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THE COSTS OF DEMOCRACY – HOW ELECTION-RELATED STRESS AFFECTS HEALTH

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ABSTRACT

Introduction: Electoral campaigns represent significant sociopolitical stressors that may have notable implications for public health. The aim of this article is to present an in-depth overview of the documented health effects associated with election-related stress.

Methods: PubMed was searched using keywords such as “sociopolitical stress” and “presidential election AND health”, applying a time filter 2016-2025. After removing duplicates, titles and abstracts were screened for relevance, and the most pertinent articles were included in this review.

Results: Election periods were associated with increased psychological distress. Sociopolitical stress was related to higher incidence of depression, generalized anxiety disorder, sleep disturbances, cardiovascular and arrhythmic events, elevated blood pressure, preterm births, heightened interest in long-acting reversible contraceptives, and altered birth sex ratio. These effects were particularly pronounced among supporters of the losing candidate, women, ethnic and racial minorities, and younger populations.

Conclusion: These findings highlight the need for enhanced mental health support and public health preparedness during major political events.

KEYWORDS

Election-Related Stress, Sociopolitical Stress, Mental Health, Cardiovascular Events, Reproductive Health

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Introduction

Election campaigns are social events that can trigger a wide range of emotions. Campaigns can have either a positive or a negative impact - they can give voice to marginalised ones but also lead to an increase in fear and anxiety in many citizens (Williams & Medlock, 2017). Research suggests that these events can have negative health effects on people who have been direct targets of what they perceive as hostility or discrimination, as well as individuals and communities who feel vulnerable because they belong to a stigmatized, marginalized, or targeted group (Williams & Medlock, 2017; Fleming et al., 2019; Montoya-Williams & Fuentes-Afflick, 2019; Price et al., 2020; Suzuki et al., 2023). The latest *Stress in America* survey conducted by the American Psychological Association (APA) indicated that political issues, particularly those related to the election, were the leading sources of stress.

In the past decade, there has been significant growth in research exploring how elections and political partisanship affect health. Since then, numerous studies have identified various negative biobehavioral health outcomes linked to elections (Cunningham et al., 2022; Smith et al., 2019). Research has revealed that individuals who supported the winning candidate experienced a notable boost in positive emotions and a reduction in negative ones, whereas those who supported the losing candidate showed the opposite pattern — a drop in positive affect, a rise in negative affect, and were more likely to report decreased well-being (Scheibe et al., 2011; Yan et al., 2021).

Some individual characteristics are correlated with a higher level of sociopolitical stress. For example, higher levels of education among older adults and past political activity were associated with increased levels of election-related stress (Early et al., 2022). However, among younger adults, higher education appeared to buffer against election-related stressors (Early et al., 2022). Additionally, those who experienced higher intensity of sociopolitical stress were more likely to engage in political activity (Suzuki et al., 2023). Anticipation of stress and political participation were positively correlated with exposure to potential stressors,

such as watching television commercials related to elections and scrolling through social media posts about elections (Early et al., 2022).

Our hypothesis is that sociopolitical stress may be the cause of various health issues. The aim of this review is to present an in-depth overview of the documented health effects associated with election-related stress. We conducted a comprehensive search of the PubMed electronic database using keywords such as “sociopolitical stress” and “presidential election AND health,” applying a time filter for studies published between 2016 and 2025. The initial search yielded 536 results. After removing duplicates, titles and abstracts were screened for relevance, and the most pertinent articles were included in this review. We analyzed the results and sorted them into three domains, such as mental health, cardiovascular events, and reproductive health.

