



Perceived status threat and health among White Americans: A scoping review

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ABSTRACT

Previous research on pre-COVID-19 pandemic rising White mortality in the United States suggests that White Americans' perceived decline in relative group status may have influenced worsening mortality. In conjunction with other social and economic indicators, social status threat is one determinant of this population-level health shift, yet it is unclear *how* perceptions of status threat shape individual health outcomes. Because of this, we sought to identify and synthesize research studies across disciplines that broadly explored how perceived threats to White Americans' social status affect their health. Our research objectives were to (1) examine how status threat (and related constructs) have been measured across the health and social sciences, (2) determine which health outcomes and behaviors are related to status threat, and (3) identify gaps in the existing knowledge base. We systematically searched six multidisciplinary databases. Only 12 studies met inclusion criteria, suggesting that status threat and Whites' health is an understudied topic that warrants continued investigation. Furthermore, there was inconsistency in how threats to status were measured and conceptualized across disciplines. Threat-related indicators evaluated changes in Democratic or Republican vote share, perceived racial treatment, financial status, personal identification with political party affiliation, perceptions of hypothetical "majority-minority" population shifts, racial awareness, and subjective social status. Studies primarily relied on self-rated measures of overall health, mental health status, and social determinants of health. Consequently, there is a gap in the literature concerning which specific health outcomes (besides mortality) are directly affected by status threat. Overall, included studies demonstrated that Whites' can experience negative health effects when they perceive threats in societal conditions, within their interpersonal social experiences, or related to their individual social standing. Moving forward, researchers should consider how Whites' beliefs about their position within social hierarchies potentially affect individual and group-level health outcomes.

1. Introduction

"If you can convince the lowest White man that he's better off than the best colored man, he won't notice you picking his pocket. Hell, give him somebody to look down on, and he'll empty his pockets for you." President Lyndon Johnson, Democrat, 1960 (Dallek, 1991, as cited in Kawachi et al., 2005)

The COVID-19 pandemic highlighted how efforts to implement public health strategies (e.g., masking, vaccination, quarantining) require acknowledgement of the intersections of racial ideology,

sociopolitical beliefs, and public health protections (Bonilla-Silva, 2020; Colgrove & Samuel, 2022). For example, alignment with racist, anti-communist, and U.S. imperialist orientations underpinned the naming of SARS-CoV-2 and COVID-19 as "the China virus" or "the Chinese flu" (Daniels et al., 2021; Perry et al., 2021; Scott, 2022). Even in less overtly bigoted expressions, resistance to pandemic-era public health mandates (Koon et al., 2021) has been deeply wrapped up in racial and right-wing ideologies and rhetoric regarding individualism (Efird, 2021; Efird & Lightfoot, 2020; Mendenhall, 2022; Metzler, 2019a; Metzler, 2019b). For example, being made aware of racial disparities in COVID-19 outcomes made White Americans less likely to support public

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health mandates (Skinner-Dorkenoo et al., 2022).

COVID-19 is far from the only instance in which racial and socio-political issues intersect with matters of health. Over the last several years, a series of papers have documented associations between conservative or right-wing ideology (as often measured by share of Republican voters) and indicators of population health, such as life expectancy and mortality (Bilal et al., 2018; Rodriguez, 2019; Siddiqi, Sod-Erdene, Hamilton, Cottom, & Darity, 2019). Most of these studies suggest that this association may be related to the negative health effects of policy preferences of Republicans, in particular the tendency of Republicans to favor less generous income supports and other welfare state policies.

However, in-depth social and psychological investigations note that conservative or right-wing political ideologies and racist rhetoric among Whites are not solely (or perhaps even primarily) a function of economic concerns but are instead more strongly associated with concerns about racial hierarchy, and the status of Whites (Bobo, 2017; Knowles & Tropp, 2018; Reny et al., 2019; Riley & Peterson, 2016). This suggests that it may be the psychological impact of these concerns that is influencing health.

Racial threat theory explains the phenomenon of these concerns. It suggests that when members of a racial group who occupy a majoritized status (e.g., White people in the U.S.) perceive that members of racially minoritized groups will surpass them in number, they worry that their elevated position within the social hierarchy will diminish (Bobo, 1983; Lieberman, 1968). To be clear, despite some growth in the non-White population and decline in the White population, empirical evidence is clear that non-White groups are *not* catching up to White Americans in wealth, employment, or health (Darity et al., 2018; Williams et al., 2019; Came & Griffith, 2018; Bailey et al., 2017). Yet, psychologists note potentially negative psychological implications for White Americans are based solely on their perception that the dominant social position of Whites is declining, irrespective of objective evidence (Bai & Federico, 2019; Wilkins & Kaiser, 2014; Wilkins et al., 2017). The public health literature suggests that these psychological implications extend their impacts to health status, likely mediated through physiological and behavioral stress response mechanisms.

Empirical evidence supports the suggestions of racial threat theory in contemporary White society. For example, White American support for the presidency of Donald Trump, who explicitly used racist rhetoric and notions of White status threat (Kaufmann, 2019; Khan et al., 2021), was widespread across gender, class, and age groups in 2016 and 2020 (Major et al., 2016; Stewart & Willer, 2022). “Othering” narratives about people of color reify the notion that racially minoritized groups pose a potential threat to White Americans. Since 2010, the non-Hispanic White (hereafter “White” or “White American”) population decreased by 8.6%, and the U.S. Census Bureau expects that non-Whites will comprise a majority of U.S. population by the middle of the 21st century (U.S. Census Bureau, 2021; Vespa et al., 2020). Furthermore, national polling data suggest that nearly half of White Americans endorse the view that a “majority-minority” population will “weaken American culture” (Pew Research Center, 2019).

