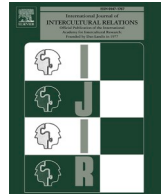




Contents lists available at ScienceDirect

## International Journal of Intercultural Relations

journal homepage: [www.elsevier.com/locate/ijintrel](http://www.elsevier.com/locate/ijintrel)

# Hate as a system: Examining hate crimes and hate groups as state level moderators on the impact of online and offline racism on mental health

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## ARTICLE INFO

## Keywords:

Hate crimes  
Hate groups  
Offline racism  
Online racism  
Stress  
Multilevel analysis

## ABSTRACT

The rise in race-based hate crimes and groups should not only be examined as an individual- or group-level issue but as indicators that reflect state-level norms of hate and degradation toward racial minority groups. Specifically, for racial minority individuals residing in states that yield higher rates of hate crimes and groups, this may reflect a greater hate culture, and the distress associated with racism may be exacerbated, compared to those residing in states with less of a hate culture (e.g., lower numbers of hate crimes and groups). Thus, to test these assertions, we examined whether state-level indicators of race-based hate crimes and groups would moderate the relationship between perceived racism (offline and online) and stress among racial minority individuals. Using data from 935 racial minority adults across 43 states, a multilevel analysis was conducted with online and offline racism predicting distress at level 1, and the total number of hate crimes and groups moderating this relationship at level 2 (state-level). Between hate crimes and groups, only hate groups was a significant indicator moderating this link. In states with a low number of hate groups, the link between offline racism and stress was not significant while this link was significant in states with a high number of hate groups. Online racism was significantly associated with stress, but this link was not moderated by any of the hate indicators. The findings suggest that the presence and activity of hate groups may be a significant contextual factor in understanding the salience of racial discrimination. Implications for research are discussed.

## Introduction

Hate is a persistent issue in the United States. The 2020 Federal Bureau of Investigation report found that hate crimes (crimes typically involving violence that is motivated by prejudice toward certain categories such as race) in the U.S. rose to the highest level in more than a decade (Federal Bureau of Investigation, 2021). Yahagi (2019) suggests that increases in hate crime rates likely coincide with significant emergence of hate groups which act as vehicles that coordinate and propagate hate. In fact, one report by Southern Poverty Law Center found that the number of hate groups (organizations or movements that advocate and practice hatred, hostility, or

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<https://doi.org/10.1016/j.ijintrel.2022.09.002>

Received 19 May 2022; Received in revised form 4 September 2022; Accepted 5 September 2022

Available online 11 September 2022

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violence towards certain groups such as racial minority groups) remained steady in 2019, but the number of White nationalist hate groups rose by 55 % since 2017 (Southern Poverty Law Center, 2021). The rise in hate crimes and groups, particularly regarding the increase in White nationalist movements, continues to highlight the significant issues of race-based hate in the U.S. The majority of the increases in hate crimes were race-based hate and nearly half of the hate crime victims in 2019 were toward racial minority individuals (Federal Bureau of Investigation, 2021). The rapid growth of White nationalist hate groups in the past decade, particularly through the use of social media platforms, is a clear reflection of hate that is persistent and widespread (Daniels, 2009).

From a cultural lens, the rise in hate crimes and groups should not only be examined as individual- or group-level issue but indicators that reflect state-level norms of hate and degradation toward racial minority groups throughout the U.S. The number of hate crimes and groups varies across the 50 states of the U.S. (Jendryke & McClure, 2019) and may reflect differences in hateful culture toward racial minority groups in each of the states. Theories such as the Tightness-Looseness framework (Harrington & Gelfand, 2014) suggest that states with tighter norms, such as nationalist, and ethnocentric norms, are likely to have higher rates of discrimination, inequality, and far-right extremist activity. This conceptualization of hate from a cultural perspective (Fischer et al., 2018; Vendrell Ferran, 2021) is important in understanding the context of prejudice and discrimination in the U.S., particularly regarding the costs of racism for racial minority individuals. Specifically, for racial minority individuals residing in states with a greater hate culture that yields higher rates of hate crimes and groups, the distress associated with racism may be exacerbated compared to those residing in states with less of a hate culture (e.g., lower numbers of hate crimes and groups). Thus, to test these assertions, we examined whether state-level indicators of race-based hate crimes and groups would moderate the relationship between perceived racism (offline and online) and stress among racial/ethnic minority individuals.

### *Hate crimes and hate groups*

There is no consensus on the definition of hate as a construct in the literature, particularly in relation to racial or ethnic bias. In general, definitions of hate include some combination of an emotion or feeling related to antipathy, contempt, extreme dislike, or disgust (Fischer et al., 2018). Hate has also been discussed as a broader conceptual category that refers to a range of antipathies that spans the individual, interpersonal, collective, and organizational levels (Fischer et al., 2018; Vendrell Ferran, 2021). Further, it is generally agreed upon that hate exists on a spectrum of intensity and may or may not lead to actions to harm the person or community who is the object of the hate (Fischer et al., 2018; Vendrell Ferran, 2021).

However, hate crime has a clear, standard legal definition despite often being used to describe a variety of actions and behaviors whether or not they meet this legal definition. According to the Federal Bureau of Investigations (Federal Bureau of Investigation, 2021), a “hate crime” is defined as a criminal act (e.g., simple assault, robbery, or theft) motivated because of or in part due to biases against a protected class, such as race, religion, disability, sexual orientation, ethnicity, gender, or gender (Hate Crimes, n.d.). The term “hate” in hate crime is related to the bias or prejudice that underlies the criminal act, whether or not feelings of antipathy, contempt, or dislike are present. The protected classes (e.g., race, sex, ethnicity, religion, etc.) included in legal definitions vary significantly among states (Movement Advancement Project, 2020). Every state with a hate crime law includes race, ethnicity, and religion as protected classes, while gender identity, sexual orientation, and disability are the least likely to be included (Movement Advancement Project, 2020). Some states also have immigration status, age, or law enforcement/first responders on the list of protected classes (Movement Advancement Project, 2020). Therefore, what is legally, or possibly even conceptually considered a hate crime in one state, may not be considered a hate crime in another state based on what protected classes each state includes in its law.

