1 Final Project: Group 3

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Abstract

Sign Up: One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words "**here we show**" or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: keywords

Word count: X

Final Project: Group 3

Introduction

Despite advances in access to health services, quality of care, and overall gains in life expectancy, racial/ethnic disparities in health in the United States (U.S.) remains to disproportionally affect the lives of racial/ethnic minority groups. Williams and Mohammed (2009) refer to the finding of Levine et al. (2016) that approximately 100,000 African Americans who would not die if there were no racial disparities die prematurely every year. Unfortunately, in the mental health arena, racial/ethnic disparities are no exception.

Even though the burden and impact of physical diseases on different racial/ethnic subgroups have been far more studied than the impact and burden of mental health disorders, we know that globally, depression is the leading cause of disability and loss of productivity, and that its direst outcome, death via suicide, is on the rise (WHO, 2018 (accessed December 4, 2018)). It is well-known that mental health services are costly and thus a high proportion of the American population cannot afford them.

Given that depression is usually screened and treated first in primary care settings, access to medical care is the first barrier to treatment that racial/ethnic minority groups face (Williams & Mohammed, 2009). From there, racial/ethnic minority groups experience barriers such as low detection rate of mental health disorders in comparison to Whites (Borowsky et al., 2000); language barriers for non-English speakers (Fiscella, Franks, Doescher, & Saver, 2002); use of screening measures not translated or validated for racial/ethnic minority groups; issues of trust related but not limited to underrepresentation of racial/ethnic minorities among mental health professionals, and cultural differences in understanding and treating mental health disorders (Miranda & Cooper, 2004). Overall, these and other barriers affect the access and quality of treatment racial/ethnic minority groups receive in respect to their mental health.

⁵³ ——Maria will do drug use onset and health disparities (short 1 paragraph) —- use of
⁵⁴ substances as an alternative treatment for depression that people may recur to—-

⁵⁵ In the present study, we aim to explore some of the health disparities among different
⁵⁶ racial/ethnic groups using a nationally representative sample, the National Health and
⁵⁷ Nutrition Examination Survey (NHANES) 2015 – 2016.

Methods

⁵⁹ Sign up:

⁶⁰ We report how we determined our sample size, all data exclusions (if any), all
⁶¹ manipulations, and all measures in the study.

Participants

⁶³ Sign up:

Measures

⁶⁵ sign up: Alejandra will describe the measures for depression, use of mental health
⁶⁶ services, and insurance coverage.

Data analysis

⁶⁸ We used R (Version 3.5.1; R Core Team, 2018) and the R-packages *bindrcpp* (Version
⁶⁹ 0.2.2; Müller, 2018), *dplyr* (Version 0.7.8; Wickham, François, Henry, & Müller, 2018),
⁷⁰ *forcats* (Version 0.3.0; Wickham, 2018a), *ggplot2* (Version 3.0.0; Wickham, 2016), *here*
⁷¹ (Version 0.1; Müller, 2017), *kableExtra* (Version 0.9.0; Zhu, n.d.), *papaja* (Version
⁷² 0.1.0.9842; Aust & Barth, 2018), *purrr* (Version 0.2.5; Henry & Wickham, 2018), *readr*
⁷³ (Version 1.2.1; Wickham, Hester, & Francois, 2018), *rio* (Version 0.5.10; C.-h. Chan, Chan,

74 Leeper, & Becker, 2018), *stringr* (Version 1.3.1; Wickham, 2018b), *tibble* (Version 1.4.2;

75 Müller & Wickham, 2018), *tidyr* (Version 0.8.2; Wickham & Henry, 2018), and *tidyverse*

76 (Version 1.2.1; Wickham, 2017) for all our analyses. sign up:

