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Documents

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Pandemic Boredom: Little Evidence That Lockdown-Related Boredom Affects Risky Public Health Behaviors Across 116 Countries

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Abstract

Some public officials have expressed concern that policies mandating collective public health behaviors (e.g., national/regional "lockdown") may result in behavioral fatigue that ultimately renders such policies ineffective. Boredom, specifically, has been singled out as one potential risk factor for noncompliance. We examined whether there was empirical evidence to support this concern during the COVID-19 pandemic in a large cross-national sample of 63,336 community respondents from 116 countries. Although boredom was higher in countries with more COVID-19 cases and in countries that instituted more stringent lockdowns, such boredom did not predict longitudinal within-person decreases in social distancing behavior (or vice versa; n = 8,031) in early spring and summer of 2020. Overall, we found little evidence that changes in boredom predict individual public health behaviors (handwashing, staying home, self-quarantining, and avoiding crowds) over time, or that such behaviors had any reliable longitudinal effects on boredom itself. In summary, contrary to concerns, we found little evidence that boredom posed a public health risk during lockdown and quarantine. © 2023 American Psychological Association

Author Keywords

COVID-19; emotion; public health; self-regulation; Simpson's paradox

Index Keywords

adult, Article, boredom, coronavirus disease 2019, fatigue, hand washing, health behavior, health hazard, high risk behavior, home quarantine, human, infection prevention, national lockdown, pandemic, population density, psychological well-being, public health, social distancing, spring, summer

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References

· Abdel-Khalek, A.

Measuring happiness with a single-item scale (2006) Social Behavior and Personality, 34 (2), pp. 139-150.

- Barari, S., Caria, S., Davola, A., Falco, P., Fetzer, T., Fiorin, S., Hensel, L., Slepoi, F. R.
 Evaluating COVID-19 public health messaging in Italy: Self-reported compliance and growing mental health concerns
 (2020) MedRxiv,
- . Barrett, L. F.

Feelings or words? Understanding the content in selfreport ratings of experienced emotion

(2004) Journal of Personality and Social Psychology, 87 (2), pp. 266-281.

. Barrett, L. F.

Variety is the spice of life: A psychological construction approach to understanding variability in emotion

(2009) Cognition and Emotion, 23 (7), pp. 1284-1306.

- Barrett, L. F., Adolphs, R., Marsella, S., Martinez, A. M., Pollak, S. D.
 Emotional expressions reconsidered: Challenges to inferring emotion from human facial movements
 - (2019) Psychological Science in the Public Interest, 20 (1), pp. 1-68.
- Baumeister, R. F., Vohs, K. D., Tice, D. M.

The strength model of selfcontrol

(2007) Current Directions in Psychological Science, 16 (6), pp. 351-355.

Bench, S. W., Lench, H. C.

Boredom as a seeking state: Boredom prompts the pursuit of novel (even negative) experiences

(2019) Emotion, 19 (2), pp. 242-254.

• Bench, S. W., Bera, J., Cox, J.

State boredom results in optimistic perception of risk and increased risk-taking (2021) Cognition and Emotion, 35 (4), pp. 649-663.

Boylan, J., Seli, P., Scholer, A. A., Danckert, J.

Boredom in the COVID-19 pandemic: Trait boredom Proneness, the desire to act, and rule-breaking

(2021) Personality and Individual Differences, 171, p. 110387.

- Brodeur, A., Clark, A. E., Fleche, S., Powdthavee, N.
 COVID-19, lockdowns and well-being: Evidence from Google Trends (2021) *Journal of Public Economics*, 193, p. 104346.
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., Rubin, G. J.

The psychological impact of quarantine and how to reduce it: Rapid review of the evidence

(2020) The Lancet, 395 (10227), pp. 912-920.

Brosowsky, N. P., Van Tilburg, W., Scholer, A. A., Boylan, J., Seli, P., Danckert, J.
 Boredom proneness, political orientation and adherence to social-distancing in the pandemic

(2021) Motivation and Emotion, 45 (5), pp. 631-640.

• Butler, J., Kern, M. L.

The PERMA-Profiler: A brief multidimensional measure of flourishing (2016) *International Journal of Wellbeing*, 6 (3), pp. 1-48.

- Caci, B., Miceli, S., Scrima, F., Cardaci, M.
 Neuroticism and fear of COVID-19. the interplay between boredom, fantasy engagement, and perceived control over time
 (2020) Frontiers in Psychology, 11, p. 574393.
- Chao, M., Chen, X., Liu, T., Yang, H., Hall, B. J.
 Psychological distress and state boredom during the COVID-19 outbreak in China:
 The role of meaning in life and media use
 (2020) European Journal of Psychotraumatology, 11 (1), p. 1769379.
- · Chen, I.