Literature review

Mental health

Studies show that sociopolitical stress is related to various mental health conditions and even neurobiological changes (Tashjian & Galván, 2020). A study involving 2,455,439 participants revealed a steady increase in anxiety and depression symptoms before the 2020 U.S. presidential election, followed by a decline afterward (Mukhopadhyay, 2022). This pattern was also reflected in mental health-related medical appointments and prescription drug use (Mukhopadhyay, 2022). A study conducted among women in Georgia also suggests a link between sociopolitical stress and experiencing symptoms of depression or generalized anxiety (Ortlund et al., 2025). According to Zhao et al. (2025), anticipatory stress related to the 2024 U.S. presidential election was linked to a higher likelihood of exhibiting symptoms of at least moderate major depressive disorder. Additionally, stress from news exposure was associated with an elevated risk of at least moderate generalized anxiety disorder and moderate major depressive disorder. However, concern specifically about the election results did not show a significant correlation with either depression or anxiety (Zhao et al., 2025). Emotional distress related to the 2020 U.S. presidential election and subsequent riots was associated with a higher incidence of PTSD—12.5%, compared to the national average of 3.5% (Fraser et al, 2023). We also identified one case report that described an exacerbation of obsessive-compulsive disorder symptoms associated with election-related stress (Davis et al., 2018).

A number of studies have been conducted among college students to assess the impact of elections on their mental health, stress levels, and coping strategies (Hoyt et al., 2018; Zeiders et al., 2020; Roche & Jacobson, 2019; Hagan et al., 2020; Brown et al., 2024; Ballard et al., 2024; Johnson & Neupert, 2025). Around the 2016 U.S. presidential election, all young adults experienced increased levels of negative affect, with peaks three days prior to the election and on election day. Those who held unfavorable views of Trump’s presidential suitability or belonged to marginalized groups reported heightened stress leading up to and during election night (Hoyt et al., 2018). Although mood self-assessments generally improved afterward, biological markers like diurnal cortisol indicated short-term coping strategies that influenced self-reported emotions but not physiological stress (Hoyt et al., 2018). Similar findings were revealed in a study conducted among adolescents (Zeiders et al., 2020). Long-term observation confirmed that lower confidence in Trump’s leadership before the 2016 election was linked to greater distress three months later and poorer psychological well-being six months after (Brown et al., 2024). In another study, college students were asked to keep a mood journal for 14 days (before and after the election). Results aligned with previous investigations, showing a marked increase in anxiety, stress, and poor sleep quality immediately after the election, followed by a gradual recovery. However, other emotional responses—such as anger, fear, and feelings of marginalization—also intensified post-election but did not significantly subside in the following days (Roche & Jacobson, 2019). According to Hagan et al. (2020), 24.2% of surveyed students reported that the election negatively affected their intimate relationships. Additionally, 25% met the criteria for clinically significant event-related distress and exhibited both avoidant and intrusive symptoms. During the 2020 U.S. presidential election, Ballard et al. (2024) found that emotional distress was linked to an increase in depressive symptoms and a decreased level of optimism. Among those with high election-related stress, the data showed they coped through self-care, substance use, and increased political engagement.

During the 2020 U.S. election period, Americans with a history of alcohol use at any point of the study showed a significant rise in alcohol consumption on Election Day and on the day the election results were widely announced. Alcohol intake among non-U.S. individuals was lower on those dates compared to Americans (Cunningham et al., 2022). Those who expressed greater concern about the election outcome tended to consume higher amounts of alcohol (Howell & Sweeny, 2020).

Several studies show that election-related stress affects sleeping patterns (Anýž et al., 2019; Cunningham et al., 2022; Dzierzewski et al., 2025). Anýž et al. (2019) found that average sleep duration among British individuals decreased significantly—by 16 minutes and 21 seconds—on the night after the Brexit referendum. Analogously, in the U.S., people slept 12 minutes and 49 seconds less on the night of the 2016 presidential election compared to regional averages, followed by a modest rebound of 5 minutes and 9 seconds the next night. The findings also showed a rise in the proportion of people experiencing very short sleep durations. Further research supports this data: during the 2020 U.S. presidential election night, participants experienced notable disruptions in sleep compared to their typical patterns (Cunningham et al., 2022). While both U.S. and non-U.S. individuals showed reduced total sleep time, only Americans had significantly shorter time in bed, lower sleep efficiency, and increased wake time after sleep onset—both on the night of the election and the night before. Although there was no increase in sleep fragmentation, U.S. participants took fewer naps before the election and more naps afterward, highlighting an anticipatory and recovery pattern not observed in other groups included in the study (Cunningham et al., 2022). During the 2024 U.S. presidential campaign, approximately 17% of adult Americans experienced sleep disturbances (Dzierzewski et al., 2025).

