Responding to the COVID-19 Pandemic: Mental Health Research Agenda

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NIMH Traumatic Stress Research Program

National Network of Depression Centers

Annual Meeting October 1, 2020

National Institute of Mental Health

Outline

- Impact of the novel coronavirus on mental health
- Brief review of what we know
- Research Gaps

Pandemic Impact Beyond Direct Morbidity and Mortality

- Dramatic alteration to life as we knew it
  - Fear for health
  - Altered health-related behaviors
  - Disruption of the health care system
  - Disruption of social networks
  - Financial insecurity secondary to the economic consequences
  - Disruption to normal routines

COVID-19 in Context of Prior Research

Public Health Perspective

On average, a disaster occurs somewhere in the world each day (flood, hurricane, earthquake, nuclear, industrial, and transportation accidents, mass shooting, peacetime terrorist attack)

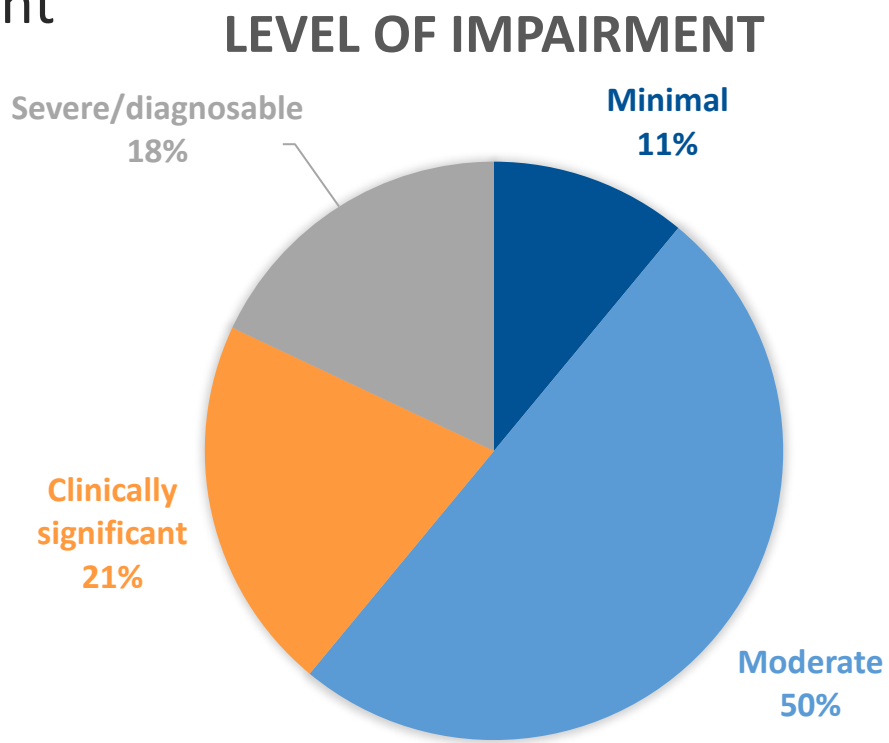
There are people living with chronic exposure to traumatic events (war or conflict, famine, neighborhood violence)

Variety of disasters/mass traumas share some common factors with evolving pandemic relevant for mental health

- many people simultaneously experiencing the event
- threat to one's own life and physical integrity
- exposure to the dead and dying
- bereavement
- profound loss
- social and community disruption
- ongoing hardship

Mental Health Impacts: What We Know from Previous Disasters

- Norris and colleagues (2002) empirical review of 60,000 disaster victims from 160 samples
  - Coded as to sample type, disaster type, disaster location, outcomes and risk factors observed, overall severity and impairment



Psychiatry 65(3) Fall 2002

60,000 Disaster Victims Speak: Part I. An Empirical Review of the Empirical Literature, 1981–2001

Fran H. Norris, Matthew J. Friedman, Patricia J. Watson, Christopher M. Byrne, Eolia Diaz, and Krzysztof Kaniasty

