

Cognitive Predictors of Suicide during the Early Phase of the COVID-19 Pandemic

Joseph D. Hovey, Ph.D., Isabella A. Cruz, B.S.,
Nadeen Salhadar, B.A., & Monica E. Ochoa, B.S.

Psychological Science Department
www.jhoveyphd.com; www.behhealthlab.com
joseph.hovey@utrgv.edu

The University of Texas
Rio Grande Valley™

Background

- The COVID-19 Pandemic had a deleterious impact on mental health as it caused upheavals in people's lives and typical daily markers of success—e.g., going to work or school, being productive, spending time with loved ones—were absent for many people.
- Common were feelings of being overwhelmed and stress caused by relationship difficulties, financial loss, and uncertainty about when pandemic would end.
- During early part of pandemic, constant worries about contracting Covid and passing it to loved ones.

Background (continued)

- During April 2020, we collected first wave of data from a sample of adults in the United States in effort to assess for Covid's impact on mental health. Second wave of data were collected in November 2020.
- Decided to focus on first wave as data reflected our mental health state during early part of lockdown.
- Our focus will be on cognitive predictors of suicide behavior. These predictors appeared to be especially pertinent during early Covid. They include *Intolerance of Uncertainty*, *Repetitive Thinking*, and *Mindful Attention*.

Research Aims

- Examine relationships between cognitive predictors and mental health variables including health anxiety, depression, hopelessness, and suicide ideation.
- Examine influence of Covid risk perception on cognitive and mental health variables.
- Examine whether cognitive variables moderate the relationship between Covid risk perception and suicidal ideation, while controlling for income loss and food insecurity.

Methods

- Participants & Procedure: 448 participants (M age = 38; 58% females). Recruited through MTurk.
- Measures:
 - *Demographic Form*, including items on Perceived Risk, Income Loss, and Food Insecurity.
 - *NIDA-Modified ASSIST* (WHO, 2002) to measure substance abuse.
 - *Insomnia Severity Index* (Bastien et al., 2001).
 - *Intolerance of Uncertainty Scale* (Buhr & Dugas, 2002).
 - *Repetitive Thinking Scale–12* (McEvoy et al., 2010).
 - *Mindful Attention Awareness Scale* (Brown & Ryan, 2003).
 - *Short Health Anxiety Inventory* (Salkovskis et al., 2002).
 - *Patient Health Questionnaire–9* (Kroenke et al., 2001) to measure depressive symptoms.
 - *Beck Hopelessness Scale* (Beck & Steer, 1988).
 - *Depression Severity Index-Suicidality Subscale* (Joiner et al., 2002).

Results

- Moderate to Severe Anxiety: 35% (cf. normative 13%)
- Moderate to Severe Depression: 32% (cf. normative 14%)
- Current Suicidal Ideation: 19% (cf. normative 5% annually)
- Severe Insomnia: 21%
- Heavy Alcohol Use: 26%
- Opioid Abuse: 9%

Correlations between Variables

	Health Anxiety	Depression	Hopelessness	Suicide Ideation
COVID Risk Perception	.23***	.17**	.17**	.15**
Income Loss	.15**	.27***	.32***	.14**
Food Insecurity	.27***	.31***	.35***	.22***
Intolerance of Uncertainty	.51***	.46**	.46***	.19***
Repetitive Thinking	.54***	.59***	.50***	.21***
Mindful Attention	-.46***	-.57***	-.43***	-.23***
Health Anxiety	--	.58***	.49***	.31***
Depression	.58***	--	.66***	.41***
Hopelessness	.49***	.66***	--	.37***

