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Publication Date

2025-05-16

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Reflective Essay

Ever since taking PSY 10A, I became deeply interested in the psychology research and writing process. Having plans to pursue graduate work in neuroscience, I hoped to merge my pre-existing interest in neuroscience with scientific writing. I have always wanted my research to represent and convey the narratives of marginalized people from a scientific perspective, and hoped to do so by writing a research paper on the implications of talking about race on increased supportive attitudes to healthcare equity.

Starting out, I struggled in finding ways to compile research for my paper in such a way that spotlighted the struggles that people of color face in healthcare as well as finding peer-reviewed sources to support my thesis. As such, I reached out to my PSY 10A instructor, Sierra Feasel, for guidance as to navigating making my paper as strong as possible while also maximizing my usage of the UCSB Library's many resources. Sierra recommended APA PsycINFO, a database of studies and literature in the psychology field made available to UCSB students by the Library. In my research and writing process, APA PsycINFO was just one of a plethora of library resources I used.

Through PsycINFO, I was able to further hone my research topic by reviewing psychological articles that dealt with racism, specifically racial disparities in pain perception as measured by functional MRI (fMRI), as well as psychological articles about the effect of learning about race through a critical perspective on decreasing racial biases. I used the "Advanced Search" feature to input keywords and the kinds of articles that were most relevant to my work, including keywords such as "racism," "fMRI," "healthcare bias," and "talking race." As my research topic became more specific, I was able to further streamline the search for reputable literature by setting the publishing date to any time within the last ten years; this

allowed me to consult sources with the most updated information and recent technologies to write a research proposal aligned with current neuroscientific and psychological techniques. Similarly, checking the "peer-reviewed" box and further filtering the search to return specific methodologies I was interested in such as "Brain Imaging" not only helped me in further verifying my proposal for accurate technique and fitting methodologies, but also gave me the necessary background knowledge in fMRI that I did not previously have. PsycINFO made it simple to start with broader, higher-level concepts to create a more specific locus of research. For example, a driving paper for my research proposal was an article written by Cao and colleagues in 2015; its procedure was key in inspiring my own proposed procedure. The search tools available on PsycINFO made it possible for me to efficiently find this key source. Integrating my interests in a research context was streamlined by using PsycINFO to find reputable sources that combined topics I was interested in.

As a student in UCSB's Honors Program, I have access to graduate library privileges, allowing me to borrow books for entire quarters as well as obtain a book locker at the library. As a result, I was able to borrow a copy of Gordon Allport's *The Nature of Prejudice*, the defining literature for psychological research on intergroup relations, for an entire quarter while also being able to keep it at the library for easy access. Given that Allport's Intergroup Contact Theory, explained in detail in *The Nature of Prejudice*, is the guiding theoretical framework for my research, I found it imperative to be able to access a copy of the book regularly to ensure I conveyed Intergroup Contact Theory correctly in a contemporary context.

In line with obtaining physical copies of books, UCSB's Interlibrary Loan (ILL) also helped me in my literature search. A text I briefly consulted for a sociological insight as to interminority relations, Claire Jean Kim's *Asian-Americans in an anti-Black World*, was located

at UC Irvine's library. Through the ILL capabilities, a copy of the text was able to be sent to UCSB for my research.

Aside from the wealth of material and *physical* services available to me at the UCSB Library, I also made use of LibGuides, the Library's e-repository of writing and research guides. I relied heavily on the LibGuide's "Citation Styles" and "Zotero Basics." The APA citation style guide made by the Library allowed me to verify that all my citations were correct across the type of material I used (i.e., book, journal article) as well as how the citation should be formatted in text and in the formal bibliography. With the Zotero guide, I was able to learn how to use Zotero, a key tool many researchers use to house important literature they refer to regularly throughout a project(s). Guided by the Library's directions, I was able to keep track of every source I consulted and build my bibliography efficiently.

The Literature Review guide in Psychology outlined the plethora of tests and measurements used by psychologists. This helped me effectively propose data-collection methods given the research area and procedure of my paper. By using the search engine feature under the "Tests and Measurements" section, I used the Advanced Search feature to type in keywords such as "health" and "intergroup contact" to find articles that operationalized the above with psychological measures like surveys and fMRI.

