Report on Paper 1: Comorbid Substance Use Disorders

Abstract:

This report will generate the information required for the tables and figures of the paper.

Description of Table 1:

The three races considered and their abbreviations are as follows: Asian Americans - AA Native Hawaiian/Pacific Islander - NHPI Multi-Racial - MR

Other variables of interest are: Age Sex Setting

Race	Count
AA	521
NHPI	1289
MR	1745
Total	3555

Number of patients grouped by race and age

Age	AA	%	NHPI	%	MR	%
1-11	18	3.5	136	10.6	259	14.8
12-17	58	11.1	404	31.3	267	15.3
18-34	209	40.1	368	28.5	412	23.6
35-49	138	26.5	225	17.5	416	23.8
50+	98	18.8	156	12.1	391	22.4

Number of patients grouped by race and sex

Sex	AA	%	NHPI	%	MR	%
Male	226	43.4	612	47.5	751	43.0
Female	295	56.6	677	52.5	994	57.0

Number of patients grouped by race and setting

Setting	AA	%	NHPI	%	MR	%
Hospital	96	18.4	784	60.8	128	7.3
Mental Health Center	425	81.6	505	39.2	1617	92.7

Description of Figure 1:

The Axis I/II disorders that are considered and their abbreviations are as follows: Mood - mood Anxiety - anxiety Adjustment - adjustment ADHD/CD/ODD/DBD - adhd Substance Use Disorder - sud Psychotic - psyc Personality - pers Childhood-onset - childhood Impulse-control - impulse Cognitive - cognitive Eating - eating Somatoform - smtf Dissociation - disso Sleep - sleep Factitious Disorders - fd

Disorders with less than 3% prevalence are not shown in the figure
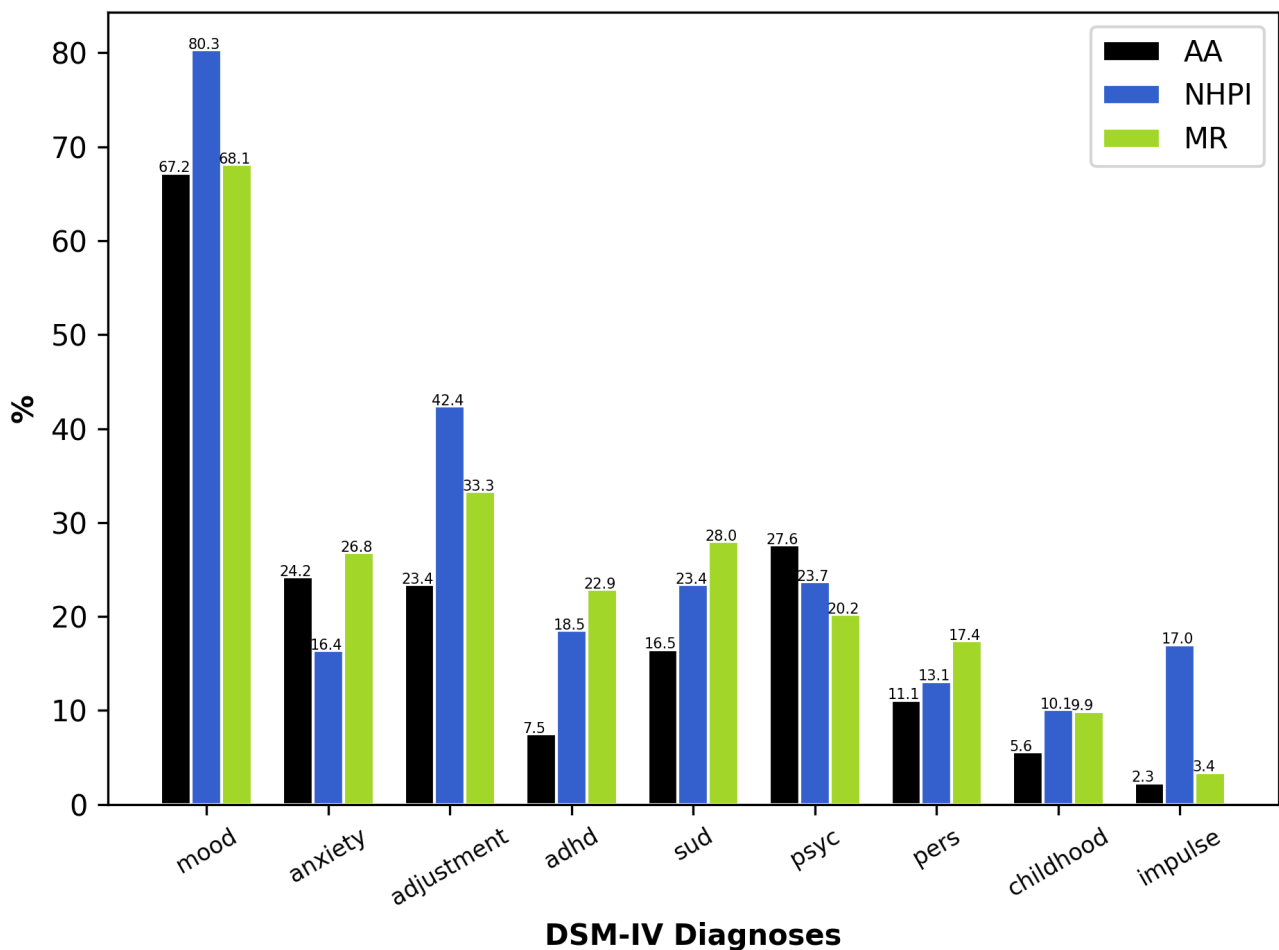
Description of Table 2:

