Association of Distress Due to Systemic Racism and Racial Disparities With Psychopathology and Suicidal Ideation Among US Veterans During the COVID-19 Pandemic

Oluwole Jegede, MD, MPH[a,b,*]; Peter J. Na, MD, MPH[a,c]; Angela M. Haeny, PhD[a]; John H. Krystal, MD[a,d]; and Robert H. Pietrzak, PhD, MPH[a,d,e]

Successive waves of coronavirus disease 2019 (COVID-19) infection have disproportionately clustered in minority communities, creating a syndemic of inequities.[1] The impact of the pandemic is further exacerbated by poor access to health care and unequal distribution of vaccines[2] within the historical and ongoing context of systemic racism, highlighted by the murder of George Floyd in May 2020 and other structural inequities.

While numerous studies have reported an increase in the prevalence of psychiatric symptoms during the pandemic,[3,4] no known study has examined the prevalence and mental health impact of distress emanating from the intersection of systemic racism and the COVID-19 pandemic. In this study, we analyzed data from a national sample of US veterans to examine (1) the prevalence of perceived systemic racism and racial disparities in COVID-19–related health outcomes and (2) association of racism-related distress with internalizing (ie, positive screen for major depressive, posttraumatic stress, and/or generalized anxiety disorders) and externalizing (ie, positive screen for alcohol and/or drug use disorders) psychopathology and suicidal ideation (SI) during the pandemic.

Methods

A nationally representative sample of US veterans participated in the National Health and Resilience in Veterans Study; 4,069 veterans completed a baseline survey from November 18, 2019, to March 8, 2020, and 3,078 veterans (75.6%) completed a 1-year follow-up from November 9, 2020, to December 19, 2020.

At Wave 2, the following 2 questions were asked to assess distress related to systemic racism and COVID-19 health disparities: "To what extent have you felt emotionally affected or distressed by systemic racism highlighted by recent events across the country?" and "To what extent have you felt emotionally affected or distressed by the racial disparities in COVID-19–related health outcomes?" Both items were rated on a 5-point scale from "not at all" to "extremely." A score of 3 ("moderately") or above was operationalized as a positive endorsement for both items (see Supplementary Methods).

Multivariable logistic regression analyses using the Enter method were conducted to examine the relation between emotional distress and peri-pandemic psychopathology and SI, adjusting for a broad range of theoretically and empirically supported backgrounds, and pre- and peri-pandemic variables associated with these outcomes (see Supplementary Table 1).

Results

A total of 1,309 (39.6%) and 848 (25.9%) veterans reported feeling emotionally distressed by systemic racism and racial disparities in COVID-19–related health outcomes, respectively; 788 veterans (23.8%) endorsed both items. These prevalences were highest among Black veterans—73.5% for systemic racism and 60.2% for racial disparities in COVID-19–related health outcomes (Figure 1).

Multivariable analyses revealed that distress related to systemic racism was independently associated with externalizing psychopathology (ie, positive screen for alcohol and/or drug use disorders; OR = 1.17, 95% CI = 1.03–1.33; Supplementary Figure 1, Supplementary Table 1) and peri-pandemic SI (OR = 1.29, 95% CI = 1.07–1.55 Supplementary Figure 2, Supplementary Table 1) and that distress related to racial disparities in COVID-19 health outcomes was independently associated with peri-pandemic internalizing psychopathology (ie, positive screen for major depressive, posttraumatic stress, and/or generalized anxiety disorders; OR = 1.29, 95% CI = 1.09–1.52; Figure 2, Supplementary Table 1).

