RESEARCH ARTICLE

Perceptions of workplace climate and diversity, equity, and inclusion within health services and policy research

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Abstract

Objective: To describe the perception of professional climate in health services and policy research (HSPR) and efforts to advance diversity, equity, and inclusion (DEI) in the HSPR workforce and workplaces.

Data Source: We administered the HSPR Workplace Culture Survey online to health services and policy researchers.

Study Design: Our survey examined participants' sociodemographic, educational, and professional backgrounds, their perception on DEI in HSPR, experience with DEI initiatives, feeling of inclusion, and direct and witnessed experiences of discrimination at their institutions/organizations. We calculated sample proportions of responses by gender identity, sexual orientation, race/ethnicity, and disability status and compared them with Fisher's exact test.

Data Collection: We administered the survey online from July 28 to September 4, 2020. HSPR professionals and trainees aged 18 and older were eligible to participate. Analyses used complete cases only ($n = 906$; 70.6% completion rate).

Principal Findings: 53.4% of the participants did not believe that the current workforce reflects the diversity of communities impacted by HSPR. Although most participants have witnessed various DEI initiatives at their institutions/organizations, nearly 40% characterized these initiatives as "tokenistic." Larger proportions of participants who identified as female, LGBQI+, underrepresented racial/ethnic groups, and those with a disability held this perception than their male, heterosexual, White, and non-disabled counterparts. Current DEI initiatives focused on "planning" activities (e.g., convening task forces) rather than "implementation" activities (e.g., establishing mentoring or network programs). 43.7% of the participants felt supported on their career development, while female, Black, Hispanic/Latino, LGBQI+ participants and those with a disability experienced discrimination at their workplace.

Conclusions: Despite an increasing commitment to increasing the diversity of the HSPR workforce and improving equity and inclusion in the HSPR workplace, our results suggest that there is more work to be done to achieve such goals.

What is known on this topic

- While the racial and ethnic diversity of the health services and policy research (HSPR) workforce has improved, significant gaps remain for groups historically and structurally excluded from health professions.
- In 2015, AcademyHealth released a report providing actionable steps to improve workforce diversity and inclusion as a critical strategy toward achieving health equity.
- Representational diversity is not sufficient. Workplace equity and inclusion are also necessary components for ensuring sustainability.

What this study adds

- HSPR workforce members experience non-inclusive, inequitable environments, with those from historically and structurally excluded groups reporting frequent discrimination.
- Those working in HSPR from historically and structurally excluded groups perceive their workplace DEI efforts to lack substance and focus on planning and reporting rather than implementation.
- Professional discrimination in the HSPR workplaces is highly prevalent, especially among those from historically and structurally excluded groups.

1 | INTRODUCTION

The 2020 social justice movements, occurring alongside the COVID-19 pandemic, have served as important reminders that to eliminate health inequities, policy makers must address social and economic injustice caused by historically oppressive systems. The field of health services and policy research (HSPR) plays a vital role in this effort. Nevertheless, the same oppressive systems structurally exclude members of the most disadvantaged groups from entering the HSPR workforce itself. In a recent analysis of health services and policy researchers, Frogner estimated that more than half of the workforce is female (50.5%).[1] However, only 5.3% of the workforce identified as Black and 3.1% as Hispanic; both estimates were lower than the percentages graduating with doctoral degrees in related fields.[1]

In 2020, Hardeman and Karbeah urged health services and policy researchers (HSPRers) to engage in a disciplinary self-critique[2] and reassess research questions, methodological approaches, and interpretations of findings to identify, name, and question White supremacy and structural racism.[3] In addition to critically assessing *how* we conduct HSPR and *what* we are producing, disciplinary self-critique also requires a look at *who* is conducting the research. Their arguments apply not only to structural racism but to other systems of oppression, including ableism and heterosexism.[4] Unfortunately, current datasets have not allowed for estimates of HSPRers by disability status and sexual orientation.[1] If HSPR is truly concerned about eliminating health inequities, then the workforce should represent the populations and communities most impacted by our work. Developing and fostering a diverse workforce is a critical component of repairing structural harms and achieving health equity.[3] Researchers who are members of historically and structurally excluded groups can draw upon their lived experiences and that of their communities to set health equity research agendas and inform policy priorities.[5]

