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The Perceived Impact of the 2016 Election: A Mediation Model Predicting Health Outcomes

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Abstract

The present study examined the relationship between the self-reported personal impact of the election of President Donald J. Trump, as measured by the Personal Impact of the Election Scale (PIES), and physical and mental health. A sample of 299 MTurk Amazon workers completed an online survey, including measures of the perceived personal impact of the 2016 presidential election, thought suppression, and mental and physical health. A mediation model was tested, with thought suppression included as a mediator of the relationship between the PIES and physical and mental health. Results indicated that thought suppression partially mediated the relationship between the PIES and physical and mental health. Specifically, the perceived impact of the election was positively associated with thought suppression (β = .51, SE = .01, p < .001), which was in turn negatively associated with physical health (β = -.25, SE = .44, p < .001) and mental health (β = -.50, SE = .47, p < .001). The results of this study suggest that perceptions of this sociopolitical event were related to the health of United States citizens and show a need for large-scale interventions to address this relationship, especially for those who feel threatened based on their ethnic or religious background.

Keywords: perceived health, thought suppression, sociopolitical events, election, mediation

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Perceived Impact of Sociopolitical Events

Sociopolitical events, such as elections, can have widespread implications for everyday citizens, especially events that lead to increases in perceived threat due to group membership. Such concerns could include shame related to membership in a group, worries that others may act in a threatening way, or a sense of dread. Increases in perceived threat may contribute to changes in behavior to avoid such threats, including changing appearance to prevent discrimination, changing daily routines to avoid threats, or decreasing productivity at work. For example, Khan (2014) examined the impact of 9/11 on the everyday experiences of Muslim Americans. After this event, Khan found that some Muslim-Americans reported that they felt threatened or ashamed because of their ethnic/religious background, thought people were looking at them suspiciously, changed their daily routine or appearance because of fear of violence or discrimination, and felt they needed to prove that they were "American." These

changes are not conceptualized as symptomatic in nature, but instead as responses to an environment that is perceived as threatening. Such perceived threats based on group membership, especially environments in which people are persistently exposed to group-based discrimination, may contribute to poor mental and physical health outcomes (Pascoe & Smart Richman, 2009). Although the study by Khan did not relate the perceived impact of 9/11 to health, increases in perceived threat to Muslim Americans likely were related to increases in stress.

Similarly, the campaign and resulting election of U.S. President Donald J. Trump on November 9, 2016 was a sociopolitical event that likely increased perceived threat based on social group membership. The Trump campaign activated in-group and out-group biases by distributing demonstrably false information targeting immigrants, women, and various racial and ethnic groups within the United States (Niehoff & Shah, 2017). This political strategy appeared to garner substantial support for Trump when he was running for president, as White individuals who strongly identified with their Whiteness tended to express stronger support for him, especially if they perceived a threat to their group status (Major, Blodorn, & Blascovich, 2018). In addition, the activation of attitudes about race and gender were more strongly associated with support for candidates Donald Trump and Hillary Clinton than for other candidates of several previous elections (Schaffner, MacWilliams, & Nteta, 2018; Sides, Tesler, & Vavreck, 2017; Valentino, Wayne, & Oceno, 2018). In spite of this, few studies have looked into relationships between perceived impact of contentious elections and the mental and physical health of United States citizens, as well as the ways that coping strategies may play a role in such relationships.

The Relationship Between Sociopolitical Events and Mental and Physical Health

The perceived impact of sociopolitical events, including elections, is related to the mental health of citizens. Veldhuis and colleagues (2018) examined ways that sexual minority women and gender minorities perceived the outcome of the 2016 election. Participants who did not identify as exclusively heterosexual were asked questions about their level of concern about the election and to describe ways the election affected them personally. Researchers found several themes in responses, including stigma-related concerns, risk of being "out" or visible, worries about national and global harm, fear for marginalized groups, fear of a rise in hate speech and violence, and concerns about loss of progress and rights. Additionally, Abu-Ras, Suarez, and Abu-Bader (2018) examined the perceived impact of Islamophobia during the 2016 election. The authors found that, among Muslim Americans, greater perceived impact of Islamophobia was associated with worse quality of life and greater stress.