Results for 160 samples of disaster victims were coded as to sample type, disaster type, disaster location, outcomes and risk factors observed, and overall severity of impairment. In order of frequency, outcomes included specific psychological problems, nonspecific distress, health problems, chronic problems in living, resource loss, and problems specific to youth. Regression analyses showed that samples were more likely to be impaired if they were composed of youth rather than adults, were from developing rather than developed countries, or experienced mass violence (e.g., terrorism, shooting sprees) rather than natural or technological disasters. Most samples of rescue and recovery workers showed remarkable resilience. Within adult samples, more severe exposure, female gender, middle age, ethnic minority status, secondary stressors, prior psychiatric problems, and weak or deteriorating psychosocial resources most consistently increased the likelihood of adverse outcomes. Among youth, family factors were primary. Implications of the research for clinical practice and community intervention are discussed in a companion article (Norris, Friedman, and Watson, this volume).

On average, a disaster occurs somewhere in the world each day. It may be a flood, hurricane, or earthquake, a nuclear, industrial, or transportation accident, a shooting spree, or peacetime terrorist attack. What these various events share in common is their potential to affect many persons simultaneously and to engender an array of stressors, including threat to one's own life and physical integrity, exposure to the dead and dying, bereavement, profound loss, social and community disruption, and ongoing hardship. As a result of both the high prevalence and high stressfulness of disasters, the question of whether they impact mental health has been of interest for decades, and a substantial literature has developed that identifies and explains these effects.

Although there are exceptions (e.g., Briere and Elliott 2000), most disaster studies examine the effects of a particular event that

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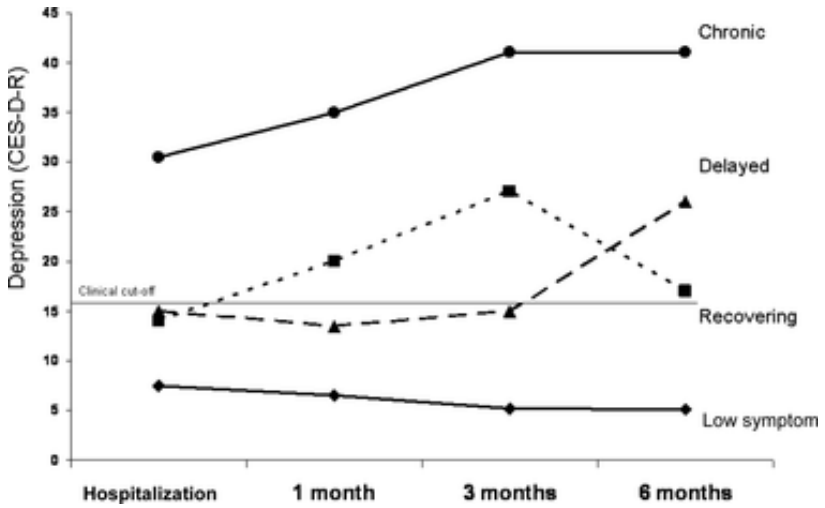
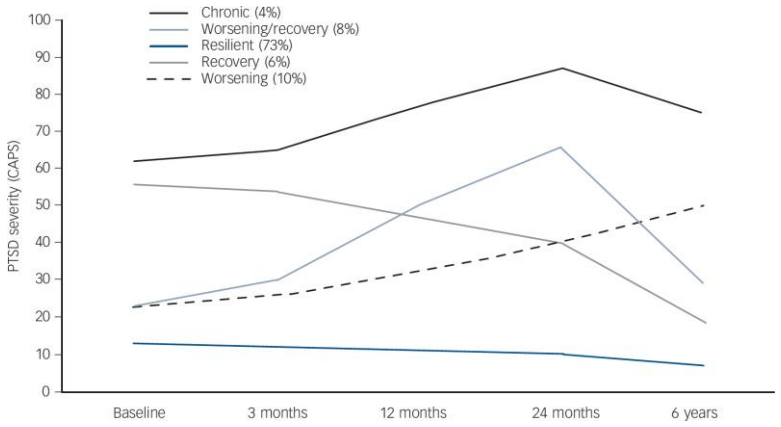
Trajectory of Symptoms Following Trauma