While the definition of hate crimes focuses on individual acts of bias, hate groups are categorized through the collective organizing and promotion of biases. Similar to the complexity of defining hate crimes, particularly in the legal context, hate group definitions can also vary and lack consensus depending on how the hate is defined and perceived (Blazak, 2009). Outside of legal context, Blazak (2009) notes that the working definitions of hate groups among major hate group monitoring groups (e.g., Anti-Defamation League, Southern Poverty Law Center) are useful in operationalizing this concept. For example, the Southern Poverty Law Center (Southern Poverty Law Center, 2021) defines a hate group as “an organization or collection of individuals that – based on its official statements or principles, the statements of its leaders, or its activities- has beliefs or practices that attack or malign an entire class of people, typically for their immutable characteristics.” These groups vary in their motives, targets, strategies, and tactics. Further, regional social and political history further influences the number, structure, and strategies of hate groups. For example, California, Washington, and Oregon have a high number of White supremacist groups, but the motives and strategies of these groups differ from groups based in the southern region of the United States which are more heavily influenced by the history of the Ku Klux Klan (Southern Poverty Law Center, 2021). A study comparing violent and non-violent hate groups found that groups in the West and Northeast were more likely to be involved in violence compared to other areas (Chermak et al., 2013).

The relationship between hate groups and hate crimes is unclear. A study by Ryan and Leeson (2011) found no causal relationship between the presence of hate groups and hate crimes more generally. It’s important to note that the majority of hate crimes are committed by what Levin and McDevitt (2002) termed “thrill-seeking” youth who do not have an affiliation with hate groups. Further, the majority of hate crimes are unplanned and involve drug or alcohol consumption, another clear differentiation between the organized nature of hate groups and individual hate crimes (Levin & McDevitt, 2002). Thus, there is no clear evidence to suggest that the level of hate group presence and activity is correlated with rates of hate crimes.

However, Mulholland (2011) found that the presence of an active White supremacist chapter specifically is associated with more hate crimes. Additionally, Adamczyk et al. (2014) found that, while rare, there is a relationship between the presence of hate groups and ideologically motivated homicides by far-right extremists. One study comparing violent to non-violent far extremist groups found that groups that primarily used literature to promote prejudicial beliefs were less likely to also be violent (Chermak et al., 2013).

Further, they found that extremist groups that were more focused on local issues were less likely to be violent compared to extremist groups with a national scope (Chermak et al., 2013). It may be that, in general, hate groups typically focus more on reinforcing their biased ideology through building localized social and political power rather than individual bias-motivated crimes.

While the relationship between hate groups and hate crimes is unclear, both phenomena appear to have geographical patterns. Jendryke and McClure (2019) found that hate crimes and hate groups are collocated in the southern region of the United States, but this relationship did not hold true in other regions. Prior research shows hate crimes are more common in urban areas, while hate groups are more commonly found in rural areas or in the periphery of urban centers (Jendryke & McClure, 2019). Further, research suggests that hate crimes may be more prevalent in racially diverse areas (Nelson et al., 2016). In contrast, areas with less diversity, more poverty, less population change, and less education correlate more with hate groups (Medina et al., 2018).

#### *Hate crimes and hate groups as indicators of hate culture*

Aside from understanding the psychosocial impact of hate crimes, there is little to no research that looks at how hate crimes and hate groups shape broader cultural norms and biases towards marginalized groups. In psychology, much of this limitation may be due to the early conceptualization of hate as an intrapersonal emotion that motivates individual level behaviors such as hate crimes (Fischer et al., 2018). However, recent conceptualization has provided group and contextual perspectives to understanding hate. For example, Vendrell Ferran (2021) presents the concept of ideological hate in their four-types model suggesting that an individual may develop hate toward certain groups of individuals based on their identities (e.g., foreigners) through a process of in-group cultural socialization. Vendrell Ferran (2021) notes that the focus of this hate is indeterminate; that is, an individual socialized this way is likely to negatively stereotype members of the target identity and view them to be threats. In other words, individuals may not develop hate toward others in a vacuum, but such hate is likely the result of socialization and ideological influences throughout their developmental contexts, some of which may have been transmitted intergenerationally given the history of racism in the U.S. (Adams, 2020). For example, a White individual born and raised in a household that promotes racist and hateful ideologies toward racial minority individuals and views them as threats to the preservation of their privilege and norms may develop aversion or hate toward racial minority individuals. An extreme result of this process may be that the individual chooses to join a White supremacist group (Adams, 2020; Schafer et al., 2014).

At the cultural level, how dominant groups shape and maintain their cultural norms and privileges provide important frameworks to understand how the promotion of hate serves a function in this process. Research that focuses on the environmental and contextual factors that are associated with the presence of hate crimes and hate groups also provides important clues. According to the tightness-looseness theory, communities with tight or restrictive norms react to perceived threats by “tightening” their in-group norms and attempting to increase social control (Gelfand et al., 2006). Research suggests that increases in racial and ethnic heterogeneity are associated with far-right activity (Adamczyk et al., 2014). Applying the tightness looseness framework, increases in racial and ethnic diversity may threaten White communities of their in-group dominance, leading to a “tightening” of norms that preserve White nationalistic interests. The norm tightening may result in White communities seeking to preserve their interests by hating and blaming racial minorities for socioeconomic issues (e.g., unemployment) and even resorting to violence (e.g., hate crimes). Given this context, high levels of hate crimes and hate group presence may be indicators of a climate in which racial minority individuals are increasingly viewed as threats to White individuals. Although different in context, a similar dynamic has been noted in Hatzenbuehler et al.’s (2015) study which found that LGBT youths who reported being victimized by online and offline bullying were more likely to reside in locations with higher rates of anti-LGBT hate crimes.