One gap in the existing literature is that these studies did not examine the impact of political events on physical health. However, a meta-analysis by Pascoe and Smart Richman (2009) of 134 studies conducted between 1986 and 2007 showed that perceived discrimination had a significant negative effect on both mental and physical health. Although the election itself is a single, identifiable sociopolitical event, rather than a conglomeration of discrimination experiences such as those we would typically see in research, the 2016 Trump election campaign involved several promises and statements that were perceived as a threat to the rights of various marginalized groups in the United States. Frost and Fingerhut (2016) evaluated the well-being of 62 same-sex couples who were exposed to negative campaign messages during the 2012 general election in Maine, Maryland, Minnesota, and Washington, which often included promises to prevent or limit marriage equality for same-sex couples. The authors found that participants tended to report greater negative affect and lower positive affect with greater exposure to negative campaign ads. Together, these studies suggest that it is important to examine both mental and physical health outcomes when examining discriminatory events.



Thought Suppression and Responses to Election Results

Chronic thought suppression may be a mediator for the relationship between the negative perceived impact of the election and mental and physical health. Thought suppression is a coping method used to get rid of or prevent unwanted thoughts (Wenzlaff & Wegner, 2000). Two meta-analyses have indicated that thought suppression tends to be an effective short-term strategy compared to control groups but produces a paradoxical increase in unwanted thoughts when the strategy is no longer actively implemented (Abramowitz, Tolin, & Street, 2001; Magee, Harden, & Teachman, 2012). As a long-term coping strategy for distress related to the election, chronic thought suppression could lead to negative mental and physical health outcomes. For example, Wegner and Zanakos (1994) found a relationship between chronic thought suppression and depression, anxiety, and obsessive thoughts. These findings led the authors to conclude that efforts directed at suppressing a thought simultaneously activate the thought and paradoxically can intensify distress.

Seligowski, Rogers, and Orcutt (2016) investigated the relationship between thought suppression and mental well-being among an online sample of individuals who met Criterion A (being exposed to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence) in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* for Posttraumatic Stress Disorder (PTSD). The authors found that in this sample, thought suppression was related to PTSD symptoms, including avoidance, alterations of arousal, and negative alterations in mood. While the authors did not suggest that exposure to the trauma increases thought suppression, the findings did show that, for people exposed to trauma, thought suppression is related to more PTSD symptoms. Similarly, those with greater perceived impact of the election may engage in thought suppression in order to alleviate distress.

Research also suggests that thought suppression is related to physical health. McGreevy, Bonanno, and D'Andrea (2015) found that, among a group of women who habitually used thought suppression, those who reflected on their own emotion-, sensation-, or self-focused experiences exhibited higher respiratory sinus arrhythmia (RSA) than those who were assigned a distraction task. The authors noted that increases in RSA was used as an indicator of more flexible physiological and cognitive responding. These findings support the premise that, for women who often use thought suppression, focusing on personal experiences instead of avoiding thoughts was related to greater respiratory sinus arrhythmia, indicating better health. Finally, Erskine, Georgiou, and Kvavilashvili (2010) examined the behavioral rebound effect of thought suppression in relation to smoking behaviors. The authors asked a group of smokers to record stress levels and cigarette intake. During the second week of recording stress and cigarette intake, the authors asked one group to suppress thoughts of smoking, and this thought suppression group increased smoking in the following week in comparison to the control group. This increase in smoking was hypothesized to be a result of the paradoxical increase in unwanted smoking-related thoughts following thought suppression.

Given prior research findings, we hypothesized that individuals who report being more negatively impacted by the 2016 presidential election would be more likely to engage in chronic thought suppression as a coping mechanism, which, in turn, would be associated with lower levels of mental and physical health.

The Current Study

The aim of the current study was to explore associations among the perceived impact of the 2016 presidential election, thought suppression, and mental and physical health. Thought suppression was conceptualized as a mediator between perceived impact of the election and health. Two hypotheses were tested:



- **1.** Higher levels of perceived negative impact of the election will be significantly associated with lower levels of physical and mental health.
- 2. Higher levels of thought suppression will mediate the relationship between perceived impact of the election and physical and mental health. Specifically, higher levels of perceived negative impact of the election will be associated with higher levels of thought suppression, which will in turn be associated with lower levels of physical and mental health.

Method

Participants

All study procedures were approved by an Institutional Review Board and participants were treated in accordance with the APA ethical principles. Potential participants (n = 425) were recruited through MTurk Amazon accounts by inviting them to take part in a study of reactions to the 2016 presidential election. To be included in the study, participants had to 1) be at least 18 years of age, 2) be able to read a questionnaire in English, 3) have access the internet and be able to complete an online questionnaire, and 4) reside in the United States.