Researchers analyzed the association between exposure to televised political campaign advertisements and mental health outcomes. Greater exposure was significantly linked to increased odds of being diagnosed with anxiety, but not with depression or insomnia (Niederdeppe et al., 2021). Additionally, dependency on and trust in new media were identified as risk factors for experiencing psychological distress related to the election (Pitcho-Prelorentzos et al., 2018).

Cardiovascular events

There is evidence suggesting a link between experiencing intense emotional distress and an increased risk of cardiovascular incidents. In a retrospective case-crossover study, researchers identified quarrels and hearing sudden news as the most common emotional triggers of acute myocardial infarction (Ghiasmand et al., 2017). Episodes of intense anger and anxiety were also correlated with an elevated risk for acute coronary occlusion (Buckley et al., 2015; Mittleman & Mostofsky, 2011). Additionally, the INTERHEART study confirmed that anger and emotional upset are significantly associated with the first occurrence of acute myocardial infarction across diverse global populations, in both sexes, regardless of age, and independent of potential modifying factors (Smyth et al., 2016).

From a pathophysiological perspective, triggers play a role in the concluding phase of the disease process (Mittleman & Mostofsky, 2011). They act as immediate catalysts in individuals who are already vulnerable – such as those with unstable atherosclerotic plaques, chronic arterial disease, dysfunction of the microvascular system, or conduction system disorders (Mittleman & Mostofsky, 2011; Hering, Lachowska, & Schlaich, 2015). These triggers may cause vasoconstriction, increased platelet aggregation, reduced myocardial blood flow, and the heart's electrical instability due to enhanced sympathetic nervous system activity and catecholamine release (Mittleman & Mostofsky, 2011; Hering et al., 2015). Eventually, these mechanisms may lead to plaque rupture, thrombosis, increased risk of arrhythmias, and even sudden cardiac death. Not only emotional distress but also physical activity, infections, and some chemical substances—such as caffeine, alcohol, heavy meals, cigarette smoking, cocaine, or marijuana—have been identified as potential triggers of cardiovascular events (Mittleman & Mostofsky, 2011).

Mefford et al. (2020) conducted a study to assess whether there was a transient increase in acute cardiovascular disease (CVD) hospitalizations in the days following the 2016 U.S. presidential election. They found that during the two days post-election, the rate of acute myocardial infarction (AMI) hospitalizations was 1.67 times higher compared to the same two days in the previous week. Similarly, stroke hospitalizations increased by 1.59 times during the same period. However, no significant differences were found for hospitalizations due to chest pain or unstable angina (Mefford et al., 2020). A similar analysis was conducted during the 2020 U.S. presidential election. The results were consistent with previous findings. During the five days following the 2020 U.S. presidential election, the incidence of CVD hospitalizations was 1.17 times higher, and the rate of AMI was 1.42 times higher compared with the corresponding five-day period two weeks earlier. In terms of individual characteristics, the most vulnerable group for CVD hospitalizations consisted of White men aged 75 years or older. The frequency of hospital admissions for stroke and heart failure did not show statistically significant increases during that period (Mefford et al., 2022).

Moreover, the incidence of arrhythmic events during the 2016 U.S. presidential election was significantly elevated in comparison with the control period. The risk of atrial fibrillation rose by 1.5 times, supraventricular tachycardia by 3.7 times, and nonsustained ventricular tachycardia by 1.7 times (Rosman et al., 2021).

Furthermore, elevated blood pressure was observed immediately after the 2016 U.S. presidential election. Systolic blood pressure increased significantly among non-Hispanic Asian participants (+3.4 mmHg), while diastolic blood pressure rose among non-Hispanic Black participants (+2.3 mmHg) and Mexican American participants (+2.9 mmHg). Blood pressure among other racial and ethnic groups remained unchanged. The intergroup differences in blood pressure may be partially explained by sex-specific elevations in systolic blood pressure, occurring predominantly in women (Hwang et al., 2022).