Viewed through this lens, the “Republican vote share” variable may very well point (more) to the health effects of racial status threat than to the health effects of the economic consequences of Republican policy orientations. Indeed, one study which found an association between rising Republican vote share and rising White mortality, even after controlling for economic and other material conditions, suggested that racial status threat may be the primary way to understand the reversal in health gains to Whites, one of the most unusual population health phenomena of our time (Siddiqi et al., 2019).

Throughout U.S. history and long before Donald Trump’s presidency, right-leaning and left-leaning political leaders have stoked racial prejudice as a way to gain power (David & Collins, 2021; Haney-López, 2015). Reactionary movements have a legacy of seeking to maintain the status quo when some Whites feel that their dominant status is being

threatened by social and demographic changes (Parker, 2021). In the mid-nineteenth century, the nativist Know Nothing Party (or the “American Party”) was concerned with the growing number of immigrants because they associated immigrants with the “political and moral threat” of Catholicism (Parker, 2021; Levin, 2001). Similarly, early in the twentieth century, the Ku Klux Klan regained prominence in response to widespread fears among White men about potential progress being made by Black Americans, Catholics, Jews, and women (MacLean, 1994). Several decades later, the John Birch Society sought to maintain White social supremacy amid concern that the traditional American way of life was under attack (Mulloy, 2014). More recently, when the U.S. elected its first Black president, the Tea Party emerged to protect the “cultural integrity” of the “legitimate” American majority (Parker, 2021; Parker & Barreto, 2013). These reactionary movements are based in fear that the dominant group is losing status, and these phenomena provide a robust foundation to suggest that status threat is a central component of how race relations operate in U.S. American society. Furthermore, Parker’s (2021) analysis of self-identified Republican voters portrayed that a perceived threat to their status motivated the majority of Republican voters in 2020 to vote for Trump. In our current political climate, far-right and racist rhetoric is becoming more mainstream (Reyna, Bellovary, & Harris, 2022; Skonieczny, 2021). Because of this, it is especially important to understand the relationship between status threat and health. In more explicit terms, the question is, how do Whites’ misperception of collective loss of their dominant social, political, or economic status contribute to White Americans’ overall health?

In this present study, we perform a scoping review, to identify and synthesize research studies that have broadly explored how (perceived or actual) threats to White Americans’ social status affected their health and health-related behaviors. Because social status threat is an emerging issue in the field of public health, we aim to understand how researchers across a broad range of social sciences (e.g., sociology, psychology, political science) have conceptualized and measured constructs related to status threat and health. Our research objectives were to (1) examine how status threat (and related constructs) has been measured across the health and social sciences, (2) determine which health outcomes and behaviors are related to status threat, and (3) identify gaps in the existing knowledge base.

2. Methods

Given the exploratory and multidisciplinary nature of our research objectives, we chose to conduct a scoping review rather than a systematic review. Scoping reviews are particularly useful when researchers want to systematically generate an overview of an emerging topic (Tricco et al., 2016). We developed a review protocol based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) Checklist (Tricco et al., 2018) and made it publicly available via Open Science Framework (Efird, Siddiqi, Bennett, & Metz, 2021) and a digital repository at the University of North Carolina at Chapel Hill.

2.1. Study selection criteria

We searched for original peer-reviewed research related to status threat within the social science and medical science literature. There were no restrictions on study design, language, study quality, or time of study completion.

2.2. Data sources and searches

On August 12, 2021, we searched six multidisciplinary databases: EBSCO-PsychInfo, ProQuest Political Science, ProQuest-Sociological Abstracts, PubMed, Scopus, and Social Science Research Network. Our search strategies were developed in consultation with a health sciences librarian at the lead-author’s institution. We combined keywords from

the following categories: race, social status, status threat, and health. As seen in Table 1, we included a broad range of keywords, so that we could capture the scope of studies measuring concepts related to how Whites' perceptions of loss of status affect their health and related behaviors. There are many social processes and ideologies that could be motivators or precursors of status threat (e.g., xenophobia, White Christian nationalism), but our goal for the "status threat" category was to find literature that specifically addressed the threat reaction.

As content experts, all authors were given the opportunity to suggest additional texts for inclusion. CE deleted 225 duplicate titles with Sci-Wheel reference management software and uploaded 486 studies into Covidence software.

2.3. Study selection

Two authors (CE and FB) independently screened 486 unique publications for relevant titles and abstracts. CE and FB conducted 22 full-text screens and hand-searched the reference lists for any additional articles. Discrepancies were reviewed and resolved by AS. We excluded dissertations and non-empirical research articles (e.g., commentaries, editorials, theoretical pieces). Twelve texts met the full inclusion criteria and were approved by all authors. Fig. 1 summarizes our inclusion and exclusion process.

2.4. Data collection and synthesis

We extracted the following information from each included study:

- Author(s)
- Year of publication
- Aims/purpose
- Study population
- Sample size (if applicable)
- Study design
- Methodology/methods
- Health-related construct that was studied (if applicable)
- Outcomes measures
- Key findings that relate to status threat

CE and FB summarized the results of the data extraction process and presented findings to all authors. Next, we descriptively analyzed included studies and developed tables and a written narrative to synthesize our findings. We present our findings according to how studies conceptualized threat-related variables.

3. Results

Included studies (n = 12) were published between 2009 and 2021, spanning the disciplines of political science, psychology, public health, and sociology. Table 2 describes each included article and Table 3 summarizes the characteristics of all studies.

