Over the past three years, there have been countless headlines and news stories surrounding the COVID-19 pandemic—many of these being politically charged. COVID-19 has not only affected our physical health, but also our psychological health. With the current political climate, we were curious about the influence that political values held in regard to COVID-19 stress versus general health stress and how that influences collective self-esteem.

Looking at prior findings, Hogg (2003) demonstrated that beliefs influence behaviors, often done to attain a positive social identity. As said by Livingstone (2020), "Attempts to change norms can meet with resistance by group members who identify strongly with the group, and see existing norms as important to ingroup identity" (p.11). He goes on to explain that when people experience changes in behavioral norms resulting from events such as COVID-19, people are more likely to follow the new set of behaviors if they affirm their sense of identity (Livingstone, 2020). De Cremer, Vugt, and Sharp (1999) stated that collective self-esteem is an essential measure of how strongly people identify with the groups that they belong to. De Cremer and colleagues (1999) explored the relationship between gender and collective self-esteem (CSE) by asking participants to rate the level of self-esteem that comes from group memberships. They found that women were higher in CSE and that those high in CSE were also more likely to perceive their in-group members as competent and fair (i.e., in-group distortions) when faced with a threat (De Cremer et al. 1999). Their results are further evidence that threats to collective self-esteem can result in negative evaluations of others.

Crocker and Park (2003) explained that when faced with threats to their identity, people are more likely to respond to others in a hostile way. A common way to cope with potential threats, in this case COVID-19, is to be dismissive of them. They go on to say that when faced with these threats, it may result in low self-esteem. People often restore their self-esteem by

negatively evaluating groups with opposing views. For example, when people are rejected from a social group, they may claim that they did not want to be a part of the group anyway. When individuals are faced with a threat to their identity, they may take part in the derogation of others. Low self-esteem can lead to undesirable behaviors, such as stereotyping.

Houston and Andreopoulou (2003) looked more closely at self-esteem and Social Identity Theory. Social identity can be enhanced through discrimination of other groups, often elevating the self-esteem of those making the negative evaluations. Individuals are concerned with self-protection. This means that if there is something that can be done to increase self-esteem and social identity, individuals are highly motivated to do so in order to protect themselves. As stated, this often results in showing bias or dismissing potential threats.

More recently, Collins, Mandel, and Schywiola (2021) studied how political identity impacts people's level of concern regarding COVID-19. They found that those who identified as Democrats experienced more distress surrounding COVID-19. Our research examined the relationships between COVID-19 stress and collective self-esteem as well as in-group bias.

Drawing on past research, this study sought to investigate several questions surrounding identity, in-group bias, and the COVID-19 pandemic. This is the first study to apply Social Identity Theory to the politically divisive COVID-19 pandemic. According to Social Identity Theory, when faced with a stressor, politically divisive issues such as COVID-19 would decrease our collective self-esteem or strength in group identity. We had three hypotheses:

1. It was predicted that collective self-esteem would be lower in the COVID-19 condition as opposed to the health condition.

2. It was predicted that in-group bias would be higher in the COVID-19 condition as opposed to the health condition.

3. Finally, political conservatism would be negatively correlated with perception of COVID-19 stress.

Method

Participants

We recruited a total of 70 participants: 23 from social media and 47 from the Lindenwood Participant Pool. The mean age of participants was 26.7, with a standard deviation of 12.09. The majority of participants were white (70%). Of our participants, 67% identified as female, 24% as male, and 9% preferred not to say or were missing. In addition, 69% of participants identified as heterosexual. When asked about political preferences, the majority of those recruited (71%) identified as Democrat or Democratic leaning. The remaining 20 participants (29%) identified as Republican or Republican leaning.

