


ORIGINAL RESEARCH

Attitudes and Actions Related to Racism: the Anti-RaCism (ARC) Survey Study



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BACKGROUND: Racism negatively impacts health and well-being. Members of the medical community must intervene to address racism.

OBJECTIVE: To assess whether attitudes about the impact of racism on health or society are associated with intervening around racism.

DESIGN: Cross-sectional survey of a large department of medicine in an urban academic setting.

PARTICIPANTS: Interns, residents, fellows, and faculty.

MAIN MEASURES: The primary outcome was the likelihood of intervening around an observed racist encounter or a racist policy. Predictor variables included age, gender identity, race/ethnicity, and attitudes about racism.

KEY RESULTS: Although the majority of the 948 respondents endorsed the impact of racism on health and other societal effects, levels of endorsement were lower among older individuals, or those reporting male gender identity or selecting other race. Higher endorsement of the impact of racism on health was associated with increased odds of speaking up about a racist encounter or racist policy, with odds ratios from 1.18 to 1.30 across scenarios. Likelihood of speaking up about racism did not differ by racial or ethnic group, but older individuals were generally more likely to speak up and individuals between 20 and 29 years of age were more likely to speak with someone other than leadership or the source of a racist encounter.

CONCLUSIONS: Awareness of the effects of racism on health is associated with increased likelihood of intervening when a racist encounter is observed or a racist policy is noted. Including information on the impact of racism on health and creating safe spaces to discuss racism may increase the likelihood of bystander intervention in anti-racism strategies.

KEY WORDS: racism; bias; black; bystander; trainee; faculty; attitude.

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INTRODUCTION

Faculty at academic medical centers are committed to promoting health and curing or treating disease through innovations in clinical care and research and the education of future generations of clinicians. To maximize individual and population health, particularly in vulnerable populations, members of the medical and scientific community must also be actively involved in promoting equity and engaged in anti-racism efforts at both individual and institutional levels.[1–9] The impact of systemic and interpersonal racism on health and well-being has been present for centuries and was particularly illuminated in 2020, as the USA grappled with the disproportionate impact of the coronavirus (COVID-19) on Asian, Black, Latinx, and indigenous communities and the killings of Mr. George Floyd, Mr. Ahmaud Arbery, and Ms. Breonna Taylor.[10–31] In this context, multiple organizations, including academic medical centers, reflected on and publicly shared their commitment to equity and anti-racism.

As part of this commitment, many healthcare organizations are implementing equity-promoting structural changes by comprehensively reviewing policies and procedures with the aim of closing gaps and promoting both equity in health and inclusion in work environments.[5, 32] In addition, many institutions are committed to empowering individuals to intervene if they witness a racist encounter or know of a racist policy, and are addressing knowledge gaps related to racism in society and in healthcare. However, relatively little is currently known about clinicians' or faculty's attitudes about racism and whether attitudes predict the likelihood of speaking up about observed racist actions or policies. Given the widespread discussion of racism in 2020, we hypothesized that attitudes about the impact of racism in society or the impact of racism on health would predict the likelihood of speaking up about observed racism.

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METHODS

Study Design and Participants

We administered an anonymous online Anti-RaCism (ARC) survey to interns, residents, fellows, and faculty in the Department of Medicine at Massachusetts General Hospital between August 3, 2020, and October 26, 2020. Participants had the opportunity to donate \$20 to a local or national anti-racism effort through a separate link once they completed the survey. This project was financially supported by the Massachusetts General Hospital Department of Medicine, which included supporting participants' donations.