Studies incorporated indicators of one or more of the following

threat-related constructs: change in Democratic or Republican vote share (n = 2), perceived racial treatment (n = 3), financial status (n = 2), personal identification with political party affiliation (n = 1), majority-minority shift (n = 3), racial awareness (n = 1), and subjective social status (n = 2). Threat-related variables were operationalized as predictors, moderators, or mediators of one or more of the following: health beliefs (n = 5), health outcomes (n = 2), health status (n = 5), and social determinants of health (n = 5), such as income, employment status, discrimination, and other factors as defined by the World Health Organization (World Health Organization, 2022). We present our findings based on how the included studies measured and operationalized the seven threat-related constructs, along with information regarding how studies relate to health. We conclude our results with an overview of how the health-related data were collected, followed by an overview of the study samples.

3.1. Measurement and operationalization of status threat-related constructs

3.1.1. Change in Democratic or Republican vote share

Threat-related variables in two included studies (Baccini & Weymouth, 2021; Siddiqi, Sod-Erdene, Hamilton, Cottom, & Darity, 2019) measured changes in the percent of Republican or Democratic share. Using voting record data from the Atlas of U.S. Presidential Elections, Baccini and Weymouth's (2021) cross-sectional analysis determined that manufacturing layoffs differentially predict voting behavior across racial groups, such that White voters are more likely than Black voters to associate deindustrialization with a threat to national economic strength and individual status. Additionally, they utilized a representative sample of survey data from the American National Elections Studies to reveal that the perception of threat to national economic strength is significantly associated with White Americans' decision to vote for Republican candidates who defend racial hierarchy (Baccini & Weymouth, 2021). The authors explicitly attributed Whites' conservative voting behaviors to in-group solidarity and outgroup negativity, suggesting that status threat can be a key determinant of conservative voting behavior. Furthermore, their analysis of survey responses from the YouGov Cooperative Congressional Election Study indicated that Whites associate local manufacturing job loss with impediments to social determinants of health, such as obstacles to their employment and individual upward mobility, yet this was association was not present for respondents of color (Baccini & Weymouth, 2021).

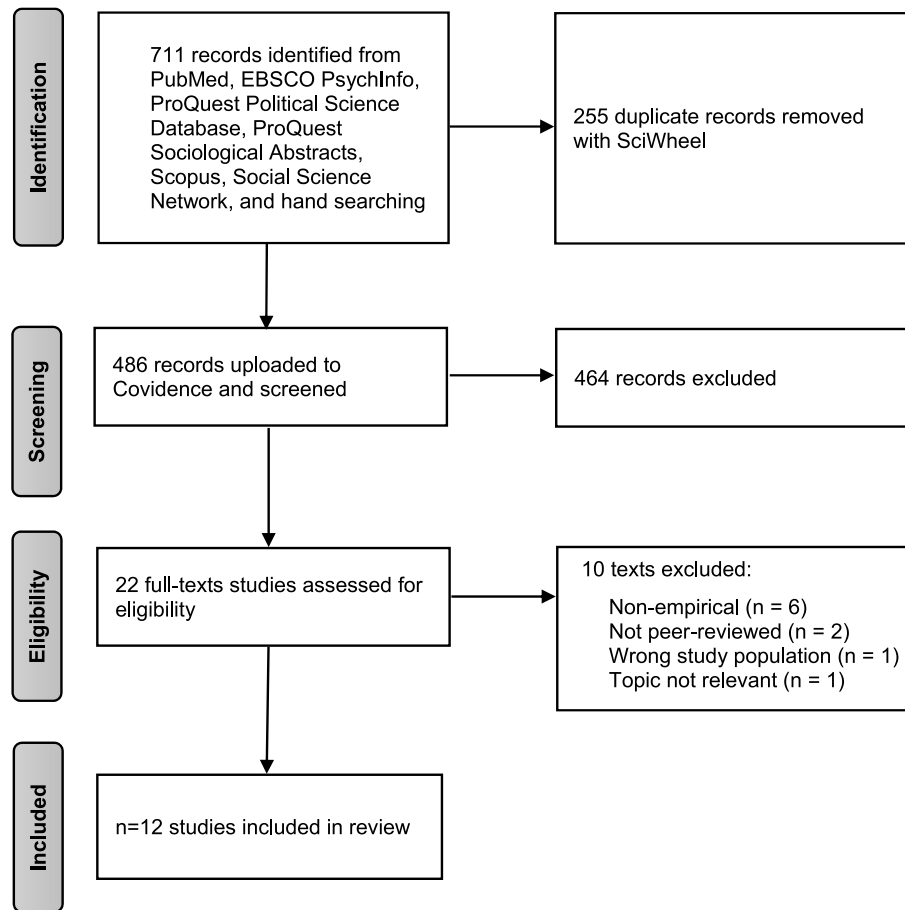
With data from the Atlas of U.S. Presidential Elections and Centers for Disease Control and Prevention WONDER data, Siddiqi and colleagues' (2019) ecological study found that greater county-level Republican vote share in presidential elections is positively associated with increases in White American mortality between the 2000 and 2016. The authors conceptualized social status threat as Whites' misperception that their collective dominant position in the social hierarchy is deteriorating. They concluded that status threat, rather than social or economic disadvantage alone, is a key determinant of worsening White mortality (Siddiqi, Sod-Erdene, Hamilton, Cottom, & Darity, 2019).

Table 1
Search terms by category.

Category	Search Terms*
Race	Whites, White people, White American, Caucasian, European continental ancestry group [MeSH]
Social status	Social status, social position, socioeconomic position, socioeconomic status, social class, class status, privilege, perceived status, subjective social status, subjective status, supremacy, advantage, psychological distance [MeSH]
Status threat	Social status threat, status threat, social threat, perceived threat, threat theory, threat, perceived racial discrimination, perceived discrimination, loss, social cognition, victimhood
Health	Health, healthcare, deaths of despair, mortality rate, mortality [MeSH], suicide [MeSH], opioid, drug overdose, substance-related disorders [MeSH], substance abuse, substance misuse, mental health, mental illness, depression [MeSH], anxiety [MeSH], distress, stress, stressor

*Search terms within each row were combined with "OR" and search terms across different rows were combined with "AND". All search terms were restricted to "title" and "abstract" except for "White", which was restricted to "title" only. Medical subject headings (MeSH terms) were unique to PubMed.