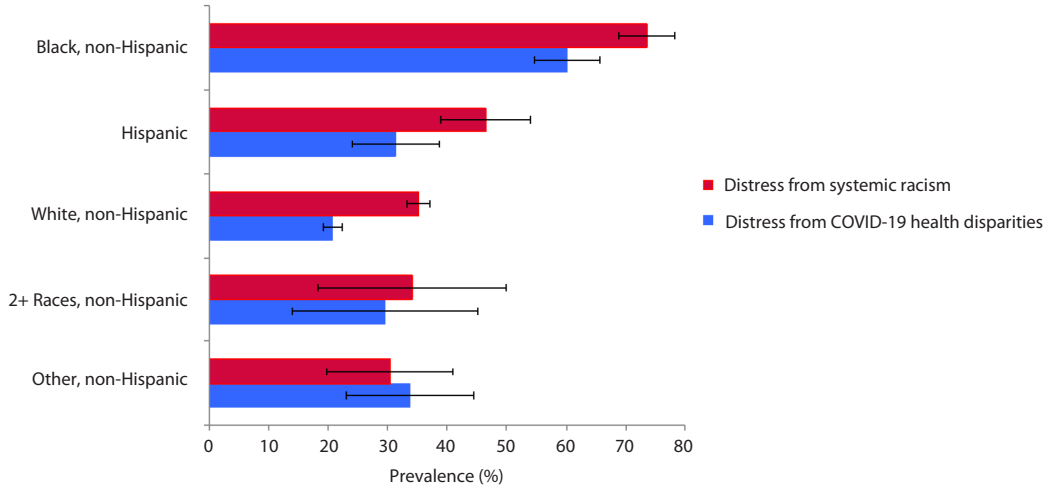
[a]Department of Psychiatry, Yale School of Medicine, New Haven, Connecticut
[b]Connecticut Mental Health Center, New Haven, Connecticut
[c]VA Connecticut Healthcare System, New Haven, Connecticut
[d]National Center for PTSD, VA Connecticut Healthcare System, West Haven, Connecticut
[e]Department of Social and Behavioral Sciences, Yale School of Public Health, New Haven, Connecticut
*Corresponding author: Oluwole Jegede, MD, MPH, Yale University School of Medicine, 300 George St #901, New Haven, CT 06511 (oluwole.jegede@yale.edu).

J Clin Psychiatry 2022;83(5):22br14410

To cite: Jegede O, Na PJ, Haeny AM, et al. Association of distress due to systemic racism and racial disparities with psychopathology and suicidal ideation among US veterans during the COVID-19 pandemic. *J Clin Psychiatry.* 2022;83(5):22br14410.

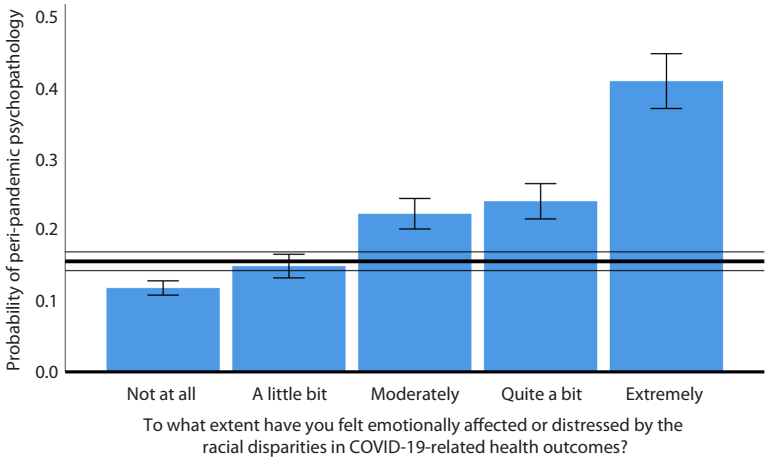
To share: https://doi.org/10.4088/JCP.22br14410

Figure 1. Prevalence of Distress From Systemic Racism and COVID-19 Health Disparities in US Veterans by Race/Ethnicity[a]



[a]Error bars represent 5% confidence intervals. Race/ethnic distribution of the sample: N = 2,541 (weighted 78.2%) White, non-Hispanic; N = 212 (weighted 11.5%) Black, non-Hispanic; N = 216 (weighted 6.2%) Hispanic; N = 40 (weighted 2.8%) other, non-Hispanic; and N = 69 (weighted 1.3%) 2+ races, non-Hispanic.

Figure 2. Probability of Peri-Pandemic Psychopathology (Positive Screen for MDD, GAD, and/or PTSD) as a Function of Distress Related to Racial Disparities in COVID-19 Health Outcomes[a]



[a]Error bars represent 95% confidence interval. Dark horizontal line represents average probability of screening positive for peri-pandemic psychopathology in the full sample, and thin lines around it represent the 95% confidence interval for this value.
Abbreviations: GAD = generalized anxiety disorder, MDD = major depressive disorder, PTSD = posttraumatic stress disorder.