Of the 425 participants who expressed an interest in the study, 299 completed all measures and were included in the final sample. Participants answered two validity items to assess for random or inattentive responding styles. Of the 299 participants included in this study, 298 (> 99%) answered the first question ("Please select "A"") correctly, while 224 (75%) answered the second question ("Please select almost always true") correctly. It is important to note that 59 (20%) of participants answered "always true," and may have been confused by the wording of that particular question.

Demographic information is summarized in Table 1. Participants were a mean age of about 37 years (M = 37.58, SD = 12.81). Most participants were White (81.94%) and heterosexual (90.30%), and about half of participants identified as male (51.20%) and Christian (49.20%). According to the 2010 United States Census, our sample had a lower percentage of Black (6.02%) and Hispanic/Latino participants (5.35%) relative to the U.S. population (12.6% and 16.3% respectively; U.S. Census Bureau, 2011). Additionally, this sample had a higher number of participants who identified as Democrat (39.10%) and a lower number of participants who identified as Independent (29.10%) and Republican (23.70%) compared with national data reported by Gallup, Inc. (n.d.) in May of 2017 (28% Democrat, 40% Independent, 29% Republican). Over a third of participants reported voting for Hillary Rodham Clinton in the 2016 election (41.80%), followed by Donald J. Trump (31.40%).



Table 1

Participant Demographics

Variable	N	%
Race		
White	245	81.94
Black/African American	18	6.02
Asian	18	6.02
Hispanic/Latino	16	5.35
Hawaiian/Pacific Islander	1	0.33
Native American/Alaska Native	3	1.00
Other	3	1.00
Gender		
Male	153	51.20
Female	142	47.50
Transgender	2	0.70
Sexual Orientation		
Heterosexual	270	90.30
Homosexual	6	2.00
Bisexual	16	5.40
Asexual	5	1.70
Not Listed	1	0.30
Religion		
Atheist	64	21.40
Agnostic	45	15.10
Christianity	147	49.20
Judaism	6	2.00
Islam	3	1.00
Buddhism	5	1.70
Hinduism	2	0.70
Other	26	8.70
Political Party		
Democrat	117	39.10
Republican	71	23.70
Independent	87	29.10
Green Party	3	1.00
Libertarian	10	3.30
Other	10	3.30
Vote		
Donald Trump	94	31.40
Hillary Clinton	125	41.80
Jill Stein	7	2.30
Gary Johnson	19	6.40
Did not vote	46	15.40
Other	7	2.30



Measures

Personal Impact of the Election

The Personal Impact of the Election (PIES; Waite et al., 2019) is a 12-item measure adapted from the Personal Impact of 9/11 scale developed by Khan (2014). In completing the PIES, participants were asked to indicate to what degree they agreed or disagreed with statements assessing changes in social emotions, emotional distress, work, and political engagement after the election. Items (e.g., "I feel the need to "prove" I am an "American" to others.") were rated on a 5-point Likert scale, where 1 indicated Strongly Disagree and 5 indicated Strongly Agree. In the current study, the PIES has high internal consistency (coefficient α = .92).

White Bear Suppression Inventory

The White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994) is a 15-item, unidimensional measure of thought suppression. On the WBSI participants indicated how much they agreed or disagreed with each item on a 5-point Likert scale, where 1 indicated *Strongly Agree* and 5 indicated *Strongly Disagree*. Because the WBSI was included as part of a larger dataset including multiple surveys, the WBSI was cut to four items for the sake of brevity and to reduce participant fatigue. An abbreviated four-item measure was created for this study by selecting items with the greatest factor loadings as determined by a review of the literature (Luciano et al., 2006). Items included, "I wish I could stop thinking of certain things," "There are thoughts that keep jumping into my head," "Sometimes I really wish I could stop thinking," and "I have thoughts that I try to avoid." In the current study, this abbreviated scale had adequate internal consistency (coefficient $\alpha = .94$). Previous research has demonstrated the validity of this measure by showing positive correlations between this measure and increased psychopathology, such as anxiety (r = .57) and depression (r = .54; Muris, Merckelbach, & Horselenberg, 1996). Given that the current study also found that this measure is related to decreased mental health (r = -.61), this demonstrates similar validity using an abbreviated version of the WBSI.

Short Form - 12

The Short Form – 12 (SF-12; Ware, Kosinski, & Keller, 1996) is a 12-item measure that provides two summary scores for physical and mental health. The summary scores are calculated so that they have a mean of 50 and a standard deviation of 10, with higher scores indicating greater subjective mental and physical health. Items include: "How much of the time during the past 4 weeks have you felt calm and peaceful?" and "During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?" In prior research, both summary scores showed adequate internal consistency (physical health $\alpha = .89$ and mental health $\alpha = .76$; Ware, Kosinski, & Keller, 1996). The SF-12 has demonstrated adequate convergent validity when compared to similar measures of physical and mental health (physical health: r > .38; Cheak-Zamora, Wyrwich, & McBride, 2009).