Survey Instrument

The survey instrument included 4 sections: attitudes about the impact of racism on health and healthcare; attitudes about the impact of racism on other areas in society; likelihood of reporting racist encounters or policies; and respondents' sociodemographic characteristics. Items assessing the impact of racism included questions from previously validated scales: the Privilege and Oppression Inventory,[33] the Symbolic Racism 2000 Scale,[34] and the Modern Racism Scale,[35] as well as novel items based on published reports about disparities in pain management,[36] cardiac care,[37] pregnancy-related mortality,[38, 39] life expectancy,[40, 41] and funding from the National Institutes of Health,[42] as well as the effects of racial discrimination [43, 44] or residential segregation[3, 45] on chronic disease and mortality. Items related to reporting racist behaviors or policies were developed by the investigators. The novel survey items were created because the investigators were unable to identify pre-existing surveys that captured this content. The items were piloted and revised based upon feedback from the study team. The survey is included in [Supplementary Information](#). We inquired about the observation of overt or covert racism, without further definition, because of the deleterious impact of both forms of racism and because the distinction between overt and covert racism can be challenging (e.g., repeated microaggressions might be considered overt or covert racism) and can vary between individuals. The survey did not allow for reporting of any observed racist act or policy, and thus, follow-up was not possible. A 5-point Likert scale was used to assess respondents' agreement with each item from strongly agree to strongly disagree to maximize consistency across item responses. Sociodemographic characteristics included role group (trainee [intern, resident, fellow] or faculty); area of focus (clinical or research work); age in decade (20–29, 30–39, 40–49, 50–59, 60–69, 70+); race (Alaska Native, American Indian/Native American, Asian, Black or African American, Native Hawaiian, other, Pacific Islander, White), multiple racial groups could be selected; ethnicity (Latinx/Hispanic, non-Latinx/Hispanic); gender identity (cisgender female, cisgender male, non-binary, transgender female, transgender male). Other and/or decline to answer were options for each

of the demographic responses. The protocol was considered exempt by the Massachusetts General Hospital Institutional Review Board.

Statistical Analysis

Summary scale scores were created from the items about the impact of racism on health (Cronbach's alpha 0.83) and the items about the impact of racism in society (Cronbach's alpha 0.86). Given that the racism in society scale score was right skewed, scores for both scales were divided into quartiles and ordinal logistic regression was used to examine the associations between sociodemographic characteristics and quartiles of attitudes about the impact of racism on health or the impact of racism in society. Items assessing the likelihood of speaking up about racist encounters or policies (the primary outcome) were dichotomized into strongly agree/agree versus other responses. The associations between sociodemographic and job characteristics, attitudes about the impact of racism on health or racism in society in quartiles of response, and likelihood of speaking up about racist actions or policies were analyzed using logistic regression. Because there were only 7 respondents reporting Pacific Islander or American Indian/Native American race, they were included with the respondents reporting other race in the regression models. Analyses were conducted using STATASE 16.1.

RESULTS

Of the 1578 eligible participants, 948 completed the survey for a 60% response rate. The demographic characteristics of respondents are shown in Table 1.

Table 1 Subject Demographics

Cohort (n = 948)		n (%)
Age decade	20–29	83 (9)
	30–39	360 (38)
	40–49	192 (20)
	50–59	143 (15)
	60–69	92 (10)
	70+	43 (5)
	Declined to answer	35 (4)
Gender identity	Cisgender female	417 (44)
	Cisgender male	461 (49)
	Other	7 (0.7)
Race	Declined to answer	63 (7)
	Asian	194 (20)
	Black	40 (4)
	White	609 (64)
	Other	33 (3)
Ethnicity	Declined to answer	72 (8)
	Latinx/Hispanic	52 (5)
	Non-Latinx/Hispanic	671 (71)
Role	Other	126 (13)
	Declined to answer	99 (10)
	Trainee	268 (28)
	Faculty	649 (68)
Clinical work	Other	3 (0.3)
	Declined to answer	28 (3)
	Yes	755 (80)
Research work	No	193 (20)
	Yes	407 (43)
	No	541 (57)