Turning home boredom during the outbreak of COVID-19 into thriving at home and career Self-management: The role of ONLINE leisure crafting (2020) *International Journal of Contemporary Hospitality Management*, 32 (11), pp. 3645-3663.

- Chin, A., Markey, A., Bhargava, S., Kassam, K. S., Loewenstein, G.
 Bored in the USA: Experience sampling and boredom in everyday life (2017) *Emotion*, 17 (2), pp. 359-368.
- Cooper, W. H., Withey, M. J.
 The strong situation hypothesis
 (2009) Personality and Social Psychology Review, 13 (1), pp. 62-72.
- Deng, S., Wang, W., Xie, P., Chao, Y., Zhu, J.
 Perceived severity of COVID-19 and Post-pandemic consumption willingness: The roles of boredom and sensation-seeking

 (2020) Frontiers in Psychology, 11, p. 567784.
- Diener, E. Subjective well-being. The science of happiness and a proposal for a national index (2000) *American Psychologist*, 55 (1), pp. 34-43.
- Droit-Volet, S., Gil, S., Martinelli, N., Andant, N., Clinchamps, M., Parreira, L., Rouffiac, K., Dutheil, F.

Time and COVID-19 stress in the lockdown situation: Time free, « Dying » of boredom and sadness (2020) *PLoS ONE*, 15 (8), p. e0236465.

(2020) 1 200 0112, 10 (0), p. 00200+0

Elpidorou, A.

The bright side of boredom

(2014) Frontiers in Psychology, 5, p. 1245.

- Fisher, A. J., Medaglia, J. D., Jeronimus, B. F.
 Lack of group-toindividual generalizability is a threat to human subjects research (2018) Proceedings of the National Academy of Sciences of the United States of America, 115 (27), pp. E6106-E6115.
- (2021) Did you experience the following feelings during A LOT OF THE DAY yesterday? Boredom,

March 23-29, 2020, in coronavirus pandemic

• Gasper, K., Middlewood, B. L.

Approaching novel thoughts: Understanding why elation and boredom promote associative thought more than distress and relaxation (2014) *Journal of Experimental Social Psychology*, 52, pp. 50-57.

 Gendron, M., Barrett, L. F.
 Reconstructing the past: A century of ideas about emotion in psychology (2009) Emotion Review, 1 (4), pp. 316-339.

• Gupta, S.

In the social distancing era, boredom may pose a public health threat (2021) *ScienceNews*, (February)

- Hamaker, E. L., Kuiper, R. M., Grasman, R. P.
 A critique of the cross-lagged panel model
 (2015) Psychological Methods, 20 (1), pp. 102-116.
- Harrison, S.

How boredom can be a force for bad or good (2021) *BBC Worklife*, (February 17)

- Havermans, R. C., Vancleef, L., Kalamatianos, A., Nederkoorn, C.
 Eating and inflicting pain out of boredom
 (2015) Appetite, 85, pp. 52-57.
- Kılıç, A., Tilburg, W. A., Igou, E. R.
 Risk taking increases under boredom
 (2020) Journal of Behavioral Decision Making, 33 (3), pp. 257-269.
- Liang, Z., Zhao, Q., Zhou, Z., Yu, Q., Li, S., Chen, S.

 The effect of "novelty input" and "novelty output" on boredom during home quarantine in the COVID-19 pandemic: The moderating effects of Trait creativity (2020) Frontiers in Psychology, 11, p. 601548.
- Lin, Y., Westgate, E. C.

The origins of boredom

The Oxford handbook of evolution and the emotions, (in press) L. Al-Shawif & T. Shackelford (Eds), Oxford University Press

. Martarelli, C. S., Wolff, W.

Too bored to bother? Boredom as a potential threat to the efficacy of pandemic containment measures

(2020) Humanities & Social Sciences Communications, 7 (1), p. 28.

- Miao, P., Li, X., Xie, X.
 Hard to bear: State boredom increases financial risk taking (2020) Social Psychology, 51 (3), pp. 157-170.
- Milyavskaya, M., Inzlicht, M., Johnson, T., Larson, M. J.
 Reward sensitivity following boredom and cognitive effort: A highpowered neurophysiological investigation
 (2019) Neuropsychologia, 123, pp. 159-168.
- Moynihan, A. B., Igou, E. R., van Tilburg, W. A.
 Boredom increases impulsiveness
 (2017) Social Psychology, 48 (5), pp. 293-309.
- Nederkoorn, C., Vancleef, L., Wilkenhöner, A., Claes, L., Havermans, R. C.
 Self-inflicted pain out of boredom

(2016) Psychiatry Research, 237, pp. 127-132.