I discovered what seemed like an endless amount of library resources that support undergraduate research on campus and train students to become more efficient and competent researchers. The research process for this project taught me much more than effective research strategies: I have experienced firsthand just how interdisciplinary science can be as well as its direct impact on societal progress. I am so excited to pursue future work bridging neuroscience and racial equity now that I know what is available to me as a UCSB student and library-goer.

The Effects of Discussing Race on Racial Bias and Health Attitudes

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September 13, 2024

Abstract

Racism in healthcare is a rampant issue, yet discussion on how to dismantle and mitigate racial disparities in healthcare is lacking despite evidence that discussing race can decrease racial bias. Based on Intergroup Contact theory, contact with people who belong to groups outside an individual's identity can help decrease prejudice in the individual, and the proposed between-subjects experiment seeks to understand how talking about race can affect racial bias as well as political attitudes. 30 Asian-American UC Santa Barbara students aged 18-25 will self-select into the study via SONA and will be randomly assigned into one of the following conditions: talking about a recent doctor's visit with a White or non-Asian minority and talking about an experience with healthcare racism with a non-Asian minority. The dependent variables are racial bias, measured by an fMRI task, and political attitudes toward racial equity policy in healthcare, measured by the Health Attitudes Survey. The proposed study postulates that face-to-face discussions about race and racism will decrease racial bias and increase support for racial equity policy in healthcare. Internal and construct validity may be threatened by demand and social desirability effects, while external validity is potentially threatened by the lack of diversity in the proposed sample.

The Effects of Discussing Race on Racial Bias and Health Attitudes

Sparked by the brutal police killing of George Floyd, discussions on systems and institutions of oppression have been topical and at the forefront of many public policy initiatives. Along with creating societal inequality, racism has consequences at the structural level, including in healthcare. According to Ndugga and colleagues (2024), Black and American Indian/Alaska Native infants were two times as likely to die as White infants; in addition, Hispanic, Black, and Asian adults were less likely to recieve mental health care compared to White adults. Though more people are having discussions about race and racism in America, the effects of such discussions on support for racial equity policy as well as racial bias are sparse (Hamed et al., 2022). Moreover, discussion on interminority relations and racism is also sorely lacking (Lee et al., 2022). In Asian-American communities especially, racism against Asian-Americans as well as racism toward other minorities is rarely discussed in efforts to assimilate to the demands of American society (Kim, 2023). Researchers have found that learning about racism can decrease racial bias and increase support for anti-racist policy in the United States (Martin & Johnson, 2023). Therefore, it seems reasonable to postulate that the same effect on participants shall occur with face-to-face conversations about race and racism not only by extrapolating the previous argument to talking about race and racism in healthcare. The proposed study aims to measure the effects of discussions on healthcare racism on racial bias and attitudes toward racial equity policy in healthcare.

Intergroup Contact

Proposed by Gordon W. Allport in his book, *The Nature of Prejudice*, in 1954, Intergroup Contact Theory (ICT) states that interactions between individuals from different social groups (e.g. race, gender, religion, etc.) can decrease prejudice (Allport, 1954). To be effective, ICT

requires equal group status, common goals, and intergroup cooperation and support. In the context of healthcare racism, racial bias in pain perception and support for racial equity policy in healthcare may be affected by intergroup contact. Seventy years have passed since Allport's original theory and research on ICT lacks in data on diverse populations, as much of the existing literature revolves around the effects of ICT on white-only samples (Paolini et al., 2021). However, research conducted with minority subjects suggests the relationship between intergroup contact and prejudice may be weaker than in non-minorities (Tropp & Pettigrew, 2005). Recent additions to Allport's original theory state study designs are also lacking in establishing collective action, or support for policy and action that improves equity (Paolini et al., 2021). As such, the proposed experiment aims to collect data directly applicable to society, in the form of measuring participants' attitudes toward racial equity policy in healthcare such that conclusions can be made about the potential impact of discussing race on the direction of public policy. More specifically, this study will discuss face-to-face conversations about race and its impact on racial bias in pain perception and attitudes toward racial equity policy in healthcare in Asian-American college students (aged 18-23).

