	7	5192.425	45.274	<.001	.262
Intercept	153.782	1	153.782	1.341	.247	.001
MSSSMR	26480.991	1	26480.991	230.896	<.001	.205
Race	2996.170	6	499.362	4.354	<.001	.028
Error	102416.365	893	114.688			
Total	418012.000	901				
Corrected Total	138763.339	900				

a. R Squared = .262 (Adjusted R Squared = .256)

Univariate Tests

Dependent Variable: DASS-Depression

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	2996.170	6	499.362	4.354	<.001	.028
Error	102416.365	893	114.688			

The F tests the effect of What is your race?. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.