Discussion

We found that nearly 3 of 4 Black US veterans endorsed emotional distress from perceived systemic racism and 3 of 5 from racial disparities in COVID-19–related adverse health outcomes during the pandemic. Further, racism-related distress was independently associated with adverse mental health and SI during the pandemic. Our findings build upon pre-pandemic literature showing that racism is a social determinant of health associated with several mental health outcomes, including SI and substance use.[5] Black veterans demonstrated the highest prevalence of racism-related distress, followed by Hispanic veterans, thus suggesting that racially minoritized populations may be more likely to experience greater distress due to racial disparities in COVID-19–related health outcomes, such as the high infection rates and mortality in their communities.[2]

While this study is limited by its cross-sectional design and use of self-report measures, results nevertheless underscore the high prevalence and psychiatric burden of racism-related distress in the US veteran population. Thus, the assessment of emotional distress related to systemic racism and racial disparities in COVID-19–related health outcomes may be of potential clinical utility for clinicians working with the veteran population. Further research is

needed to replicate these results in other general population samples; evaluate mediators and moderators of the relation between racism-related distress and psychopathology and SI; and evaluate the effect of policy initiatives that attend to reducing health care disparities and systemic racism in mitigating adverse psychiatric outcomes in at-risk populations.

Published online: August 1, 2022.

Relevant financial relationships: None.

Funding/support: Preparation of this report was supported in part by the State of Connecticut, Department of Mental Health and Addiction Services (Dr Jegede) and the US Department of Veterans Affairs National Center for Posttraumatic Stress Disorder (Drs Krystal and Pietrzak).

Role of the sponsor: The funding sources had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Disclaimer: This publication does not express the view of the Department of Mental Health and Addiction Services, State of Connecticut, or US Department of Veterans Affairs. The views and opinions expressed are those of the authors.

Supplementary material: Available at Psychiatrist.com.

REFERENCES

1. Price-Haywood EG, Burton J, Fort D, et al. Hospitalization and mortality among black patients and white patients with Covid-19. *N Engl J Med*. 2020;382(26):2534–2543.
2. Williams N, Tutrow H, Pina P, et al. Assessment of Racial and ethnic disparities in access to COVID-19 vaccination sites in Brooklyn, New York. *JAMA Netw Open*. 2021;4(6):e2113937.
3. Reger MA, Stanley IH, Joiner TE. Suicide mortality and coronavirus disease 2019—a perfect storm? *JAMA Psychiatry*. 2020;77(11):1093–1094.
4. Ettman CK, Abdalla SM, Cohen GH, et al. Prevalence of depression symptoms in US adults before and during the COVID-19 pandemic. *JAMA Netw Open*. 2020;3(9):e2019686.
5. Paradies Y, Ben J, Denson N, et al. Racism as a determinant of health: a systematic review and meta-analysis. *PLoS One*. 2015;10(9):e0138511.

See supplementary material for this brief report at PSYCHIATRIST.COM.

THE JOURNAL OF
CLINICAL PSYCHIATRY
THE OFFICIAL JOURNAL OF THE AMERICAN SOCIETY OF CLINICAL PSYCHOPHARMACOLOGY

Supplementary Material

Article Title: Association of Distress to Systemic Racism and Racial Disparities With Psychopathology and Suicidal Ideation Among US Veterans During the COVID-19 Pandemic

Author(s): Oluwole Jegede, MD, MPH; Peter J. Na, MD, MPH; Angela M. Haeny, PhD; John H. Krystal, MD; and Robert H. Pietrzak, PhD, MPH

DOI Number: 10.4088/JCP.22br14410

List of Supplementary Material for the brief report

Disclaimer

This Supplementary Material has been provided by the author(s) as an enhancement to the published article. It has been approved by peer review; however, it has undergone neither editing nor formatting by in-house editorial staff. The material is presented in the manner supplied by the author.

Supplementary Methods

Sample

The National Health and Resilience in Veterans Study (NHRVS) is a nationally representative survey of U.S. military veterans. A total of 4,069 veterans completed the Wave 1 (median completion date: 11/21/2019) survey prior to the first documented COVID-19 cases in the US and 3,078 (75.6%) completed a Wave 2 1-year follow-up (median completion date: 11/14/2020) survey. Both surveys were online, 60-minute, self-report surveys.

The NHRVS sample was drawn from KnowledgePanel, a research panel of more than 50,000 households that is maintained by Ipsos, a survey research firm. KnowledgePanel® is a probability-based, online non-volunteer access survey panel of a nationally representative sample of U.S. adults that covers approximately 98% of U.S. households. Panel members are recruited through national random samples, originally by telephone and now almost entirely by postal mail. Households are provided with access to the Internet and computer hardware if needed. KnowledgePanel® recruitment uses dual sampling frames that include both listed and unlisted telephone numbers, telephone and non-telephone households, and cell-phone-only households, as well as households with and without Internet access.