Adapted from T.A. deRoon-Cassini, 2010



Adapted from R.A.Bryant, 2015

General symptom improvement over time

- Pattern regardless of symptom/diagnosis
- Pattern consistent with acute and chronic exposure
- Across trauma studies, most are resilient or recover
- Consistent pattern over vastly different timelines

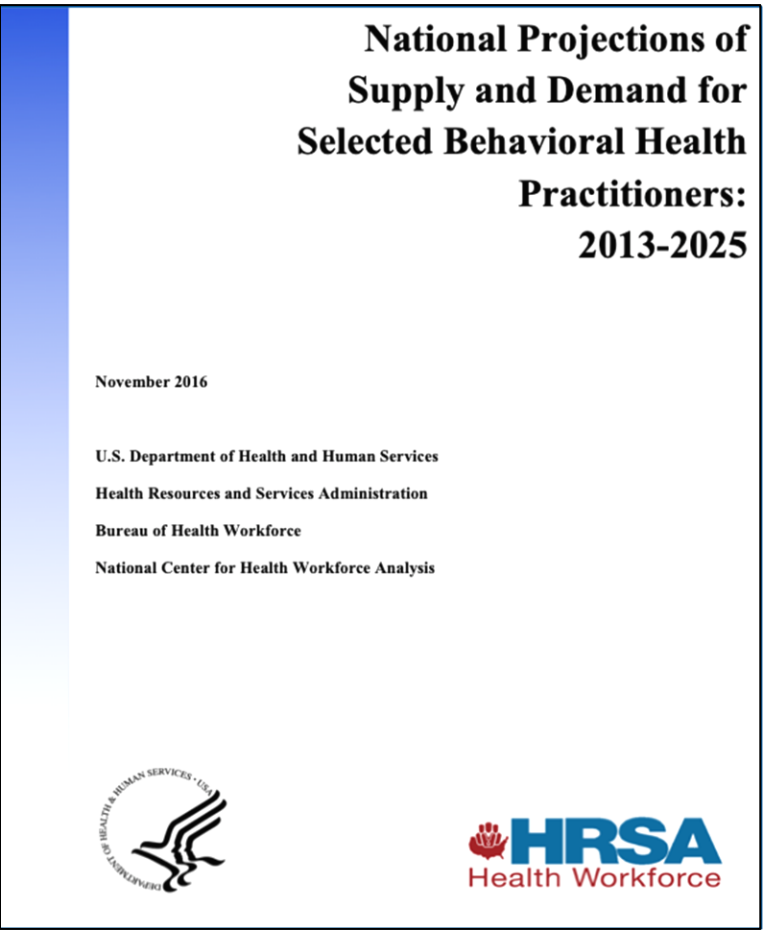
Risks for Poor Outcomes

- Most exposed to trauma initially experience symptoms and for most, symptoms improve with time
- Significant minority of people exposed to trauma may have long-term or chronic experiences with mental illness
  - Higher risk
    - Few social supports
    - History of trauma or mental illness
    - Were exposed directly to death or injuries
    - Had severe acute reactions to disaster
    - Experiencing ongoing stressors—including occupational and financial strain
  - There is no single variable that determines individual outcomes

Promote Recovery

- Meeting immediate needs helps long term impacts
  - Practical assistance—shelter, food, safety, economic stability
- Practice healthy coping strategies
  - Note accomplishments, set reasonable expectations, exercise, maintain schedule, eat well, get rest, talk with support network
  - Avoid substance abuse
- Treat new or worsening illness
  - Evidence based screening, assessment, treatment, and care coordination is expensive but cost effective ultimately

