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Conceptual replication and extension of health behavior theories' predictions in the context of COVID-19: Evidence across countries and over time

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Abstract

Virus mitigation behavior has been and still is a powerful means to fight the COVID-19 pandemic irrespective of the availability of pharmaceutical means (e.g., vaccines). We drew on health behavior theories to predict health-protective (coping-specific) responses and hope (coping non-specific response) from health-related cognitions (vulnerability, severity, self-assessed knowledge, efficacy). In an extension of this model, we proposed orientation to internal (problem-focused coping) and external (country capability) coping resources as antecedents of health protection and hope; health-related cognitions were assumed as mediators of this link. We tested these predictions in a large multi-national multi-wave study with a cross-sectional panel at T1 (Baseline, March-April 2020; N = 57,631 in 113 countries) and a panel subsample at two later time points, T2 (November 2020; N = 3097) and T3 (April 2021; N = 2628). Multilevel models showed that health-related cognitions predicted health-protective responses and hope. Problem-focused coping was mainly linked to health-protective behaviors (T1-T3), whereas country capability was mainly linked to hope (T1-T3). These relationships were

partially mediated by health-related cognitions. We conceptually replicated predictions of health behavior theories within a real health threat, further suggesting how different coping resources are associated with qualitatively distinct outcomes. Both patterns were consistent across countries and time. © 2023 The Authors. Social and Personality Psychology Compass published by John Wiley & Sons Ltd.

Author Keywords

coping; country capability; COVID-19; health behavior theories; hope; problem-focused coping; virus mitigation behavior

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References

- Agostini, M., Kreienkamp, J., Gützkow, B., Bélanger, J.J., Reitsema, A.M., Myroniuk, S., Bellm, M., Leander, N.P.
(2022) PsyCorona Dataset, (Version 1.1.) [Data set]., DataverseNL
- Badr, H., Oluyomi, A., Woodard, L., Zhang, X., Raza, S.A., Fahmideh, M.A., El-Mubasher, O., Amos, C.A.
Sociodemographic and health belief model factors associated with nonadherence to COVID-19 mitigation strategies in the United States
(2021) *Annals of Behavioral Medicine*, 55 (7), pp. 677-685.
- Barattucci, M., Pagliaro, S., Ballone, C., Teresi, M., Consoli, C., Garofalo, A., De Giorgio, A., Ramaci, T.
Trust in science as a possible mediator between different antecedents and COVID-19 booster vaccination intention: An integration of health belief model (HBM) and theory of planned behavior (TPB)
(2022) *Vaccines*, 10 (7).
- Bowling, A.
Just one question: If one question works, why ask several?
(2005) *Journal of Epidemiology and Community Health*, 59 (5), pp. 342-346.
- Brewer, N.T., Chapman, G.B., Rothman, A.J., Leask, J., Kempe, A.
Increasing vaccination: Putting psychological science into action
(2017) *Psychological Science in the Public Interest*, 18 (3), pp. 149-207.
- Burisch, M.
Test length and validity revisited
(1997) *European Journal of Personality*, 11 (4), pp. 303-315.
- Carver, C.S., Scheier, M.F., Weintraub, J.K.
Assessing coping strategies: A theoretically based approach
(1989) *Journal of Personality and Social Psychology*, 56 (2), pp. 267-283.
- de Hoog, N., Stroebe, W., de Wit, J.B.F.
The impact of vulnerability to and severity of a health risk on processing and acceptance of fear-arousing communications: A meta-analysis
(2007) *Review of General Psychology*, 11 (3), pp. 258-285.
- Eberhardt, J., Ling, J.
Predicting COVID-19 vaccination intention using protection motivation theory and