Racial Bias in Pain Perception

Literature on racial bias indicates that racial bias is detectable at the neural level when measuring brain regions responsible for empathy and emotion processing. When Chinese college students were given a fMRI task in which they assessed the perceived pain of models being poked in the face with either a painful or non-painful stimuli, neural activity in areas of the brain responsible for empathy and emotion processing were stronger when participants viewed clips of models in their own racial ingroup (i.e. models of the participants' own race)—suggesting people have a stronger empathy response for people of their own race when perceiving pain (Wang et

al., 2015). Despite these findings, racial bias on a neural level can be lowered when participants interact with racial outgroups more often. Cao and colleagues (2015) performed the same procedure after measuring participants' level of contact with racial outgroups via a self-report survey, in which participants recorded how often they interact with racial outgroups and their level of closeness with non-Chinese members of their community. Results consistent with decreased racial bias on a neural level for participants who had a higher level of contact with racial outgroups speaks to the importance of interaction with racial outgroups on decreasing racial prejudice. Participants in the proposed study will have a face-to-face conversation with an actor of a racial outgroup to simulate interaction with racial outgroups as per ICT.

In line with fMRI findings, the ability to recognize racism in addition to support for health equity initiatives are improved upon learning about racism. For example, Martin and Johnson examined learning critical Black history's (i.e. learning about anti-Blackness in American institutions) effects on the level of perspective-taking, racism recognition, and support for racial equity policy in healthcare. They found that participants who were exposed to a critical Black history lesson took more perspective and showed more support for anti-racist policy in the United States (Martin & Johnson, 2023). A greater understanding of healthcare racism and hearing minorities' experiences with discrimination by a healthcare provider could potentially have the same effect on support for anti-racist policy in healthcare as well as decreasing racial bias. Researchers in a related 2023 study found similar results when they measured the effects of explanatory context in the form of news reports discussing the root of racial disparities during the COVID-19 pandemic on sociopolitical attitudes. Participants showed an increase in support for equitable healthcare policy when participants learned about the context behind racial disparities in COVID statistics (e.g. Black Americans are overrepresented in dense housing

arrangements, leading to a disproportionate amount of COVID cases in Black communities) (Hakim et al., 2023). Since participants showed similar results despite the more specific media they consumed in comparison to Martin and Johnson's study, participants in the proposed experiment may also show similar behavior when discussing healthcare racism. For this study, participants' attitudes toward racial equity policy in healthcare will be measured via an adaptation of the Survey of Health Attitudes (Chandra et al., 2024). In regards to previous literature, it seems to be clear that increased exposure to racial outgroups and discussions on racism can decrease racial bias at the neural level and increase support for anti-racist policy as a whole. The proposed experiment will operate similarly to the previously mentioned studies in terms of learning about racial inequities and answering a corresponding survey; however, instead of a learning history lesson or reading a news report, participants will have a conversation with a scripted actor regarding an experience with healthcare.

Given the lack of intergroup contact research on minority subjects, it is unclear whether similar results will be obtained. Especially within minority populations, intergroup contact is more than just racial outgroups interacting with racial ingroups—individuals' lived experiences with race also play a role in the efficacy of increased intergroup contact on decreasing racial prejudice. For example, anger is a common emotional response to minorities' experience of racism and discrimination (Hayward et al., 2017). This may cause positive intergroup experiences to have less of an effect on decreasing prejudice. Moreover, intergroup contact research lacks literature on minority-minority interactions; even if a study follows racial prejudice in minority subjects, the study most likely measures anti-White attitudes. The proposed study seeks to understand if intergroup contact can decrease racial prejudice towards minority outgroups (non Asian-American minorities) within minority ingroups (Asian Americans).

Rationale

Though previous literature has shown the benefits of intergroup contact in reducing racial bias and prejudice, research is lacking in data on the benefits of intergroup contact in non-White populations (Paolini et al., 2021). Past research may indicate the benefits of intergroup contact are lesser among minorities compared to non-minorities (Tropp & Pettigrew, 2005). As a result, this study will focus on racial bias and attitudes toward health equity policy in healthcare in specifically Asian-American populations. In a similar vein, prejudice toward non Asian-Americans will be measured since intergroup contact research on minority populations will usually measure attitudes and prejudice towards White people, not other minorities. Moreover, research on intergroup contact is lacking in terms of diverse measures beyond self-reporting—hence the choice to incorporate fMRI in this proposed study (Lytle, 2018). By studying intergroup contact theory on a neural level in a non-white population, not only will existing literature on intergroup contact and racial prejudice expand, but the importance and impact of talking about race will be conveyed on a physiological level, strengthening the case for the importance of discussing racism and institutional injustice in the United States.