Materials and Procedure

COVID-19 vs. Health Stress

Participants were randomly assigned to either a COVID-19 condition (53%) or a health (Control) condition (47%). In the COVID-19 condition, participants reflected on how much stress was incurred from ten specific COVID-19 factors (e.g., income security, risk of infection, inability to travel, loss of income, quarantining) (adapted from Park et. al., 2021). In the Health condition, participants reflected on stress from general health behaviors (e.g., exercising, maintaining a healthy diet, going to the doctor, getting enough sleep) (adapted from Hampton et al., 2019). Both groups rated their stress levels on a 5-point Likert scale ranging from "*Not at All Stressful*" to "*Extremely Stressful.*"

Collective Self-Esteem

Participants then completed the Collective Self-Esteem (CSE) Scale (Luhtanen &

Crocker, 1992), which included 16 questions (e.g.,"I am a worthy member of the social groups I

belong to" and "The social groups I belong to are an important reflection of who I am.") on a 7-

point Likert scale ranging from "*Strongly Disagree*" to "*Strongly Agree*." Past research (De

Cremer, 2001) indicates a Chronbach's alpha was α = .70 of the CSE scale and for this study it

was α = .87.

Political Values

The Protestant Work Ethic Scale (PWE) (Mirels & Garrett, 1971) is a proxy measure of

conservatism. The scale includes 19 questions on a 7-point Likert Scale ranging from "*Strongly*

Disagree" to "*Strongly Agree*." Questions included assessing if hard work guarantees success, if

a distaste for work reflects weakness of character, and if leisure time makes life more

meaningful. Katz and Hass (1988) report reliability of α = .76 of the PWE Scale (α = .73

presently). We also assessed levels of political conservatism on a 100-point sliding scale as well

as how important one's political values were to their identity.

In-group Bias

Participants were asked to rate both Republicans and Democrats on ten traits, such as

intelligence, work-ethic, and open-mindedness on a 7-point Likert Scale (modeled after Houston

& Andreopoulou, 2003). In-group bias was calculated by subtracting in-group from out-group

ratings on the ten traits. Lastly, participants completed basic demographics questions.

Results

We initially compared our samples to see if there were differences based on recruitment

method. There were two major differences. First, the social media sample was significantly older

than the student population (Mean age 38 v 22 years old, $p < .001$). Yet another difference was that the student sample experienced significantly more COVID-19 stress ($t(34)= -1.68$, $p = .05$). We ran all analyses both separately and combined and there were no other differences, thus the following analyses includes all participants.

COVID-19 and health stressors showed varying levels of stress. As shown in Table 1, within the COVID-19 condition, quarantine/social distancing, changes to education routines, and risk of a love one being infected resulted in the highest stress levels. In the health condition, the highest stress levels arose from limiting intake of foods such as sugar and watching weight (see Table 2).

In support of the first hypothesis, there was a slight difference in collective self-esteem, such that the participants who thought about health stress ($M = 83.7$) had a higher level of CSE than those who thought about COVID stress ($M = 79.3$), ($t(66) = -1.38$, $p =.08$). There were no differences in Protestant Work Ethic between the Health and COVID conditions.

To test the second hypothesis, we created groups based on political values and compared in-group bias. There were no significant differences in In-Group Bias between the COVID-19 and Health stress conditions ($p's > .16$). However, overall and within each condition, in-group bias was high between Democrats and Republicans. For example, across conditions, those that identified as Republican or Republican leaning scored highly on Republican In-Group Bias ($t(63) = 5.9$, $p < .001$, $d = .25$). The exact same pattern held for Democrats. Within each condition, the effect sizes were higher (COVID condition, $d = 1.7$ and Health $d = 1.8$), suggesting that thinking about specific stress may have enhanced in-group bias. Cumulatively, this data demonstrates that there is significant in-group bias between political parties.

Consistent with past research, Republicans were significantly higher in Protestant Work Ethic ($t(63) = 3.23$, $p < .001$). This means that as we expected, Republicans were higher in conservatism. This finding is also evidence of construct validity. We also found a significant correlation ($r = -.42$, $p < .001$) between Protestant Work Ethic and the personal importance of political values. Political values were found to be less important to one's identity for those that were higher in conservatism.