Demographic Variables

Demographic information collected included age, race, gender identity, and sexual orientation.

Procedures

Participants who expressed an interest in taking part in the study completed an online survey. At the beginning of the online survey, participants viewed an informed consent page that explained their rights as a participant in the study. Participants were reminded that none of the data they provided in the survey would be linked to any



personal information. They were paid \$0.75 for completing the survey. The data were collected during the month of May of 2017.

Results

Preliminary Analyses

We conducted one-way ANOVAs (race, gender identity, sexual orientation) and correlations (age) to determine whether any demographic variables were significantly related to the study outcome variables (mental health and physical health). Race was not associated with mental health, F(6, 293) = 1.27, p = .272, or physical health, F(6, 293) = 0.57, p = .757, nor was gender identity (mental health: F(3, 296) = 2.29, p = .079; physical health: F(3, 296) = 1.54, p = .205). Mental health levels varied significantly as a function of reported sexual orientation, F(3, 295) = 3.31, p = .020. Heterosexual participants rated their mental health as the highest, M = 48.03, SE = .62, followed by homosexual participants, M = 43.76, SE = 3.40, bisexual participants, M = 42.22, SE = 2.52, and asexual participants, M = 38.34, SE = 5.59. Levene's test for equality was not violated for these analyses. Levene's test was found to be violated for the analysis of sexual orientation and physical health, F(3, 295) = 4.01, p = .008; therefore, this relationship was evaluated using the Brown-Forsythe test of equality of means. Physical health levels did not vary based on sexual orientation, F(3, 19.93) = 1.80, p = .181. Age was significantly related to mental health, r = .18, p = .002, with younger participants reporting lower levels of mental health. Age was also significantly related to physical health, r = .18, p = .002, with younger participants reporting lower levels of physical health.

Demographic variables that were significantly associated with outcome variables (i.e., age and sexual orientation) were entered as covariates in the respective mediation analyses below. Due to unequal group sizes and lack of significant differences in mental health among sexual minorities, sexual orientation was dichotomized (i.e., heterosexual and non-heterosexual) for major analyses. This categorical variable was also dummy coded for mediation analyses. See Table 2 for descriptive statistics for the major study variables.

Table 2
Study Variables

Variable	М	SD
Personal Impact	31.92	13.36
Thought Suppression	10.59	4.71
Physical Health	50.19	8.17
Mental Health	47.50	10.38

Note. Personal Impact (PIES): 12 items rated on a 1-5 scale, scores range from 12-60, higher scores indicate higher impact; Thought Suppression (WBSI): 4 items rated on a 1-5 scale, scores range from 4-20, higher scores indicate higher thought suppression; Physical/Mental Health (SF-12): 12 items rated on a 1-5 scale, scores are standardized to a national norm with a mean of 50 and standard deviation of 10, with greater scores indicating better health.

Correlations among the main study variables (i.e., impact of the election, mental health, physical health, and thought suppression) were significant and in the expected directions (see Table 3).



Table 3

Correlations

Variable	Personal Impact	Physical Health	Mental Health
Physical Health	27**	-	-
Mental Health	46**	.36**	-
Thought Suppression	.54**	31**	61**

Note. n = 299.

Election Vote Analyses

Three study variables differed significantly based on vote. Those who did not vote for Trump in the 2016 election reported a greater negative impact of the election, t(296) = -3.85, p < .001, greater thought suppression, t(297) = -5.18, p < .001, and lower mental health, t(297) = 3.82, p < .001. Physical health was not significantly different between the two groups, t(297) = 0.26, p = .798. See Table 4 for descriptive statistics.

Table 4

Descriptive Statistics

	Trump	Trump (<i>n</i> = 95)		Non-Trump (<i>n</i> = 204)	
Variable	М	SD	М	SD	
Personal Impact**	27.68	13.17	33.95	13.00	
Thought Suppression**	8.44	4.45	11.34	4.53	
Physical Health	50.37	8.10	50.11	8.22	
Mental Health**	50.73	9.31	45.93	10.48	

Note. Personal Impact (PIES): 12 items rated on a 1-5 scale, scores range from 12-60, higher scores indicate higher impact; Thought Suppression (WBSI): 4 items rated on a 1-5 scale, scores range from 4-20, higher scores indicate higher thought suppression; Physical/Mental Health (SF-12): 12 items rated on a 1-5 scale, scores are standardized to a national norm with a mean of 50 and standard deviation of 10, with greater scores indicating better health.