This table measures the prevalance of the below among the 3 races, as a percentage of the total or of the various ages:

Any SUD - any_sud >=2 SUD - morethan2_sud Alcohol - alc Cannabis - cannabis Amphetamine - amphe Hallucinogen - halluc Nicotine - nicotin Cocaine - cocaine Opioids - opioids Sedatives/tranquilizers - sedate Other drugs - others Polysubstance - polysub Inhalants - inhalant

Total Sample

Prevalence, %	AA	NHPI	MR
DSM-IV diagnosis	Total = 521	Total = 1289	Total = 1745
any_sud	16.5	23.4	28.0
morethan2_sud	5.2	4.8	7.9
alc	9.6	9.2	9.6
cannabis	6.3	8.8	8.0
amphe	1.0	0.1	0.7
halluc	0.4	-	0.2
nicotin	1.0	0.1	2.5
cocaine	1.3	2.0	4.5
opioids	1.7	2.4	8.9
sedate	0.8	0.3	0.9
others	0.2	0.1	0.4
polysub	-	-	-
inhalant	0.8	0.7	0.6

Asian Americans, separated into age bins

Prevalence, %	1-11 y/o	12-17 y/o	18-34 y/o	35-49 y/o	50+ y/o
DSM-IV diagnosis	Total: 18	Total: 58	Total: 209	Total: 138	Total: 98
any_sud	-	19.0	22.5	15.9	6.1
morethan2_sud	-	12.1	7.2	2.2	2.0
alc	-	8.6	12.0	10.1	6.1
cannabis	-	17.2	9.1	2.9	-
amphe	-	1.7	1.4	0.7	-
halluc	-	-	1.0	-	-
nicotin	-	-	1.9	-	1.0
cocaine	-	-	2.4	0.7	1.0
opioids	-	1.7	2.9	1.4	-
sedate	-	1.7	1.0	0.7	-
others	-	1.7	-	-	-
polysub	-	-	-	-	-
inhalant	-	3.4	1.0	-	-

Native Hawaiians/Pacific Islanders, separated into age bins

Prevalence, %	1-11 y/o	12-17 y/o	18-34 y/o	35-49 y/o	50+ y/o
DSM-IV diagnosis	Total: 136	Total: 404	Total: 368	Total: 225	Total: 156
any_sud	1.5	18.3	33.7	29.3	23.1
morethan2_sud	0.7	4.5	6.8	6.7	1.9
alc	0.7	4.5	14.1	11.6	13.5
cannabis	0.7	13.6	10.6	7.1	1.3
amphe	-	-	0.3	-	-
halluc	-	-	-	-	-
nicotin	-	0.2	-	-	-
cocaine	-	0.7	2.4	5.8	0.6
opioids	0.7	0.5	2.2	5.8	4.5
sedate	-	-	0.5	0.4	0.6
others	-	-	0.3	-	-
polysub	-	-	-	-	-
inhalant	-	0.7	1.4	0.4	-