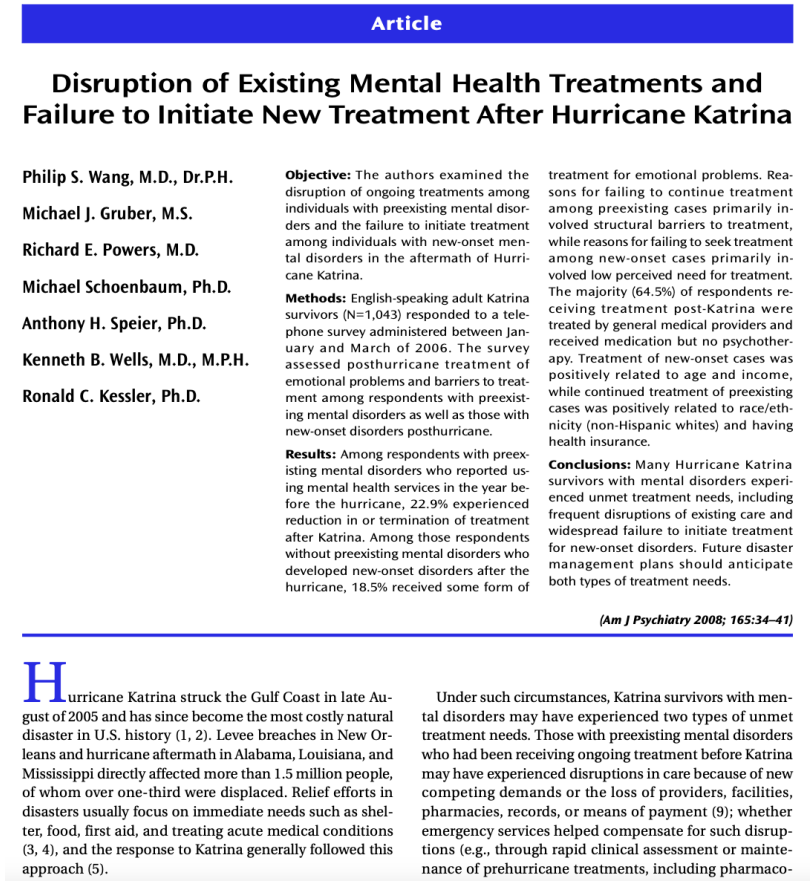
Current Mental Health System Doesn't Meet Need (even in "before times")



- Baseline scenario (status quo from 2013)
  - By 2025, shortages are projected for: psychiatrists; clinical, counseling, and school psychologists; mental health and substance abuse social workers; school counselors; and marriage and family therapists.
  - Mental health and substance abuse social workers and school counselors will have shortages of more than 10,000 FTEs.
- Alternative scenario (all needing care receive it)
  - Six provider types have estimated shortages of more than 10,000 FTEs (psychiatrists; clinical, counseling, and school psychologists; substance abuse and behavioral disorder counselors; mental health and substance abuse social workers; mental health counselors; school counselors).

Disasters May Exacerbate Mental Health System Reach and Access

- Delivering care in disaster context is challenge
  - 8 months after Hurricane Katrina (Wang et al, 2008)
    - 50% of those who developed mood or anxiety disorders received ANY care
    - Of those who received any treatment, 60% had discontinued
    - Undertreatment associated with demographics including age, marital status, racial and ethnic minority status, insurance status, and income



Article

Disruption of Existing Mental Health Treatments and Failure to Initiate New Treatment After Hurricane Katrina

Philip S. Wang, M.D., Dr.P.H.
Michael J. Gruber, M.S.
Richard E. Powers, M.D.
Michael Schoenbaum, Ph.D.
Anthony H. Speier, Ph.D.
Kenneth B. Wells, M.D., M.P.H.
Ronald C. Kessler, Ph.D.

Objective: The authors examined the disruption of ongoing treatments among individuals with preexisting mental disorders and the failure to initiate treatment among individuals with new-onset mental disorders in the aftermath of Hurricane Katrina.

Methods: English-speaking adult Katrina survivors (N=1,043) responded to a telephone survey administered between January and March of 2006. The survey assessed posthurricane treatment of emotional problems and barriers to treatment among respondents with preexisting mental disorders as well as those with new-onset disorders posthurricane.

Results: Among respondents with preexisting mental disorders who reported using mental health services in the year before the hurricane, 22.9% experienced reduction in or termination of treatment after Katrina. Among those respondents without preexisting mental disorders who developed new-onset disorders after the hurricane, 18.5% received some form of treatment for emotional problems. Reasons for failing to continue treatment among preexisting cases primarily involved structural barriers to treatment, while reasons for failing to seek treatment among new-onset cases primarily involved low perceived need for treatment. The majority (64.5%) of respondents receiving treatment post-Katrina were treated by general medical providers and received medication but no psychotherapy. Treatment of new-onset cases was positively related to age and income, while continued treatment of preexisting cases was positively related to race/ethnicity (non-Hispanic whites) and having health insurance.