Major Study Analyses

A power analysis was conducted to determine whether the current study was adequately powered to detect significant results if significant results were present. Using estimates of a medium effect size (.15), α -value of .025 to reduce likelihood of Type I error due to multiple statistical tests, two covariates, and two predictor and mediator variables, the study (n = 299) was found to have sufficient power of .99 (Faul, Erdfelder, Lang, & Buchner, 2007).

Using the PROCESS Macro for SPSS (Hayes, 2012), we computed mediation analyses to test our hypothesis that the perceived impact of the election would predict thought suppression, which would then predict mental and physical health. We included age as a covariate in the model predicting physical health, and both age and sexual orientation (dichotomized and dummy coded) as covariates in the model predicting mental health. We initially generated separate models based on election vote (i.e., Trump versus another candidate). However, the direc-



^{.01. &}gt; q**

^{**}p < .001.

tionality and magnitude of relationships among variables in the separate models did not differ. Therefore, our mediation analyses used the total sample rather than subsamples based on vote.

Model 1: Perceived Personal Impact of the Election Predicting Physical Health

Results of Model 1 are summarized in Figure 1. To examine our first hypothesis, that higher levels of perceived impact of the election would be associated with lower levels of physical health, we examined the total effect of the impact of the election on physical health. Our first hypothesis was supported: participants who reported a higher perceived negative impact of the election reported lower physical health after the election results (β = -.30, SE = .03, p < .001).

To examine our second hypothesis that thought suppression would mediate the association between the impact of the election and physical health, we first examined the paths between the predictor variable (impact of the election) and mediator variable (thought suppression). After controlling for age, we found that impact of the election was positively associated with thought suppression (β = .51, SE = .01, p < .001). We next examined the links between the mediator (thought suppression) and our outcome variable (physical health). Again, after controlling for age, we found that thought suppression was negatively associated with physical health (β = -.25, SE = .44, p < .001). With the inclusion of thought suppression as the mediator, the standardized beta for the direct effect in Model 1 was reduced (β = -.17, SE = .04, p = .009), suggesting partial mediation and partially supporting our second hypothesis. The final model, including both hypothesized mediators and the covariate, accounted for 14% of the variance in participants' physical health (F = 16.30, ΔR^2 = .14, p < .001).

The standardized indirect effect of the impact of the election on physical health through thought suppression was -.13 ($SE_{bootstrap} = .03$, $CI_{bootstrap} = -.20$, -.06). Because the bootstrapped confidence interval for the indirect effect did not include zero, the indirect effect is considered reliable (Field, 2013). Taken together, these results indicate that thought suppression partially accounted for the relationship between the impact of the election and physical health. Specifically, higher levels of reported impact of the election were associated with higher levels of thought suppression, which in turn were associated with lower levels of physical health.

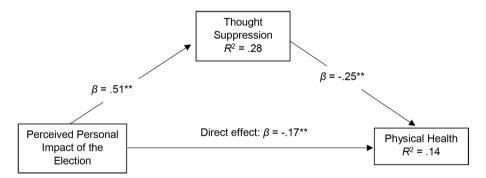


Figure 1. Perceived personal impact of the election predicting physical health.

Note. Covariate = Age; n = 298. **p < .01. Total effect: $\beta = -.30$, p < .001.

Model 2: Perceived Personal Impact of the Election Predicting Mental Health

Results of Model 2 are summarized in Figure 2. To examine our first hypothesis, that higher levels of perceived impact of the election would be associated with lower levels of mental health, we examined the total effect of the



impact of the election on mental health. Our first hypothesis was again supported: Participants who reported a higher perceived negative impact of the election reported lower mental health after the election results (β = -.42, SE = .04, p < .001).

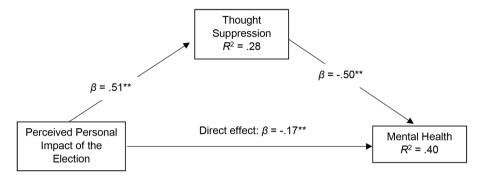


Figure 2. Perceived Personal Impact of the Election predicting Mental Health

Note. Covariates = Age, Sexual Orientation; n = 298; **p < .01. Total effect: $\beta = -.42$, p < .001.