PRISMA–ScR* flowchart of study selection



* PRISMA–ScR = Preferred Reporting Items for Systematic Reviews and Meta-Analyses – Scoping Reviews

Fig. 1. PRISMA–ScR* flowchart of study selection * PRISMA–ScR = Preferred Reporting Items for Systematic Reviews and Meta-Analyses – Scoping Reviews.

3.1.2. Perceived racial treatment

Using cross-sectional data, two studies (Fujishiro, 2009; Ng et al., 2021) determined that perceptions of negative racial treatment in the workplace is potentially threatening to White Americans. Using the Professional Worker Career Experience Survey, Ng and colleagues' (2021) investigated whether perceived racial discrimination predicts job satisfaction and overall well-being. Analyses revealed that Whites demonstrate greater psychological distress in work outcomes than employees of color if they perceive discrimination at work (Ng et al., 2021). The authors argued that White employees are more susceptible to the negative psychological impact of perceived discrimination because of White fragility (see DiAngelo, 2011). Furthermore, Whites were more likely than any other racial group to leave a perceived discriminatory workplace, which could be their attempt to reestablish privilege by diminishing the threat of perceived discrimination (Ng et al., 2021).

Fujishiro (2009) examined perceived racial discrimination and perceived racial privilege in the workplace among a nationally representative sample of respondents from the Behavioral Risk Factor Surveillance System (BRFSS). Findings revealed that White Americans and Black Americans experience poor self-rated health when they perceive discrimination in the workplace (Fujishiro, 2009). Uniquely, perceived racial privilege is associated with more physically and mentally unhealthy days for Whites. The author concluded that perceived racial privilege is positively associated with poor self-rated health because Whites can experience negative health effects from feeling collective (but not necessarily individual) guilt for racial injustices against people

of color (Fujishiro, 2009).

Additionally, Bratter and Gorman's (2011) analysis considered how racial discrimination affects the self-rated health among a nationally representative sample of respondents from cross-sectional data from the BRFSS. They found Black-White racial differences in how this relationship was influenced by individual socioeconomic status. Perceived racial discrimination is associated with poor self-rated health for White and Black Americans, but the effect for Whites varies based on level of education, occupation, and racial awareness (see "Racial awareness" section below) (Bratter & Gorman, 2011).

3.1.3. Racial awareness

Bratter and Gorman (2011) also explored whether racial awareness operated as a stressor among racially diverse respondents of the BRFSS. They found that the effect of racial awareness (i.e., how frequently one thinks about their own racial identity) on self-rated health differs by education level for White (but not Black) adults, such that Whites with less formal education who frequently think about their race experience a higher probability of poor health than Whites with more formal education. The authors concluded that more racial awareness enhanced the stress associated with class disadvantage for White Americans, but not for Black Americans (Bratter & Gorman, 2011). Said another way, Whites in their representative sample who occupy a lower social position potentially lack benefits typically afforded by White racial privilege (e.g., not having to think about one's racial identity), which adversely affects self-rated health.

Table 2
Included studies (n = 12).

Author(s)	Title	Year	Health-related topic(s)	Threat-related variable(s)	Data source(s)/measures used	Key findings
Baccini, L.; Weymouth, S.	Gone for good: Deindustrialization, White voter backlash, and US presidential voting	2021	Employment status, voting behaviors	Change in Democratic vote share	Voting records: Atlas of U.S. Presidential Elections Surveys: American National Elections Series, YouGov Cooperative Congressional Election Study	White American voters are more likely to associate deindustrialization with a threat to national economic strength and individual status. Deindustrialization affects elections because some Whites believe it threatens their identity and social status, which is a motivating force to vote for conservative candidates who defend racial hierarchy. Alternatively, Black American voters are more likely to vote for Democrats when manufacturing layoffs are high.
Bratter, J.; Gorman, B.	Is discrimination an equal opportunity risk? Racial experiences, socioeconomic status, and health status among Black and White adults	2011	Perceived discrimination, self-rated health	Racial awareness	Survey: Behavioral Risk Factor Surveillance System	The effect of racial awareness on health is more sensitive to socioeconomic standing among White Americans than Black Americans.
Cooley, E.; Brown-Iannuzzi, J.L.; Lei, R.F.; Philbrook, L.E.; Cipolli, W.; McKee, S.E.	Investigating the health consequences for white Americans who believe White Americans are wealthy	2020	Depressive symptoms, physical health status	Score on McArthur Scale of Subjective Social Status	Surveys: McArthur Scale of Subjective Social Status, Modified Differential Emotions Scale, Patient Reported Outcomes Measurement Information System Scale	White Americans perceive their own status to be significantly lower than the status of the majority of other White Americans. Black Americans perceive their own status to be higher than that of the majority of Black Americans. Only Whites experience fewer positive emotions when comparing their own status to their racial group. Decreases in positive emotions mediate the relationship between perceived in-group-self status discrepancies and health above and beyond increases in negative emotions.
Craig, M.A.; Richeson, J.A.	On the precipice of a “majority-minority” America: Perceived status threat from the racial demographic shift affects white Americans’ political ideology.	2014	Perceived threat, voting behaviors	“Majority-minority” racial shift	Survey	Making California’s majority-minority shift salient led politically unaffiliated White Americans to lean more towards the Republican Party, compared to respondents to whom this shift was not made salient. Making the changing national racial demographics salient leads White Americans (regardless of political party affiliation) to endorse both race-related and relatively race-neutral conservative policy positions more strongly. The addition of a paragraph stating that Whites were likely to remain at the top of the future racial hierarchy in a majority-minority American eliminates the conservative shift observed following exposure to the racial shift information.
Fujishiro, K.	Is perceived racial privilege associated with health? Findings from the Behavioral Risk Factor Surveillance System	2009	Self-rated physical and mental health status	Perceived racial treatment at work	Survey: Behavioral Risk Factor Surveillance System	White Americans and Black Americans experience poor self-rated health when they perceive discrimination in the workplace. Perceived racial privilege is associated with more physically and mentally unhealthy days for Whites only.
Kwate, N.O.A.; Goodman, M.S.	An empirical analysis of white privilege, social position and health	2014	Self-rated health	Subjective social status	Survey	Subjective assessments of social status are strongly associated with health among White residents of Boston. Whites’ perception of higher standing in social hierarchies was significantly associated with better self-rated