Results

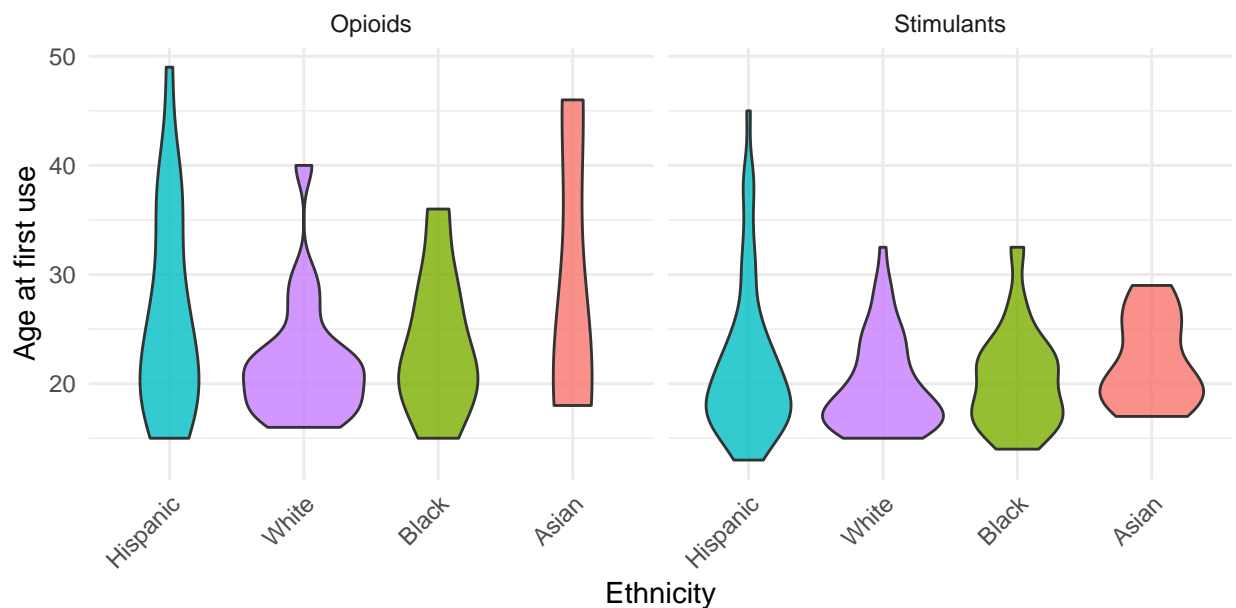78   We should use inline code here sign up:

79   Alejandra will do the description of her plot (depression, health insurance coverage,

80 visit to mental health, broken down by ethnicities).