To examine our second hypothesis that thought suppression would mediate the association between the impact of the election and mental health, we first examined the paths between the predictor variable (impact of the election) and mediator variable (thought suppression). After controlling for age and sexual orientation (dichotomized and dummy coded), we found that impact of the election was positively associated with thought suppression (β = .51, SE = .01, p < .001). We next examined the links between the mediator (thought suppression) and our outcome variable (mental health). Again, after controlling for age and sexual orientation, we found that thought suppression was negatively associated with mental health (β = -.50, SE = .47, p < .001). With the inclusion of thought suppression as the mediator, the standardized beta for the direct effect in Model 2 was reduced (β = -.17, SE = .04, p = .002), suggesting partial mediation and partially supporting our second hypothesis. The final model, including both hypothesized mediators and the covariates, accounted for 40% of the variance in participants' mental health (F = 49.40, ΔR^2 = .40, p < .001).

The standardized indirect effect of the impact of the election on mental health through thought suppression was -.25 ($SE_{bootstrap} = .04$, $CI_{bootstrap} = -.33$, -.19). Because the bootstrapped confidence interval for the indirect effect did not include zero, it is considered to be significant (Field, 2013). Taken together, these results indicate that thought suppression partially accounted for the relationship between the impact of the election and mental health. Specifically, higher levels of reported impact of the election were associated with higher levels of thought suppression, which in turn were associated with lower levels of mental health.

Discussion

The results of this study show that higher perceived negative impact from the 2016 election result was associated with lower reported physical and mental health. Additionally, those who reported they did not vote for President Donald J. Trump indicated that they experienced a greater negative impact of the election, more thought suppression, and lower mental health than those who did vote for President Trump. Further, the relationships between the perceived impact of the election and mental and physical health were mediated by thought suppression. In



other words, these results suggest that the perceived impact of the election predicted increased thought suppression, which in turn predicted decreased mental and physical health

Taken together, these findings highlight the relationship between perceived impact of the 2016 election and mental and physical health, and the role of thought suppression as a mediator of adverse mental and physical health outcomes. In the presence of perceived negative impact, thought suppression acted as a mediator on mental and physical health. This finding suggests that the relationship between an adverse event and worse health could be amplified when thought suppression is used to manage one's reaction to the event. This is consistent with research showing that thought suppression is related to adverse mental (e.g., Wegner & Zanakos, 1994; Harsányi et al., 2014) and physical health outcomes (e.g., McGreevy et al., 2015; Erskine et al., 2010). Additionally, previous research demonstrated that decreased immune function may be the mechanism through which the effects of thought suppression exert adverse impact on physical health (Petrie, Booth, & Pennebaker, 1998).

It is important to note the limitations of this study. First, the participants for this study were self-selected. As a result, the findings from these analyses may not completely generalize to the broader United States population. For example, it could be that persons who experienced greater perceived impact or who were more politically motivated tended to respond to the survey. Second, data were collected at a single time point; therefore, alternative causal directions and alternative models of relationships among variables cannot be ruled out. For example, it could be argued that higher levels of thought suppression predict greater perceived impact and poorer physical and mental health. Additionally, the impact of the election is not a one-time event (e.g., like 9/11) but rather a continuous unfolding of policies, communications, and sociopolitical actions that may be more adequately modeled as a chronic rather than acute stressor. Finally, this study relied on self-report for all predictor and outcome variables. Thus, the magnitude of relationships could be inflated by common method variance and/or affected by a common third variable such as negative affectivity or social desirability.

Notably, our results are based on a sample of Amazon's Mechanical Turk (MTurk) respondents from the United States. While MTurk samples are ethnically, geographically, and socio-economically diverse, MTurk workers overall tend to be more politically knowledgeable (Berinsky et al., 2012), more liberal, younger, more educated, have lower income (Berinsky et al., 2012; Boas et al., 2018; Levay et al., 2016), and have higher levels of social anxiety (Shapiro et al., 2013) and depressive symptoms (Arditte et al., 2016) relative to nationally representative samples. The presence of slightly higher rates of participants reporting Democratic party identification supports the presence of a small liberal self-selection bias in this sample. However, Clifford and colleagues (2015) argued that when examining values and traits related to partisanship, MTurk and nationally representative samples would be apt to yield similar results. It is also important to note that MTurk samples are considered more representative than other typically used convenience samples, including college students (Levay et al., 2016; Stewart et al., 2015). Further, while MTurk might overrepresent low-income individuals, other survey-based studies underrepresent low-income individuals (Stritch et al., 2017). Berinsky and colleagues (2012) suggested that despite the critiques brought against MTurk, studies based on MTurk samples do not portray the population as excessively different compared to nationally representative samples.

