

Predictors of compliance with COVID-19 related non-pharmaceutical interventions amongst university students



@EthanTolman
@jonasdopper
@shumwayspencer

*Presenting authors

Spencer G. Shumway*, Jonas D. Hopper*, Ethan R. Tolman*, Daniel G. Ferguson, Gabriella Hubble*, David Patterson*, Jamie L. Jensen

Summary of Outcome Variables				
Predictor	Mean	SD	p	
Wear a mask when required (general)	4.55	0.55	<.001*	
Wear a mask when required (Utah)	4.75	0.55		
Wear a mask in small groups (general)	4.07	1.06	<.001*	
Wear a mask in small groups (Utah)	2.26	1.15		
Wear a mask in large groups (general)	4.14	1.08	<.001*	
Wear a mask in large groups (Utah)	3.04	1.37		
Socially distance (general)	4.07	1.06	<.001*	
Socially distance (Utah)	3.40	1.01		

Notable Findings

1. Predictors in Utah differed from national population
2. Political ideology not significant in either population
3. Concern with severity is the biggest predictor

Study populations

1. Undergraduates in GE biology courses at BYU and UVU
2. University students nationwide (identified by Qualtrics)

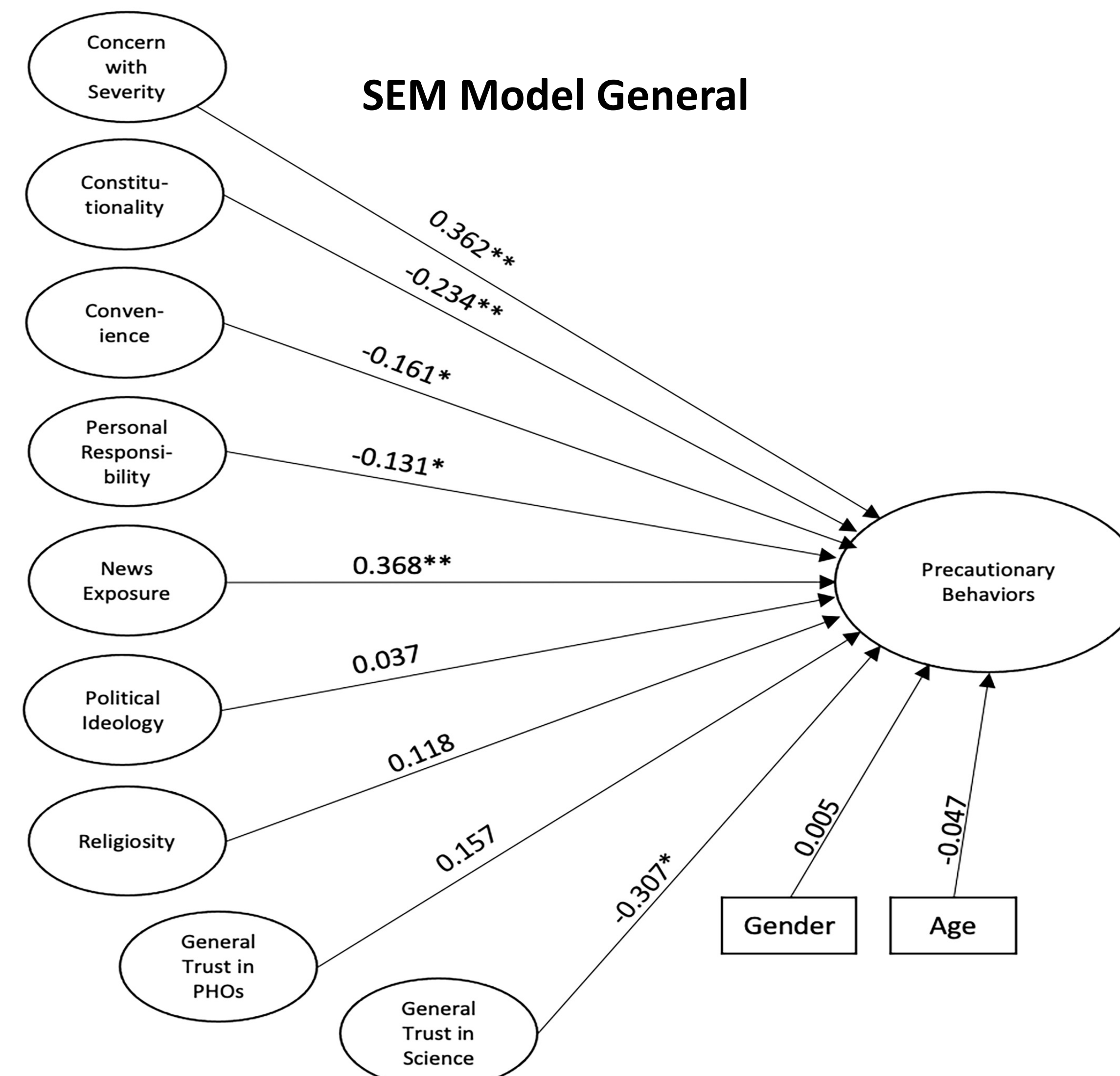
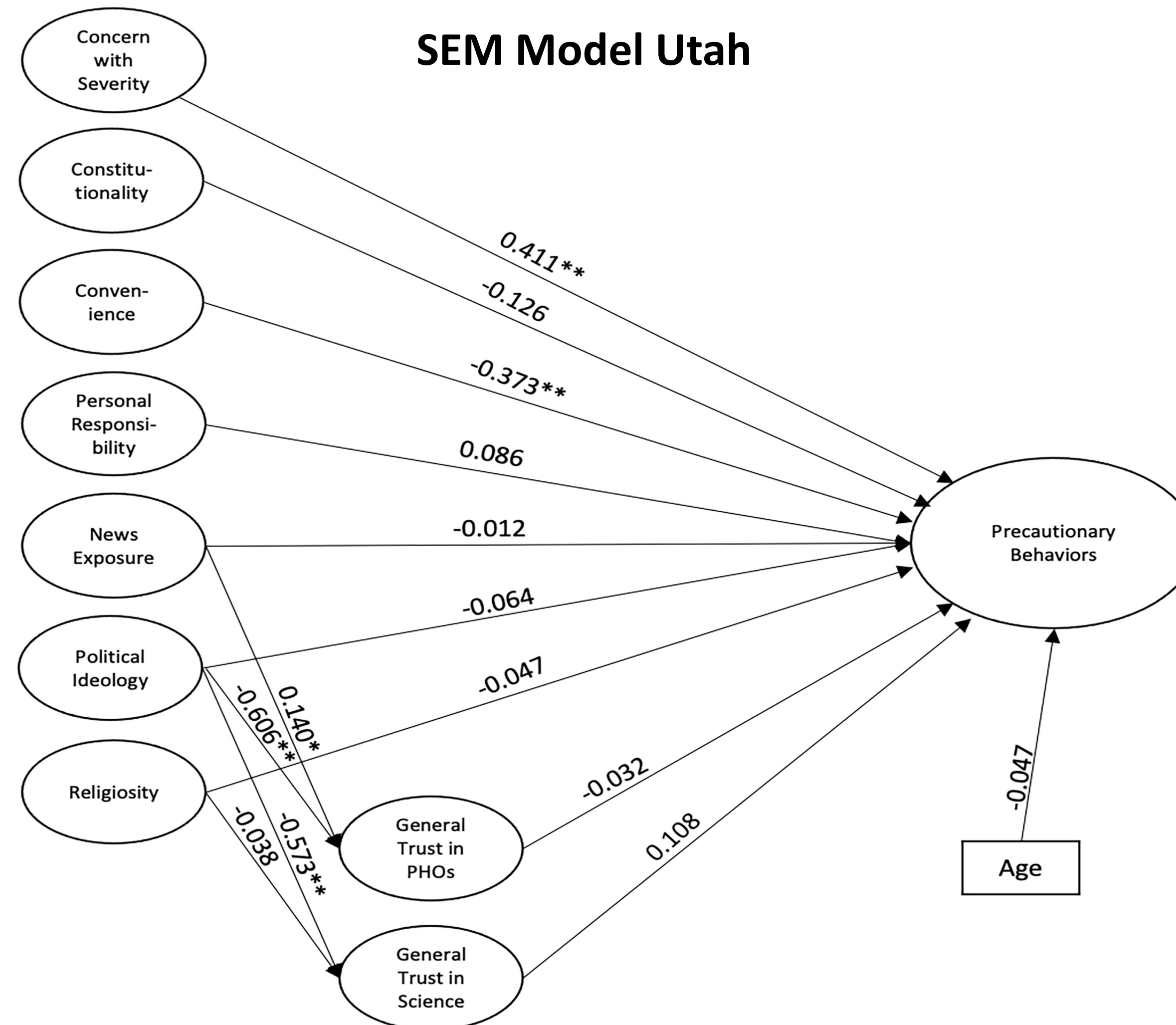
Study timing

