

# Individual and community-based mental health impacts of COVID-19



**Nomi C. Levy-Carrick, MD, MPhil**

Associate Vice Chair, Ambulatory Services, Department of Psychiatry  
Assistant Professor of Psychiatry, Harvard Medical School  
Robert Wood Johnson Foundation Clinical Scholar, 2018-2021

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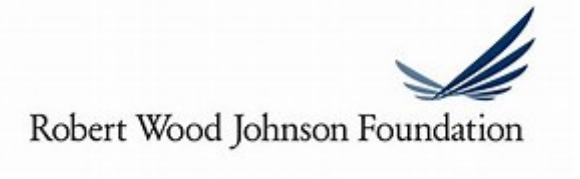
# Thank you

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# Standing in Solidarity Dikos Ntsaaígíí-19 (COVID-19)



- “...we don't really focus on what we don't have. We try to take what we have and do our very best with it.”

Dr. Loretta Christensen, Navajo Area CMO, HIS; NPR April 20, 2020

“...This truth is the disparity: of health, wellbeing and human value. And now that the truth has been revealed, what are we going to do about it?”

Sunny Dooley, Dine Storyteller, Scientific American, July 8, 2020





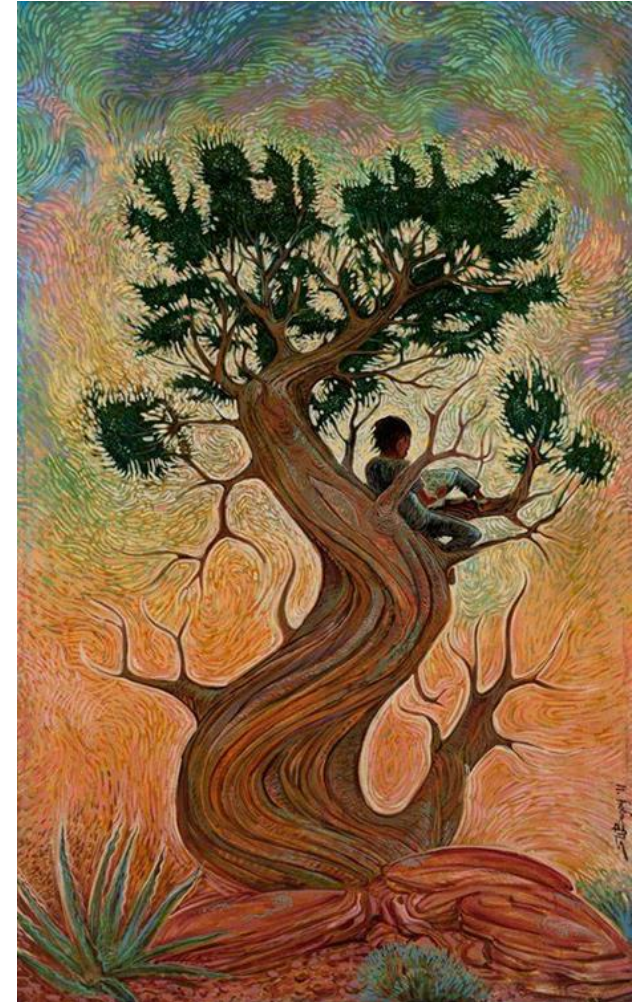
## Mental Health Impacts of COVID-19

- On the clinicians and staff responding to the crisis
  - *April 24, 2020 talk on Risk and Resilience*
- On the community
- On the patients themselves
- On patients' families