Similarly, research on the “defended neighborhoods” thesis has found that there is an increase in racially motivated hate crimes in predominantly White neighborhoods with an influx of racial/ethnic minority individuals (Grattet, 2009). Further, a study by Mills et al. (2017), found that increased racial/ethnic diversity and demographic changes are associated with far-right hate crimes. They also found that increases in average unemployment also increased far-right hate crimes while poverty is negatively associated with far-right crimes. Finally, Lyons (2008) found that anti-Black hate crimes were more likely to occur in communities with high levels of informal social control and a rapid influx of Black residents. Taken together, evidence suggests that the varying polarization of hate crimes and hate groups, across the states, may represent the extent to which certain states may demonstrate a greater climate of hate toward racial minority individuals than others. Such context is important to examine as it may promote greater fear, anxiety, and trauma among racial minority individuals, and operate as a structural force that justifies White individuals’ racial discrimination and prejudice toward racial minority individuals.

#### *The present study: contextualizing the costs of racism within the culture of hate*

As an ideology of racial domination held by the dominant racial group (i.e., White individuals), racism systematically disempowers and differentially allocates resources and opportunities to racial groups that are viewed as culturally or biologically inferior (Bonilla-Silva, 1997; Gee & Ford, 2011; Williams & Mohammed, 2019). Operating through multiple domains, racism is understood to influence life circumstances of racial minority individuals in the United States through interpersonal racial discrimination (e.g., individual-level racism), societal beliefs and cultural messaging that devalue people of color (e.g. cultural racism), and the laws, policies, and structures that systematically disadvantage racial groups viewed as inferior (structural or institutional racism; Williams & Mohammed, 2019). One of the main pathways that racism impacts health is through stress. Experienced as a chronic stressor that can overwhelm coping resources and trigger negative emotional reactions, there is robust and consistent evidence that exposure to racial discrimination can increase the risk for negative psychological (e.g., distress, depression, anxiety) and physiological outcomes (e.g.,

obesity, hypertension, substance use, poor sleep; [Gee et al., 2009](#); [Paradies, 2006](#); [Williams & Mohammed, 2019](#)).

Alongside offline forms of racism, recent conceptualization and empirical evidence ([Keum, 2017](#); [Keum & Miller, 2018](#); [Tynes et al., 2008](#)) have suggested that online racism also significantly contributes to stress among racial minority individuals. For example, in a study examining how stress associated with online racism may be linked to alcohol use, [Keum and Cano \(2021\)](#) found psychological distress to be a significant partial mediator for racial minority men and women, and social media-related stress as a significant partial mediator for the women only. In another study, time spent in online gaming was significantly associated with psychological distress, with exposure to online racism explaining this association among Black emerging adult gamers ([Keum & Hearn, 2021](#)). An exploratory qualitative study of experiences of online racism among adult Twitter users from California and South Carolina illuminates a host of negative emotions (e.g., frustration, anger, sadness, exhaustion) felt by participants, with others describing the “cumulative toll” online racism has on their work, school, and personal relationships, finding it difficult to detach themselves from negative race-related online interactions ([Criss et al., 2021](#)).

In this study, we examined the link between perceived racism (online and offline) and stress and whether this linkage varied across states with different levels of race-based hate culture toward racial minority individuals as indicated by the number of hate crimes and hate groups. As reviewed, we theorized that polarization of race-based hate crimes and groups as state-level indicators that represent the extent of a hateful climate toward racial minority individuals. A greater culture of hate may promote racial discrimination toward racial minority individuals (online and offline) and exacerbate the mental health costs of racism. It is likely that racial minority individuals who reside in a state with more hate culture toward racial minority individuals experience exacerbated stress related to racism compared to those who reside in states with less hate culture.

In examining the moderating roles of race-based hate crimes and groups at the state level, we anticipated some nuanced differences between online and offline racism since online racism experiences transcend geographic boundaries compared to offline racism (e.g.,

**Table 1**

Total number of hate crimes and hate groups across states in 2016.

State	Total number of race-based hate crimes	Total number of race-based hate groups
Alaska	11	0
Alabama	12	27
Arkansas	10	16
Arizona	110	18
California	522	79
Colorado	67	16
Connecticut	62	5
District of Columbia	33	21
Delaware	11	4
Florida	43	63
Georgia	25	32
Hawaii	0	0
Iowa	13	4
Illinois	73	32
Indiana	52	26
Kentucky	135	23
Louisiana	20	14
Massachusetts	212	12
Maryland	24	18
Maine	21	3
Michigan	282	28
Minnesota	77	10
Montana	65	24
Mississippi	4	18
North Carolina	99	31
Nebraska	23	5
New Jersey	137	15
New Mexico	8	2
Nevada	31	3
New York	155	47
Ohio	336	35
Oklahoma	20	6
Oregon	61	11
Pennsylvania	40	40
Rhode Island	2	1
South Carolina	18	12
Tennessee	93	38
Texas	104	55
Utah	47	3
Virginia	76	39
Washington	239	21
Wisconsin	22	9
West Virginia	30	4

online racist comments may be viewed by people across the nation regardless of its origin; (Keum, 2017; Keum & Miller, 2018). Unlike offline in-person racism, generally experienced at a specific point in time and physical location, experiences of racism on the internet, or online racism, is experienced at a much greater frequency through online interactions (Keum & Miller, 2018). The features of the internet allow racist content to evolve and spread further and faster (e.g., trending, viral), while also achieving a level of permanence that can lead to repeated exposure to racist beliefs and ideologies (Keum & Miller, 2018). Thus, state-level differences in hate may be more relevant to experiences of offline racism that occur in a certain geographic location, contextualized by the hate culture surrounding said location. For example, in-person racial discrimination occurring in Atlanta, Georgia would be contextualized by its culture of hate indicated by the number of accumulated hate crimes and hate groups present in Georgia. Conversely, this assertion may not hold for online racism as online racist content and interactions can be encountered without being geographically bound to the characteristics of a particular location. For example, someone residing in Atlanta, Georgia can encounter online racist content originating from another state. We examined State-level (level 2) race-based hate indicators (number of race-based hate crimes and hate groups) as moderators in the relationship between perceived racism (online and offline) and stress at the individual level (level 1).