(continued on next page)

Table 2 (continued)

Author(s)	Title	Year	Health-related topic(s)	Threat-related variable(s)	Data source(s)/measures used	Key findings
Melcher, C.R.	The political economy of “White identity politics”: Economic self-interest and perceptions of immigration	2021	Beliefs concerning employment status	Financial status	Survey: American National Election Studies 2016 Time Series Study	health, while Whites who perceive that they hold a lower social position report relatively worse health. Economic self-interest, rather than threats to social status, drives White Americans’ anti-immigrant sentiment.
Mutz, D.C.	Status threat, not economic hardship, explains the 2016 presidential vote	2018	Perceived threat, Voting behaviors	Financial status, personal identification with political party	Survey	Change in White Americans’ individual financial well-being had an insignificant impact on White Americans’ presidential candidate preference in the 2016 presidential election. Instead, preferences were related to issues that threaten White Americans’ sense of dominant group status (e.g., fear of majority-minority demographic shift, perceptions of diminished American global dominance). White Americans demonstrate greater psychological distress in work outcomes (e.g., job satisfaction) than non-Whites when they perceive discrimination at work. Whites are also more likely than any other racial group to leave a perceived discriminatory workplace, which is potentially an effort to re-establish privilege.
Ng, E.S.; Sears, G. J.; Bakkaloglu, M.	White and minority employee reactions to perceived discrimination at work: Evidence of White fragility?	2021	Self-rated mental health	Perceived racial discrimination	Survey: Professional Worker Career Experience Survey	Exposure to changing United States demographics (e.g., minority-majority shift) causes White Americans who conceptualize the economy as a competitive, zero-sum system to become more conservative in their political attitudes. These results are only observed when participants express their economic views before their political attitudes.
Perkins, K.M.; Toskos Dils, A.; Flusberg, S.J.	The perceived threat of demographic shifts depends on how you think the economy works	2020	Political attitudes, perceived threat	“Majority-minority” racial shift	Survey	Neither short-term nor long-term economic factors can independently explain rising White American mortality. Instead, Whites Americans’ <i>perceived</i> decline in relative group status is a likely determinant of the groups’ worsening mortality.
Siddiqi, A., Sod-Erdene, O., Hamilton, D., MacMillan Cottom, T., Darity Jr., W.	Growing sense of social status threat and concomitant deaths of despair among Whites	2019	Mortality	Changes in Republican vote share	Secondary data: Centers for Disease Control and Prevention WONDER, Atlas of U.S. Presidential Elections	County-level White population decline in Kansas predicts rising mortality rates for the middle-aged (45–55) segment of the White population.
Young, F.	What’s the matter with Kansas? Now it’s the high White death rate	2016	Mortality	Percent change in White population	Secondary data: Centers for Disease Control and Prevention WONDER	

3.1.4. Financial status

Two studies considered how White Americans’ individual level financial status motivates voting behavior, as a way of confirming or disconfirming the presence of status threat (Melcher, 2021; Mutz, 2018). Using panel surveys from a representative sample, Mutz (2018) investigated whether individual financial well-being predicted Republican or Democratic presidential candidate preference. Change in individual financial well-being between 2012 and 2016 did not have a significant impact on respondents’ candidate preference (Mutz, 2018). For example, respondents whose incomes declined, or whose incomes increased to a lesser extent than others’ incomes, were not more likely to support the Republican candidate in 2016. Mutz (2018) concluded that status threat (defined as perceiving the U.S.’s decline in global dominance and concerns about the “majority-minority” population shift), as opposed to individual economic hardship, undergirded Trump’s success in the 2016 presidential election.

Melcher’s (2021) study also considered the impact of personal financial status on White Americans’ voting behaviors. Using American National Election Studies 2016 Time Series Study data, the author challenged the findings presented in Jardina’s (2019) award-winning book, *White Identity Politics*, which contends that White Americans’ perceived status threat bolstered Trump’s success in 2016. Melcher (2021) investigated the robustness of Jardina’s (2019) analyses by testing how well the “White consciousness index” predicted anti-immigrant sentiment (i.e., the extent to which respondents believed that immigrants “take jobs from people already here”), and challenged Jardina’s interpretation of the findings. Because of a moderate correlation between one variable in the index (belief that “employers hire minorities and not Whites”) and the outcome variable (belief that “immigrants take jobs”), Melcher (2021) argues that economic self-interest — not status threat — is the key factor driving anti-immigrant sentiment and subsequent support for Trump in the

Table 3
Characteristics of included studies.