- Nisbett, R. E., Wilson, T. D.
 Telling more than we can know: Verbal reports on mental processes (1977) Psychological Review, 84 (3), pp. 231-259.
- Olaigbe, T. A., Fagbenro, D. A., Adebisi, K. S.
 Predictive role of boredom proneness and self-efficacy on perceived stress among civil servants working from home during covid-19 lockdown
 (2021) The International Journal of Indian Psychology, 9 (1), pp. 322-328.
- Orth, U., Clark, D. A., Donnellan, M. B., Robins, R. W.
 Testing prospective effects in longitudinal research: Comparing seven competing cross-lagged models
 (2021) Journal of Personality and Social Psychology, 120 (4), pp. 1013-1034.
- Pfattheicher, S., Lazarevic, L. B., Westgate, E. C., Schindler, S.
 On the relation of boredom and sadistic aggression
 (2021) Journal of Personality and Social Psychology, 121 (3), pp. 573-600.
- Robinson, M. D., Clore, G. L.
 Belief and feeling: Evidence for an accessibility model of emotional self-report (2002) Psychological Bulletin, 128 (6), pp. 934-960.
- Russell, J. A.
 A circumplex model of affect
 (1980) Journal of Personality and Social Psychology, 39 (6), pp. 1161-1178.
- Smith, M. (2020) *Britain's mood in 2020*,
- Van Tilburg, W. A., Igou, E. R.
 On the meaningfulness of behavior: An expectancy x value approach (2013) Motivation and Emotion, 37 (3), pp. 373-388.
- van Tilburg, W. A., Igou, E. R.
 Boredom begs to differ: Differentiation from other negative emotions (2017) Emotion, 17 (2), pp. 309-322.
- Waterschoot, J., Van der Kaap-Deeder, J., Morbée, S., Soenens, B., Vansteenkiste, M.
 "How to unlock myself from boredom?" The role of mindfulness and a dual awareness-and action-oriented pathway during the COVID-19 lockdown (2021) Personality and Individual Differences, 175, p. 110729.
- Westgate, E. C.
 Why boredom is interesting
 (2020) Current Directions in Psychological Science, 29 (1), pp. 33-40.
- Westgate, E. C., Steidle, B.
 Lost by definition: Why boredom matters for psychology and society (2020) Social and Personality Psychology Compass, 14 (11), p. e12562.
- Westgate, E. C., Wilson, T. D.
 Boring thoughts and bored minds: The MAC model of boredom and cognitive engagement
 (2018) Psychological Review, 125 (5), pp. 689-713.
- Wilson, T. D., Reinhard, D. A., Westgate, E. C., Gilbert, D. T., Ellerbeck, N., Hahn, C., Brown, C. L., Shaked, A.
 Social psychology. Just think: The challenges of the disengaged mind (2014) Science, 345 (6192), pp. 75-77.

- Wojtowicz, Z., Chater, N., Loewenstein, G.
 (2019) Boredom and flow: An opportunity cost theory of attention-directing motivational states,
- Wolff, W., Martarelli, C. S., Schüler, J., Bieleke, M.
 High boredom proneness and low trait self-control impair adherence to social distancing guidelines during the COVID-19 pandemic (2020) International Journal of Environmental Research and Public Health, 17 (15), p. 5420.
- Wood, V.
 (2020) The Independent,
 (July 30). Government delayed lockdown over fears of 'behavioural fatigue'-but their own scientists don't agree it exists
- (2014) World development indicators,
- (2020) Global health workforce statistics,
- Yakobi, O., Danckert, J.
 Boredom proneness is associated with noisy decision-making, not risk-taking (2021) Experimental Brain Research, 239 (6), pp. 1807-1825.
- Yan, L., Gan, Y., Ding, X., Wu, J., Duan, H.
 The relationship between perceived stress and emotional distress during the COVID-19 outbreak: Effects of boredom proneness and coping style (2021) *Journal of Anxiety Disorders*, 77, p. 102328.
- Yarkoni, T., Westfall, J.
 Choosing prediction over explanation in psychology: Lessons from machine learning
 (2017) Perspectives on Psychological Science, 12 (6), pp. 1100-1122.
- Zuckerman, M.
 Dimensions of sensation seeking
 (1971) Journal of Consulting and Clinical Psychology, 36 (1), pp. 45-52.
- Zuckerman, M.
 (1979) Sensation seeking: Beyond the optimal level of arousal, Lawrence Erlbaum

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