



# Effects of COVID-19 on Psychological Well-Being in College Students

Impacts of Discrimination and the COVID-19 Pandemic

Ana Rivera Juarez

Faculty Advisors:

Roxanne Prichard<sup>a</sup> and Sergey Berg<sup>b</sup>

<sup>a</sup> Dept. of Neuroscience and Psychology

<sup>b</sup> Dept. of Computer and Information Sciences

# COVID-19's Impact

- Many social, financial, and cultural strains increased significantly during the pandemic.
  - Job insecurity<sup>1</sup>
  - health concerns<sup>2</sup>
  - unstable housing situations<sup>3</sup>
  - financial strain<sup>1</sup>
  - perceived racial discrimination<sup>4</sup>

<sup>1</sup> Wilson et al., 2020

<sup>2</sup> CDC, 2021

<sup>3</sup> Lake, 2020

<sup>4</sup> Jackson & Johnson, 2020

# Mental Health Among College Students

- The prevalence of psychological distress and suicidality among college students is high<sup>1</sup>.
- From 2011 to 2019,
  - suicidal ideation increased from 6.4% to 13.3%<sup>2,3</sup>
  - overwhelming anxiety increased from 45.1% to 65.7%<sup>2,3</sup>
  - overwhelming depression increased from 31.1% to 50.6%<sup>2,3</sup>

<sup>1</sup>Lipson et al., 2015

<sup>2</sup>ACHA, 2011

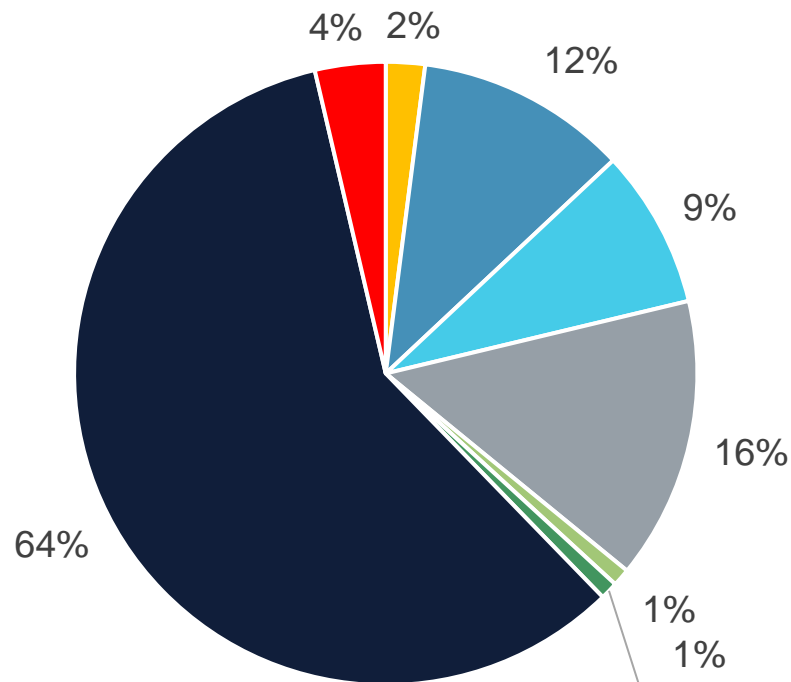
<sup>3</sup>ACHA, 2019

## Research Questions

What factors are the biggest predictors of psychological distress in different demographic groups in college students?

How do the varying predictive strengths of factors change in Fall 2019 vs Fall 2020, during the pandemic?

# Data Source



- American Indian or Native Alaskan
- Asian or Asian American
- Black or African American
- Hispanic or Latino/a/x
- Middle Eastern/North African (MENA) or Arab Origin
- Native Hawaiian or Other Pacific Islander Native
- White
- Biracial or Multiracial

