Mandemic? The role of masculinity and risk-taking in the age of COVID-19

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Background

Globally, more men than women have died from COVID-19.

In the U.S., men accounted for 61% of ICU admissions and 55% of total deaths, as of April (Global Health 50/50 et al., 2021).

There are 13 deaths among confirmed cases in men for every 10 in women (Global Health 50/50 et al., 2021).

Although men have been impacted more severely, they have expressed less concern and engaged in fewer COVID-19 safeguards compared to women (Brooks & Saad, 2020).

Hypothesis & Approach

Masculinity could relate to precautionary behaviors through two pathways (Figure 1):

1) Men who take risks in social status and mating effort ("show-off") will be *less* likely to engage in safety measures that hinder their ability to signal dominance, consistent with prior research, versus
2) Men who take risks in resource acquisition and kin protection ("valiant") will be *more* likely to engage in preventative behaviors that serve to enhance well-being

Data were collected from 212 male Amazon Mechanical Turk participants in the Fall of 2020 (mean age = 36), who were mostly White, liberal, employed, educated, and middle-class with no children. Half of the respondents were in long-term relationships.

Participants completed demographic questions, the Evolutionary Domain-Specific Risk Scale (Wilke et al., 2014) ("show-off" α = 0.93 & "valiant" α = 0.84), a measure of masculinity (Bem, 1981) (α = 0.91), and reported frequency of engaging in four CDC-recommended protective behaviors (wearing face masks, covering coughs and sneezes, practicing social distancing, avoiding crowding areas) (α = 0.84).

References

1. Bem, S. L. (1981). Bem sex role inventory. Journal of personality and social psychology.
2. Brooks, D.J. & Saad, L. (2020, October 7). The COVID-19 Responses of Men vs. Women. Gallup.com. https://news.gallup.com/opinion/gallup/321698/covid-responses-men-women.aspx
3. Global Health 50/50, International Center for Research on Women, & African Population and Health Research Center. (2021, April 27). The COVID-19 Sex-Disaggregated Data Tracker. The Sex, Gender, and COVID-19 Project. https://globalhealth5050.org/the-sex-gender-and-covid-19-project/the-data-tracker/?explore=country&country=USA#search
4. Wilke, A., Sherman, A., Curdt, B., Mondal, S., Fitzgerald, C., & Kruger, D. J. (2014). An evolutionary domain-specific risk scale. Evolutionary Behavioral Sciences, 8(3), 123.

Figure 1. Show-off versus Valiant Risk-Taking

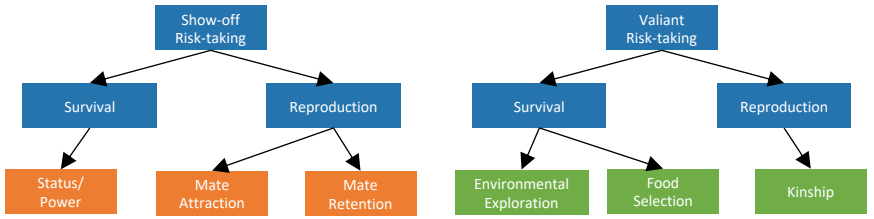
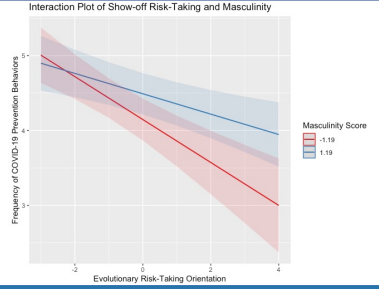


Table 1. Correlations and Multiple Linear Regression Results from Show-off and Valiant Models of COVID-19 Prevention Behaviors

		Show-off			Valiant		
Variables	*r*	*b*	β	*p*	*b*	β	*p*
Masculinity	-0.10	0.14	0.22**	0.006	0.08	0.12	0.20
"Show-off" Risk-taking Propensity	-0.39***	-0.21	-0.44***	<.0001	-	-	-
"Valiant" Risk-taking Propensity	-0.14*	-	-	-	-0.07	-0.12	0.19
Interaction between Masculinity & Risk-Taking Propensity	-	0.06	0.16*	0.03	0.04	0.10	0.17

Figure 2. Interaction Plot of Show-off Risk-Taking and Masculinity



Acknowledgments

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Conclusions

Correlations showed that masculinity was not significantly associated with preventative behaviors (Table 1). There was a significant negative correlation between "show-off" risk-taking and safety measures ($r(207) = -.39$, $p < .0001$). "Valiant" risk-taking was also negatively correlated with precautions ($r(207) = -.14$, $p = .04$).

Multiple linear regression analyses indicated that there was little support for the "valiant" male pathway (Table 1). Instead, men were significantly *less* self-protective if they were *more* "show-off" risk-takers ($b = -.21$, $\beta = -.44$, $t(193) = -5.38$, $p < .0001$) and the impact of "show-off" risk-taking on health behaviors significantly interacted with masculinity ($R^2 = .23$, $F(1, 193) = 4.98$, $p = .03$, $f^2 = 0.03$).

For example, at high levels of "show-off" propensity, less masculine men were *less* protective compared to more masculine men (Figure 2). This effect suggests that the lack of engaging in COVID-19 precautions could be driven by less masculine men's desire to boost their perceived invulnerability to disease, thereby attempting to signal dominance and toughness to potential mates.

Although the interaction effect between masculinity and "show-off" risk-taking orientation was relatively small, this study reveals the importance of understanding both proximate and ultimate explanations for gendered health behaviors among men.

Limitations & Future Directions

This cross-sectional study does not allow for causal conclusions.

However, the patterns from the "show-off" pathway are still present with and without possible confounding demographic variables. To follow-up, we are considering another wave of data collection from the same participants to assess any changes over time and hoping to replicate these findings with a larger, more diverse sample.

Future research should investigate the role of mating strategy in the context of competitive mating environments under disease threat. Additional work could also examine the extent to which costly behaviors associated with infectious diseases are reliable signals of mate quality.

Further Information

Please feel free to reach out to s.peng@ucla.edu if you have any questions or comments.