- conspiracy beliefs**
(2021) *Vaccine*, 39 (42), pp. 6269-6275.
- Ezati Rad, R., Mohseni, S., Kamalzadeh Takhti, H., Azad, M.H., Shahabi, N., Aghamolaei, T., Norozian, F.
Application of the protection motivation theory for predicting COVID-19 preventive behaviors in Hormozgan, Iran: A cross-sectional study
(2021) *BMC Public Health*, 21 (1).
 - Floyd, D.L., Prentice-Dunn, S., Rogers, R.W.
A meta-analysis of research on protection motivation theory
(2000) *Journal of Applied Social Psychology*, 30 (2), pp. 407-429.
 - Fragkaki, I., Maciejewski, D.F., Weijman, E.L., Feltes, J., Cima, M.
Human responses to Covid-19: The role of optimism bias, perceived severity, and anxiety
(2021) *Personality and Individual Differences*, 176.
 - Gosling, S.D., Rentfrow, P.J., Swann, W.B., Jr.
A very brief measure of the Big-Five personality domains
(2003) *Journal of Research in Personality*, 37 (6), pp. 504-528.
 - Han, Q., Zheng, B., Abakoumkin, G., Leander, N.P., Stroebe, W.
Why some people do not get vaccinated against COVID-19: Social-cognitive determinants of vaccination behavior
(2023) *Applied Psychology: Health and Well-Being*, 15 (3), pp. 825-845.
 - Han, Q., Zheng, B., Cristea, M., Agostini, M., Bélanger, J.J., Gützkow, B., Kreienkamp, J., Leander, N.P.
Trust in government regarding COVID-19 and its associations with preventive health behaviour and prosocial behaviour during the pandemic: A cross-sectional and longitudinal study
(2023) *Psychological Medicine*, 53 (1), pp. 149-159.
 - Hook, C.J., Markus, H.R.
Health in the United States: Are appeals to choice and personal responsibility making Americans sick?
(2020) *Perspectives on Psychological Science*, 15 (3), pp. 643-664.
 - Janz, N.K., Becker, M.H.
The health belief model: A decade later
(1984) *Health Education Quarterly*, 11 (1), pp. 1-47.
 - Kaphingst, K.A., Blanchard, M., Milam, L., Pokharel, M., Elrick, A., Goodman, M.S.
Relationships between health literacy and genomics-related knowledge, self-efficacy, perceived importance, and communication in a medically underserved population
(2016) *Journal of Health Communication*, 21 (sup1), pp. 58-68.
 - King, J.B.
The impact of patients' perceptions of high blood pressure on attendance at screening: An extension of the health belief model
(1982) *Social Science and Medicine*, 16 (10), pp. 1079-1091.
 - Kowalski, R.M., Black, K.J.
Protection motivation and the COVID-19 virus
(2021) *Health Communication*, 36 (1), pp. 15-22.
 - Lalot, F., Heering, M.S., Rullo, M., Travaglino, G.A., Abrams, D.
The dangers of distrustful complacency: Low concern and low political trust combine to undermine compliance with governmental restrictions in the emerging

Covid-19 pandemic

(2022) *Group Processes and Intergroup Relations*, 25 (1), pp. 106-121.

- Lazarus, R.S., Folkman, S.
(1984) *Stress, appraisal, and coping*, Springer
- Leander, N.P., Lemay, E.P., Jr., Jeronimus, B.F., Keller, A.C., Agostini, M., Bélanger, J.J., El Khawli, E., Zúñiga, C.
Towards a globally collaborative behavioral science: An organizational approach from pandemic psychology
(2020) *ISSBD Bulletin: Supplement to International Journal of Behavioral Development*, 78 (2), pp. 2-5.
- Leander, N.P., Stroebe, W., Kreienkamp, J., Agostini, M., Gordijn, E., Kruglanski, A.W.
Mass shootings and the salience of guns as means of compensation for thwarted goals
(2019) *Journal of Personality and Social Psychology*, 116 (5), pp. 704-723.
- Lorah, J.
Effect size measures for multilevel models: Definition, interpretation, and TIMSS example
(2018) *Large-scale Assessments in Education*, 6 (1), p. 8.
- Maschi, T., Viola, D., Morgen, K.
Unraveling trauma and stress, coping resources, and mental well-being among older adults in prison: Empirical evidence linking theory and practice
(2014) *The Gerontologist*, 54 (5), pp. 857-867.
- McCabe, K.O., Fleeson, W.
Are traits useful? Explaining trait manifestations as tools in the pursuit of goals
(2016) *Journal of Personality and Social Psychology*, 110 (2), pp. 287-301.
- Milne, S., Sheeran, P., Orbell, S.
Prediction and intervention in health-related behavior: A meta-analytic review of protection motivation theory
(2000) *Journal of Applied Social Psychology*, 30 (1), pp. 106-143.
- Nudelman, G.
Predicting adherence to COVID-19 behavioural guidelines: A comparison of protection motivation theory and the theory of planned behaviour
(2023) *Psychology and Health*, pp. 1-17.
Advance online publication
- Otete Omeife, H.
Coronavirus: Distancing and handwashing could also lower flu rates
(2020) *The Conversation*,
- Rippetoe, P.A., Rogers, R.W.
Effects of components of protection motivation theory on adaptive and maladaptive coping with a health threat
(1987) *Journal of Personality and Social Psychology*, 52 (3), pp. 596-604.
- Roesch, S.C., Weiner, B.
A meta-analytic review of coping with illness: Do causal attributions matter?
(2001) *Journal of Psychosomatic Research*, 50 (4), pp. 205-219.
- Rogers, R.W.
A protection motivation theory of fear appeals and attitudes change
(1975) *Journal of Psychology*, 91 (1), pp. 93-114.