Total Sample Size: 52,052 students

Fall 2019: 38,679

Fall 2020: 13,373

# NCHA Variables of Interest

## Distal

Gender Identity  
and Sexuality

Racial and  
Ethnic Identity

First Generation  
Students

## Proximal

Experiences of  
Discrimination/  
Microaggression

Food  
Insecurity

Time spent at  
work/ familial  
responsibilities

Sleep  
Habits

Time spent on  
social media

Experiences  
of Violence

Time spent  
socializing

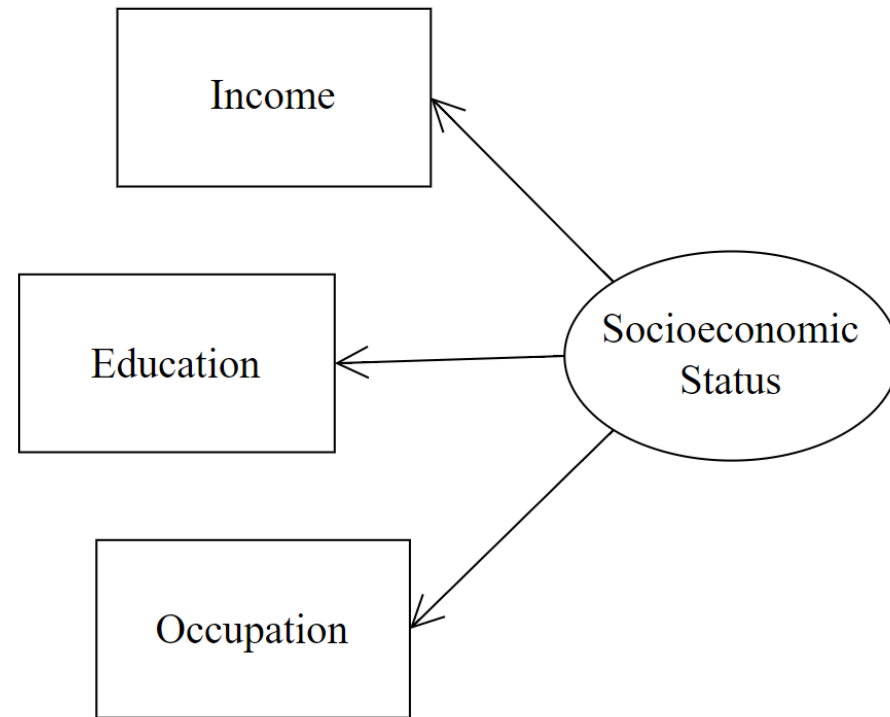
Chemical  
Usage/ Abuse

## Outcomes

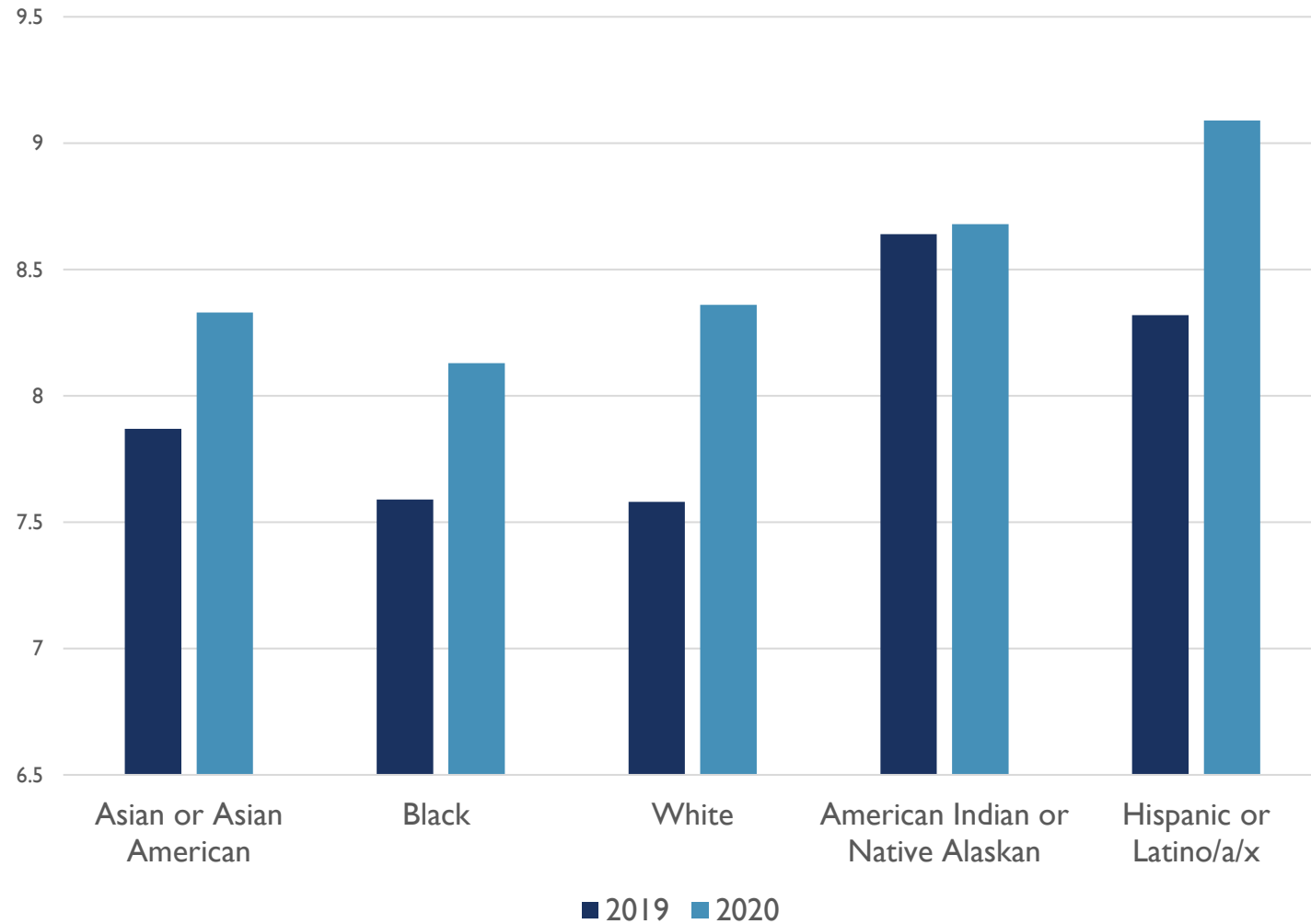
### Psychological Well-Being

- Suicide Behavior Questionnaire Score
- Connor-Davison Resilience Scale
- Kessler 6 Screening for Non-Specific Serious Mental Illness Score