Late October-early November 2020

Survey responses

546 general (filtered for millennial/gen-z)
596 Utah (filtered for millennial/gen-z)

Structural Equations Models



Comparison of Population Demographics

Predictor	Scale	Mean	SD	p
Conservatism (general)	3-21	13.92	5.04	<.001*
Conservatism (Utah)		12.40	4.32	
Religiosity (general)	8-40	28.56	8.11	<.001*
Religiosity (Utah)		31.83	9.00	
Constitutionalism (general)	6-30	18.06	7.56	<.001*
Constitutionalism (Utah)		14.74	7.37	
News exposure (general)	3-18	13.55	3.07	<.001*
News exposure (Utah)		10.70	3.50	
Trust in science (general)	14-74	44.76	9.91	<.001*
Trust in science (Utah)		52.63	8.48	
Concern (general)	4-20	15.64	3.17	<.001*
Concern (Utah)		9.98	3.43	
Year (general)	N/A	3.46	1.42	<.001*
Year (Utah)		1.71	1.06	
Age (general)	N/A	27.61	9.27	<.001*
Age (Utah)		20.27	3.15	
Percent Female (general)		.40		

Instruments used

Religiosity: Duke religiosity index (Koenig and Bussing 2010)
 Trust in Science: General trust in science (Nadelson et al. 2014, Plohl and Musil 2020)
 Convenience: YouGov poll (Nguyen 2020)
 Concern with severity: modified from (Chen et al. 2006)
 All other developed by the authors

Future research

Developing an intervention to increase compliance with NPIs and vaccine acceptance

Acknowledgments

Dr. Ashley Turner (Jacksonville State University)