Table 2 Anti-RaCism (ARC) Survey Questions and Subject Responses

Questions	Strongly agree n (%)	Agree n (%)	Neither agree nor disagree n (%)	Disagree n (%)	Strongly disagree n (%)
Racism in society:					
Being White and having an advantage go hand in hand. ³³	462 (48.7)	352 (37.1)	79 (8.3)	36 (3.8)	18 (1.9)
Government policies favor White people. ³³	420 (44.3)	365 (38.5)	110 (11.6)	39 (4.1)	13 (1.4)
White cultural characteristics are more valued than those of people of color. ³³	360 (38.0)	401 (42.3)	116 (12.2)	49 (5.2)	21 (2.2)
The lighter your skin color, the less prejudice and discrimination you experience. ³⁵	404 (42.6)	436 (46.0)	74 (7.8)	28 (3.0)	5 (0.5)
The majority of positive role models in movies are White. ³³	460 (48.5)	393 (41.5)	72 (7.6)	20 (2.1)	2 (0.2)
Generations of slavery and discrimination have created conditions that make it difficult for Black people to work their way out of the lower class. ³⁴	589 (62.1)	302 (31.9)	34 (3.6)	17 (1.8)	5 (0.5)
Black people get much more attention from the government than they deserve. ³⁴	13 (1.4)	30 (3.2)	107 (11.2)	350 (36.9)	448 (47.3)
It is easy to understand the anger of Black people in America. ³⁵	510 (53.8)	352 (37.1)	57 (6.0)	22 (2.3)	7 (0.7)
Racism in health:					
Black people with a college degree or more education have a lower life expectancy than do White and Latinx people who graduated from high school. ⁴¹	171 (18.0)	405 (42.7)	289 (30.5)	74 (7.8)	9 (0.9)
Higher levels of racial discrimination are associated with an elevated risk of hypertension, obesity, breast cancer, heart disease, stroke, and premature mortality. ^{40,43-45}	494 (52.1)	368 (38.8)	78 (8.2)	7 (0.7)	1 (0.1)
Black people are systematically undertreated for pain relative to White people due to racial bias related to false beliefs about biological differences. ³⁶	440 (46.4)	348 (36.7)	122 (12.9)	34 (3.6)	4 (0.4)
Black scientists are less likely to receive NIH funding. ⁴²	305 (32.2)	356 (37.6)	246 (25.9)	36 (3.8)	5 (0.5)
Black women who have completed a college degree are more likely to die from pregnancy-related causes than White women with less than a high school degree. ^{38,39}	287 (30.3)	390 (41.1)	225 (23.7)	39 (4.1)	7 (0.7)
The increased pregnancy-related mortality rate of Black women is improving over time. ^{38,39}	9 (0.9)	163 (17.2)	375 (39.6)	344 (36.3)	57 (6.0)
Residential segregation has been linked to the following adverse outcomes for Black people: adverse birth outcomes, increased exposure to air pollutants, decreased longevity, and increased risk of chronic disease. ³	535 (56.4)	370 (39.0)	39 (4.1)	4 (0.4)	0 (0)
Racial and ethnic disparities exist in cardiac care in the USA. ³⁷	551 (58.1)	327 (34.5)	60 (6.3)	10 (1.1)	0 (0)
Bystander intervention:					
When I have observed an overt or covert racist encounter at MGH, I have spoken to the person who made the statement about it.*	89 (9.4)	279 (29.4)	434 (45.8)	136 (14.3)	10 (1.1)
When I have observed an overt or covert racist encounter at MGH, I have spoken to someone in leadership about it.*	58 (6.1)	170 (17.9)	499 (52.6)	201 (21.2)	20 (2.1)
When I have observed an overt or covert racist encounter at MGH, I have spoken to someone not in leadership and not the person who made the statement about it.*	87 (9.2)	297 (31.3)	466 (49.2)	85 (9.0)	13 (1.4)
When I have learned of an MGH practice or policy that reinforces racism, I have spoken to someone in leadership about it.*	66 (7.0)	139 (14.7)	607 (64.0)	122 (12.9)	13 (1.4)
When I have learned of an MGH practice or policy that reinforces racism, I have spoken to someone not in leadership about it.*	86 (9.1)	233 (24.6)	549 (57.9)	71 (7.5)	8 (0.8)