- Rogers, R.W.
Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation
(1983) *Social psychophysiology: A source book*, pp. 153-176.
J. T. Cacioppo, &, R. E. Petty, (Eds.), Guilford Press
- Rose, J.P., Aspiras, O.
To hope was to expect”: The impact of perspective taking and forecast type on wishful thinking
(2020) *Journal of Behavioral Decision Making*, 33 (4), pp. 411-426.
- Rosenstock, I.M.
The health belief model and preventive health behavior
(1974) *Health Education Monographs*, 2 (4), pp. 354-386.
- Ruiz, J.M., Revenson, T.A.
Behavioral medicine in the COVID-19 era: Dawn of the golden age
(2020) *Annals of Behavioral Medicine*, 54 (8), pp. 541-543.
- Schreiber, M., Job, V., Dohle, S.
Is your health malleable or fixed? The influence of implicit theories on health-related attitudes and behaviour
(2020) *Psychology and Health*, 35 (12), pp. 1421-1439.
- Selig, J.P., Preacher, K.J.
(2008),
Retrieved from
- Shaw, C.
A framework for the study of coping, illness behaviour and outcomes
(1999) *Journal of Advanced Nursing*, 29 (5), pp. 1246-1255.
- Shmueli, L.
Predicting intention to receive COVID-19 vaccine among the general population using the health belief model and the theory of planned behavior model
(2021) *BMC Public Health*, 21 (1).
- Snyder, C.R.
Target article: Hope theory: Rainbows in the mind
(2002) *Psychological Inquiry*, 13 (4), pp. 249-275.
- Stroebe, W.
(2011) *Social psychology and health*,
3rd ed., Open University Press
- Stroebe, W., Leander, N.P., Kruglanski, A.W.
Is it a dangerous world out there? The motivational bases of American gun ownership
(2017) *Personality and Social Psychology Bulletin*, 43 (8), pp. 1071-1085.
- Stroebe, W., vanDellen, M.R., Abakoumkin, G., Lemay, E.P., Jr., Schiavone, W.M., Agostini, M., Bélanger, J.J., Leander, N.P.
Politicization of COVID-19 health-protective behaviors in the United States: Longitudinal and cross-national evidence
(2021) *PLoS ONE*, 16 (10).
- Tannenbaum, M.B., Hepler, J., Zimmerman, R.S., Saul, L., Jacobs, S., Wilson, K., Albarracín, D.
Appealing to fear: A meta-analysis of fear appeal effectiveness and theories
(2015) *Psychological Bulletin*, 141 (6), pp. 1178-1204.

- Van Bavel, J.J., Baicker, K., Boggio, P.S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M.J., Willer, R.
Using social and behavioural science to support COVID-19 pandemic response
(2020) *Nature Human Behaviour*, 460 (5), pp. 460-471.
- Van Lissa, C.J., Stroebe, W., vanDellen, M.R., Leander, N.P., Agostini, M., Draws, T., Grygoryshyn, A., Bélanger, J.J.
Using machine learning to identify important predictors of COVID-19 infection prevention behaviors during the early phase of the pandemic
(2022) *Patterns*, 3 (4).
- Wang, P.-W., Ahorsu, D.K., Lin, C.-Y., Chen, I.-H., Yen, C.-F., Kuo, Y.-J., Griffiths, M.D., Pakpour, A.H.
Motivation to have COVID-19 vaccination explained using an extended protection motivation theory among university students in China: The role of information sources
(2021) *Vaccines*, 9 (4).
- West, R., Michie, S., Rubin, G.J., Amlôt, R.
Applying principles of behaviour change to reduce SARS-CoV-2 transmission
(2020) *Nature Human Behaviour*, 460 (5), pp. 451-459.
- Witte, K., Allen, M.
A meta-analysis of fear appeals: Implications for effective public health campaigns
(2000) *Health Education and Behavior*, 27 (5), pp. 591-615.
- Wong, M.C.S., Wong, E.L.Y., Huang, J., Cheung, A.W.L., Law, K., Chong, M.K.C., Ng, R.W.Y., Chan, P.K.S.
Acceptance of the COVID-19 vaccine based on the health belief model: A population-based survey in Hong Kong
(2021) *Vaccine*, 39 (7), pp. 1148-1156.
- (2020) *Critical preparedness, readiness and response actions for COVID-19: Interim guidance*, p. 22.
(p.,). Retrieved from

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