Below were our specific hypotheses:

**Hypothesis 1.** The relationship between offline racism and stress will be stronger for those who live in states with a greater number of accumulated race-based hate crimes.

**Hypothesis 2.** The relationship between offline racism and stress will be stronger for those who live in states with a greater number of accumulated race-based hate groups.

**Hypothesis 3.** The relationship between online racism and stress will not be moderated by the number of accumulated race-based hate crimes and groups.

## Method

### Participants

Data for the independent and dependent variables for this study were drawn from a previous IRB approved study that collected data at the beginning of 2017 (Keum & Miller, 2017). Data regarding the number of hate crimes in 2016 were extracted from FBI Hate Crime Statistics (Federal Bureau of Investigation, 2021). Data regarding the number of hate groups by the end of 2016 were extracted from Southern Poverty Law Center, a nationwide non-profit organization with a comprehensive database and tools for monitoring hate groups (Southern Poverty Law Center, 2021). A non-probability sample of 935 racial/ethnic minority adults ( $M_{age} = 27.44$ ,  $SD = 9.80$ ) provided data. About 32 % identified as Black, 32 % as Asian, 17% as Hispanic/Latina/o, 11 % as Multiracial, 3 % Native, 3 % as Native Hawaiian or Pacific Islander, and 2 % as Middle Eastern. About 59% identified as women and 39 % as men, and 2 % as other. The average household income was \$52,801.

A total of 43 states were present in the data, with the number of participants in each state ranging from 1 to 410. An average of 21–22 participants were in each state. The average total number of hate crimes in 2016 across the states was 98.04 ( $SD = 138.58$ ), ranging from 2 to 522. The average total number of hate groups at the end of 2016 across the states was 29.41 ( $SD = 20.01$ ), ranging from 0 to 79. See Table 1 for a breakdown of hate crimes and groups.

### Procedure

Participants were recruited by the principal investigator via convenience sampling by advertising study invitation messages in online groups on social media (e.g., Facebook, Reddit) with significant traffic of racial/ethnic minority individuals (e.g., Facebook groups on issues of race and racism, subreddits such as r/asianamerican, r/BlackPeopleTwitter, r/Hispanic, etc.). The principal investigator posted the advertisement message directly in these groups or contacted the admin for permission to share if required. The survey was advertised as a general inquiry of participants' online racial/ethnic experiences. Participants were invited to participate in an online survey consisting of study variable measures and demographic items hosted by Qualtrics. The inclusion criteria for the study were: (1) 18 years old or older, (2) self-identify as a racial/ethnic minority, and (3) living in the U.S. Informed consent was provided and obtained from all participants. The survey took 15–20 min to complete and included two attention check items (e.g., "Please choose always"). Participants were provided an option to enter a raffle for a \$50 Amazon gift card for completing the survey.

### Measures

#### Perceived Online Racism

The 30-item Perceived Online Racism Scale (PORS) was used to assess people's experiences of racist online interaction and exposure to racist online content and information (Keum & Miller, 2017). Participants rate how often they have experienced online racism across three domains (personal, vicarious, and mediated exposure) in the past six months on a five-point Likert-type scale ranging from 1 (*Never*) to 5 (*All the time*). Sample items include: "I have received racist insults regarding my online profile (e.g., profile pictures, user ID)," "I have seen other racial/minority users being treated like a second-class citizen," "I have been informed about a viral/trending racist event happening elsewhere [e.g., in a different location]." Keum and Miller (2017) established good initial psychometric properties for the PORS with good Internal consistency estimates (0.90–0.95 across the subscales) and concurrent

validity relationships with racism-related stress, psychological distress, and unjust views of society. PORS also predicted unique variance in mental health outcomes over and above offline racism. Measurement equivalence of PORS was also demonstrated across four racial/ethnic groups (Black, Asian, Latina/o, Multiracial; Keum & Miller, 2017), gender (men, women), and age groups (younger to older adults; Keum & Miller, 2018). The Cronbach's alpha for the total scale score was .96.

#### Perceived Offline Racism

To measure participants perceived level of experiences with offline racism, we utilized the Perceived Ethnic Discrimination Questionnaire-Community Version Brief (PEDQ-CVB; Brondolo et al., 2005). The PEDQ-CVB is reliable for measuring perceived levels of varying discrimination exposures across different racial/ethnic groups (Keum et al., 2018). The PEDQ-CVB includes five subscales including one on exclusion/rejection (four items; e.g., “Have others ignored you or not paid attention to you?”), stigmatization/devaluation (four items; e.g., “Have people not trusted you?”), work/school discrimination (four items; e.g., “Have you been treated unfairly by coworkers or classmates?”), treatment/aggression (four items; e.g., “Have others actually hurt you or tried to hurt you?”), and police (one item). The scale has been validated and has achieved good reliability across multiple racial/ethnic groups (Keum et al., 2018). Cronbach's alpha for the current sample was .94.