# The Power of Structural Equation Modeling

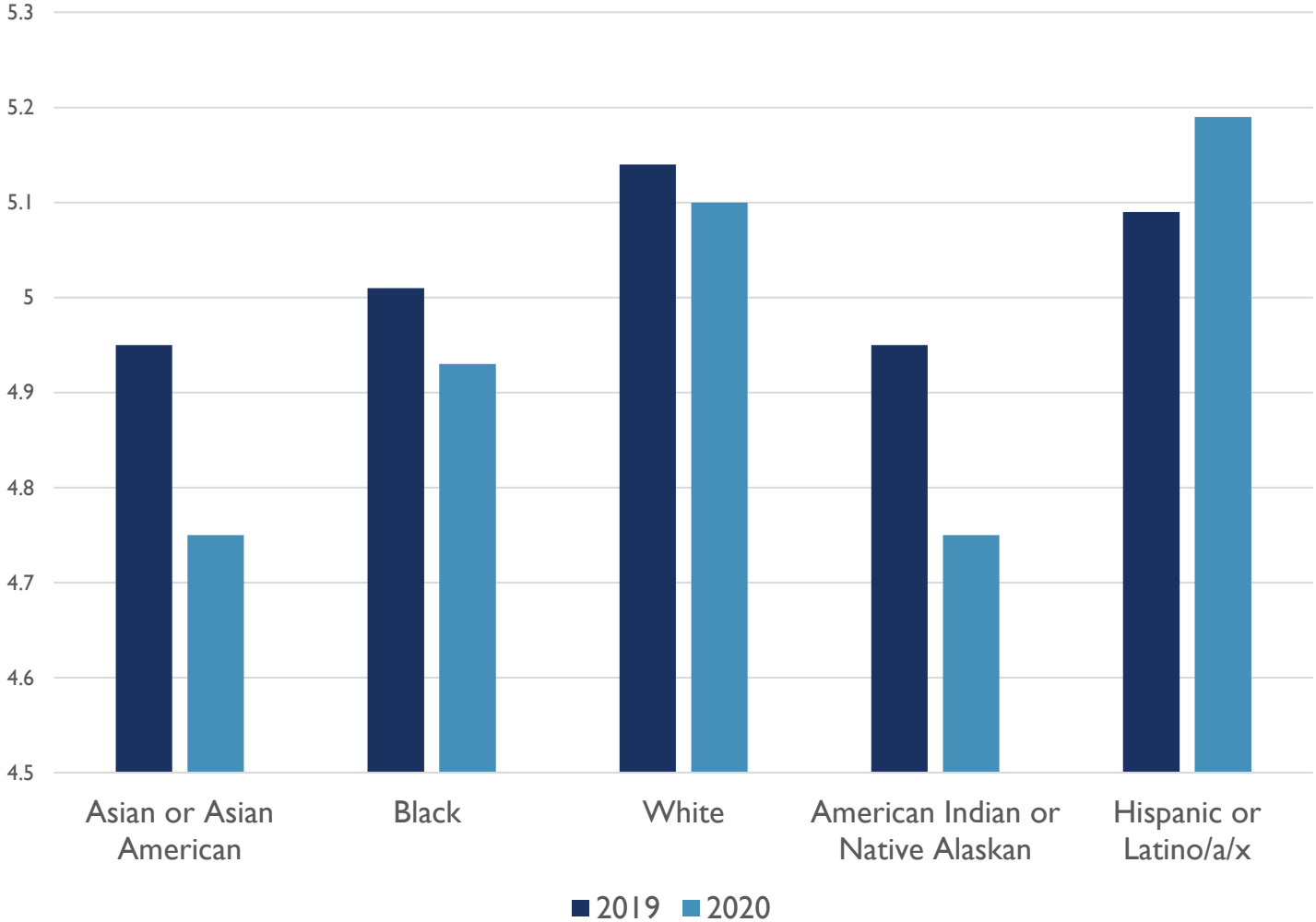


# Psychological Distress

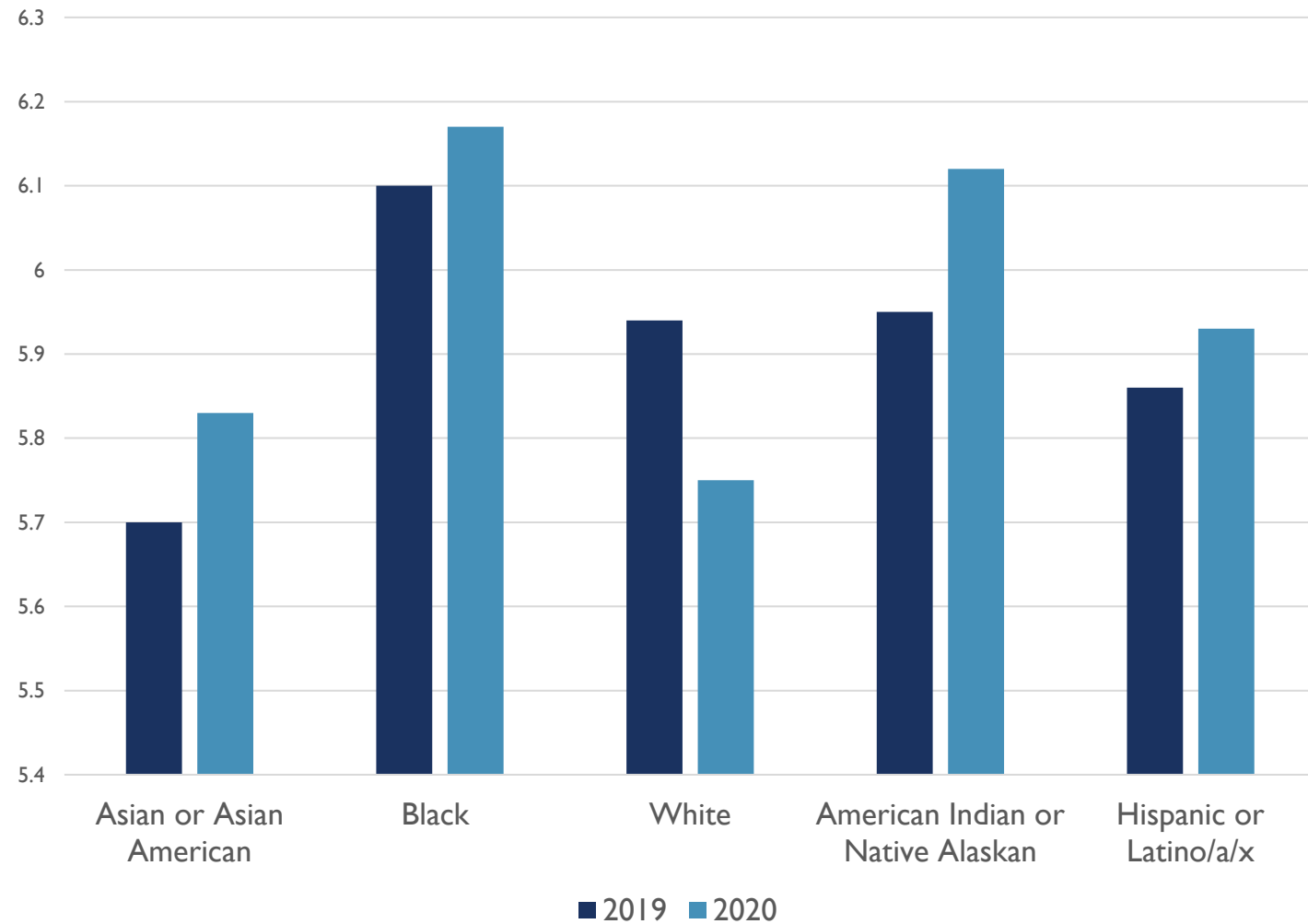




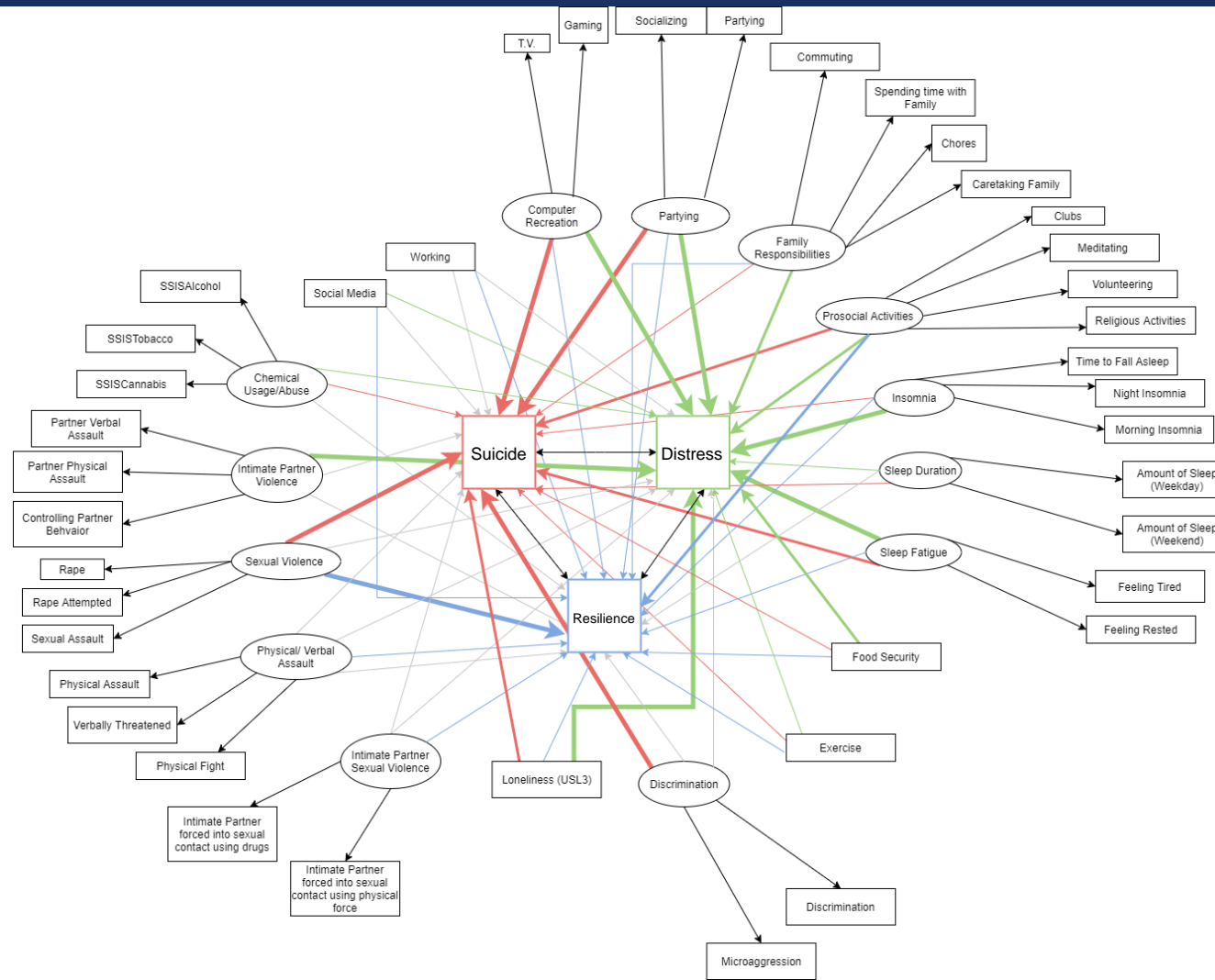
# Suicide Risk



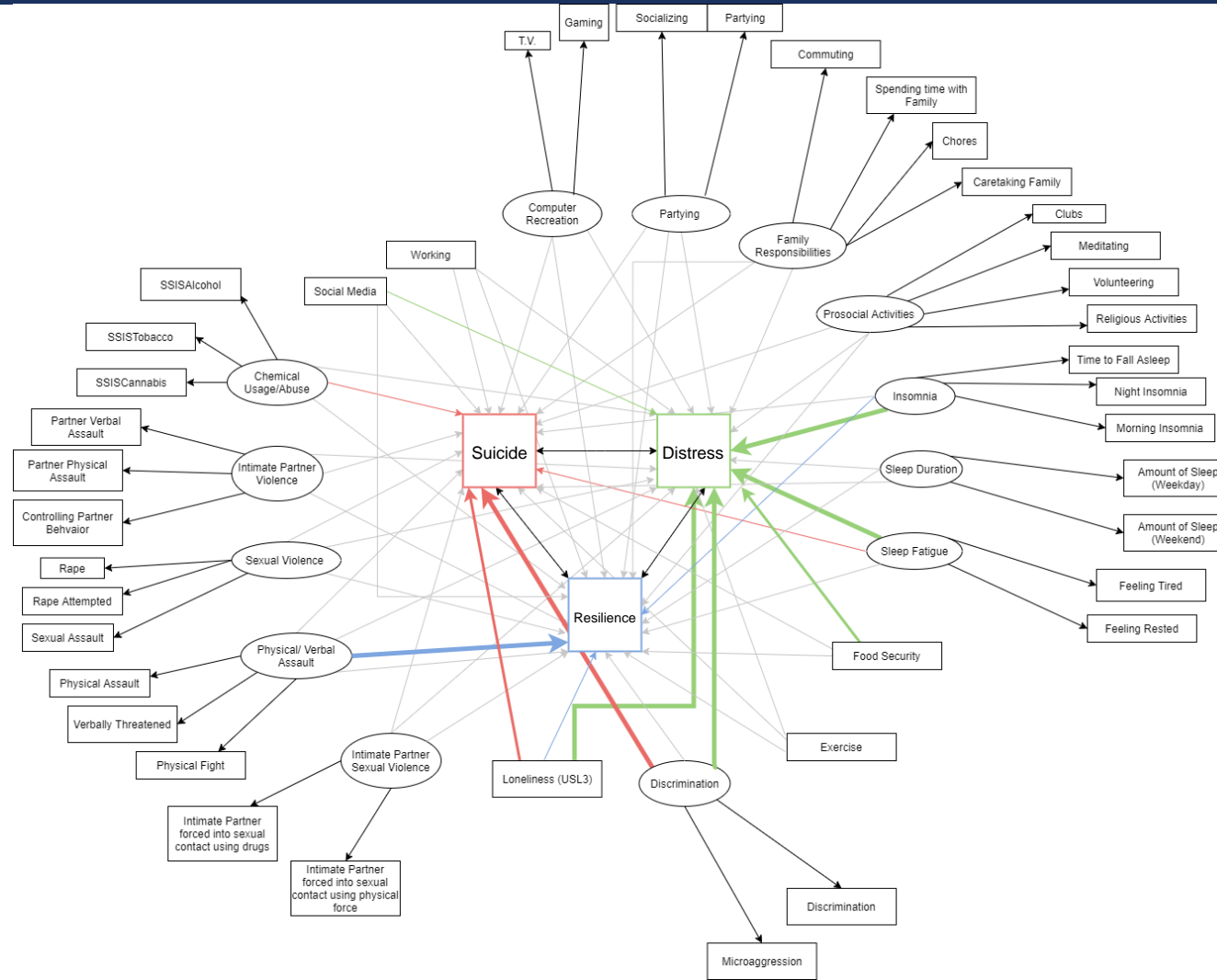
# Resilience



# Predictors of Psychological Distress for Asians and Asian Americans in 2019



# Predictors of Psychological Distress for Asians and Asian Americans in 2020



## Significance of Results

- In October of 2021, Olympic gold medalist, Suni Lee, was pepper sprayed after being called racial slurs on the street<sup>1</sup>
- On March 16<sup>th</sup> , six Asian women were fatally shot in the Atlanta Area<sup>2</sup>
- STOP AAPI HATE reported more than 9,000 reports of incidents of racism, hate speech, discrimination, and physical attacks against Asians and Asian-Americans from March 2020 to June 2021.<sup>3</sup>