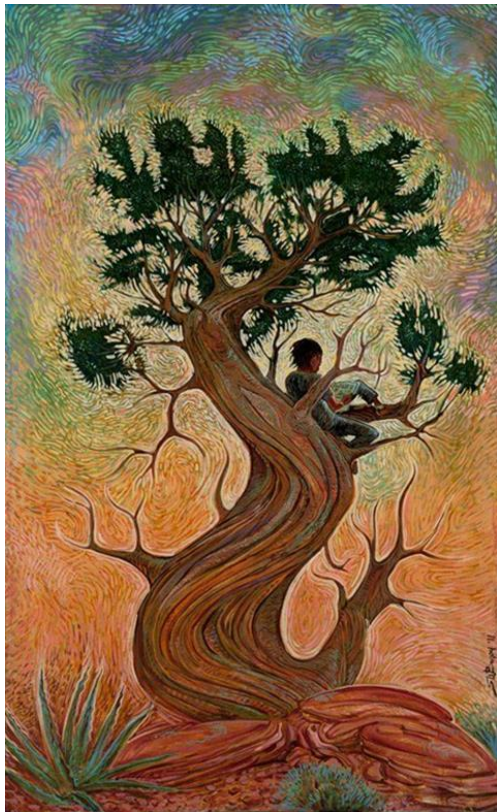


## Outline

- Disaster cycles: a Community Perspective
  - COVID variables
    - Unknown duration
    - Heroic-Honeymoon-Disillusionment
    - Anniversary reactions will be both collective and individual
- Post-ICU Syndrome: An Individual/Family Perspective
  - the cytokine storms of COVID may have broader neurocognitive effects
  - the duration on ventilators and of delirium increase risk
- Thinking about “new normal” not “back to baseline”



# Ecological Disasters: A framework for thinking longitudinally



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FIGURE 2 | Psychological and behavioral responses to disasters.

Morganstein and Ursano (2020)

# Community phases of recovery following disaster



FIGURE 3 | Community phases of recovery following disaster (47).

Morganstein and Ursano (2020)



# Stressors and Trauma-related symptoms

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**TABLE 6** | Network of stressors to be considered during evaluation.

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Living instability (displacement, stress of evacuation center)  
Medical and mental health conditions (chronic pain, depression, anxiety, grief)  
Substance use and misuse (alcohol, prescription medication)  
Occupational challenges (loss of job, inadequate resources, overworked)  
Family challenges (geographic separation, intimate partner violence)  
Other social difficulties (legal, financial, neighborhood)

Fear of giving the virus to others, of “bringing it home”  
Direct and vicarious traumatization

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**TABLE 7** | Interventions for trauma-related symptoms following disasters.

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Psychological First Aid (safety, calming, efficacy, connectedness, hope/optimism)  
Self-help interventions  
Peer support  
Trauma-focused psychotherapies (CPT, PE, SIT, EMDR)  
Pharmacotherapy (focus on regulating sleep and promoting calming; short-term use)  
Complementary and alternative interventions (yoga, meditation, mindfulness)  
Behavioral interventions (diaphragmatic breathing, muscle relaxation, imagery)

# Six Guiding Principles of Trauma Informed Care

(And corollaries to Psychological First Aid Core Actions)

Safety and  
comfort

Safety: Physical &  
psychological

Trustworthiness &  
transparency

Stabilization (prn);  
info sharing

Connection with  
social supports

Peer Support

Collaboration &  
Mutuality

Contact and  
engagement

Practical assistance,  
link to services

Empowerment,  
Voice, Choice

Cultural, Historical,  
& Gender  
Acknowledgment

Identify current  
needs, concerns

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# Neuro-Psychiatric Symptoms among COVID-19 patients

- Psychiatric Symptoms
  - Post traumatic stress symptoms (PTSS) >90% among patients hospitalized
  - Depression (higher after severe infection)
  - Anxiety (less so)
  - Worse in those with pre-existing psychiatric symptoms
- Cerebrovascular Events (e.g. stroke)
- Other neurologic effects (e.g. encephalopathies, neuromuscular/demyelinating processes)

## Potential biological mechanisms of SARS-CoV-2 and effect on psychiatric symptoms

- Acute viral infection and host immunologic response (prior experience)
  - Influenza pandemics of 18<sup>th</sup>, 19<sup>th</sup>, and early 20<sup>th</sup> centuries
  - H1N1 pandemic of 2009
  - MERS-CoV 2012
- Altered peripheral immunological alterations (COVID)
  - Higher neutrophils, lower lymphocytes (severe > non-severe)
  - Higher Pro-inflammatory cytokines
  - “cytokine storm syndrome” (hypercytokinemia) → persistent neurocognitive sx
- Delirium/encephalopathy: direct CNS invasion?