#### Perceived stress

To assess the extent to which situations in life are perceived as stressful, we use the 10-item Perceived Stress Scale (PSS-10; Cohen et al., 1983). Participants are asked to rate their exposure to stressful situations over the last month, assessing how uncontrollable, unpredictable, and overloading the situations were on a 5-point scale ranging from 0 (never) to 4 (very often). Sample items include, “how often have you been angered because of things that were outside of your control?” and “how often have you felt difficulties were piling up so high that you could not overcome them?” Responses are summed, with higher scores indicating greater perceived stress (range is from 0 to 40). Cohen & Janicki-Deverts, 2012 established good internal reliabilities (0.79–0.91) for the PSS-10 across diverse racial/ethnic groups. Perceived stress has been significantly and positively linked with depression, anxiety, and coping behaviors. For the current study, Cronbach's alpha was .86.

#### Number of hate crimes

We extracted the accumulated number of race-based hate crimes from the beginning to the end of 2016 from the FBI database for each state. The accumulated total by the end of 2016 was chosen because our racism and stress data were collected at the beginning of 2017. We expected that the total number of hate crimes in 2016 would be a precedented indicator of state-level hate that can contextualize the racism and stress data collected at the beginning of 2017.

#### Number of hate groups

We extracted the accumulated number of race-based hate groups present by the end of 2016 from the Southern Poverty Law Center hate group database for each state. We reviewed and researched each hate group according to the Southern Poverty Law Center's definition to evaluate whether the group was operating on race-based hate. Groups that were deemed to not include any race-based hate were excluded. The accumulated total by the end of 2016 was chosen because our racism and stress data were collected at the beginning of 2017. We expected the total number of hate groups by the end of 2016 would be a precedented indicator of state-level hate that can contextualize the racism and stress data collected at the beginning of 2017.

## Analyses and results

#### Data preparation and preliminary analyses

Participants' states of residence were used to link their racism and stress data with the number of hate crimes, the number of hate groups, and the presence of hate crime laws in their states. Missing value analysis indicated that among the six core variables of

**Table 2**

Descriptive statistics and bivariate correlations of investigated variables.

Variables	Descriptives				Correlation			
	M	SD	Min	Max	1	2	4	5
<b>Individual Level</b>								
1. Online Racism	63.06	21.09	30	150				
2. Offline Racism	31.19	12.15	17	82	0.67**			
3. Perceived Stress	29.50	4.70	10	50	0.30**	.28**		
<b>State Level</b>								
4. Number of Hate Groups	20.71	17.85	0	79	–	–		
5. Number of Hate Crimes	81.55	103.50	2	522	–	–	0.58**	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Only correlations at the same level were computed. The variable “Anti-Hate Law” is a dichotomous variable at the state level indicating whether the state has specific anti-hate-crime laws, with codes being Yes or No. For its descriptives statistics, M, SD, Min, Max are not applicable and this table provides the frequency. Hate groups indicate total number of hate groups in each state by the end of 2016; Hate crimes indicate total number of race-based hate crimes in each state in 2016.



interest, all missing value percentages were within 0.2 %, and thus considered negligible according to Hair et al. (2006). However, perceived stress and hate crime data showed high skewness/kurtosis and did not conform to a normal distribution (George & Mallery, 2010). The descriptive statistics and bivariate correlations of these scale scores are presented in Table 2.

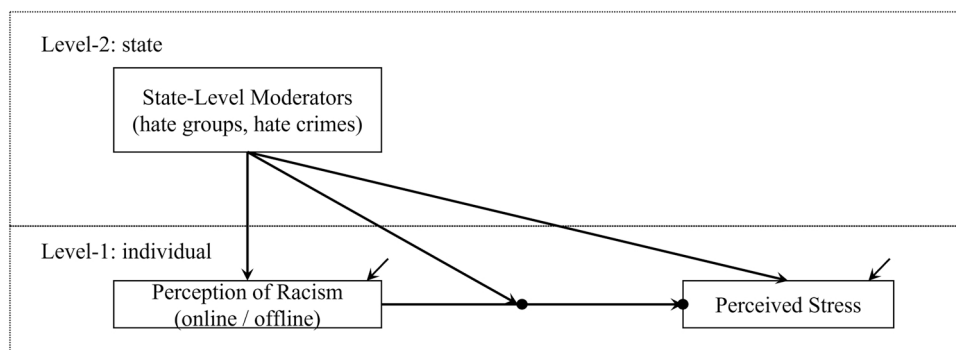
### Main analyses

We ran several multilevel models shown in Fig. 1. At the individual level (Level-1), we estimated a regression model from an individual's perception of racism (online and offline respectively) to their perceived stress, while specifying the random effects of perception of racism, perceived stress, as well as the regression coefficient. At the state level (Level-2), we included state-level predictors (number of hate groups, and number of hate crimes, respectively) and examined whether they could predict the intercepts of perception of racism and perceived stress and the associations between them. The sample sizes across the states were unbalanced, with 410 participants belonging to one of the states. However, multilevel modeling is preferred over single-level modeling when data nesting is present (as is in this study), and it does not require equivalent sample sizes for the Level-2 groups/clusters and in fact is well positioned to handle unbalanced data (Maas & Hox, 2005; Snijders & Bosker, 2011). Regarding sample size, power, and model estimation results, Maas and Hox (2005) found that with between 30 and 50 groups/clusters, model estimation in their simulation produced less than 10 % of bias, which could be practically acceptable. Similarly, McNeish and Stapleton (2016) found in their simulation study that with 30 groups/clusters and an average of 20 cases per group/cluster, the multilevel model yielded less than 5 % of biased fixed-effect estimates. As we had 43 states and a total of 935 participants (~ 22 participants on average per state), these simulation studies provided support that our sample size was adequate to ensure reliable model estimation. All analyses were conducted using the Mplus 8.0 software (Muthén & Muthén, 2017). To handle data non-normality, the Bayesian estimation method was employed, which is a full-information estimator allowing for a strongly skewed distribution and not requiring data normality (Muthén, 2010). We set the minimum number of Bayesian iterations to 10,000 and used the criterion of Potential Scale Reduction (PSR) value smaller than 1.05 for the last half of all iterations to ensure proper model convergence and estimation quality (Asparouhov & Muthén, 2010).