Regarding our third hypothesis, we found that two of the ten COVID-19 stressors were negatively correlated with participants' level of political conservativism. These two stressors were the risk of a loved one becoming infected ($r = -.32$, $p = .06$) and uncertainty about length of quarantine and/or social distancing ($r = -.32$, $p = .06$). We did not find any differences between political values and general health stressors.

Discussion

As predicted, we found evidence that collective self-esteem was lower when participants were primed to think about COVID-19. When considering general health stressors, the level of collective self-esteem was higher. Lower collective self-esteem means participants were less firm in their group identities. This is evidence supporting our first hypothesis.

When looking at our second hypothesis, we found evidence of significant in-group bias across all groups. Construct validity was shown through the fact that those who identified as Republican or Republican leaning scored higher in PWE. It was also found that political values were less important to an individual's sense of self for those who scored higher in conservatism.

Our third hypothesis stated that political conservatism would be negatively correlated with the amount of stress incurred from COVID-19. As demonstrated above, two of the ten

COVID-19 stressors were negatively correlated with the level of political conservatism. As expected, there were no differences regarding conservatism and general health stressors.

These findings are evidence of Social Identity Theory. As evident through our first hypothesis, it supports the theory that when threatened with a politically divisive issue such as COVID-19, it may decrease our sense of collective self-esteem. This means that our strength in our group identity would be called into question and potentially lowered.

In conclusion, even after being primed with one of our two conditions, COVID-19 stress did not appear to be majorly divisive. It is important to consider that our data was collected in February 2022. At this point in time, it could be that COVID-19 stress had significantly decreased since the beginning or height of the pandemic. However, future research may look at the lasting impact that COVID-19 holds on individuals' political values as well as collective self-esteem in regard to these groups. As we think about health interventions and health messaging, we need to consider the political values and group identity that might affect the reception of such interventions. In addition, this study further demonstrates that the effects of COVID-19 were not only physical, but they extend deeper into our group identities and psychological well-being.
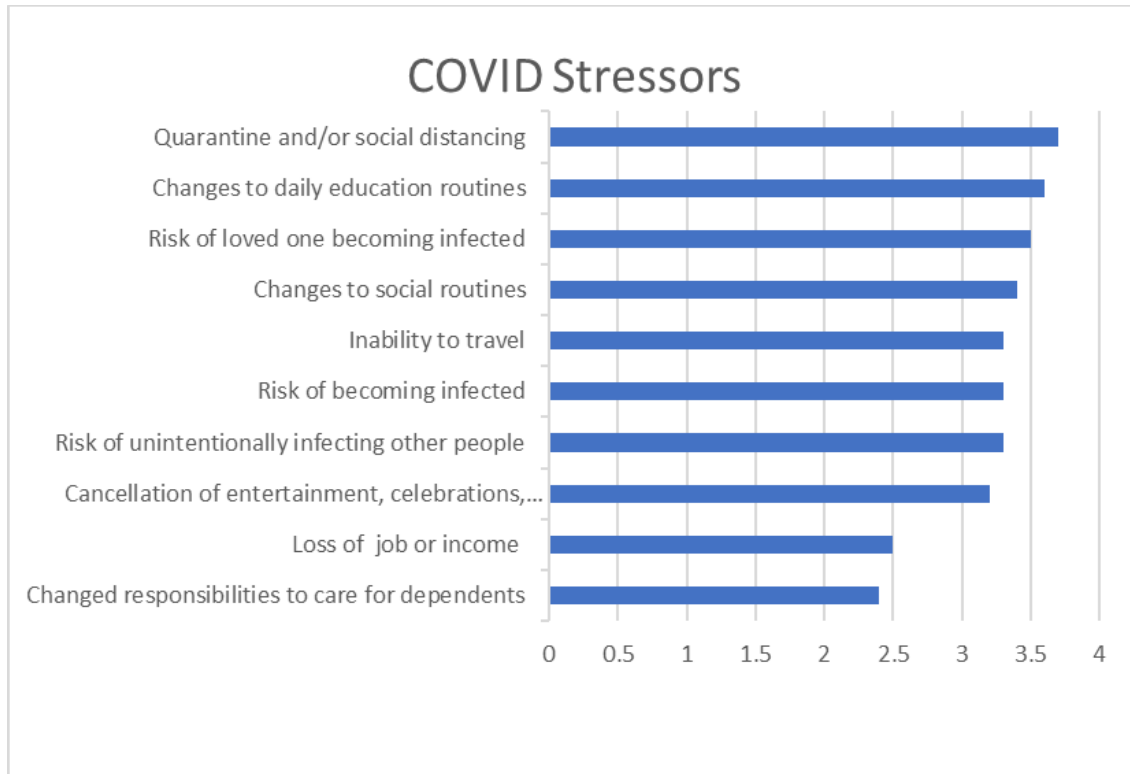
References