81 `## Warning: Removed 425 rows containing missing values (geom_col).`

82   Shaina will describe her plot of drug use by ethnicities
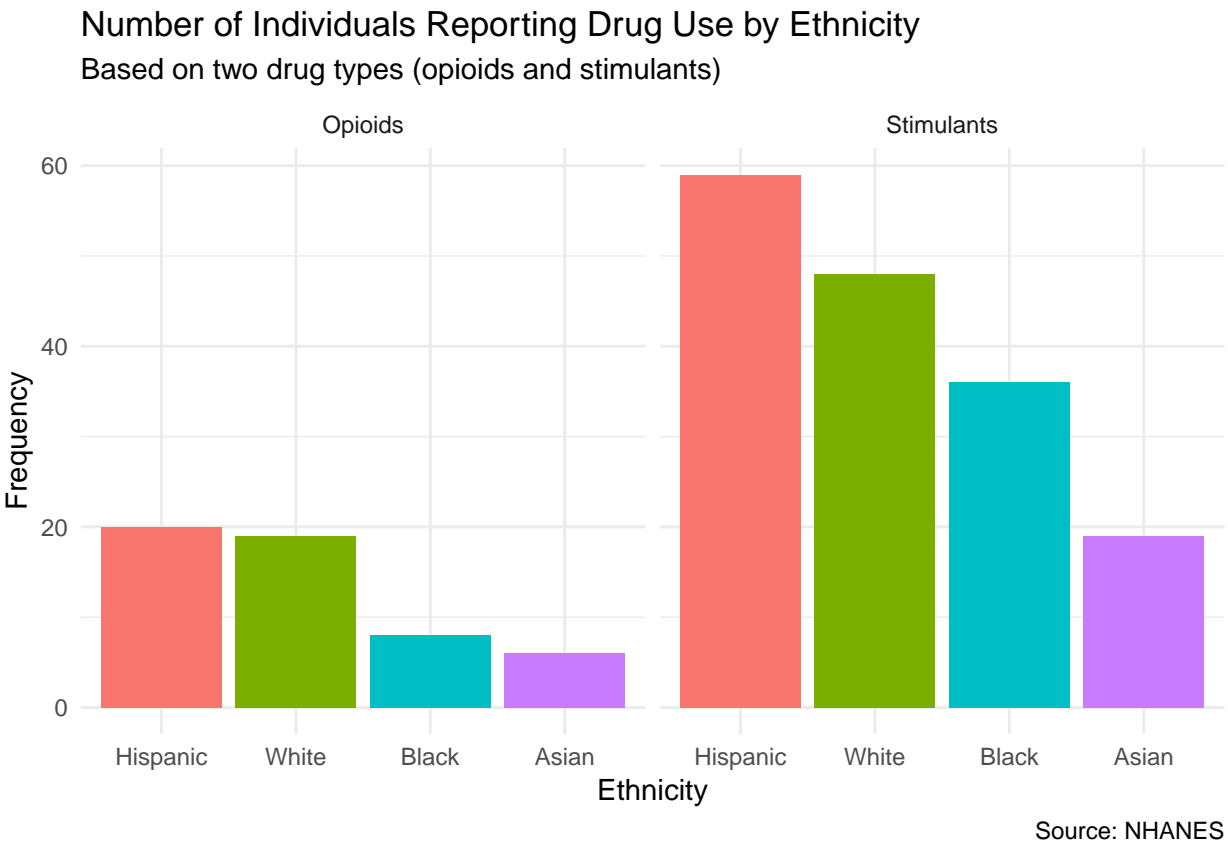

Age of First Use by Ethnicity
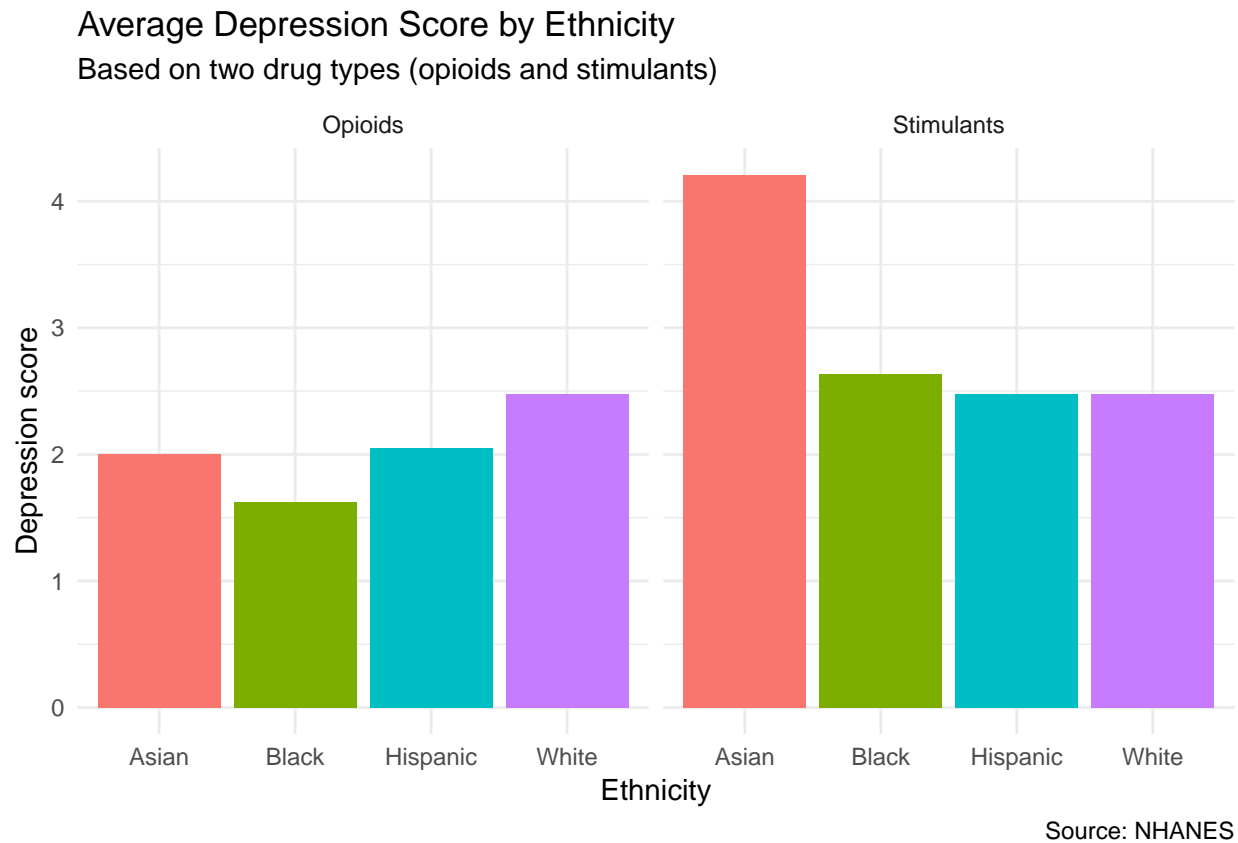Based on two drug types (opioids and stimulants)