Results are reported in Table 3. Model 1 corresponds to Hypothesis 1; Model 2 corresponds to Hypothesis 2; and Model 3 and 4 correspond to Hypothesis 3. Regarding main effects, at the individual level (Level-1), higher perceptions of both offline and online racism significantly predicted higher psychological stress (standardized estimates, i.e., effect sizes, ranging from .215 to .278). At the state level (Level-2), more hate crimes or hate groups in the state did not significantly relate to the average level of perceived stress or average level of perceived online or offline racism of all participants of that state.

Regarding the moderating effects, first, we found that the number of hate groups in a state significantly moderated the association between perceived offline racism and psychological stress (standardized estimate = 0.516, 95 % CI = [0.058,0.867]). Specifically, when the number of hate groups was low (at one SD below the mean of all states), the association between perception of offline racism and psychological stress was non-significant (simple slope = 0.047, 95 % CI = [− 0.010,0.118], effect size using standardized estimate = 0.122); however, when the number of hate groups was high (at one SD above the mean of all states), the aforementioned association became positive and significant (simple slope = 0.125, 95 % CI = [0.079,0.163], effect size using standardized estimate = 0.323). The number of hate crimes in a state did not show significant moderating effects (standardized estimate = 0.322, 95 % CI = [− 0.261,0.789]). Therefore, Hypothesis 2 was supported while Hypothesis 1 was not supported. Second, Hypothesis 3 was fully supported: the relationship between perception of online racism and perceived stress was not moderated by the number of hate groups (standardized estimate = 0.363, 95 % CI = [− 0.124,0.735]) or hate crimes (standardized estimate = 0.185, 95 % CI = [− 0.350,0.667]) in a state.

Since the total number of race-based hate crimes in 2016 also included 20.64 % of cases reported to be anti-White, we proportioned



**Fig. 1.** Hypothesized multilevel model. Note. The figure follows all conventions of drawing multilevel models as in Muthén and Muthén (2017), where a filled dot at the end of an arrow indicates the intercept being estimated at the higher levels; a filled dot on the regression line indicates the regression slope being specified as random and modeled at the higher level; a small arrow pointing to a variable indicates the variance of that variable being estimated; Hate groups indicate total number of hate groups in each state by the end of 2016; Hate crimes indicate total number of race-based hate crimes in each state in 2016.

**Table 3**  
Multilevel model estimation results.

Fixed effects	Std. Estimate	Post. SD	95 % CI: LB	95 % CI: HB	Sig.
<b>Model 1</b>					
Level-1: Offline Racism → Stress	0.263	0.048	0.168	0.364	*
Level-2:					
Hate Crimes N→ Stress Intercept	-0.191	0.196	-0.542	0.219	ns
Hate Crimes N→ Offline Racism Intercept	0.128	0.178	-0.219	0.508	ns
Hate Crimes N→ Offline Racism-Stress Slope	0.322	0.270	-0.261	0.789	ns
<b>Model 2</b>					
Level-1: Offline Racism → Stress	0.215	0.054	0.106	0.337	*
Level-2:					
Hate Groups N→ Stress Intercept	0.033	0.195	-0.299	0.424	ns
Hate Groups N→ Offline Racism Intercept	0.151	0.168	-0.190	0.447	ns
Hate Groups N→ Offline Racism-Stress Slope	0.516	0.205	0.058	0.867	*
<b>Model 3</b>					
Level-1: Online Racism → Stress	0.263	0.051	0.160	0.370	*
Level-2:					
Hate Crimes N→ Stress Intercept	-0.194	0.183	-0.501	0.164	ns
Hate Crimes N→ Online Racism Intercept	0.063	0.196	-0.274	0.476	ns
Hate Crimes N→ Online Racism-Stress Slope	0.185	0.263	-0.350	0.667	ns
<b>Model 4</b>					
Level-1: Online Racism → Stress	0.222	0.060	0.102	0.352	*
Level-2:					
Hate Groups N→ Stress Intercept	0.025	0.188	-0.267	0.378	ns
Hate Groups N→ Online Racism Intercept	0.099	0.187	-0.269	0.431	ns
Hate Groups N→ Online Racism-Stress Slope	0.363	0.213	-0.124	0.735	ns

Note. Std. Estimate = Standardized estimate; Post SD = Posterior Standard Deviation. LB/HB = Lower/Higher Bound for the 95 % credible interval estimated in Bayesian analysis. An asterisk indicates estimate significant at the .05 level (the 95 % CI does not include 0); ns = non-significant; Hate groups indicate total number of hate groups in each state by the end of 2016; Hate crimes indicate total number of race-based hate crimes in each state in 2016.

out this amount from our hate crime numbers from each state and conducted a sensitivity analysis. The results did not change.

## Discussion

This is the first study to conceptualize and test state-level hate indicators (number of hate crimes and number of hate groups) as contextual factors that may moderate the link between racism and stress among racial minority individuals. Between the number of race-based hate crimes and hate groups, only hate groups was a significant indicator moderating this link. In states with a low number of hate groups, the link between offline racism and stress was not significant. In states with a high number of hate groups, this link was significant. As expected, while online racism was significantly associated with stress, this link was not moderated by any of the hate indicators. The findings suggest that race-based hate groups may be a significant agent within the culture of hate toward racial minority individuals at the state level, which may contextualize the impact of offline racial discrimination at the individual level.