Collins, R.N., Mandel, D. R., & Schywiola, S.S. (2021). Political Identity over personal impact: Early U.S. reactions to the COVID-19 pandemic. *Frontiers in Psychology, 12*, 1-18. https://doi.org/10.3389/fpsyg.2021.607639

Crocker, J., & Park, L.E. (2003). Seeking self-esteem: Construction, maintenance and protection of self-worth. In Leary & Tagney (Eds.) *Handbook of Self and Identity*, 291-313. Guilford Press.

De Cremer, D., Vugt, M., & Sharp, J. (1999). Effect of collective self-esteem on ingroup evaluations. *Journal of Social Psychology, 139*(4), 530-532. https://doi.org/10.1080/00224549909598412

De Cremer, D. (2001). Relations of self-esteem concerns, group identification, and self-stereotyping to in-group favoritism. *The Journal of Social Psychology, 141*(3), 389-400. https://doi.org/10.1080/00224540109600560

Hampson, S. E., Edmonds, G. W., & Goldberg, L. R. (2019). The Health Behavior Checklist: Factor structure in community samples and validity of a revised good health practices scale. *Journal of Health Psychology, 24*(8), 1103-1109. https://doi.org/10.1177/1359105316687629

Hogg, M.A. (2003). Social Identity. In Leary & Tagney (Eds.) *Handbook of Self and Identity*, 462-474. Guilford Press.

Houston, D. M., & Andreopoulou, A. (2003). Tests of both corollaries of social identity theory's self-esteem hypothesis in real group settings. *The British Journal of Social Psychology, 42,* 357-370. https://dx.doi.org/10.1348/014466603322438206

Katz, I., & Hass, R.G., (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal of Personality and Social Psychology, 55*, 893-905. https://doi.org/10.1037/0022-3514.55.6.893

Livingstone, A. (2020). Covid-19 through a social psychology lens. *Social Psychological Review, 22(1)*, 10-12. https://shop.bps.org.uk/social-psychological-review-vol-22-no-1-spring-2020

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18*(3), 302-318. https://doi.org/10.1177/0146167292183006

Mirels, H., & Garrett, J. (1971). The Protestant ethic as a personality variable. *Journal of Consulting and Clinical Psychology, 36,* 40-44. https://doi.org/10.1037/h0030477

Park, C. L., Finkelstein-Fox, L., Russell, B.S., Fendrich, M., Hutchison, M., & Becker, J. (2021). Americans' distress early in the COVID-19 pandemic: Protective resources and coping strategies. *Psychological Trauma: Theory, Research, Practice, and Policy, 13*(4), 422-431. doi: https://dx.doi.org/10.1037/tra0000931

Table 1

COVID Stressors

Stressor	Value
Quarantine and/or social distancing	~3.7
Changes to daily education routines	~3.6
Risk of loved one becoming infected	~3.5
Changes to social routines	~3.4
Inability to travel	~3.3
Risk of becoming infected	~3.3
Risk of unintentionally infecting other people	~3.3
Cancellation of entertainment, celebrations,…	~3.2
Loss of job or income	~2.5
Changed responsibilities to care for dependents	~2.4

Table 2