# Sub-acute to chronic neuropsychiatric sequelae

- Not yet known for COVID
- From past influenza pandemics, and other post-ICU experience:
  - Very variable course
  - Post-ICU Syndrome



# Post Intensive Care Syndrome (PICS)



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- Impairments in cognitive, psychiatric and physical function that plague patients after an ICU stay
- Prevention includes coordination of care, communication among disciplines, maintaining good nutrition and sleep
- Family members may also be affected during and after the patient's ICU hospitalization (PICS-F)
  - Risk factors: poor communication with staff, decision making role, lower education level, or patient being close to death
  - Sleep deprivation, anxiety, depression, complicated grief and PTSD

# COVID-19: Neuropsychiatric symptoms

- Pandemic-associated psychological distress
  - Fear of illness
  - Uncertainty about the future
  - Direct and vicarious traumatization
- Direct effects of the virus
  - Host immunologic response, human CNS outcomes
  - Parallels to other acute viral infections
  - Encephalopathy, mood changes, psychosis, neuromuscular dysfunction, demyelinating process
  - Isolation during treatment (delirium risk)



# Delirium, Memory, and the ICU

- **Contributors to altered memory in ICU patients**
  - Life-threatening nature of illness, medical comorbidities
  - Treatments (sedatives, benzodiazepines, opiates)
  - Sleep disturbances
- **Clear memory of hallucinations/nightmares, difficulty remembering actual events**
  - May lead to paranoid delusions, ie mistrust of staff or family
  - May impact their participation in treatment during admission
  - May impact the patient's future physical and mental health



## Psychiatric symptoms after delirium

- Prevalence of depressive symptoms 3x greater in patients with vs without delirium (22.2% vs 8%)
- Anxiety prevalence variable (from negligible to 22%)
- Prevalence of PTSD symptoms very variable

Langan, Sarode et al (2017); Hatch, Young et al (2018)



## PTSD in Critical Illness Survivors

- PTSD prevalence 1-6 months post-ICU: 25-44%
- PTSD prevalence 7-12 months post-ICU: 17-44%

### ICU risk factors for PTSD:

- Benzodiazepine administration
- Post-ICU memories of frightening ICU experiences

### Impact

- Decreased quality of life

*Parker, Srirachoenchai et al (2015) Hatch, Young et al (2018)*



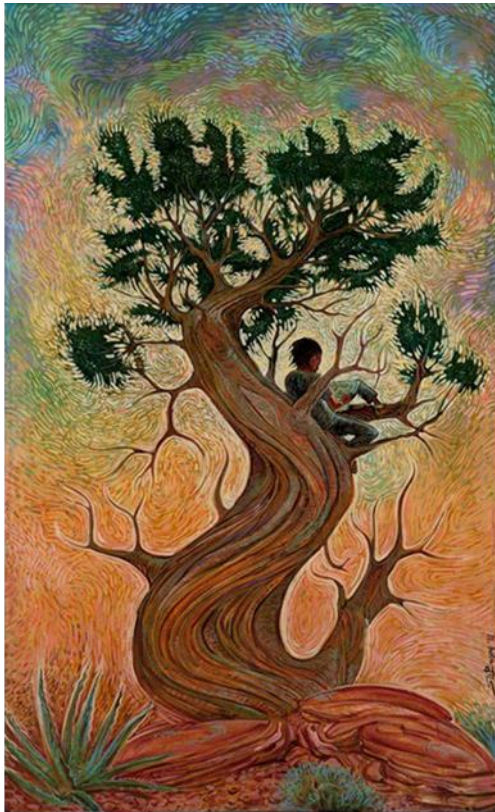
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## PICS-F: families, not just patient

- Anxiety, Depression, PTSD
- COVID twist: distance, isolation, separation
- Caregiver Stressors (34.5%)
  - Patient anxiety/depression influence caregiver burden (more than physical components)
- Adjusting to new normal: uncertainty
- Diminished Quality of Life



# Disasters and Survival: A framework for thinking longitudinally



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FIGURE 2 | Psychological and behavioral responses to disasters.

Morganstein and Ursano (2020)



# Summary

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- Expectations
- Hope
- Screening and Interventions
- Social Supports
- Grief
- Post-traumatic Growth

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