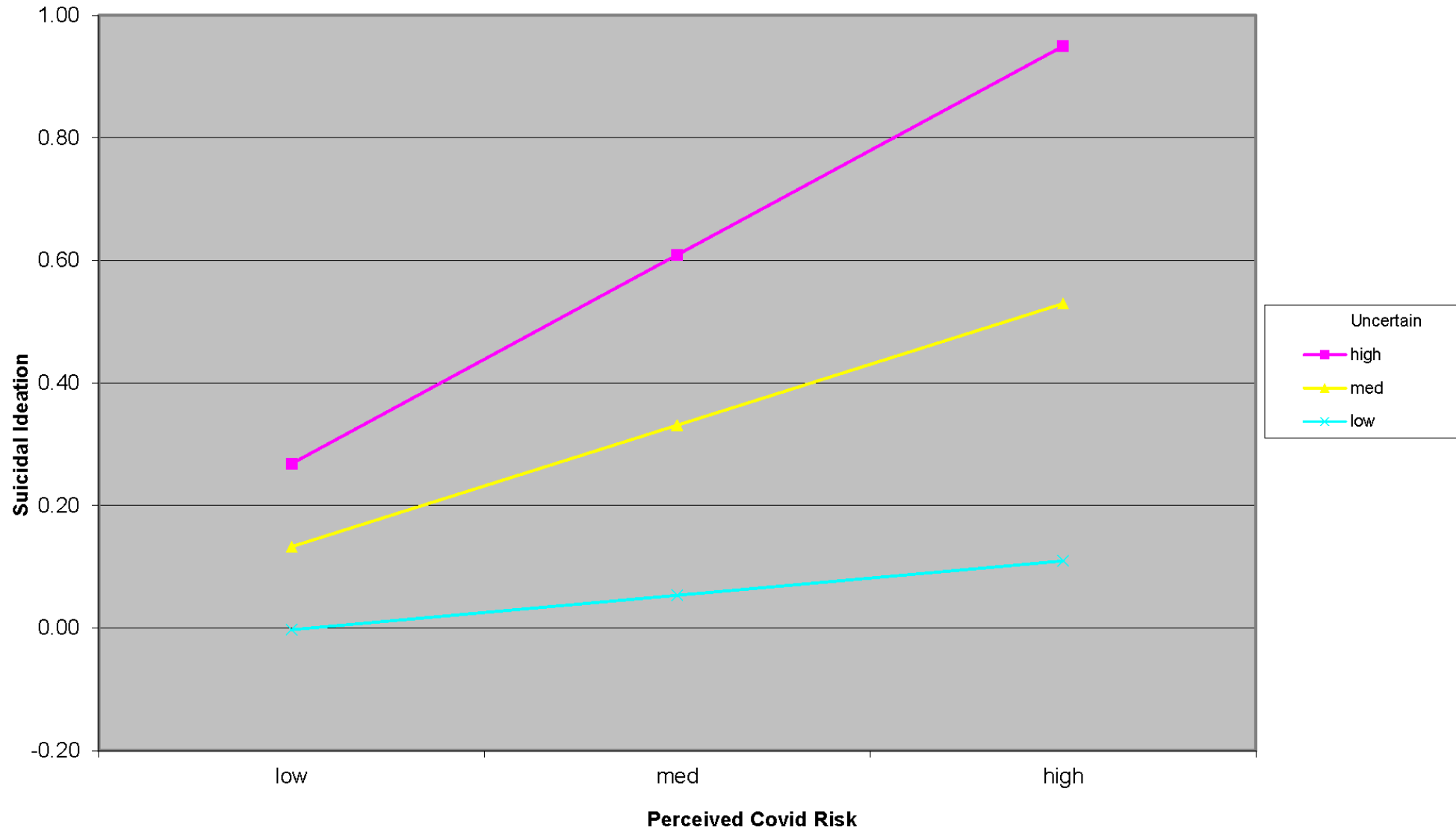
*Notes: ** $p \leq .01$, *** $p \leq .001$.*