Reproductive health

Preterm birth (PTB) is defined as labour that takes place before 37 weeks of gestation. The occurrence of spontaneous PTB is considered a syndrome resulting from various contributing factors, such as inflammation, infection, uterine overexpansion, and vascular pathology (Goldenberg et al., 2008). According to Wadhwa et al. (2011), high levels of perceived stress among pregnant women were associated with a 25% to 60% higher likelihood of preterm birth compared to those with low levels of stress. Researchers observed that rates of PTB increased following major catastrophic events such as floods and earthquakes (Pashaei Asl et al., 2024). Additionally, following the immigration raid in Postville, Iowa, infants born to Latina mothers faced a 24% higher risk of being classified as low birth weight compared to the same period one year earlier. No corresponding change was observed in infants of non-Latina White mothers (Novak et al., 2017). The mechanism linking stress to preterm birth is not fully understood, but increased levels of corticotropin-releasing hormone and systemic inflammation—evidenced by elevated C-reactive protein—are considered potential mediators (Goldenberg et al., 2008).

Krieger et al. (2018) reported a change in the total preterm birth (PTB) rate in New York City, from 7.0% before the 2016 U.S. presidential election to 7.3% in the period that followed. The largest rise was observed among foreign-born Hispanic women of Mexican or Central American origin – from 7.7% to 8.2% (Krieger et al., 2018). Gemmill et al. (2019) conducted a similar study using national data and applied methods accounting for seasonal and temporal trends. Sex-specific analyses were included due to the suggested higher vulnerability of male fetuses (Zeitlin et al., 2002). Among Latina women, PTB accounted for 11.0% of male infants and 9.6% of female infants, while among other women, the rates were 10.2% for males and 9.3% for females. Peaks in PTB were observed in February and July 2017, suggesting that stress related to the 2016 election may have affected infants either conceived around the time of the election or in their second trimester during that period (Gemmill et al., 2019). These results align with research on periviable birth rates—defined as live births occurring between 20 0/7 and 25 6/7 weeks of gestation (Ecker et al., 2016). Latina women had a higher periviable birth rate (0.31%) compared to non-Latina White women (0.21%). These findings support the hypothesis that xenophobic and discriminatory political campaigns may have influenced stress-related biological mechanisms affecting the timing of birth, particularly by increasing the most critical and fatal cases of preterm delivery (Gemmill et al., 2020).

During the 2016 U.S. presidential campaign, the Latino population experienced several negative consequences of anti-immigrant policies, such as psychological distress associated with the risk of losing residency status, adverse effects on physical health, escalating inequalities in access to healthcare (Wiley et al., 2023), and suboptimal prenatal care – evidenced by delayed initiation of prenatal visits, fewer medical appointments, and lower maternal hemoglobin levels (Chu et al., 2019). Additionally, pregnant Latina women who expressed heightened concern about sociopolitical issues, especially regarding racism and gender equality, were more likely to experience symptoms of depression and pregnancy-related anxiety (Wiley et al., 2023).

Researchers observed increased interest in intrauterine devices (IUDs) in the United States around the time of the 2016 presidential election (Nobles et al., 2018; Sridhar et al., 2021). Nobles et al. (2018) reported a significant 15% increase in Google search frequency for IUDs across all states except Nevada in the year following the election. In contrast, searches for oral contraceptives remained unchanged, while interest in condoms slightly declined (−4%). This spike in IUD interest may be attributed to concerns over a potential repeal of the Affordable Care Act (ACA), as IUDs offer long-term protection that is less dependent on continuous insurance coverage—although causality cannot be definitively confirmed (Nobles et al., 2018). These findings were supported by Sridhar et al. (2021), who examined trends in long-acting reversible contraception (LARC) dispensing at a university student health center. A notable increase in LARC uptake was identified following the 2016 election, climbing from an average of 38 to 51 methods per month with a marked rise over six months post-election followed by a gradual decline (Sridhar et al. 2021).