Conclusions: Many Hurricane Katrina survivors with mental disorders experienced unmet treatment needs, including frequent disruptions of existing care and widespread failure to initiate treatment for new-onset disorders. Future disaster management plans should anticipate both types of treatment needs.

(Am J Psychiatry 2008; 165:34–41)

Hurricane Katrina struck the Gulf Coast in late August of 2005 and has since become the most costly natural disaster in U.S. history (1, 2). Levee breaches in New Orleans and hurricane aftermath in Alabama, Louisiana, and Mississippi directly affected more than 1.5 million people, of whom over one-third were displaced. Relief efforts in disasters usually focus on immediate needs such as shelter, food, first aid, and treating acute medical conditions (3, 4), and the response to Katrina generally followed this approach (5).

Under such circumstances, Katrina survivors with mental disorders may have experienced two types of unmet treatment needs. Those with preexisting mental disorders who had been receiving ongoing treatment before Katrina may have experienced disruptions in care because of new competing demands or the loss of providers, facilities, pharmacies, records, or means of payment (9); whether emergency services helped compensate for such disruptions (e.g., through rapid clinical assessment or maintenance of prehurricane treatments, including pharmaco-

Mental Health Disparities Following Disasters

- Disparities in treatment following trauma exist by income level at both the country (Koenen, 2017) and neighborhood level (Ahern 2006)
- Social inequality and health disparities both predict and exacerbate vulnerability in marginalized populations
- Increasing access to effective treatment remains critical for reducing the burden of illness

DISCUSSION PAPER

Addressing Social Determinants of Health and Health Disparities

A Vital Direction for Health and Health Care

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September 19, 2016

About the Vital Directions for Health and Health Care Series

Vital Directions for Health and Health Care — A National Academy of Medicine Initiative

This publication is part of the National Academy of Medicine's **Vital Directions for Health and Health Care Initiative,** which called on more than 150 leading researchers, scientists, and policy makers from across the United States to assess and provide expert guidance on 19 priority issues for U.S. health policy. The views presented in this publication and others in the series are those of the authors and do not represent formal consensus positions of the NAM, the National Academies of Sciences, Engineering, and Medicine, or the authors' organizations. Learn more: nam.edu/VitalDirections.

Introduction

Despite the powerful effects of social and behavioral factors on health, development, and longevity, US health policy has largely ignored them. The United States spends far more money per capita on medical services than do other nations, while spending less on social services (Bradley et al., 2011). Residents of nations that have higher ratios of spending on social services to spending on health care services have better health and live longer (Bradley and Taylor, 2013; NCR and IOM, 2013a). The relative underinvestment in social services helps to explain why US health indicators lag behind those of many countries (Woolf and Aron, 2013). The best available evidence suggests that a health policy framework addressing social and behavioral determinants of health would achieve better population health, less inequality, and lower costs than our current policies.

Overview

For over a century, each generation of Americans has lived longer than did their parents because of advances in health care and biotechnology (Nabel and Braunwald, 2012) and progress in public health and health behaviors (Laing and Katz, 2012; Tarone and McLaughlin, 2012). However, although the US population gained 1–2 years of life expectancy in each decade from 1950 to 2010, life expectancy has since then increased by only 0.1 year (Arias, 2015; Murphy et al., 2015), and some researchers predict that it will decrease for the next generation because of the obesity epidemic (Olshansky et al., 2005). Mortality in middle-

Perspectives | Expert Voices in Health & Health Care

NATIONAL ACADEMY OF MEDICINE

NIH National Institute of Mental Health

Notable Changes to Mental Health Care in Current Pandemic

- Prior to pandemic, telehealth had been expanding and states with commercial payer laws saw tremendous variability
- Federal and state legislation and regulation quickly changed
  - March 6 Coronavirus Preparedness and Response Supplemental Appropriations Act 2020 ease telehealth restrictions for Medicare patients
  - DEA suspended the Ryan Haight Act to facilitate the use of telehealth to provide medication assisted treatment
  - SAMHSA released guidance to increase providing pharmacotherapy for opioid use disorder