Multiple Regression Analyses of Suicidal Ideation

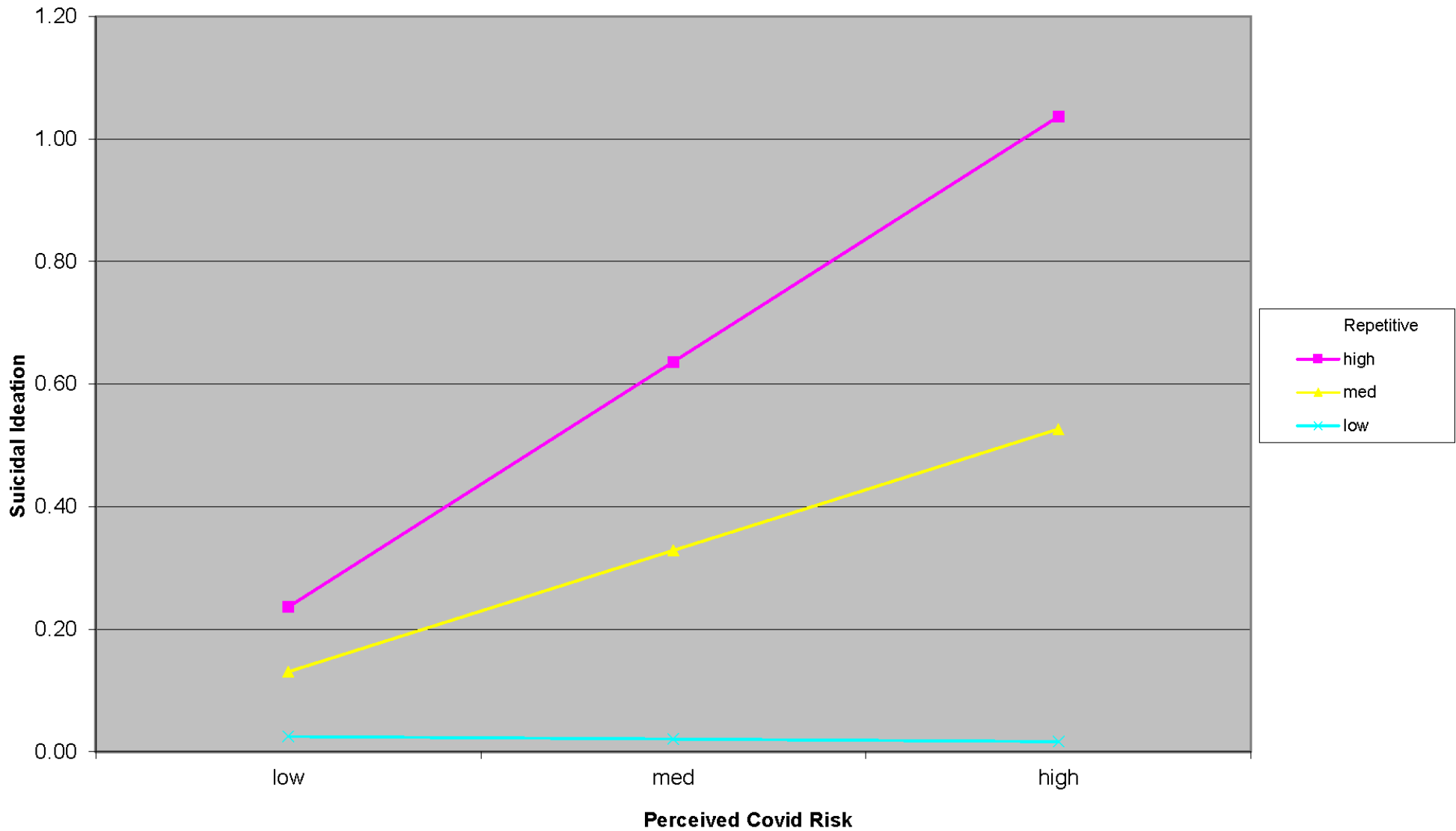
<i>Model 1</i>	β	<i>t</i>	<i>p</i>
Income Loss	.04	0.6	.28
Food Insecurity	.16	2.6	.01
COVID Risk Perception	.13	2.2	.01
Intolerance of Uncertainty	.18	3.0	.01
Risk X Intolerance of Uncertainty	.10	1.7	.05
<i>Model 2</i>	β	<i>t</i>	<i>p</i>
Income Loss	.04	0.6	.28
Food Insecurity	.16	2.6	.01
COVID Risk Perception	.13	2.2	.01
Repetitive Thinking	.20	3.5	.01
Risk X Repetitive Thinking	.13	2.3	.01
<i>Model 3</i>	β	<i>t</i>	<i>p</i>
Income Loss	.03	0.4	.34
Food Insecurity	.16	2.7	.01
COVID Risk Perception	.11	1.9	.03
Mindful Attention	-.18	3.1	.01
Risk X Mindful Attention	-.09	1.6	.06