	n (%)
Year of publication	
Prior to 2016 election	4 (33%)
2016–2021	7 (58%)
Threat-related indicators^a	
Change in Democratic or Republican vote share	2 (17%)
Perceived racial treatment	3 (25%)
Financial status	2 (17%)
Personal identification with political party affiliation	1 (17%)
Majority-minority shift	3 (25%)
Racial awareness	1 (8%)
Subjective social status	2 (17%)
General health topics measured^a	
Health belief(s)	5 (42%)
Health status	5 (42%)
Health outcome(s)	2 (17%)
Social determinant(s) of health	5 (42%)
Specific health-related indicators^a	
Employment status	2 (17%)
Mortality	2 (17%)
Perceived discrimination or privilege	3 (25%)
Perceived threat	3 (25%)
Self-rated overall and/or mental health	5 (42%)
Voting behavior and/or political attitudes	4 (33%)
Data source^a	
Mortality data	2 (17%)
Survey	10(83%)
Voting records	2 (17%)
Study population^b	
CDC WONDER mortality data from White Americans only	2 (17%)
Probability sample of U.S. population	4 (33%)
Probability sample of White Americans and Black Americans	1 (8%)
Probability sample of White Americans only	2 (17%)
Purposive sample of White Americans and racial minorities	1 (8%)
Turk Prime sample of White Americans and Black Americans	1 (8%)
Turk Prime sample of White Americans only	1 (8%)
Study design	
Cross-sectional study	6 (50%)
Panel study	1 (8%)
Prevalence study	2 (17%)
Time-series study	1 (8%)
Randomized controlled trial	2 (17%)

^a Some studies included more than one general health topic, specific health topic, threat-related variable, or data source, therefore $n > 12$ for those categories.

^b Two studies (Kwate & Goodman, 2014; Ng et al., 2021) did not differentiate between Hispanic and non-Hispanic Whites in their study samples or analyses.

2016. Thus, the author concludes that Whites' individually held beliefs about financial standing affect voting behaviors more strongly than in-group favoritism. Furthermore, Melcher (2021) suggests that future measures of economic self-interest should capture perceived job (in) security and direct measures of employment status, rather than measuring the extent to which Whites believe immigrants are job displacers.

3.1.5. Political party affiliation

In addition to the potential effect of individual financial status on voting behavior, Mutz's (2018) panel study also examined which factors influence candidate preference. Consistent with the author's hypothesis that perceptions of status threat lead to greater conservatism, analyses revealed the average party identification for U.S. Americans shifted in a slightly (but significantly) more Republican direction from 2012 to 2016 (Mutz, 2018). In contrast to the insignificant effects of personal economic consideration on candidate preference, increases in support for conservative policy stances (e.g., "China is strictly a threat U.S. jobs and security", "Return illegal immigrants to their native countries", or "Government should have fewer free trade agreements") significantly predicted voting for Trump (Mutz, 2018). Furthermore, increases in social dominance orientation (see Sidanius & Pratto, 1999) between

2012 and 2016 significantly predicted greater personal affiliation with the Republican Party, leading Mutz to contend that perceptions of threat generally lead Whites to adopt more politically conservative views (Mutz, 2018).

3.1.6. Majority-minority shift

Four included studies used unique study designs to examine how changes in racial demographics (at the national or local level) influence White Americans' social determinants of health or health outcomes. Craig and Richeson's (2014) study consisted of three true experiments that examine how the "majority-minority" shift affects White Americans' policy stances. Making California's majority-minority population shift salient prompted politically unaffiliated Whites to endorse conservative policy positions. In their second experiment, they explored potential mediators of the effect of majority-minority shift messaging on Whites' political ideology. Compared to the control group, White Americans in the racial-shift condition express more support for conservative positions on both race-related issues and conservative race-neutral issues. Thirdly, the addition of a paragraph stating that Whites will likely remain at the top of the future racial hierarchy within a majority-minority nation eliminates the conservative shift observed following exposure to the racial shift information (Craig & Richeson, 2014). As such, the racial shift question served as a proxy for measuring perceived status threat.

Similarly, Perkins and colleagues' (2020) experiment found that exposure to messaging about a majority-minority nation causes White Americans who conceptualize the economy as a competitive, zero-sum system to become more conservative in their political attitudes. They also conceptualized the racial shift messaging to be a proxy for measuring perceived status threat (Perkins et al., 2020). Likewise, Mutz's (2018) analysis of cross-sectional survey data indicated that questions measuring Whites' concerns about majority-minority population shifts were positively associated with the likelihood of voting for Trump, which the author also attributed to social status threat.

Furthermore, Young (2016)'s ecological study found that decreases in the percent of White population in Kansas predicted rising mortality in middle-aged White residents. The author suggested White population decline is a proxy for Whites' collective loss of status (Young, 2016).

3.1.7. Subjective social status

Finally, two cross-sectional studies assessed the relationship between comparative social position and ill health (Cooley et al., 2020; Kwate & Goodman, 2014). Cooley et al. (2020) conducted a survey on TurkPrime with Black and White adults to determine how subjective social status (as measured by the MacArthur Scale of Subjective Social Status) is associated with self-rated health and depressive symptoms. White respondents perceived their own status to be significantly lower than the majority of White Americans, while the opposite was true for Black respondents (Cooley et al., 2020). Furthermore, for White Americans only, perceived ingroup-self discrepancies in status predicted the experience of fewer positive emotions, which mediated worse overall health.

Additionally, Kwate and Goodman (2014) utilized representative survey data from White residents of three distinct Boston neighborhoods to determine if/how perceptions of subjective social status and inequality predict self-rated health and well-being. Overall, they found that Whites' perception of higher standing within social hierarchies is significantly associated with better health, while Whites who perceive that they hold a relatively lower social position report worse health.