What We Don’t Know

Indirect Effects of Public Health Responses

- Potential effects of mitigation strategies on mental health
  - SARS 2001-2003 longer quarantine associated with increased distress and symptoms of PTSD and depression
- Economic distress associated with widespread shutdowns
- Research opportunities
  - Data focused strategy based on geographic and jurisdictional variance in recommended mitigation approaches and the public's adherence
  - Use of public and commercial health and administrative databases combined with ongoing cohort studies to understand how public health directives, compliance with mitigation measures, and economic sequelae interact with risk and protective factors to alter mental health trajectories

Mental Health Research Network III, Kaiser Foundation Research Institute/ Greg Simon U19MH121738

- Mental Health Research Network includes 14 large health systems serving a combined member/patient population of over 25 million in 16 states
- Examine how changing from office visits to telehealth visits disrupts care in three healthcare systems
  - How this change to telehealth may affect people differently
    - People of racial or ethnic minority groups, patients who speak a language other than English at home, children or teenagers, older adults, people with schizophrenia or bipolar disorder, people living in rural areas, or people living in areas with low income or education
  - How these changes affect the severity of someone's anxiety or depression, whether they keep taking their mental health medications or continue going to therapy, whether they visit the emergency department or need to be hospitalized in the mental health unit, or whether they have increased risk to attempt suicide

Access to Evidence Based Care

- A surge in demand can quickly overwhelm the mental health system
  - Particularly in specialties (child mental health) or locales (rural) with existing shortages
- Known gaps in and barriers to care for vulnerable populations
  - E.g., SMI, under resourced communities, incarcerated, homeless
- Research opportunities
  - Leverage available mental health workforce
  - Practical, scalable, and sustainable mental health screening and triage
  - Acute treatment to prevent long-term chronic suffering/exacerbation of symptoms and decline of social determinants of health
  - Digital healthcare
  - Innovative approaches to reach vulnerable populations

UW ALACRITY Center for Psychosocial Interventions Research, U of Washington/ Patricia Areán P50MH115837

ALACRITY Center addresses implementation of evidence-based psychosocial interventions in underserved communities as they are delivered in primary care settings

- Deployment and testing of an adaptation of behavioral activation to treat depression in older adults in context of social distancing/shelter-in-place policies
- Acceptability, feasibility, usability and effectiveness of existing mobile mental health apps for risk factors associated with suicide risk in essential workers and unemployed individuals
- Survey of medical centers and large healthcare organizations to determine the use and implementation of Psychological First Aid

NIH-Wide COVID-19 Social, Behavioral, and Economic (SBE) Impacts of COVID-19 in Health Disparity and Vulnerable Populations

Purpose

The COVID-19 pandemic and its associated mitigation efforts have had profound effects and will disproportionately affect racial/ethnic minorities, less privileged SES, and other vulnerable populations who already experience health disparities.

- The purpose of this initiative is to **assess the social, behavioral, and economic health impacts of COVID-19 and its mitigation**, particularly in health disparity and vulnerable populations, and to evaluate interventions to ameliorate these impacts
- This initiative aims to understand the costs and benefits of the strategies to mitigate transmission, particularly in health disparity and vulnerable populations, to **improve our response to the current pandemic** and **prepare more effectively for future infectious disease epidemics**

Priorities

This initiative proposes a comprehensive approach to understanding and insulating against these impacts in 5 broad areas:

- The **effects of various mitigation strategies** on reducing transmission and the **role of adherence** to these strategies
- The **social and economic impacts** of various mitigation efforts
- The **downstream effects** of these impacts on mental health, suicide, substance abuse, and other disorders
- The effects of the pandemic and its mitigation on **health care access** and on **health outcomes**
- The effects of **interventions**, including telehealth and digital health interventions, in reducing these impacts

COVID-19 Research Support Example: NIH-Wide SBE Workgroup

OVER 60 WG MEMBERS

- Social, Behavioral, and Economic Impacts of COVID-19 initiative engaged NIH members with representation from 21 ICOs