In summary, these results show that the perceived personal impact of the 2016 election was significantly associated with worse mental and physical health. Results also show the role of thought suppression as a mediator of these relationships. Future research on the impact of sociopolitical events should attempt to document health outcomes both before and after the event to establish causality. Future studies could also use multiple reporters



and/or physiological measures to supplement self-reports of predictor and outcome variables. This research can be used to support further investigation into possible large-scale interventions to address adverse events in our communities or country.

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Competing Interests

The authors have declared that no competing interests exist.

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References

- Abramowitz, J. S., Tolin, D. F., & Street, G. P. (2001). Paradoxical effects of thought suppression: A meta-analysis of controlled studies. *Clinical Psychology Review*, *21*(5), 683-703. https://doi.org/10.1016/S0272-7358(00)00057-X
- Abu-Ras, W., Suarez, Z. E., & Abu-Bader, S. (2018). Muslim Americans' safety and wellbeing in the wake of Trump: A public health and social justice crisis. *American Journal of Orthopsychiatry*, 88(5), 503-515. https://doi.org/10.1037/ort0000321
- Arditte, K. A., Çek, D., Shaw, A. M., & Timpano, K. R. (2016). The importance of assessing clinical phenomena in Mechanical Turk research. *Psychological Assessment*, *28*(6), 684-691. https://doi.org/10.1037/pas0000217
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, *20*(3), 351-368. https://doi.org/10.1093/pan/mpr057
- Boas, T. C., Christenson, D. P., & Glick, D. M. (2018). Recruiting large online samples in the United States and India: Facebook, Mechanical Turk, and Qualtrics. *Political Science Research and Methods*. Advance online publication. https://doi.org/10.1017/psrm.2018.28
- Cheak-Zamora, N. C., Wyrwich, K. W., & McBride, T. D. (2009). Reliability and validity of the SF-12v2 in the medical expenditure panel survey. *Quality of Life Research*, *18*(6), 727-735. https://doi.org/10.1007/s11136-009-9483-1
- Clifford, S., Jewell, R. M., & Waggoner, P. D. (2015). Are samples drawn from Mechanical Turk valid for research on political ideology? *Research & Politics*, *2*(4), Article 2053168015622072. https://doi.org/10.1177/2053168015622072
- Erskine, J. A. K., Georgiou, G. J., & Kvavilashvili, L. (2010). I suppress, therefore I smoke: Effects of thought suppression on smoking behavior. *Psychological Science*, *21*, 1225-1230. https://doi.org/10.1177/0956797610378687
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191. https://doi.org/10.3758/BF03193146
- Field, A. (2013). Discovering Statistics Using IBM SPSS Statistics (4th ed.). Thousand Oaks, CA, USA: SAGE.