3.2. Measurement of health-related constructs

Given that our second research objective was to determine *how* status threat relates to White Americans' health, we identified how included studies measured White Americans' health beliefs, health statuses, health outcomes, and social determinants of health. Study-specific data sources are listed in Table 2. Table 3 depicts an overview of the health

constructs we extracted from the 12 included studies. Health beliefs (e.g., perceived discrimination, perceived threat) and information about health status (e.g., self-rated measures of physical and mental health) were captured through survey questions (Bratter & Gorman, 2011; Cooley et al., 2020; Fujishiro, 2009; Kwate & Goodman, 2014; Ng et al., 2021; Perkins et al., 2020). Mortality — the only specific health outcome operationalized within included studies — was measured using publicly available mortality data (Siddiqi, Sod-Erdene, Hamilton, Cottom, & Darity, 2019; Young, 2016). Studies collected information on social determinants of health (e.g., employment status, financial status, political attitudes, job satisfaction) via surveys (Baccini & Weymouth, 2021; Craig & Richeson, 2014; Melcher, 2021; Mutz, 2018; Perkins et al., 2020). No included studies measured specific health behaviors.

3.3. Study samples

As seen in Table 3, study populations varied such that less than half ($n = 5$) of included studies utilized samples comprised solely of White Americans, while other studies included diverse, nationally representative samples ($n = 4$), Black and White participants only ($n = 2$), or White participants and an unspecified group of people of color ($n = 1$). Studies which only considered Whites employed probability sampling methods with 630 respondents (Kwate & Goodman, 2014) and 989 respondents (Craig & Richeson, 2014), convenience samples including 603 respondents (Perkins et al., 2020), and mortality data from 2241 U. S. counties (Siddiqi, Sod-Erdene, Hamilton, Cottom, & Darity, 2019) and all 105 counties in Kansas (Young, 2016). Studies with both Black and White participants collected responses via a probability sample of 34, 353 respondents (Bratter & Gorman, 2011) and convenience samples totaling 1009 respondents (Cooley et al., 2020). One study included 520 responses from a nationwide convenience sample of Whites and “racial minorities” (specific racial and ethnic identities were not specified) (Ng et al., 2021). The remaining four studies utilized nationally representative probability samples (Bratter & Gorman, 2011; Fujishiro, 2009; Melcher, 2021; Mutz, 2018).

4. Discussion

Our scoping review identified 12 empirical studies that broadly examined how perceived threats to social status affect White Americans' health. Studies generally conveyed that Whites' can experience negative health effects, such as poor self-rated health or worsening mortality, when they perceive that something (or someone) is threatening their social position. This was true at the individual level and at the population level. However, given the small number of identified studies and the variation in how these studies conceptualized and measured threat-related constructs, it is unclear if status threat is a phenomenon that affects the health of *all* White Americans. Overall, included studies demonstrated that some White Americans' health can be negatively affected by perceived (or actual) threats involving societal conditions, interpersonal social experiences, and individual social standing.

First, White Americans' beliefs concerning how societal conditions affect their status as the dominant group can prompt them to vote for conservative candidates (Baccini & Weymouth, 2021; Craig & Richeson, 2014; Mutz, 2018; Perkins et al., 2020). Generally, studies highlighted how global, national, and local contexts (e.g., changes in global superpowers, shifts in demographic composition, deindustrialization), can shape how White Americans perceive their own positions within sociopolitical and economic hierarchies. This confirms the assumption that White Americans' attitudes toward health policies stem from managing their perceived loss of power and status (Versey et al., 2019), which can ultimately lead to Whites' endorsement and acceptance of candidates who utilize explicitly derogatory racial appeals, thus resulting in public policies which are disproportionately harmful for people of color (Christiani, 2021). Because two studies in this review identified that perceptions of diminished status are associated with worsening White

mortality (Siddiqi, Sod-Erdene, Hamilton, Cottom, & Darity, 2019; Young, 2016), we contend that conservative shifts are potentially health-harmful for White Americans, though what the wider effects are — on political, economic, and social conditions — are unclear.

While one included study (Melcher, 2021) indicated that economic self-interest was the key determinant for conservative shifts, rather than the anti-immigrant sentiment that is related to status threat, findings from other included studies, other survey data, and several recent experiments complicate that interpretation. For example, Reny et al. (2019) found that racial resentment was a stronger predictor of support for Donald Trump than economic anxiety among respondents of the American National Election Studies survey. Relatedly, Bai and Federico (2019) demonstrated that collective existential threat (i.e., fear of White population decline) increased Whites' defensive political attitudes (i.e., intergroup bias and conservatism). They found that Whites' perceptions of in-group population decline was directly related to fear of loss of dominant social status (Bai & Federico, 2019). Additionally, Brown et al. (2021) investigated White Americans' status concerns and found that perceived threat associated with changing racial demographics in the U. S. is moderated by political ideology. White conservatives considered the impending “majority-minority” demographic shift as a threat to Whites' dominant status, while White liberals were not threatened by a potential loss of status (Brown et al., 2021). Relatedly, experiments by Stewart and Willer (2022) portrayed that fears about White population decline significantly predicted Whites' support for Trump early in the 2016 election cycle, but the effect weakened over time, suggesting that other factors, such as ethnic identification, may contribute more significantly to White Americans' endorsement of conservative candidates than the fear of being outnumbered by racial minorities. As such, future research should consider the potential ways that economic factors, political ideology, and ethnic identification influence White Americans' perceptions of status loss and subsequent health outcomes.

Second, included studies demonstrated that Whites' interpersonal social experiences can relate to their perceptions of threat. Perceived discrimination negatively affected Whites' self-rated mental health (Fujishiro, 2009), job satisfaction (Ng et al., 2021), and overall self-rated health (Bratter & Gorman, 2011). Interestingly, in Fujishiro's (2009) study, perceived *privilege* at work was also associated with poor self-rated health for White Americans. While Fujishiro (2009) posited that collective guilt caused Whites who reported being treated better than other racial groups to experience worse self-rated mental health, Malat et al. (2018) argue that Fujishiro's findings were more likely related to Whites' beliefs in the existence of meritocracy and racial equality. For example, White employees who believe that hard work can annul the effects of inequitable social hierarchies may experience adverse mental health effects if they perceive that their success at work is a result of racial privilege rather than their individual work ethic (Malat et al., 2018). This has important implications for future research concerning how perceived threats can affect Whites' health. For example, researchers should investigate if and how belief (or disbelief) in meritocracy and racial privilege influences the relationship between perceived status threat and health.

