COVID-19 and Mental Health

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NIH Tribal Advisory Committee (TAC)
Annual Meeting
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Welcome and Agenda

• What We Know From Prior Disasters/Traumatic Events

• COVID-19 and Mental Health

• Addressing Mental Health Impacts of COVID-19
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Coronavirus Disease 2019 (COVID-19) Pandemic

7-Day Case Rate (per 100,000)

Data courtesy of CDC, last updated September 15, 2021
Lessons Learned: Previous Disasters/Traumatic Events

• Most who are exposed to trauma experience initial symptoms
• For most, symptoms improve with time
• Significant minority may have long-term or chronic experiences with mental illness
• Social inequities and health disparities increase trauma exposure as well as subsequent mental health vulnerability and care

Note: x-axis indicates number of PTSD symptoms reported on the PSS-L. Y-axis represents time from 10 days to roughly 420 days. Trajectories represent estimated marginal means.
Risks for Poor Outcomes

• Nature and severity of exposure
  • Exposed directly to death or injuries
  • Trauma type

• Individual differences
  • History of trauma or mental illness
  • Ongoing stressors, including occupational and financial strain
  • Substance use/abuse
  • Female
  • Non-white

• Environment
  • Few social supports

There is no single variable that determines individual outcomes
Supporting Long-Term Recovery

- Meet immediate needs
- Practice healthy coping strategies
- Treat new or worsening illness
- Find ways to help others
  - Promotes sense of efficacy
  - Promotes connectedness

Disasters May Exacerbate Disparities in Mental Health System Reach and Access

- Mental health in disaster context is challenge
- 8 months after Hurricane Katrina

<table>
<thead>
<tr>
<th></th>
<th>Respondents With Preexisting Disorders</th>
<th>Respondents With New-Onset Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New Orleans Metropolitan Area Residents</td>
<td>Alabama, Louisiana, and Mississippi Residents</td>
</tr>
<tr>
<td>Received posthurricane treatment</td>
<td>60.1%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Did not receive posthurricane treatment</td>
<td>39.9%</td>
<td>54.1%</td>
</tr>
<tr>
<td>Reasons for not obtaining treatment</td>
<td>Low perceived need</td>
<td>6.9%</td>
</tr>
<tr>
<td></td>
<td>Enabling factors</td>
<td>84.0%</td>
</tr>
<tr>
<td></td>
<td>Predisposing factors</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Wang et al., Am J of Psychiatry, 2008
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COVID-19 Impacts on Mental Health

Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24–30, 2020

Mark É. Czeisler1,2; Rashon I. Lane MA3; Emiko Petrosky, MD3; Joshua F. Wiley, PhD1; Aleta Christensen, MPH3; Rashid Njai, PhD3; Matthew D. Weaver, PhD1,4,5; Rebecca Robbins, PhD4,5; Elise R. Facer-Childs, PhD1; Laura K. Barger, PhD4,5; Charles A. Czeisler, MD, PhD1,4,5; Mark E. Howard. MBBS. PhD1,4,5; Shantha M. W. Raiaratnam. PhD1,4,5

During late June, 40% of U.S. adults reported struggling with mental health or substance use.

- Anxiety/Depression Symptoms: 31%
- Trauma/Stressor-Related Disorder Symptoms: 26%
- Started or Increased Substance Use: 13%
- Seriously Considered Suicide: 11%

*Based on a survey of U.S. adults aged ≥18 years during June 24–30, 2020
†In the 30 days prior to survey
COVID-19 Impacts on Mental Health

Vahatian et al., *CDC Morbidity and Mortality Weekly Report*, 2021
Depression Symptoms on the Rise During the COVID-19 Pandemic

Ettman et al., *JAMA Netw Open*, 2020
Access to Free Groceries/Meals Improved Mental Health Among Food Insufficient Individuals

- Food insufficiency rose from 8.1% to 10% March to June 2020
- Food insufficiency independently associated with poor mental health, after adjusting for SES and demographic

Adapted from Nagata et al., American Journal of Prevention Medicine, 2021
Understanding Possible Increases in Suicide Risk

Stay-at-home Order Status: $b = 3.990, SE = 1.563, p = .011$

Thwarted Belongingness: $b = .022, SE = .009, p = .016$

Loneliness: $b = .238, SE = .076, p = .002$

$c: b = -.168, SE = .175, p = .337$
$c': b = -.318, SE = .169, p = .060$

Suicide Risk: $b = .264, SE = .186, p = .156$

Indirect Effects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
<th>SE</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thwarted Belongingness</td>
<td>.087</td>
<td>.055</td>
<td>.001, .212</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.063</td>
<td>.057</td>
<td>-.035, .193</td>
</tr>
</tbody>
</table>