Notes: Model 1 $R^2 = .10$; Model 2 $R^2 = .11$; Model 3 $R^2 = .10$

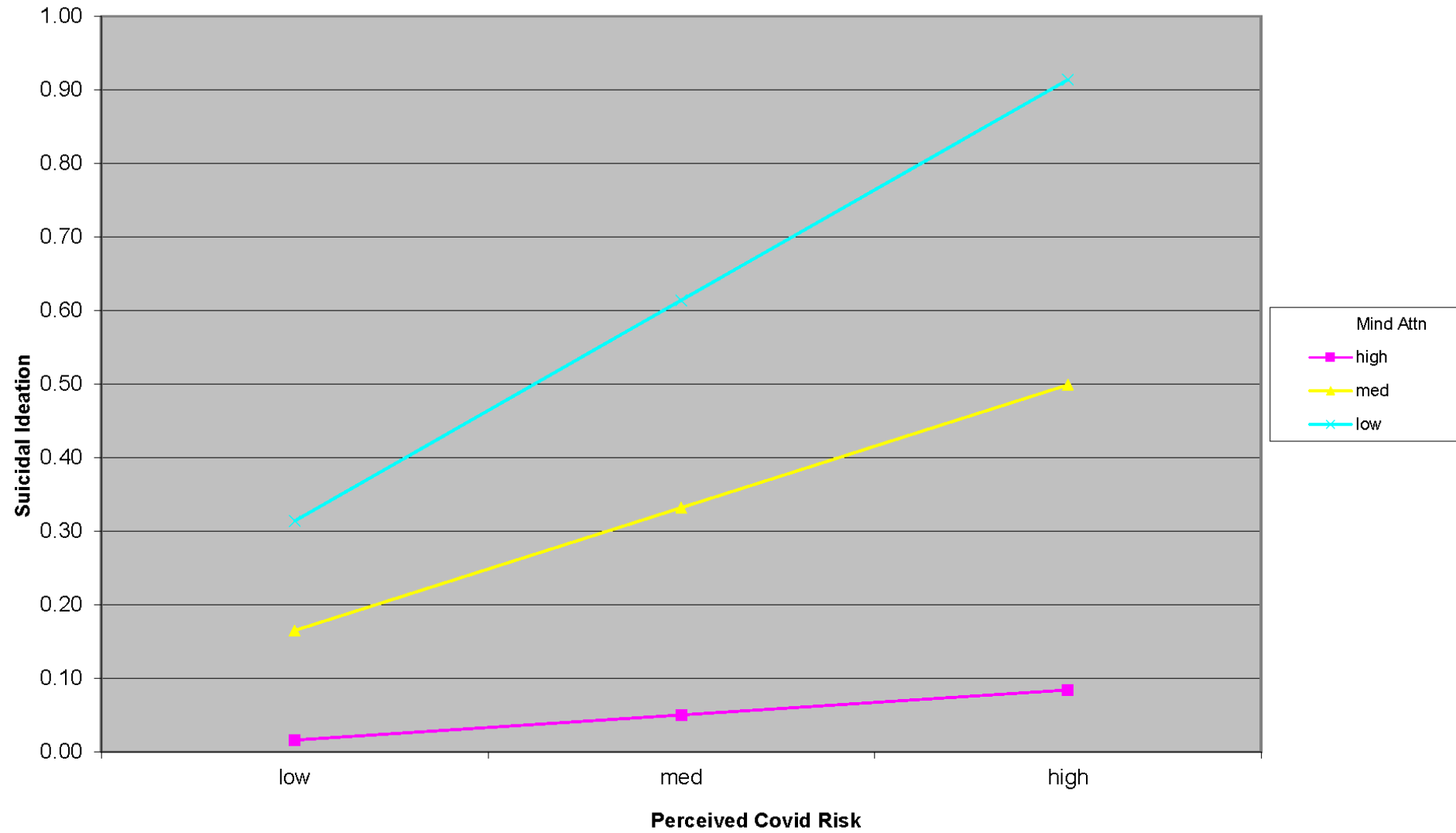
Perceived Covid Risk X Intolerance of Uncertainty



Perceived Covid Risk X Repetitive Thinking



Perceived Covid Risk X Mindful Attention



Summary & Future Directions

- Overall findings suggest that U.S. has undergone mental health crisis in response to pandemic.
- Suicidal ideation and attempts increased during pandemic (Pathirathna et al., 2022; Yan et al., 2023); suicides increased in adolescents and young adults (Bridge et al., 2023).
- Specific findings suggest that those who perceived high risk of infection were at increased risk for suicidal thoughts if they also had difficulty tolerating uncertainty about Covid, consistently thought about Covid, and had difficulty attending to the here-and-now.
- Findings may help inform our reactions to next pandemic.
- For example, clinicians may help cope with fear uncertainty, provide cognitive skills training to ruminate less, and teach mindful attention skills.

Thank You

- Questions and comments.