Consistent with previous findings, it is hypothesized that Intergroup Contact in the form of talking about race face-to-face with people from minority outgroups will decrease racial bias in minority ingroups as well as improve attitudes toward racial equity policy in healthcare. Operationally, participants will experience a decrease in racial bias in pain perception as measured by an fMRI task and a self-report scale and an increase in support toward racial equity policy in healthcare as assessed by the Survey of Health Attitudes.

Method

Design

A between-subjects experimental design will be conducted for this study. A between-subjects experiment, aside from being the design of choice in previous literature, will minimize participant fatigue and reduce demand characteristics in the study design, allowing for optimized experimental generalizability (Cao et al., 2015; Wang et al., 2015). The independent variable will be exposure to conversations about healthcare racism, as discussions about race have been shown to have a significant impact on decreasing racial bias and prejudice (MacInnis & Hodson, 2018). The independent variable will have three levels: talking about a recent doctor's visit with a White actor, talking about a recent doctor's visit with a non-Asian minority actor, and talking about an experience with healthcare racism with a non-Asian minority actor. Talking about a recent doctor's visit with a White actor was chosen as a control condition to establish the impact of intergroup contact in general on prejudice (Todd et al., 2011). For the comparison condition, talking about a recent doctor's visit with a non-Asian minority actor was chosen to simulate intergroup contact with a minority outgroup, but not to the full extent as talking about healthcare racism with a minority actor, in order to to measure the impact of talking about race on racial prejudice (Bonam et al., 2019). Racial bias in pain perception and attitudes toward racial equity policy in healthcare, operationalized by neural activity during fMRI, a self-report scale, and participants' views on racial equity policy in healthcare as assessed by the Survey of Health attitudes, will act as the dependent variables. For this experiment, all participants will be Asian-American identifying to minimize differences in individual results due to differences in participants' self-concepts or lived experiences with racism, especially since

participants are expected to show some degree of own-race bias (Cao et al., 2015; Wang et al., 2015).

Participants

30 college-aged (18-23) Asian-American participants will be recruited from the UC Santa Barbara campus, similar to prior research that was conducted with sample sizes of 30-32 (Cao et al., 2015; Contreras-Huerta et al., 2013; Wang et al., 2015). The study will be listed on UCSB's SONA website for participants to self-select into, contingent on them being right-handed, Asian-American, and with no individual or family history of neurological issues (Cao et al., 2015). Participants will receive financial compensation in the form of a 20 dollar cash payment to avoid non-response bias and selective attrition. Studying Asian-American populations will provide necessary insight as to the effects of intergroup contact on decreasing racial prejudice and increasing support for racial equity in healthcare in people and populations of color (Paolini et al., 2021). Based on previous literature, participants who are right-handed, with normal or corrected-to-normal vision, and no history of neurological issues will be recruited in order to control for individual differences in left-handed and right-handed individuals as well as ensure participants can safely and completely execute the fMRI task and the Survey of Health Attitudes (Crotti et al., 2022).

Measures and Materials

fMRI and Racial Bias

Racial bias in pain perception is measured via participants' neural activity. A 3 Tesla Siemens MRI scanner is used as per Conteras-Huerta et al.'s (2013) experiment. Neural activity is measured with an fMRI task, in which participants view 32 three-second long video clips of models from all racial groups being poked with either a syringe or cotton swab as the video cuts

before the stimulus is completed—meaning the model's reaction to a given stimulus will not be shown (Cao et al., 2015). Unlike previous research, models of all races as opposed to only White and Asian models are included. This way, the exposure to different racial outgroups in participants is maximized. Each clip of the models is separated by a nine second inter-stimulus interval and video clips will be shown 80 cm away from the participants, hence the requirement for normal or normal-to-corrected vision and no individual or family history of neurological conditions (Cao et al., 2015). While neural activity is measured, participants will self-report pain perception by selecting how painful the stimuli were for each model on a scale of 1 (no pain) to 4 (considerable pain) on a four-button button box (Cao et al., 2015). fMRI was chosen for this study because it offers a more objective measurement of racial bias to account for social desirability effects.