Source: NHANES

83

84   plot 2

Number of Individuals Reporting Drug Use by Ethnicity
Based on two drug types (opioids and stimulants)

Source: NHANES

85

plot 3

Average Depression Score by Ethnicity
Based on two drug types (opioids and stimulants)

Source: NHANES

ST table

```
## Warning: Expected 2 pieces. Missing pieces filled with `NA` in 10 rows [1,
## 2, 3, 4, 5, 6, 7, 8, 9, 10].
```

Discussion
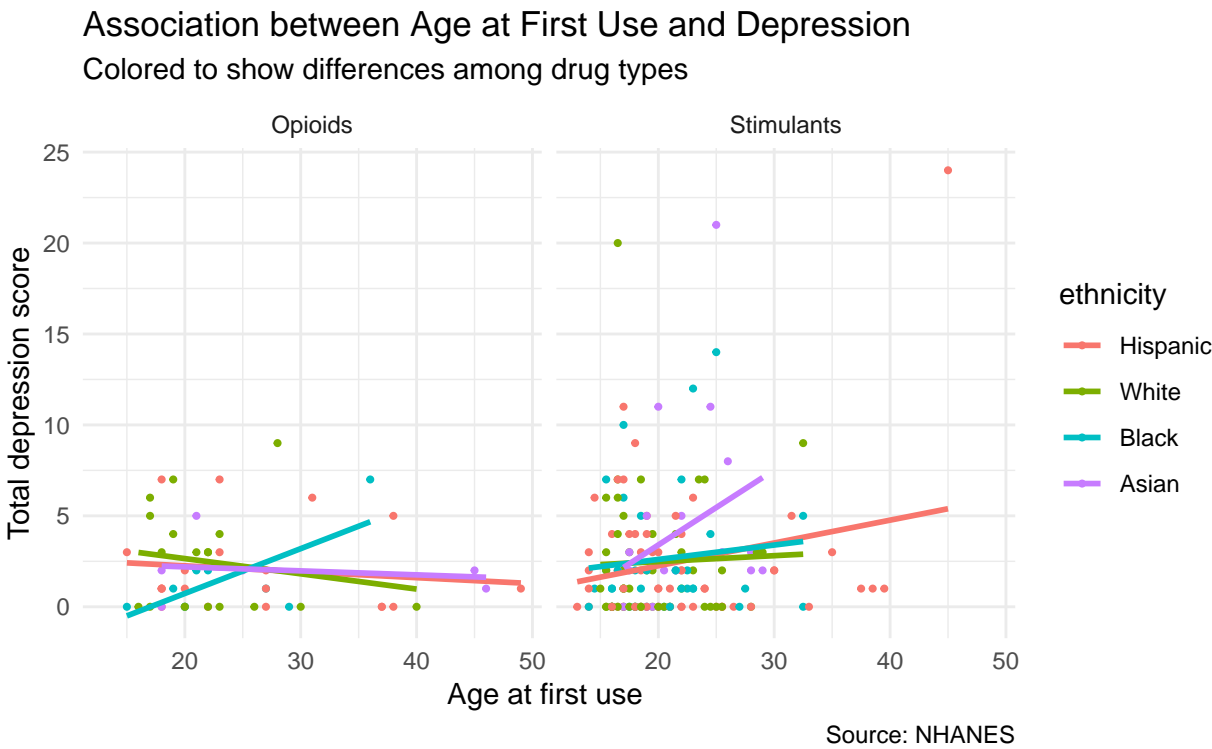
sign up:

Insert one data visualization – we are using two, I believe Alejandra's viz. and one from Shaina Exploratory association plot?

Association between Age at First Use and Depression
Colored to show differences among drug types

Source: NHANES

95

96   Insert Table – JP?

References

sign up: Alejandra will include the references used in the intro.

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Table 1

Average depression score and age of first opioid and stimulant use

Ethnicity	Depression Score	Opioid Use	Stimulant Use
Asian	3.01	27.86	21.73
Black	3.16	22.18	20.30
Hispanic	3.29	25.81	21.43
Other/Multiracial	3.47	22.33	18.93
White	3.53	21.60	20.23

Total Depression Score by Ethnicity and Usage of Mental Health Services
Faceted by Insurance Coverage

Figure 1