- Frost, D. M., & Fingerhut, A. W. (2016). Daily exposure to negative campaign messages decreases same-sex couples' psychological and relational well-being. *Group Processes & Intergroup Relations*, 19, 477-492. https://doi.org/10.1177/1368430216642028
- Gallup, Inc. (n.d.). Party affiliation. Retrieved March 28, 2019, from https://news.gallup.com/poll/15370/party-affiliation.aspx
- Harsányi, A., Csigó, K., Rajkai, C., Demeter, G., Németh, A., & Racsmány, M. (2014). Two types of impairments in OCD: Obsessions, as problems of thought suppression; compulsions, as behavioral-executive impairment. *Psychiatry Research*, 215, 651-658. https://doi.org/10.1016/j.psychres.2013.11.014
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/ public/process2012.pdf
- Khan, S. R. (2014). Post 9/11: The impact of stigma for Muslim Americans. *Peace and Conflict, 20*, 580-582. https://doi.org/10.1037/pac0000063
- Levay, K. E., Freese, J., & Druckman, J. N. (2016). The demographic and political composition of Mechanical Turk samples. SAGE Open, 6. https://doi.org/10.1177/2158244016636433
- Luciano, J. V., Belloch, A., Algarabel, S., Tomás, J. M., Morillo, C., & Lucero, M. (2006). Confirmatory factor analysis of the White Bear Suppression Inventory and the Thought Control Questionnaire: A comparison of alternative models. *European Journal of Psychological Assessment*, *22*, 250-258. https://doi.org/10.1027/1015-5759.22.4.250
- Magee, J. C., Harden, K. P., & Teachman, B. A. (2012). Psychopathology and thought suppression: A quantitative review. *Clinical Psychology Review, 32*(3), 189-201. https://doi.org/10.1016/j.cpr.2012.01.001
- Major, B., Blodorn, A., & Blascovich, G. M. (2018). The threat of increasing diversity: Why many White Americans support Trump in the 2016 presidential election. *Group Processes & Intergroup Relations*, 21(6), 931-940. https://doi.org/10.1177/1368430216677304
- McGreevy, C. A., Bonanno, G. A., & D'Andrea, W. (2015). Variation in the physiological costs and benefits of rumination and distraction: The moderating effect of habitual thought suppression. *Personality and Individual Differences, 85*, 93-97. https://doi.org/10.1016/j.paid.2015.04.033
- Muris, P., Merckelbach, H., & Horselenberg, R. (1996). Individual differences in thought suppression. The White Bear Suppression Inventory: Factor structure, reliability, validity and correlates. *Behaviour Research and Therapy, 34*(5–6), 501-513. https://doi.org/10.1016/0005-7967(96)00005-8
- Niehoff, L. M., & Shah, D. (2017). The resilience of noxious doctrine: The 2016 election, the marketplace of ideas, and the obstinacy of bias. *Michigan Journal of Race & Law, 22*(2), 243-271.
- Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, 135, 531-554. https://doi.org/10.1037/a0016059
- Petrie, K. J., Booth, R. J., & Pennebaker, J. W. (1998). The immunological effects of thought suppression. *Journal of Personality and Social Psychology*, 75, 1264-1272. https://doi.org/10.1037/0022-3514.75.5.1264
- Schaffner, B. F., MacWilliams, M., & Nteta, T. (2018). Explaining white polarization in the 2016 vote for president: The sobering role of racism and sexism. *Political Science Quarterly, 133*(1), 9-34. https://doi.org/10.1002/polq.12737
- Seligowski, A. V., Rogers, A. P., & Orcutt, H. K. (2016). Relations among emotion regulation and DSM-5 symptom clusters of PTSD. *Personality and Individual Differences*, *92*, 104-108. https://doi.org/10.1016/j.paid.2015.12.032



- Shapiro, D. N., Chandler, J., & Mueller, P. A. (2013). Using Mechanical Turk to study clinical populations. *Clinical Psychological Science*, *1*(2), 213-220. https://doi.org/10.1177/2167702612469015
- Sides, J., Tesler, M., & Vavreck, L. (2017). The 2016 U.S. Election: How Trump lost and won. *Journal of Democracy, 28*(2), 34-44. https://doi.org/10.1353/jod.2017.0022
- Stewart, N., Ungemach, C., Harris, A. J., Bartels, D. M., Newell, B. R., Paolacci, G., & Chandler, J. (2015). The average laboratory samples a population of 7,300 Amazon Mechanical Turk workers. *Judgment and Decision Making, 10*(5), 479-491.
- Stritch, J. M., Pedersen, M. J., & Taggart, G. (2017). The opportunities and limitations of using Mechanical Turk (Mturk) in public administration and management scholarship. *International Public Management Journal*, *20*(3), 489-511. https://doi.org/10.1080/10967494.2016.1276493
- U.S. Census Bureau. (2011, March). Overview of Race and Hispanic Origin: 2010. Retrieved from https://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf
- Valentino, N. A., Wayne, C., & Oceno, M. (2018). Mobilizing sexism: The interaction of emotion and gender attitudes in the 2016 US presidential election. *Public Opinion Quarterly*, 82, 799-821. https://doi.org/10.1093/pog/nfy003
- Veldhuis, C. B., Drabble, L., Riggle, E. D. B., Wootton, A. R., & Hughes, T. L. (2018). 'We won't go back into the closet now without one hell of a fight': Effects of the 2016 presidential election on sexual minority women's and gender minorities' stigma-related concerns. Sexuality Research & Social Policy, 15(1), 12-24. https://doi.org/10.1007/s13178-017-0305-x
- Waite, T. C., Wong, S., Moeller, M. T., Koerten, H. R., & Xu, H. (2019). *Development and validation of the Personal Impact of the Election Scale*. Manuscript in preparation.
- Ware, J., Jr., Kosinski, M., & Keller, S. D. (1996). A 12-item short-form health survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*, *34*(3), 220-233. https://doi.org/10.1097/00005650-199603000-00003
- Wegner, D. M., & Zanakos, S. (1994). Chronic thought suppression. *Journal of Personality*, 62, 615-640. https://doi.org/10.1111/j.1467-6494.1994.tb00311.x
- Wenzlaff, R. M., & Wegner, D. M. (2000). Thought suppression. *Annual Review of Psychology, 51*, 59-91. https://doi.org/10.1146/annurev.psych.51.1.59