Demographic data of survey panel members are assessed regularly by Ipsos using the same set of questions used by the U.S. Census Bureau. To permit generalizability of study results to the entire population of U.S. veterans, the Ipsos statistical team computed post-stratification weights using the following benchmark distributions of U.S. military veterans from the US Census Current Veteran Population Supplemental Survey of the U.S. Census Bureau's American Community Survey: age, gender, race/ethnicity, Census Region, metropolitan status, education, household income, branch of service, and years in service. An iterative proportional fitting (raking) procedure was used to produce the final post-stratification weights. All participants provided informed consent and the study was approved by the Human Subjects Committee of the VA Connecticut Healthcare System.

American Association for Public Opinion Research Survey Disclosure Checklist:

Survey sponsor	U.S. Department of Veterans Affairs National Center for Posttraumatic Stress Disorder
Survey/Data collection supplier	Ipsos, Inc.
Population represented	U.S. military veterans in the United States
Sample size	3,078

Mode of data collection	Web-based survey panel
Type of sample (probability/non-probability)	Probability
Start and end dates of data collection	November 9, 2020 to December 19, 2020
Margin of sampling error for total sample	±2.57 percentage points at the 95% confidence level
Are the data weighted?	Yes, using the following benchmark distributions of U.S. military veterans from the most recent (August 2019) Current Veteran Population Supplemental Survey of the U.S. Census Bureau's American Community Survey: gender, race/ethnicity, Census Region, metropolitan status, education, household income, branch of service, and years in service
Contact for more information	Robert H. Pietrzak, PhD, MPH Research Psychologist, U.S. Department of Veterans Affairs National Center for PTSD Professor, Department of Psychiatry, Yale School of Medicine (860) 638-7467, robert.pietrzak@yale.edu

Survey content may be obtained by contacting Dr. Pietrzak: robert.pietrzak@yale.edu

Assessments

Sociodemographic characteristics. Information on age, gender, race, education, marital status, employment, annual household income (≥$60,000 vs. <$60,000 defined on the basis of median split of income categories), combat veteran status, and years in military service was assessed at baseline.

Race/ethnicity. Race and ethnicity were assessed using standard questions from the U.S. Census Bureau, which asked participants to self-identify as White, Non-Hispanic, Black, Non-Hispanic, Other, Non-Hispanic, Hispanic, or 2+ Races, Non-Hispanic. The Other, Non-Hispanic category included Asian, American Indian and Alaska Native, Native Hawaiian and other Pacific Islander; and the 2+ Race, non-Hispanic category included multiracial, non-Hispanic veterans.

Adverse childhood experiences. Score on Adverse Childhood Experiences Questionnaire,[1] a 10-item questionnaire that assesses seven categories of childhood exposure to adverse experiences (e.g., psychological, physical, or sexual abuse; violence against mother; or living with household members who had a substance use problem, mental illness, or suicidal behavior, or were ever imprisoned).

Cumulative trauma burden. The Trauma History Screen[2] was used to assess exposure to the lifetime occurrence of 14 potentially traumatic events; the NHRVS additionally assessed exposure to life-threatening illness or injury. The sum of potentially traumatic events endorsed, ranging from 0–15, was used as an index of lifetime trauma burden.

Physical health difficulties. A factor score was derived using an exploratory factor analysis of measures of number of medical conditions, ADL/IADL disability, and current somatic symptoms.

Combat veteran. Combat veteran status was assessed with the following question: "Did you ever serve in a combat or war zone?" and the Combat Exposure Scale,[3] 7-item self-report measure that assesses wartime stressors experienced by combatants.

Lifetime psychiatric diagnoses. Probable lifetime diagnoses of major depressive disorder (MDD), PTSD, AUD, and/or drug use disorder (DUD) were assessed using a modified self-report version of the Mini International Neuropsychiatric Interview (MINI).[4]

Past-year suicidal ideation. Positive endorsement of question 2 of the Suicide Behaviors Questionnaire-Revised[5]: "How often have you thought about killing yourself in the past year?"