A 5-point Likert scale was used to assess respondents' agreement with each item from strongly agree to strongly disagree

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*Survey questions that were created by the research team

Most participants agreed or strongly agreed with the items about the impact of racism in society and the impact of racism on health (Table 2), although a lower proportion endorsed the reality that the higher rate of pregnancy-related mortality among Black women has not been improving. When assessing the likelihood of intervening around a racist encounter or policy, between 45.8 and 64.0% of respondents were neutral about whether they had spoken up in these settings, whereas 8.3 to 24.4% reported that they had not spoken up (based on strongly disagree/disagree responses) and 21.7 to 40.5% endorsed having spoken up (based on strongly agree/agree responses).

Participants were least likely to speak to someone in leadership about a racist policy and most likely to speak to someone not in leadership about observing a racist encounter. Attitudes about the impact of racism on health and in society were associated with participant race, with higher levels of endorsement of the impact of racism on health among Black respondents and lower levels of endorsement of the impact of racism on health and of racism in society among individuals reporting race as other (Table 3). In addition, participants reporting male gender identity or older-age groups had lower levels of endorsement of the impact of racism on health and in society.

Table 3 Associations with Higher Levels of Endorsement of Impact of Racism

		Impact of racism on health			Impact of racism in society				
		OR*	<i>p</i> value	95% CI	OR*	<i>p</i> value	95% CI		
Race	White	Reference							
	Asian	0.80	0.14	0.59	1.07	0.74	0.05	0.55	0.99
	Black	1.97	0.03	1.07	3.65	1.03	0.92	0.60	1.78
	Other	0.43	0.00	0.27	0.68	0.41	0.00	0.25	0.65
Ethnicity	Non-Hispanic	Reference				Reference			
	Hispanic	0.99	0.97	0.60	1.64	0.77	0.34	0.46	1.31
Gender	Female	Reference				Reference			
	Male	0.63	0.00	0.49	0.80	0.75	0.02	0.59	0.96
	Other	0.54	0.06	0.29	1.01	0.60	0.10	0.32	1.11
Age	20–29	Reference				Reference			
	30–39	0.65	0.05	0.42	1.01	0.75	0.19	0.50	1.15
	40–49	0.40	0.00	0.25	0.64	0.49	0.00	0.31	0.77
	50–59	0.29	0.00	0.17	0.48	0.50	0.01	0.31	0.82
	60+	0.29	0.00	0.17	0.48	0.65	0.10	0.39	1.08

p values ≤ 0.05 are bolded

*For an increase of quartile in scale score

The likelihood of speaking up after observing a racist encounter or learning of a racist practice/policy did not differ by race, ethnicity, or gender identity. However, female respondents were more likely to speak to someone else about a racist encounter/policy (i.e., not leadership or the source of racist behavior) than males or respondents with other gender identity (Table 4). Although not all of the associations met statistical significance, older age (50 and above) was generally associated with a higher likelihood of speaking to the source of racist behavior or to leadership about a racist policy. Higher levels of endorsement of the impact of racism on health were associated with increased odds of intervening across the scenarios including speaking with the source of a racist statement (OR 1.26, $p = 0.01$), speaking with leadership about a racist encounter (OR 1.29, $p = 0.01$), speaking with someone else about a racist encounter (OR 1.18, $p = 0.05$), speaking with leadership about a racist policy (OR 1.30, $p = 0.01$), and speaking with someone else not in leadership about a racist policy (OR 1.39; $p = 0.00$). Level of endorsement of the impact of racism on other areas of society was not associated with speaking up. Including role (trainee or faculty) or focus (clinical work or research) did not affect these results (data not shown).