Mixed-Race, separated into age bins

Prevalence, %	1-11 y/o	12-17 y/o	18-34 y/o	35-49 y/o	50+ y/o
DSM-IV diagnosis	Total: 259	Total: 267	Total: 412	Total: 416	Total: 391
any_sud	1.2	13.1	37.1	39.9	33.5
morethan2_sud	-	3.7	11.4	11.8	7.9
alc	-	4.1	14.6	13.2	10.5
cannabis	0.4	9.0	18.0	7.2	2.8
amphe	-	-	2.9	0.2	-
halluc	-	-	0.7	-	-
nicotin	-	0.7	2.2	3.8	4.1
cocaine	-	0.4	5.1	8.2	5.9
opioids	-	-	4.6	16.8	17.1
sedate	-	-	1.0	1.7	1.3
others	-	0.7	0.2	1.0	-
polysub	-	-	-	-	-
inhalant	-	1.1	1.2	0.7	-

Description of Table 3:

This table contains the odds ratios and confidence intervals after a logistic regression is performed for the following samples:

- All races, aged 12 and older
- Asian Americans, aged 12 and older
- Native Hawaiian, aged 12 and older
- Mixed Race, aged 12 and older

Logistic regression is performed for:

- Any SUD
- 2 or more SUDs

All races, aged 12 or older

Logistic Regression, Any SUD	N = 3142	
Any SUD	**Odds Ratio**	**95% CI**
Race		
NHPI vs AA	1.34	0.99 - 1.81
MR vs AA	2.81	2.13 - 3.72
Age in years		
12 - 17 vs 50+	0.39	0.3 - 0.52
18 - 34 vs 50+	1.27	1.0 - 1.61
35 - 49 vs 50+	1.27	0.99 - 1.63
Sex		
Male vs Female	3.26	2.75 - 3.88
Treatment Setting		
Hospital vs Mental Health Center	2.24	1.8 - 2.8
2 or more SUDs	**Odds Ratio**	**95% CI**
Race		
NHPI vs AA	0.73	0.41 - 1.31
MR vs AA	0.93	0.55 - 1.55
Age in years		
12 - 17 vs 50+	2.03	1.15 - 3.59
18 - 34 vs 50+	1.56	0.99 - 2.46
35 - 49 vs 50+	1.42	0.89 - 2.26
Sex		
Male vs Female	1.24	0.9 - 1.71
Treatment Setting		
Hospital vs Mental Health Center	0.57	0.37 - 0.86

Asian Americans, aged 12 or older

Logistic Regression, Any SUD	N = 503	
Any SUD	**Odds Ratio**	**95% CI**
Age in years		
12 - 17 vs 50+	2.42	0.81 - 7.22
18 - 34 vs 50+	4.24	1.69 - 10.68
35 - 49 vs 50+	2.55	0.96 - 6.77
Sex		
Male vs Female	4.34	2.58 - 7.31
Treatment Setting		
Hospital vs Mental Health Center	1.56	0.86 - 2.84
2 or more SUDs	**Odds Ratio**	**95% CI**
Age in years		
12 - 17 vs 50+	2.0	0.21 - 19.23
18 - 34 vs 50+	0.47	0.06 - 3.56
35 - 49 vs 50+	0.15	0.01 - 1.55
Sex		
Male vs Female	0.69	0.23 - 2.05
Treatment Setting		
Hospital vs Mental Health Center	0.28	0.07 - 1.1

Native Hawaiians/Pacific Islanders, aged 12 or older

Logistic Regression, Any SUD	N = 1153	
Any SUD	**Odds Ratio**	**95% CI**
Age in years		
12 - 17 vs 50+	0.51	0.32 - 0.83
18 - 34 vs 50+	1.42	0.9 - 2.23
35 - 49 vs 50+	1.37	0.83 - 2.25
Sex		
Male vs Female	2.75	2.07 - 3.65
Treatment Setting		
Hospital vs Mental Health Center	2.53	1.85 - 3.45
2 or more SUDs	**Odds Ratio**	**95% CI**
Age in years		
12 - 17 vs 50+	4.08	1.1 - 15.16
18 - 34 vs 50+	2.96	0.83 - 10.57
35 - 49 vs 50+	3.41	0.91 - 12.82
Sex		
Male vs Female	1.03	0.57 - 1.88
Treatment Setting		
Hospital vs Mental Health Center	0.49	0.26 - 0.9