COVID-related variables. COVID-related exposure was assessed using the Assessment of Exposure to COVID-19 Scale developed by the National Center for PTSD. This measure assesses COVID-19 testing status of an individual and household/non-household members, as well as severity of COVID-19-related illness in those who had been infected, which range from no/mild symptoms to hospitalization (COVID-19-related death of household and non-household members is also assessed). Questions from the Coronavirus Health Impact Survey[6] were used to assess hours spent consuming COVID-related media, and COVID infection-related worries (e.g., "In the past month, how worried have you been about being infected with coronavirus?"), social restriction stress (e.g., "How stressful have these changes in social contacts been for you?"), financial stress (e.g., "In the past month, to what degree have changes related to the pandemic created financial problems for you or your family?"), and relationship difficulties (e.g., "Has the quality of the relationships between you and members of your family changed?").

Peri-pandemic major depressive disorder, generalized anxiety disorder, or PTSD. Major depressive disorder symptoms were assessed using the two depressive symptoms items of the PHQ-4,[7] which assessed symptoms occurring in the past two weeks; a score ≥ 3 was indicative of a positive screen for major depressive disorder.[7] PTSD symptoms-assessed with the PTSD Checklist for DSM-5; a score ≥ 33 was indicative of a positive screen for PTSD.[8] Generalized anxiety disorder symptoms – participant responses on the two generalized anxiety items of the PHQ-4 occurring in the past two weeks; a score ≥ 3 was indicative of a positive screen for generalized anxiety disorder.[7]

Peri-pandemic alcohol use and/or drug use disorder. Alcohol use disorder was assessed using the Alcohol Use Disorders Identification Test (AUDIT), a validated measure used to screen for alcohol use disorder.[9] The AUDIT consists of 10 questions that assess the severity of alcohol consumption and consequences and yield a total score ranging from 0 to 40. Higher scores

indicate more severe problematic alcohol use. A score of 8 or higher was considered as indicative of probable alcohol use disorder.[10] Drug use disorder was assessed using the Screen for Drug Use question: "How many days in the past year have you used non-prescription drugs?"; a response of ≥ 7 days on this question is indicative of a positive screen for drug use disorder; if the response to this question is 6 or fewer days, a response of ≥ 2 days to the question "How many days in the past 12 months have you used drugs more than you meant to?" is indicative of a positive screen for drug use disorder.

Peri-pandemic suicidal ideation. SI was assessed using two items adapted from the suicide item of the Patient Health Questionnaire-9,[10] which asked participants to report the extent to which they experienced passive or active SI during the prior two weeks. A positive screen for current SI was indicated by a response of "Several days," "More than half the days," or "Nearly every day" to one or both of the following questions: "How often have you been bothered by thoughts that you might be better off dead?" and "How often have you been bothered by thoughts of hurting yourself in some way?"

References

1. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. Am J Prev Med 1998; 14(4): 245-258.
2. Carlson EB, Smith SR, Palmieri PA, et al. Development and validation of a brief self-report measure of trauma exposure: the Trauma History Screen. Psychol Assess 2011;23(2):463-477.

3. Keane TM, Fairbank JA, Caddell JM, Zimering RT, Taylor KL, Mora C. Clinical evaluation of a measure to assess combat exposure. Psychol Assess 1989;1: 53-55.

4. Sheehan DV. Mini International Neuropsychiatric Interview. English Version 7.0.2. For DSM-5. 1992. Copyright 1992-2016.

5. Osman A, Bagge CL, Gutierrez PM, Konick LC, Kooper BA, Barrios FX. The Suicidal Behaviors Questionnaire Revised (SBQ-R): Validation with clinical and nonclinical samples. Assessment. 2001;8(4):443-454.

6. National Institute of Mental Health Intramural Research Program Mood Spectrum Collaboration, Child Mind Institute of the NYS Nathan S. Kline Institute for Psychiatric Research. The CoRonavIruS Health Impact Survey (CRISIS) 2020. https://www.nlm.nih.gov/dr2/CRISIS_Adult_Self-Report_Baseline_Current_Form_V0.3.pdf. (Accessed Nov 16th 2021).

7. Kroenke K, Spitzer RL, Williams JB, Lo¨we B. An ultra-brief screening scale for anxiety and depression: the PHQ-4. Psychosomatics 2009;50:613-621.

8. Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, Schnurr PP. The PTSD checklist for DSM-5 (PCL-5). 2013. Scale available from the National Center for PTSD at www.ptsd.va.gov.