DISCUSSION

In this anonymous survey of a large, academic Department of Medicine, the majority of respondents endorsed the effects of racism on health and on other aspects of society although levels of endorsement were lower in some groups, including older individuals. Less than half had spoken up when they witnessed a racist encounter or policy, but those with greater endorsement of the impact of racism on health or those who were over the age of 50 were generally more likely to report speaking up. To our knowledge, this is the first study to examine attitudes about racism and likelihood of speaking up but these results build upon prior studies of racism in clinicians that have largely focused on assessing beliefs about patient abilities and personality characteristics, stereotypes,

social distance and inter-group contact, and feelings of warmth or other emotional reactions toward members of certain racial/ethnic groups.[46, 47] Our findings have several implications for efforts to address racism in medical settings.

First, these findings suggest that knowledge of the impact of racism can be relatively high in some medical settings, although a notable proportion of respondents did not endorse known associations between racism and health (e.g., 16.9% of respondents either were neutral or disagreed with the statement about systematic undertreatment of pain in Black people). Furthermore, as noted in our multivariable analysis (Table 3), these attitudes vary by race, gender identity, and age, with the lowest levels of endorsement occurring in older individuals, those reporting male gender identity, and those selecting other as their racial group. Parenthetically, the proportion of respondents who reported White race increased with age, ranging from 52% of those 20 to 29 to 70% of those 50 and older; Hispanic ethnicity did not vary by age group. Although many anti-racism efforts have been driven by students, trainees, and younger physicians, it appears that the groups most in need of education about racism are older and may be less likely to be reached by programs driven by younger physicians. In addition to these important grassroots efforts around anti-racism, ongoing discussion of the effects of racism on health by institutional leadership is needed and institutions should be implementing data-driven approaches to assess for and then address inequities in care by race/ethnicity.[48, 49] Our finding of greater endorsement of the impact of racism among Black respondents and lower endorsement in individuals reporting male gender identity or other race is consistent with prior work by Drs. Camara Phyllis Jones and Robin DiAngelo on the interconnectedness of racism and patriarchy, the invisibility of racism for those whose lived experiences and identities are associated with privilege, and the significant appreciation of racism among those who are targets of racism.[50, 51] Given that these results came from a single department, further research is needed to determine if our finding that attitudes about the impact of racism on health predicts intervening about a racist encounter or policy is

Table 4 Sociodemographic Factors Associated with Speaking Out About a Racist Encounter or Policy

	“When I have observed an overt or covert racist encounter at MGH, I have spoken to the person who made the statement about it.”			“When I have observed an overt or covert racist encounter at MGH, I have spoken to someone in leadership about it.”			“When I have learned of an MGH practice or policy that reinforces racism, I have spoken to someone in leadership about it.”			“When I have learned of an MGH practice or policy that reinforces racism, I have spoken to someone not in leadership about it.”		
	OR	p value	95% CI	OR	p value	95% CI	OR	p value	95% CI	OR	p value	95% CI
Race	Reference			Reference			Reference			Reference		
White	0.78	0.16	1.10	0.73	0.14	1.11	1.38	0.07	0.97	1.94	0.61	1.37
Asian	0.71	0.34	1.43	1.14	0.73	2.40	1.63	0.16	0.82	3.23	0.58	2.69
Black	1.08	0.79	1.85	0.83	0.56	1.56	0.64	0.12	0.36	1.13	0.73	1.73
Other	Reference			Reference			Reference					
Ethnicity	1.00	0.99	1.83	1.78	0.08	3.34	1.17	0.62	0.63	2.14	0.09	3.34
Non-Hispanic Hispanic	Reference			Reference			Reference					
Female	1.15	0.33	1.53	0.82	0.22	1.13	0.71	0.02	0.53	0.94	0.46	1.59
Male	0.72	0.38	1.51	0.72	0.46	1.70	0.40	0.03	0.17	0.93	0.27	3.48
Other	Reference			Reference			Reference					
Age	1.48	0.14	2.51	0.79	0.44	1.43	0.63	0.07	0.38	1.03	0.28	2.85
20–29	Reference			Reference			Reference					
30–39	1.63	0.09	2.88	1.54	0.17	2.87	0.44	0.00	0.26	0.76	0.09	3.78
40–49	2.56	0.00	4.41	1.78	0.08	3.43	0.35	0.00	0.20	0.63	0.01	5.80
50–59	1.80	0.06	3.30	1.53	0.22	3.02	0.29	0.00	0.15	0.53	0.03	5.01
60+*	1.05	0.52	1.23	0.87	0.12	1.04	1.04	0.64	0.89	1.21	1.05	1.26
Racism in society*	1.26	0.01	1.07	1.29	0.01	1.55	1.18	0.05	1.00	1.39	1.30	1.57
Racism in health												