FUNDED 52 SUPPLEMENTS

- 28 Longitudinal Studies
- 15 Digital Health Studies
- 9 Community Health Studies

DIVERSE POPULATION

- Many health disparity populations (e.g., racial and ethnic minorities, less privileged SES, rural residents)
- Vulnerable populations included community older adults, frontline workers, children

IMPACTFUL RESEARCH

Research focus areas included but not limited to:

- Alcohol, substance abuse, mental health outcomes
- Public health mitigation impact and adherence
- Chronic health conditions

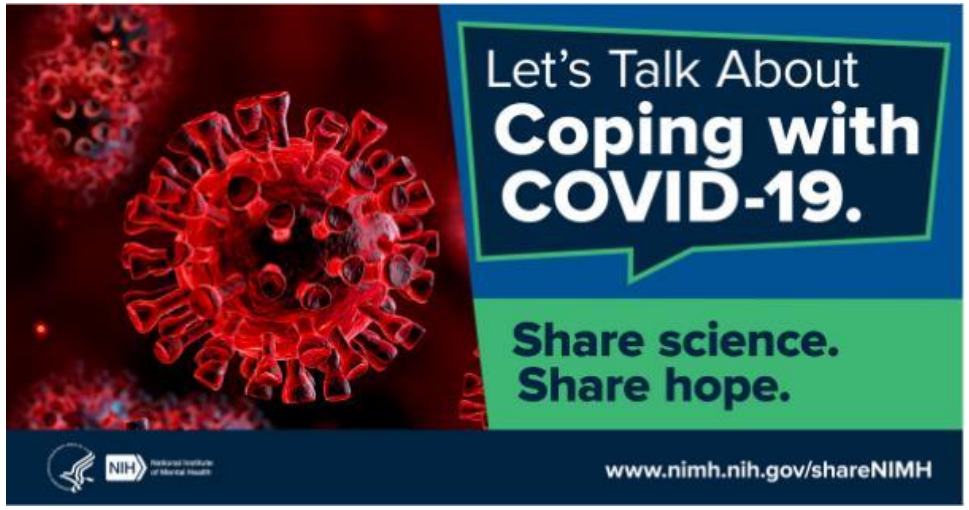
NIMH COVID-19 Research Funding Opportunities

- https://grants.nih.gov/grants/guide/COVID-Related.cfm
- General NIMH COVID-19 NOSI NOT-MH-20-047 (NOT-AG-20-022, NOT-MD-20-019) supplements
- NOSI: Simulation Modeling and Systems Science to Address Health Disparities NOT-MD-20-025 (R01)
- *Expired--NOSI: Emergency competitive revisions for community engaged research on COVID-19 testing among underserved and/or vulnerable populations*
- Community and digital healthcare interventions
  - NOSI for supplements FY 20-21
    - NOT-MH-053 Digital Healthcare
    - NOT-MD-022 Community
  - PARs for FY 21 R01s
    - PAR-20-243 Digital Healthcare
    - PAR-20-237 Community Interventions

Relevant Commentaries

- Gordon & Borja (2020) The COVID-19 Pandemic: Setting the Mental Health Research Agenda, *Biological Psychiatry.* *https://www.biologicalpsychiatryjournal.com/article/S0006-3223(20)31616-4/pdf*
- Riley, Borja, Webb Hooper, Lei, et al (2020) National Institutes of Health social and behavioral research in response to the SARS-CoV2 Pandemic, *Translational Behavioral Medicine* https://academic.oup.com/tbm/advance-article/doi/10.1093/tbm/ibaa075/5876656?guestAccessKey=146fbb29-20b3-4e35-b06f-b83267c1dd67
- Hooper, Nápoles, & Pérez-Stable (2020) COVID-19 and Racial/Ethnic Disparities, *JAMA.* *https://jamanetwork.com/journals/jama/article-abstract/2766098*

NIMH Response to COVID-19



Why Testing is the Key to Getting Back to Normal

https://www.nimh.gov/covid19

NIH National Institute of Mental Health

NIMH Vision and Mission