Mixed Race, aged 12 or older

Logistic Regression, Any SUD	N = 1486	
Any SUD	**Odds Ratio**	**95% CI**
Age in years		
12 - 17 vs 50+	0.22	0.14 - 0.34
18 - 34 vs 50+	1.04	0.76 - 1.42
35 - 49 vs 50+	1.2	0.88 - 1.63
Sex		
Male vs Female	3.55	2.79 - 4.53
Treatment Setting		
Hospital vs Mental Health Center	1.96	1.32 - 2.93
2 or more SUDs	**Odds Ratio**	**95% CI**
Age in years		
12 - 17 vs 50+	1.26	0.54 - 2.92
18 - 34 vs 50+	1.49	0.87 - 2.54
35 - 49 vs 50+	1.36	0.8 - 2.3
Sex		
Male vs Female	1.45	0.96 - 2.18
Treatment Setting		
Hospital vs Mental Health Center	0.69	0.37 - 1.29

Description of Table 4:

This table contains the odds ratios and confidence intervals after a logistic regression is performed for each race:

- Asian Americans, aged 12 and older
- Native Hawaiian, aged 12 and older
- Mixed Race, aged 12 and older

Logistic regression is performed for comorbidity of any SUD with other mental health disorders in the list below: Mood - mood Anxiety - anxiety Adjustment - adjustment ADHD/CD/ODD/DBD - adhd Substance Use Disorder - sud Psychotic - psyc Personality - pers Childhood-onset - childhood Impulse-control - impulse Cognitive - cognitive Eating - eating Somatoform - smtf Dissociation - disso Sleep - sleep Factitious Disorders - fd

Asian Americans, aged 12 or older

Logistic Regression, Any SUD	N = 503	
DSM-IV Diagnosis	Odds Ratio	95% CI
mood	1.12	0.64 - 1.95
anxiety	1.26	0.72 - 2.21
adjustment	0.88	0.5 - 1.56
adhd	2.13	0.84 - 5.42
psyc	1.15	0.64 - 2.08
pers	2.28	1.21 - 4.31
childhood	0.87	0.26 - 2.91
impulse	1.06	0.2 - 5.72
cognitive	-	- - -
eating	1.1	0.22 - 5.49
smtf	-	- - -
disso	-	- - -
sleep	0.7	0.08 - 5.98
fd	-	- - -

Native Hawaiians/Pacific Islanders, aged 12 or older

Logistic Regression, Any SUD	N = 1153	
DSM-IV Diagnosis	Odds Ratio	95% CI
mood	1.22	0.82 - 1.81
anxiety	0.42	0.26 - 0.67
adjustment	0.71	0.53 - 0.95
adhd	0.92	0.58 - 1.48
psyc	1.49	1.07 - 2.06
pers	2.26	1.57 - 3.24
childhood	0.4	0.2 - 0.8
impulse	1.16	0.74 - 1.82
cognitive	0.72	0.19 - 2.77
eating	1.01	0.34 - 2.98
smtf	3.18	0.67 - 15.21
disso	2.53	0.51 - 12.47
sleep	-	- - -
fd	-	- - -

Mixed Race, aged 12 or older

Logistic Regression, Any SUD	N = 1486	
DSM-IV Diagnosis	Odds Ratio	95% CI
mood	0.67	0.52 - 0.86
anxiety	0.65	0.5 - 0.85
adjustment	0.64	0.5 - 0.83
adhd	0.43	0.29 - 0.64
psyc	1.33	1.01 - 1.74
pers	2.19	1.65 - 2.9
childhood	0.67	0.39 - 1.12
impulse	1.25	0.68 - 2.28
cognitive	0.51	0.14 - 1.91
eating	0.65	0.26 - 1.67
smtf	-	- - -
disso	0.8	0.2 - 3.31
sleep	0.45	0.18 - 1.11
fd	-	- - -