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*Per quartile of scale score. p values ≤ 0.05 are bolded

generalizable to other settings and the potential reasons for these associations.

Second, we used survey items that assumed that respondents had witnessed racist encounters or policies given the pervasiveness of racism in healthcare[4, 52]; however, only a minority of physicians endorsed intervening. Notably, speaking up about a racist encounter or policy was associated with attitudes that endorsed the impact of racism on health, as well as older age in most scenarios. The fact that less than half of respondents endorsed speaking up after observing a racist encounter or learning of a policy or procedure that reinforces racism, and around half of the respondents chose the neutral option for these items, may reflect lack of awareness of the presence of racism in healthcare or lack of skills with which to address racism. These possibilities underscore the importance of educating about and studying the relationship between racism and negative health sequelae, as well as training medical students, trainees, and faculty to address structural racism and microaggressions.[8, 20, 53–68] Given the widespread discussion of the impacts and pervasiveness of racism during 2020, it is somewhat surprising that endorsing the effects of racism in society did not predict speaking up about a racist encounter or policy. The observed association between endorsing the impact of racism on health and increased likelihood of addressing a racist encounter/policy may reflect that the impact of racism on health is more salient to healthcare providers, and may thus be more strongly associated with behavior.

Finally, we found that individuals between 20 and 29 years of age, all of whom were trainees, are more likely to speak with others about racist experiences but are hesitant to speak with the source of the racist encounter or leadership, emphasizing the importance of creating safe spaces for trainees to share their experiences and observations. These findings informed our departmental anti-racism strategy including the design of educational interventions and creation of spaces for trainees and/or faculty to discuss and address racism. In addition to providing important insights, the survey administration facilitated the discussion of anti-racism within our department and could be an important approach for other institutions to consider.

While our study has the strength of being one of the first to assess the relationship between attitudes about the impact of racism on health and speaking up about racism in trainees and faculty, it also has limitations. We do not know if the survey responses reflect true behaviors, as there may be pressure to provide the ideal response, even when responding to an anonymous survey. While the demographic makeup of the respondents reflects the department, the ability to donate to anti-racism organizations may have influenced respondents with anti-racist mindsets to complete the survey and may have thus introduced bias. The survey was conducted at a single site, so generalizability to other academic medical centers is unclear. While ARC included previously validated questions, it also included new questions, which had not

previously been validated, that explored the willingness of individuals to intervene around an observed overt or covert racist encounter or racist policy or procedure. While our focus was anti-Black racism, there is also a pressing need to address anti-Asian racism, which has been on the rise during the pandemic.[31, 69–73] Finally, our representation of Black, Latinx, or indigenous individuals is less than that of the general population but consistent with academic medical centers,[74] which may have contributed to our not finding differences between racial and ethnic groups.

In conclusion, understanding the distribution and determinants of attitudes about racism and the likelihood of speaking up about racism can provide useful insights into the design of anti-racism strategies, including but not limited to educational programs and bystander intervention training. These survey findings were central to our departmental anti-racism strategy development and will inform future investigation of outcomes related to intervening around racism. Armed with this knowledge, we hope that we are that much closer to bending the arc toward racial equity in healthcare.

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Declarations:

IRB Approval: The protocol was considered exempt by the Massachusetts General Hospital Institutional Review Board.

Conflict of Interest: The authors declare that they do not have a conflict of interest.

Registration: Not applicable

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