<sup>1</sup> Waldrop, 2021

<sup>2</sup> Brumback, 2021

<sup>3</sup> Asian Pacific Policy and Planning Council, 2021

# Looking to the Future

- Culturally relevant care<sup>1,2</sup>
  - Multi-lingual practitioners
  - Community-integrated outreach
  - Treatment plans that acknowledge and navigate cultural stigmas
- Stepped care approach<sup>3,4</sup>
  - Evidence based
  - Cost-effective
  - Maximizes efficacy and resources

<sup>1</sup> Kramer, 2002

<sup>2</sup> Leong & Lau, 2002

<sup>3</sup> Cornish et al., 2017

<sup>4</sup> Jobes et al., 2018

## References

- Brumbach, K. (2021, March 18). *Man charged with killing 8 people at Georgia massage parlors*. AP NEWS. <https://apnews.com/article/georgia-massage-parlor-shootings-leave-8-dead-f3841a8e0215d3ab3d1f23d489b7af81>.
- Center for Disease Control and Prevention. (2021, February 12) *Health equity considerations and racial and ethnic minority groups*. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html>
- Cornish, P. A., Berry, G., Benton, S., Barros-Gomes, P., Johnson, D., Ginsburg, R., Whelan, B., Fawcett, E., & Romano, V. (2017). Meeting the mental health needs of today's college student: Reinventing services through Stepped Care 2.0. *Psychological Services, 14*(4), 428–442. <https://doi.org/10.1037/ser0000158>
- Dinges, D.F., Pack, F., Williams, K., Gillen, K.A., Powell, J.W., Ott, G.E., Aptowicz, C., Pack, A.I. (1997) Cumulative sleepiness, mood disturbance, and psychomotor vigilance performance decrements during a week of sleep restricted to 4–5 hours per night. *Sleep, 20*, 267–277. Doi.10.1093/sleep/20.4.267
- Ezarik, M. (2021, March 24). Student experiences during COVID and campus reopening concerns. <https://www.insidehighered.com/news/2021/03/24/student-experiences-during-covid-and-campus-reopening-concerns>.
- Hershner, S., & Chervin, R. (2014). Causes and consequences of sleepiness among college students. *Nature and Science of Sleep, 73*. doi:10.2147/nss.s62907
- In One Month, STOP AAPI HATE Receives almost 9000 Incident Reports of Verbal Harassment, Shunning and Physical Assaults. (2021). *Asianpacificpolicyandplanningcouncil.org*. [http://www.asianpacificpolicyandplanningcouncil.org/wp-content/uploads/Press\\_Release\\_4\\_23\\_20.pdf](http://www.asianpacificpolicyandplanningcouncil.org/wp-content/uploads/Press_Release_4_23_20.pdf).