The human sex ratio—defined as the proportion of male to female births—is typically slightly male-biased (Orzack et al., 2015). However, there is a tendency for the sex ratio to decline in the face of natural disasters

(Catalano et al., 2013), terrorist attacks (Catalano et al., 2005b), and periods of crisis (Catalano et al., 2005a). Retnakaran and Ye (2020) analyzed birth records from Ontario, Canada, and observed a significant decrease in the sex ratio four months after the 2016 U.S. presidential election—but only in liberal-leaning regions. Notably, this phenomenon was not observed in conservative-leaning communities (Retnakaran & Ye, 2020).

Discussion

The aim of current review was to present health consequences associated with election-related stress. We conducted comprehensive search using PubMed data base, the findings were organized into three main categories: mental health disorders, cardiovascular events, and reproductive health issues. The publications considered in this study suggest that political events, especially those perceived as threatening or polarizing, act as significant stressors capable of triggering both psychological and physiological responses. These effects were particularly noticable among vulnerable groups, such as those who supported the losing candidate, women, ethnic and sexual minorities, and younger adults.

Results consistently support the idea of a link between sociopolitical distress and health outcomes. Sociopolitical distress was associated with symptoms of depression and generalized anxiety (Ballard et al., 2024; Mukhopadhyay, 2022; Ortlund et al., 2025; Zhao et al., 2025), post-traumatic stress disorder (Fraser et al., 2023), obsessive-compulsive disorder (Davis et al., 2018), increased alcohol use (Cunningham et al., 2022; Howell & Sweeny, 2020), and sleep disturbances (Anýž et al., 2019; Cunningham et al., 2022; Dzierzewski et al., 2025). Two studies identified exposure to election-related news as a risk factor for generalized anxiety (Niederdeppe et al., 2021; Zhao et al., 2025). However, depression was linked to media exposure only by Zhao et al. (2025); Niederdeppe et al. (2021) did not find such a connection.

Sociopolitical stress was associated with a higher incidence of AMI (Mefford et al., 2020; Mefford et al., 2022). Results regarding the risk of stroke were mixed — one study observed a significantly higher frequency of stroke (Mefford et al., 2020), while another did not find a notable increase (Mefford et al., 2022). Additionally, an elevated incidence of arrhythmic events (Rosman et al., 2021) and increased blood pressure (Hwang et al., 2022) were observed.

Researchers reported a higher rate of preterm birth (PTB) around the time of the 2016 U.S. presidential election, particularly among Latina women (Krieger et al., 2018; Gemmill et al., 2019; Gemmill et al., 2020). Latina women also experienced reduced access to healthcare and prenatal services (Wiley et al., 2023; Chu et al., 2019). Studies showed increased interest in intrauterine devices (IUDs) in the United States during this period, likely due to concerns about a potential repeal of the Affordable Care Act (ACA), as IUDs provide long-term protection that is less dependent on continuous insurance coverage—although causality cannot be definitively confirmed (Nobles et al., 2018; Sridhar et al., 2021). Presidential campaign was also related to the shift in the birth sex ratio in liberal areas (Retnakaran & Ye, 2020).

These findings suggest that elections are not only political events but also a public health concern. One limitation of this review is the limited availability of research from countries other than the United States, which may affect the generalizability of the findings. Additionally, most of the data come from self-report measures, which may introduce bias. Public health systems should be prepared for a potential increase in the need for psychological and medical support during election periods. There is a need for psychoeducation regarding stress management, effective coping strategies, and the promotion of media literacy. Future research is needed to explore the long-term health effects of electoral stress and to examine similar phenomena outside of the U.S. in order to gather more generalizable data.

Conclusions

This review highlights that election periods can act as significant sociopolitical stressors with impacts on both physical and mental health. The findings consistently show increased levels of anxiety, psychological distress, sleep disturbances, cardiovascular events, reproductive health issues, and behavioral changes such as elevated alcohol use and shifts in contraceptive preferences. These effects are particularly pronounced among women, racial and sexual minorities, and young adults. Given the recurring nature of elections, there is a growing need for public health strategies to support vulnerable populations during these periods. An important direction is the promotion of education on adaptive coping strategies that can help individuals manage stress in healthier ways. Future research should aim to extend beyond U.S.-based studies to examine the generalizability of these effects across different sociopolitical and cultural contexts.

Disclosures**Authors' contributions:**

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