Health Attitudes

Attitudes toward racial equity policy in healthcare are measured through an adaptation of the Survey of Health Attitudes. The survey administered is a shorter version of the original survey, only including questions that reflect participant attitudes toward healthcare discrimination and political views (Appendix A). Participants answer 37 questions across three sections: individual health experiences, opinions on health equity, and thoughts on community wellbeing issues such as climate change and barriers to healthcare access (Chandra et al., 2024). Sample questions and statements include, "how often do you help others who have health needs?", "how would you rate the wellbeing of most people living in the United States?", and "I believe racism is a public health issue" (Chandra et al., 2024). Participants answer these questions in a multiple choice interval scale format, from "strongly disagree" to "strongly agree," "daily" to "not at all," "excellent" to "poor," etc. This survey was developed through a thorough

literature review and asks about a wide selection of healthcare issues beyond racism and discrimination, speaking to its construct and content validity (Chandra et al., 2024). The measure shows strong test-retest reliability and fair internal consistency reliability (Chandra et al., 2024).

Procedure

After self-selecting into the study, participants will choose a date to come into the lab for the complete experiment. Upon arrival at the lab, participants will be given informed consent and reminded of their rights as a participant by a scripted research assistant. Participants who do not meet the study criteria will be dismissed from the experiment. Then, participants will be randomly assigned into one of the three conditions: talking about a recent doctor's visit with a White confederate, talking about a recent doctor's visit with a non-Asian minority confederate, and talking about an experience with healthcare racism with a non-Asian minority confederate. All interactions will be scripted to maintain consistency across conditions. To further reduce experimenter expectancy effects and demand effects, a researcher will tell participants to share about their last doctor's visit with each other to the full extent of their memory. Participants will share one at a time with no interjections or comments. This design will maintain the face-to-face aspect when talking about race, while minimizing the resulting effects. Participants will be introduced to the actor from the condition they are assigned to. The experimenter will tell the actor to share last to maximize the recency effect (Glenberg et al., 1983). The conversation should not exceed 30 minutes.

After the conversation, participants will be directed to perform the fMRI task to measure racial bias in neural response to perceived pain. Before the fMRI task, participants will be reminded that they can withdraw consent at any time and that their identity will remain confidential to ensure the fMRI task is performed ethically and that participant autonomy is

respected (Anderson et al., 2012). Participants will watch 32 3-second video clips of multiracial models being poked with either a painful stimulus (syringe) or neutral stimulus (cotton swab). Then, using a 4-button button box, participants will indicate how painful they believed the stimulus to be on a scale of 1 to 4 (Cao et al., 2015). Participants will repeat this for 4 trials with the models appearing in a different and randomized order each run, totalling around 6 minutes and 40 seconds for the fMRI task (Contreras-Huerta et al., 2013). Research assistants will then dismiss participants from the MRI scanner, helping if needed.

Then, research assistants will direct participants back to take the Survey of Health Attitudes, which measures participants' attitudes toward racial equity policy in healthcare. They will read to participants the directions for the survey, while emphasizing that participants be as truthful as possible in their responses. Participants will take twenty to thirty minutes to complete the survey before finishing the experiment (Chandra et al., 2024). No ethical issues are anticipated for this portion of the study. After both the fMRI task and survey have been completed, participants will be debriefed on how the person they conversed with was an actor in addition to the general purpose of the study. Consent will be reobtained. Resources related to mental health and reporting discrimination will be offered to participants to minimize any racism-related traumas.