- Jackson, C. L., & Johnson, D. A. (2020). Sleep disparities in the era of the COVID-19 pandemic highlight the urgent need to address social determinants of health like the virus of racism. *Journal of Clinical Sleep Medicine, 16*(8), 1401–1402. doi.org/10.5664/jcsm.8570
- Jobs, D., Gregorian, M., & Colborn, V. (2018). A stepped care approach to clinical suicide prevention. *Psychological Services, 15*, 243–250. <https://doi.org/10.1037/ser0000229>
- Kramer, E. J., Kwong, K., Lee, E., & Chung, H. (2002). Cultural factors influencing the mental health of Asian Americans. *Western Journal of Medicine, 176*(4), 227–231.
- Lake, J. (2020, October 30). *The Pandemic Has Exacerbated Housing Instability for Renters of Color*. Center for American Progress. <https://www.americanprogress.org/issues/poverty/reports/2020/10/30/492606/pandemic-exacerbated-housing-instability-renters-color/>.
- Leong, F., & Lau, A. (2002). Barriers to Providing Effective Mental Health Services to Asian Americans. *Mental Health Services Research, 3*, 201–214. <https://doi.org/10.1023/A:1013177014788>
- Lipson, S. K., Gaddis, S. M., Heinze, J., Beck, K., & Eisenberg, D. (2015). Variations in Student Mental Health and Treatment Utilization Across US Colleges and Universities. *Journal of American College Health, 63*(6), 388.
- Lipson, S. K., Kern, A., Eisenberg, D., & Breland-Noble, A. M. (2018). Mental Health Disparities Among College Students of Color. *Journal of Adolescent Health, 63*(3), 348–356. <https://doi.org/10.1016/j.jadohealth.2018.04.014>
- McCallum, S. M., Batterham, P. J., Calex, A. L., Sunderland, M., Carragher, N., & Kazan, D. (2019). Associations of fatigue and sleep disturbance with nine common mental disorders. *Journal of Psychosomatic Research, 123*, 109727. <https://doi.org/10.1016/j.jpsychores.2019.05.005>



- 
- Reetz, D. R., Barr, V., & Krylowicz, B. (2014). *The Association for University and College Counseling Center Directors Annual Survey*.
- Whillans, A., Giurge, L. M., Macchia, L., Yemiscigil, A. (2021, February 23). *Why a Covid-19 World Feels Both Tiring and Hopeful for College Students*. Harvard Business Review. <https://hbr.org/2020/08/why-a-covid-19-world-feels-both-tiring-and-hopeful-for-college-students>.
- Waldrop, T. (2021, November 12). *Olympic gold medalist Suni Lee says she was pepper-sprayed in a racist attack*. CNN. Retrieved February 12, 2022, from <https://www.cnn.com/2021/11/11/us/suni-lee-racist-attack/index.html>
- Wilson, J. M., Lee, J., Fitzgerald, H. N., Oosterhoff, B., Sevi, B., & Shook, N. J. (2020). Job Insecurity and Financial Concern During the COVID-19 Pandemic Are Associated With Worse Mental Health. *Journal of Occupational & Environmental Medicine*, 62(9), 686–691. <https://doi.org/10.1097/jom.0000000000001962>

# Questions?

Researcher Contact Information:

Ana Rivera Juarez

University of St. Thomas

Neuroscience Major

[rive1210@stthomas.edu](mailto:rive1210@stthomas.edu)