9. Bohn MJ, Babor TF, Kranzler HR. The Alcohol Use Disorders Identification Test (AUDIT): validation of a screening instrument for use in medical settings. J Stud Alcohol. 1995;56(4):423-432.

10. Babor TF, de la Fuente JR, Saunders J, Grant M. AUDIT. The Alcohol Use Disorders Identification Test. Guidelines for use in primary health care. Geneva, Switzerland: World Health Organization 1992.

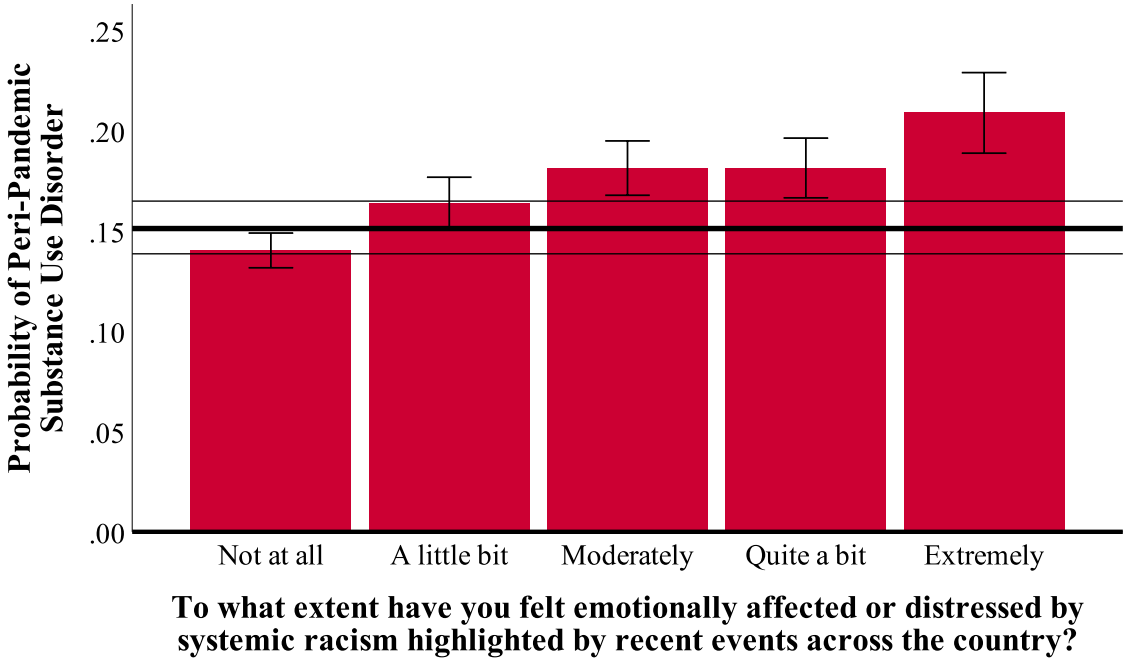
Supplementary Table 1. Sample characteristics, and results of bivariate and multivariable analyses examining associations between pre- and peri-pandemic factors associated with perceived racial disparities in COVID-19-related health outcomes and systemic racism in U.S. military veterans (n=3,078)