Consideration of Threats to Validity

As a result of only testing Asian-American college students, external validity may be reduced as the results of this study are not generalizable to non-Asian American young adults. Despite this, the study's data on Asian Americans specifically will add to the lacking literature on the effects of intergroup contact on people of color (Paolini et al., 2021). Moreover, internal validity may be threatened if talking about race has little-to-no measured impact on neural

response in racial bias, meaning that causal claims about intergroup contact on decreasing racial bias on a neural level would be weakened. To mitigate this problem, the 4-button box to self report perceived pain will be implemented such that neural results can be compared with self-report measures (Cao et al., 2015). Demand effects may also affect internal validity. As every component of the study surrounds race and opinions on racial equity, participants may gather insight as to the aspects of or the whole aim of the study. Because of this, participants may respond to self-report measures (i.e. the 4-point Likert scale for pain perception and the Health Attitudes Survey) in a way they believe researchers are looking for. However, with a wealth of questions unrelated to racial equity in healthcare on the Health Attitudes Survey and neural data (a more objective physiological measure), the chosen measures may help offset any possible demand effects. Finally, social desirability effects with respect to the Health Attitudes Survey may lead to lower construct validity. Though participants are told by research assistants to answer the Health Attitudes Survey as honestly as they can, participants may still feel compelled to respond in a way that they deem to be socially acceptable, especially when considering the nature of the questions—ranging from beliefs in climate change to stances on racism and anti-racist policy. Because of possible social desirability effects, survey scores and results in participants may differ greatly from their neural activity and responses, creating an artificial association or lack of association between racial bias in neural responses and attitudes toward racial equity policy in healthcare in relation to intergroup contact. For this study, external validity (only to Asian-American college students) was prioritized in order to add to lacking literature on collective action in intergroup contact research. With high external validity, the findings of the study will be applicable to Asian-American college students in a non-research setting,

highlighting the real-life implications of discussing racism and racist institutions in daily life for tangible policy change and action.

Appendix A

2023 National Survey of Health Attitudes

1. Would you say that in general your health is excellent, very good, good, fair, or poor?
2. Do you personally currently have one or more chronic health conditions (e.g., diabetes, asthma, depression)? (Yes vs. No)
3. Are you limited in any way in any activities because of physical, mental, or emotional problems? (Yes vs. No)

Sometimes people take care of others who are ailing or who have health needs. For example, these may include elderly relatives, family members with disabilities or chronic disease, friends, or neighbors. (Please don't include those who you take care of for pay)

4. Has the poor health of another person affected your life on an ongoing basis for any extended period of time in your life? (Yes vs. No)
5. Have you ever had financial problems because of a health issue for yourself and/or to help others dealing with a health issue? (Yes vs. No)
6. In a typical month, how often, if ever, do you help others who are ailing or who have health needs, with their daily activities? (Yes vs. No)
7. How would you rate the importance of religion and/or spirituality in your life? *(5-point scale where 5 = very important and 1 = not at all important)*

Now we ask some questions about your views of the United States.

8. The United States has a diverse population, with people of many different races, ethnicities, religions, and backgrounds. Do you think this diversity makes the country much stronger, moderately stronger, neither stronger nor weaker, moderately weaker, or much weaker?
9. Which statement comes closer to your views, even if neither is exactly right?

A) What's great about the U.S. is that everyone has the opportunity to succeed if they work hard.

B) Right now, for many people in the U.S., just working hard is not enough to get ahead.

10. Which statement comes closer to your views, even if neither is exactly right?

A) Minorities who cannot get ahead in this country are mostly responsible for their own condition.

B) Minorities face greater obstacles to economic success than white people.

Q11-12: Please indicate whether you agree or disagree with the following statements (4-point scale from Strongly Agree to Strongly Disagree):

11. Racism is mostly in the past.

12. Discussing race divides us rather than unites us.

Q13-14: Next, we ask questions about health in the United States. Please indicate your response to the following statements. (5-point scale from Excellent to Poor)

13. How would you rate the wellbeing of most people living in the United States?

14. How much more, if anything, needs to be done to ensure everyone has an equal opportunity to be healthy in the United States?

15. Which statement comes closer to your views, even if neither is exactly right?

A) The biggest reason people in America become unhealthy is because they make poor choices that affect their health.

B) The biggest reason people in America become unhealthy is because things outside of their control affect their health.