In line with prior research demonstrating severe physical and mental health issues associated with race-based hate crimes and hate groups among racial minority adults (Samari et al., 2018; Tessler et al., 2020; Wu et al., 2021), our moderation results provide initial evidence on the increased presence of hate groups as an important contextual factor to consider among racial minority adults dealing with significant stress associated with offline racism. As conceptualized, states with a comparatively higher number of hate groups may be the result of tightening ethnocentric norms that aim to preserve White nationalistic interests. In this process, hate groups, and their associated violence and threats may be promoting propaganda and a culture of hate toward racial minority individuals in order to justify their beliefs in preserving White supremacy and privilege. As seen in our findings, such culture indeed has a significant role in exacerbating the mental health costs of individuals' experiences of racial discrimination. One can imagine how a racial minority individual living in a state with high hate group activity promoting and justifying racial hate and discrimination may be at greater risk of facing blatant and explicit acts of racism, and even threats to their livelihood. An important implication is that the hateful norms perpetuated by hate groups can then become a facilitator of racial violence at the individual level. Conversely, the context may be different for those in states with less hate group activity where, although violent forms of racial discrimination may still occur, subtle forms such as racial microaggressions, colorblind racial attitudes, and White liberal racism may also be prevalent.

On the other hand, consistent with the conceptualization of online racism as an unbounded phenomenon (Keum, 2017; Keum & Miller, 2018), the number of hate groups and hate crimes in states had no effect on the relationship between online racism and stress. Given that online racism is not constrained to a particular time and place, these results may reflect racial minority adults encountering online racism originating across the nation (Keum, 2017; Keum & Miller, 2018), which may be more indicative of the overarching racist sentiment in the U.S., rather than the culture of hate tied to a particular location (Chou & Gaysynsky, 2021). As evidence of the harmful effects of online racism continues to grow (Criss et al., 2021; Keum & Ahn, 2021; Keum & Cano, 2021; Keum & Hearn, 2021), more research is needed to understand how the conglomeration of racist ideologies and beliefs online may reflect a larger culture of hate that is pervasively harmful to racial minority adults.



In contrast to the number of hate groups, and counter to our hypothesis, we did not find that the number of hate crimes moderated the impact of offline or online racism on psychological stress. There are a few possible reasons for this non-significant finding. It could be that while hate crimes are occurring, individuals may not know about them unless they are more widely reported, or information is dispersed through the community. As noted previously, a core component of hate groups is to promote their ideologies more broadly, increasing the likelihood that racial minority individuals will know of their threatening and dehumanizing presence. On the other hand, individuals and communities may be less aware of each specific hate crime occurring in their area, and hate crimes may represent a more individualistic experience unless they become viral through means such as social media. Hence, the accumulated number of hate crimes may not have been a sound indicator of hate culture in a particular state compared to hate groups. For instance, Jendryke and McClure (2019) found that geographic areas of high hate group activity were not necessarily associated with high numbers of hate crimes in the United States. Given the ideological aims of hate groups, regardless of the trend of hate crime rates in a particular state, the significance of hate group presence may be a better indicator of the state's hate culture toward racial minority individuals.

Second, the uncertainty and biases around how hate crime data are reported and counted across states may have affected the non-significant result. The data used in the current study is collected directly from local law enforcement through the Uniform Crime Reporting (UCR) system. However, law enforcement participation has been notoriously poor since the program's start, and most victims never report their experiences. According to nationally representative data collected through the National Crime Victimization Survey (NCVS), the annual average of hate crime victimizations between 2010 and 2019 was 243,770. Between 2010 and 2019, an average of 44 % (107,850) of the victims reported their experience to law enforcement annually (Kena & Thompson, 2021). According to the victims, law enforcement classified an average of 13,850 of these victimizations as hate crimes (Kena & Thompson, 2021). Yet, during this same period, only an annual average of 7380 hate crimes were reported to the UCR (Kena & Thompson, 2021). Given the variation in data collection and training requirements built into hate crime laws across states, it's likely that this underreporting may limit statewide implications for our analysis. Even so, UCR data provides the nation's largest and longest running collection of hate crimes reported, and is an important starting point for building further evidence on the relationship between hate crimes and racism (Nguyen et al., 2021; Gover et al., 2020). Similar to other studies, the UCR data was chosen because it provided a way to empirically investigate the role of hate crimes in the relationship between online and offline racism and mental health. However, in light of the limitations of the UCR data, our study findings should be understood as a relative estimate of hate crimes that do not reflect the actual number of hate crimes that occur, but what each state is willing to report, and should be interpreted with caution (Scheuerman et al., 2020).

Finally, the FBI reporting system's count of race/ethnicity-based hate crimes also includes anti-White hate crimes. Although much of the total number of race/ethnicity-based hate crimes in 2016 were against racial/ethnic minority individuals (about 80 %; Federal Bureau of Investigation, 2021) and we conducted a sensitivity analysis by proportioning out the number of cases reported to be anti-White, the inclusion of anti-White cases may have introduced error against the current study's conceptualization and examination of hate toward racial minority individuals. These issues recapitulate how the complexity of hate crime definitions and reporting issues contribute to the number of hate crimes across states not being a sound indicator of hate culture toward racial minority individuals.