	Sample Characteristics	MDD, GAD, or PTSD ($R^{2=}$0.40)	AUD or DUD ($R^{2=}$0.23)	Suicidal Ideation ($R^{2=}$0.48)
	Weighted Mean (SD) or N (weighted %)	OR (95%CI)	OR (95%CI)	OR (95%CI)
Background and Pre-Pandemic Variables				
Age	63.3 (14.7)	0.95 (0.94-0.97)***	0.97 (0.96-0.98)***	0.99 (0.97-1.01)
Male gender	2,730 (91.6%)	1.65 (1.07-2.54)*	2.17 (1.36-3.48)**	1.03 (0.57-1.86)
White, non-Hispanic race/ethnicity	2,541 (78.2%)	1.20 (0.86-1.68)	1.36 (0.99-1.87)	1.18 (0.72-1.92)
College graduate or higher education	1,407 (34.2%)	1.03 (0.77-1.38)	0.75 (0.57-0.98)*	1.23 (0.82-1.83)
Married/partnered	2,220 (74.0%)	1.52 (1.11-2.07)**	0.84 (0.64-1.09)	1.64 (1.06-2.52)*
Retired	1,733 (46.8%)	0.90 (0.63-1.28)	1.16 (0.85-1.60)	0.75 (0.46-1.22)
Annual household income $60K+	1,851 (60.8%)	0.74 (0.56-0.99)*	0.96 (0.74-1.26)	0.56 (0.37-0.85)**
Combat veteran	1,051 (35.4%)	1.22 (0.92-1.61)	1.29 (1.01-1.65)*	1.31 (0.89-1.92)
10+ years in military	1,132 (36.5%)	1.01 (0.76-1.33)	0.82 (0.64-1.06)	1.03 (0.70-1.52)
Adverse childhood experiences	1.4 (1.9)	1.03 (0.97-1.10)	1.02 (0.96-1.08)	0.96 (0.88-1.05)
Sum lifetime traumas	8.9 (8.3)	0.97 (0.96-1.01)	1.00 (0.99-1.01)	0.98 (0.96-1.00)
Physical health difficulties	0 (1.0)	1.42 (1.25-1.62)***	0.82 (0.71-0.94)**	1.00 (0.84-1.19)
Lifetime MDD and/or PTSD	591 (22.3%)	2.84 (2.11-3.82)***	1.14 (0.85-1.53)	2.23 (1.46-3.40)***
Lifetime alcohol and/or drug use disorder	1,265 (42.5%)	1.27 (0.97-1.66)	4.92 (3.77-6.41)***	1.95 (1.33-2.86)***
Past-year suicidal ideation	289 (10.8%)	2.25 (1.60-3.15)***	2.08 (1.51-2.87)***	30.19 (20.44-44.58)***
Pandemic-associated Risk Factors				
COVID-19 infection to self	233 (8.2%)	0.96 (0.58-1.60)	1.40 (0.89-2.19)	1.55 (0.79-3.05)
COVID-19 infection to household member	198 (7.5%)	1.07 (0.62-1.83)	0.87 (0.54-1.42)	0.72 (0.35-1.51)
COVID-19 infection to non-household member	1,286 (41.7%)	0.90 (0.68-1.19)	0.76 (0.59-0.98)*	1.20 (0.82-1.77)

Know someone who died from COVID-19	177 (5.6%)	0.88 (0.51-1.53)	1.05 (0.63-1.74)	0.82 (0.37-1.82)
Daily COVID-19 media consumption	1.6 (2.1)	0.99 (0.93-1.06)	1.06 (1.01-1.11)*	0.93 (0.81-1.06)
COVID-19-associated worries	0 (1.0)	1.52 (1.31-1.76)***	1.21 (1.05-1.39)**	1.16 (0.94-1.45)
COVID-19-associated social restriction stress	0 (1.0)	1.68 (1.49-1.90)***	1.15 (1.02-1.29)*	1.14 (0.95-1.35)
COVID-19-associated financial difficulties	0 (1.0)	1.47 (1.31-1.65)***	1.03 (0.92-1.15)	1.22 (1.04-1.42)*
COVID-19-associated relationship difficulties	0 (1.0)	1.20 (1.07-1.35)**	1.03 (0.93-1.15)	1.29 (1.09-1.53)**
Racism-related Distress				
Distress related to systemic racism	2.3 (1.3)	0.92 (0.79-1.07)	1.17 (1.03-1.33)*	1.29 (1.07-1.55)**
Distress related to COVID-19 health disparities	1.9 (1.2)	1.29 (1.09-1.52)**	0.92 (0.79-1.07)	0.84 (0.67-1.05)

Abbreviations: MDD=major depressive disorder; GAD=generalized anxiety disorder; PTSD=posttraumatic stress disorder; AUD=alcohol use disorder; DUD=drug use disorder. OR=odds ratio; 95%CI=95% confidence interval.
Race/ethnic distribution of the sample: N=2,541 (weighted 78.2%) White, non-Hispanic, N=212 (weighted 11.5%) Black, non-Hispanic, N=216 (weighted 6.2%) Hispanic, N=40 (weighted 2.8%) Other, Non-Hispanic, and N=69 (weighted 1.3%) 2+ Races, Non-Hispanic.
Statistically significant association: *p<0.05; **p<0.01; ***p<0.001.

Supplementary Figure 1. Probability of peri-pandemic substance use disorder by severity of emotional distress in relation to systemic racism



Supplementary Figure 2. Probability of peri-pandemic suicidal ideation by severity of emotional distress in relation to systemic racism