16. Here is a list of some things that may affect people's health and wellbeing. Please indicate your response to each of the following items. *(5-point scale where 5 = strong effect on health and 1 = no effect on health)*

A) Access to affordable healthcare

B) Having a job

C) Stress

D) Knowledge about health

E) Neighborhood options for healthy food and exercise

F) Having health insurance

G) Smoking

H) Amount of social support

I) Personal health practices (other than smoking)

J) Physical environment such as clean air or water

K) Genetic makeup inherited from parents

L) Income

M) Community safety

N) Housing quality

O) Education

P) Where a person lives

Q) Race/ethnicity

R) Examples set by people around you

Q17-18: Please indicate your response to the following statements. (3-point scale from Easier to Harder)

17. When African Americans need health care, do you think it is easier or harder for them to get the care they need than it is for White Americans, or is there not much of a difference?

18. When low-income Americans need health care, do you think it is easier or harder for them to get the care they need than it is for those who are better off financially, or is there not much of a difference?

19. Systemic racism refers to policies and systems that reinforce racial discrimination and unfair treatment of some groups, such as where people get to live or who gets bank loans. This type of racism can be so embedded in the institutions and practices of society that it can still exist even if individuals don't want to discriminate. For the following question, please indicate how much you agree or disagree with this statement. One of the main reasons that people of color (e.g., African Americans, Latinos) have poorer health outcomes (e.g., higher rates of diabetes, more deaths from coronavirus (COVID-19)) than whites is systemic racism. *(5-point scale from Strongly Agree to Strongly Disagree)*

20. African Americans living in the U.S. are more likely to experience poor health outcomes compared to Whites, such as obesity and diabetes. The next statements are about the possible reasons for these differences. Choose one response per row. *(5-point scale from Strongly Disagree to Strongly Agree)*

A) African Americans tend to be less healthy than whites because of their health behavior choices.
B) African Americans tend to be less healthy than whites because of discrimination they face in the health care system.
C) African Americans tend to be less healthy than whites because of conditions of the neighborhoods they live in.

D) African Americans tend to be less healthy than whites because of policies and laws that have made it more difficult for generations of African Americans to be healthy.

21. Indicate your agreement with the following statement: Racism is a major public health crisis. *(5-point scale from Strongly Agree to Strongly Disagree)*

22. How effective do you think each of these actions would be to help ensure everyone (regardless of race, income, etc.) in the U.S. has an equal opportunity to be healthy? *(3-point scale from Very Effective to Not Effective)*

A) More well-funded government programs to support health.

B) More private sector engagement in efforts to improve health.

C) More funding for nonprofits working to improve community conditions to support health.

D) More activity on the part of community members, community organizations, and coalitions to improve community conditions that support health.

E) Policy changes to address barriers faced by some groups based on race, income, etc.

23. How easy or difficult would it be to do each of the following so that everyone (regardless of race, income, etc.) has a chance to be as healthy as possible? *(4-point scale from Very Easy to Very Difficult)*

A) Create the will on the part of political leaders to address the issue.

B) Create the will on the part of the general American public to address the issue.

C) Address systemic racism as an underlying cause of this issue.

24. Whether or not you have taken action to improve health in your community, many people face barriers to getting involved. Thinking about the following statements, please rate the extent to which you think this has been a barrier for people in your community. *(5-point scale where 5 = major barrier and 1 = not a barrier)*

A) People don't know how to get involved or where to start.

B) People don't think their involvement will really make a difference in changing the health of the community

C) People have offered suggestions in the past, but nothing happens as a result

D) People are focused on other issues

E) People don't have time or energy

Note items in Q36 are randomized.

25. The next few questions are about climate change. How much do you agree or disagree with each of the following statements? *(5-point scale from Strongly Disagree to Strongly Agree)*

A) Climate change impacts health.

B) Climate change is harming/will harm my community.

C) Businesses should do more to address climate change.

D) Communities should do more to address climate change.

E) The government should do more to address climate change

F) Climate change is just one of the challenges our society faces. We can't spend all of our time on it

G) Our current policies and law as written are doing enough to address climate change.

For the last question, we ask about your family background.

26. What is your race or ethnicity? Select all that apply and enter additional details in the spaces below. Note you may report more than group.

A) White

B) Hispanic or Latino

C) Black or African American

D) Asian

E) American Indian or Alaska Native

F) Middle Eastern or North African

G) Native Hawaiian or Pacific Islander

APA

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