Third, two studies indicated that White Americans' perception of their own position within the social hierarchy had meaningful implications for individual health (Cooley et al., 2020; Kwate & Goodman, 2014). Whether comparing their social position to their own racial group or to Black Americans, Whites experienced worse self-rated health if they perceived that their social position was lower than others. These findings support the theoretical assumption that the *perception* of less power, or lower status than other groups, can adversely affect White Americans' health (Efrid & Lightfoot, 2020; Geronimus et al., 2015; Malat et al., 2018). As such, researchers should systematically investigate the extent to which White Americans' subjective and objective social status may affect the impact of status threat on their health.

Overall, our study suggests that there is ambiguity in how status threat is measured across disciplines. At present, researchers are using

proxy variables to measure status threat. As the Republican party gains more candidates (and potentially voters) of color (Weisman, 2022), variables like the percent of Republican vote share or exposure to changing U.S. demographics may not be suitable measures of status threat in future studies. Relatedly, manuscripts in our review rarely linked the threat-related variable to a health outcome. Other than mortality, studies primarily relied on social determinants of health and self-reported measures of overall health and mental health status. Consequently, there is a gap in the literature concerning which *specific* health outcomes and health behaviors are most directly affected by status threat.

Furthermore, we searched six multidisciplinary databases with a broad range of search terms and only found 12 studies related to the topic of status threat and health among White Americans, suggesting that this topic is still understudied. It is plausible that we missed some relevant studies, but we strived to include relevant studies that were published after the date of our database search in other parts of this manuscript. One possible reason for the small number of pertinent studies could be because social scientists frequently investigate the health effects of oppression on populations of color without simultaneously considering how social supremacy affects White Americans' health. To expand our understanding of how racism influences health, researchers need to investigate how various dimensions of social supremacy affect White Americans (and particular subgroups of White Americans) in potentially positive and negative ways (Malat et al., 2018; Williams et al., 2019).

Furthermore, all studies were quantitative in nature. We believe that interdisciplinary, mixed-methods, and qualitative studies could provide additional insight into how the underlying determinants of status threat (such as beliefs and attitudes) are directly related to White Americans' individual and population health. For example, is there geographic, gender, or class status variation in the presence of status threat? Potential variation by religious beliefs is also important to consider, given that White Christian nationalism continues to have a strong and significant independent effect on White Americans' voting behaviors (Baker et al., 2020). Social scientists need to identify the determinants of status threat because those findings could support the development of interventions and policies that address health-harmful misperceptions.

Additionally, the racial and ethnic make-up of the study populations varied greatly in included studies. This indicates that researchers should continue investigating potential within-racial group variation in White Americans' health, while also continuing to design studies that compare the health of Whites to other racial and ethnic populations. Interestingly, two included studies did not differentiate between Hispanic and non-Hispanic Whites in their study samples, which possibly masked meaningful differences in how cultural and social experiences related to health among Whites in their study samples. We assert that future research on White Americans' health should explicitly differentiate between Hispanic and non-Hispanic Whites.

Finally, over half ($n = 7$) of the included studies were published after the 2016 presidential election, which conveys the increasing importance of investigating the health effects of status threat within the context of the current, polarized political climate. Far-right political rhetoric that casts refugees, immigrants, and racially minoritized groups as a threat to the status quo is harmful for racially minoritized groups (Jimenez et al., 2022; Kaufmann, 2019; Khan et al., 2021), and our review indicates that this rhetoric also poses a considerable health risk for some White Americans. As such, future research should document the psychological effects of experiencing status threat. Furthermore, it is plausible that there are some psychological *benefits* for far-right leaning White Americans when they see their formerly fringe ideologies being amplified by politicians and conservative media outlets (Reyna et al., 2022), yet included studies did not pursue this topic.

4.1. Limitations

Our findings are limited by the inherent constraints of scoping reviews, which aim to provide breadth rather than depth of information about a given topic (Fabbri, Lai, Grundy, & Bero, 2018; Tricco et al., 2016). As such, we could only provide a narrative synthesis of how status threat potentially relates to White Americans' health, rather than offer a formal meta-analysis of the findings from the small number of identified studies.

Moreover, half ($n = 6$) of the manuscripts included in this review used cross-sectional study designs, which limited the authors' abilities to make causal inferences. Therefore, health researchers need to design more studies that can directly address the temporality associated with how status threat affects Whites' health. While randomized controlled trials and experiments are not always feasible or ethical for complex social issues, our review highlights the need for more rigorous empirical studies that specifically assess the direct (and indirect) health effects of status threat over time. To conduct these studies, health researchers need to distinguish potential differences between status threat, other related constructs, and the mechanisms that are involved in producing them.

4.2. Conclusion

Our review suggests that status threat and the health of White Americans is an emerging issue that would benefit from more interdisciplinary and systematic research. While few in number, included studies indicate that increases in the prevalence of status threat could have potentially adverse health effects at the individual and population level for White Americans. Because of the currently polarized political climate, it is also critically important for scholars who study the social determinants of health to consider how Whites' beliefs about their position within social hierarchies potentially affect health. Furthermore, researching how sociopolitical ideology contributes to White Americans' health is an important step in developing interventions that dissuade dominant groups from gravitating toward ideologies that can be harmful for minoritized groups.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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