Adapted from Gratz et al., *Suicide Life Threat. Behaviors*, 2020
Understanding Possible Increases in Suicide Risk

Recent Job Loss

$\hat{b} = 2.320$, SE = .987
$p = .019$

Perceived Burdensomeness

$\hat{b} = .108$, SE = .008
$p < .001$

Suicide Risk

$c: \hat{b} = .506$, SE = .209, $p = .016$
$c': \hat{b} = .256$, SE = .181, $p = .157$

Indirect Effects

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<th>Effect</th>
<th>SE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Perceived Burdensomeness</td>
<td>.250</td>
<td>.155</td>
<td>-.026, .581</td>
</tr>
</tbody>
</table>

Adapted from Gratz et al., *Suicide Life Threat. Behaviors*, 2020
Mental Health Symptoms in Vulnerable Populations

• Pre-pandemic:
  • Striking disparities in the prevalence and outcomes of mental illnesses
  • Driven by social determinants of health, including:
    • Racism
    • Housing & food insecurity
    • Access to & quality of care

• During the pandemic, vulnerabilities include:
  • People with pre-existing mental health and substance use problems, including youth
  • Health disparities populations
  • Health care workforce

https://www.samhsa.gov/behavioral-health-equity/ai-an
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COVID-19 Risk and Resilience

• All people affected by pandemic, even those who have not been infected
  • Those with mental illness have higher risk of COVID-19 infection
  • General public still at increased risk of mental illness, particularly vulnerable populations (e.g., racial/ethnic minorities, front line workers, those with preexisting mental illness, unemployed, and food and/or housing insecure)

• Promoting resilience
  • Hope for the future
  • Sense of control
  • Meeting immediate needs
  • Practicing healthy coping habits
Telehealth Expansion

• Prior to pandemic, telehealth had been expanding and states with commercial payer laws saw tremendous variability

• Federal and state legislation and regulation quickly changed to improve access
Differences in Telehealth Modalities May Indicate Barriers for Low-Income Patients

Uscher-Pines et al., JAMA, 2021
Testing an App to Address Mental Health Disparities during the Pandemic

Mobile Health to Monitor Risk for COVID-19 and Improve Mental Health during the Pandemic (R01MH126586)

• Aims to address health disparities in access to behavioral health care during the COVID-19 pandemic among Black, Latinx, and American Indian (BLAI) individuals

• Testing a mobile app aimed at reducing COVID-19-related elevations in anxiety and/or depressive symptoms, especially in BLAI individuals

• The app includes COVID-19 symptom monitoring, exposure management skills, and education on COVID-19-related stress
NIMH-Supported Researchers Study Ways to Expand Testing on Reservations

RADx℠ Underserved Populations (RADx-UP)

The overarching goal of the RADx-UP initiative is to understand the factors associated with disparities in COVID-19 morbidity and mortality and to lay the foundation to reduce disparities for those underserved and vulnerable populations who are disproportionately affected by, have the highest infection rates of, and/or are most at risk for complications or poor outcomes from the COVID-19 pandemic.

Budget: $500 Million

Diana Hu, M.D., administers a COVID-19 test on the Navajo Nation.

Photo: Nina Mayer Ritchie, M.D.
NIMH COVID-19 Research

- NIMH issued a Notice of Special Interest (NOSI; NOT-MH-20-047) to support research to strengthen the mental health response to COVID-19 and future public health emergencies

- NIMH is participating in additional FOAs:
  - NIMHD NOSI: Impact of COVID-19 on Minority Health and Health Disparities (NOT-MD-20-019; recently expired)
  - NIA NOSI: Admin and Revision Supplements on COVID-19 (NOT-AG-20-022; recently expired)
  - NIMHD NOSI: Research to Address Vaccine Hesitancy, Uptake, and Implementation among Populations that Experience Health Disparities (NOT-MD-21-008)
  - NIMHD NOSI: Simulation Modeling and Systems Science to Address Health Disparities (NOT-MD-20-025)

Last updated 10/18/21
Social, Behavioral & Economic Impacts Research

**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 Vision and Mission

VISION

NIMH envisions a world in which mental illnesses are prevented and cured.

MISSION

To transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure.
Questions