### Limitations

There are some noteworthy limitations that inform future research. First, our data on racism and stress variables are not nationally representative and limits generalizability. Although the study is an initial test of our assertions of how hate crimes and groups can contextualize the stress associated with racism, findings should be interpreted with caution as the data on these variables are not representative of racial minority individuals in each state and not all states were represented in the data. Future studies can replicate our findings using more representative data across states. Second, our findings are based on data from 2017 and would not be generalizable to trends in other years (e.g., more recent years). It would be interesting for future studies to compare the trends across years as major relevant current events, such as the murders of George Floyd and Breonna Taylor, and the pandemic-related rise in anti-Asian hate crimes may contribute to how the culture of hate is shaped across states. Third, while we theorized the linkages between state-level hate indicators and individual-level experiences of racism, such results were not found in our data. This could be due to the lack of power at Level-2 data as Level-2 units are states and there are only a fixed total number of states in the U.S., as well as the issue of underreporting in the UCR database. To address some of the issues of underreporting in the UCR database, future research could triangulate our study findings using the UCR database and the Bureau of Justice Statistics National Crime Victimization Survey (NCVS), that collects data on the frequency of hate crimes reported by a nationally representative sample of individuals that are victims of a crime (Lawlor et al., 2016; U.S. Department of Justice Bureau of Justice Statistics, 2020). Additionally, we did not assess for any process variables that could inform further interpretation of our findings. For example, future studies could examine the factors related to hate groups (e.g., type of bias, dissemination strategies, structure, whether they are violent, etc.) that can better explain the offline racism-stress link among racial minority individuals (Chermak et al., 2013; Jendryke & McClure, 2019). For instance, it would be helpful to assess racial minority individuals' perceived hate and safety concerns in their communities and how they may align with a hate group activity in the area. Fourth, the current study focused on race-based hate and is limited in its implications for intersectionality. For example, there are likely nuanced differences in how hate is felt depending on the multiple identities that shape the experiences of discrimination and oppression. For instance, the hate that a Black gay man faces would be different than the hate that an Asian woman may face. Thus, future studies with a more representative sample may be able to explore these nuanced intersectionality-informed differences. However, given that quantitative studies may not readily capture such complex experiences, qualitative studies or mixed methods studies should also be considered.

### Implications for research

While many organizations and civil rights groups have voiced concerns about the continued rise in White supremacist hate group activity in the past decade (Jendryke & McClure, 2019; Medina et al., 2018; Mulholland, 2013), little to no research has been conducted on how they affect the well-being of racial minority individuals. Our findings prompt the possibility that hate groups and hate culture may contribute to structural racial inequity toward racial minority individuals, especially for those who reside in states with high numbers of hate groups. Existing racism-related health disparities (e.g., chronic stress, substance abuse, suicide) may also be informed by our findings when considering the context of racism experiences that contribute to these disparities. For those who reside in states with more hate group activity, racism-related disparities may be worse as the costs of their racism experiences may be exacerbated by a greater climate of hate toward racial minority individuals. Importantly, hate group presence must be framed as a form of structural racial inequity.

In a digital era where White supremacist groups take advantage of the internet to efficiently mobilize and disseminate their hateful ideologies and propaganda against racial minority individuals (Daniels, 2009), our findings prompt concerns about the unchecked presence of hate groups across the United States. It calls into question existing safeguards against hate groups and the need to proliferate studies and interventions that aim to mitigate their presence at the cultural level. For instance, whether policies such as hate crime laws play a role in discouraging hate groups or the spread of hate would be an important inquiry. If hate crimes and groups could be considered indications of hate culture, then hate crime laws could be considered state-level agents that carry a symbolic value of equity and justice that discourage hate against racial minority individuals. Studies on policies, such as Hatzenbuehler et al. (2017) study finding that Latina/o individuals in states with more restrictive immigration policies had poor mental health, provide evidence on how statewide legal implications can impact the psychosocial outcomes of individuals affected by the policies. One can anticipate hate crime law to be a counter to the exacerbated costs of racism within the context of hate groups. However, hate crime laws have been long associated with systemic flaws in prosecutorial decision-making, such that even if perpetrators are charged with race-based hate crimes, the law makes it very difficult for prosecutors to decide that hate or bias was the predominant motive of the crime (Ahuja, 2015). Further, hate crime laws can only be used in cases when a crime, according to the criminal code, has occurred. There are many instances that do not reach the level of a “crime” and would not fall under the jurisdiction of these laws. Given these issues, it would not be surprising to think that racial minority individuals may in fact think negatively about the implications of the hate crime laws. Given the ongoing systemic racism within the justice system, it may be that communities of color do not experience the same level of symbolic values of equity and justice from these laws. Collectively, the interplay between hate group presence and the role of hate crime laws would be important to explore in examining the structural influence of hate in the United States.

### Conclusion

In conclusion, this paper demonstrates the pressing need to examine the state-level presence of hate groups as a significant contextual factor that can affect racial minority individuals’ perceptions of stress related to offline racism. Furthermore, while the presence of state-level hate indicators had no effect on the online racism-stress link as expected, online racism is still a significant factor that is directly tied to racial minority individuals’ perceptions of stress. These findings motivate further empirical investigation of the moderating effects of state-level hate indicators on multiple health outcomes among different racial minority groups. Future studies will want to consider what factors and practices related to hate groups make racial minority individuals, particularly those with multiple identities, especially vulnerable to experiences of both offline and online racism. This research lays the groundwork for policies and future mental health interventions to take seriously hate group presence as a form of structural racial inequity that can exacerbate psychological stress among racial minority individuals.

### Public Policy Relevance

Hate group presence and activity varies across the states in the U.S., and their potential to mobilize hate crimes and shape a culture of hate toward racial minority individuals may be examined as a structural force that can impact the well-being of racial minority individuals. We found that in states with a low number of hate groups, the link between offline racism and stress was not significant while this link was significant in states with a high number of hate groups. This research lays the groundwork for policies and future mental health interventions to take seriously hate group presence as a form of structural racial inequity that can exacerbate psychological stress among racial minority individuals.

### Acknowledgements

We thank Emily M. Waters for her input and feedback on the manuscript.

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