Recognizing the importance of diversity in the field as an ethical and necessary step to addressing equity, some members of the HSPR community and related organizations have called for changes in the workforce explicitly. In 2015, AcademyHealth, the largest HSPR professional organization in the United States (US), released the report *The Future of Diversity and Inclusion in Health Services and Policy Research* (referred to as "the 2015 Report" hereafter), which highlighted five key actionable steps to improve workforce diversity[6]:

1. Develop a diversity and inclusion plan and share it publicly.
2. Communicate clearly about our commitment to diversity in goal statements, programmatic language, graphic images, and events.
3. Collect better data on our progress in achieving diversity and inclusion goals and report it publicly.
4. Promote best practices for diversity and inclusion in the current HSPR workforce.
5. Create a more racially and ethnically diverse pipeline for the future HSPR workforce.

In addition to advancing diversity, scholars across many fields have also called for greater emphasis on understanding and improving equity and inclusion in the workplace.[7] In other words, it is insufficient to simply change representation (diversity); workplace climates must also affirm the positive contributions of increasing diversity and create conditions in which those from historically excluded groups can thrive. Inclusive climates are associated with greater organizational commitment, job satisfaction, reduced turnover, individual empowerment, and positive psychological outcomes.[8-11] Positive perception of

organizational efforts to address diversity can even mitigate the perceptions of procedural justice – organizational decision-making for employees who experience racial discrimination at the workplace.[12] Conversely, poor institutional climates can undermine diversity efforts. For example, research in academic medicine has shown that failures to proactively create an environment for mentorship and retention have led to dissatisfaction and higher exit rates among Black and Hispanic/Latino faculty.[13] Ultimately, HSPR workforce diversity efforts will not succeed unless organizations and institutions create equitable and inclusive workplaces.

Several professional organizations have conducted climate assessments in their respective fields.[14–17] The Society for Epidemiologic Research (SER) found that female epidemiologists were less likely to report feeling welcomed and less likely to engage in events planned by SER relative to their male counterparts.[14] In a similar study by the American Economic Association (AEA), LGBT economists and those with a disability reported consistently feeling more excluded in their field than non-LGBT economists and their counterparts without disabilities.[16] Information from climate assessments like ones conducted by SER and AEA provide some baseline metrics of current professional climate and workplace culture, which are needed to steer the directions of future equity and inclusion in the workplace efforts.

To describe the current state of workplace culture in HSPR and the implications for advancing diversity, equity, and inclusion, we conducted a survey to evaluate the current professional climate for HSPRers and the extent to which institutions, organizations, and researchers have engaged with the efforts recommended by the 2015 Report. Our survey had three aims: (1) describe the professional climate of the field, as experienced by professionals and trainees; (2) describe efforts in the field to advance DEI since the release of the 2015 Report; and (3) identify opportunities for further research and action. Whereas the generic term of "diversity" can refer to a range of characteristics, we specifically examined the experiences of members of groups historical and structurally excluded from health care leadership, while suffering persistent health inequities (e.g., Black, Indigenous and people of color, women, LGBQI+, and people with a disability). Findings from this study serve as a starting point and help inform future efforts on evaluating the progress of DEI through the perspective of improved professional climates in the HSPR workforce and workplaces.

2 | METHODS

2.1 | Survey instrument

We developed a survey instrument to assess participants' perceptions of the diversity of the HSPR workforce and the culture of equity and inclusion in the workplace. The content consisted of six key domains: (1) sociodemographic, education, and professional backgrounds; (2) DEI in the overall field of HSPR; (3) DEI initiatives at participants' institutions/organizations; (4) feelings of inclusion within their own institutions/organizations; (5) direct and witnessed experiences of

discrimination in the HSPR workplace; and (6) suggestions for AcademyHealth and other stakeholders for advancing DEI. We derived items from prior DEI and professional climate surveys[14–17] and, when possible, incorporated validated instruments[18,19] for characterizing DEI in the field of HSPR. (See the online supplement for a complete survey instrument).

2.2 | Measures

2.2.1 | Sociodemographic, education, and professional backgrounds

We adapted the Fenway Institute's single-pass surveillance question to assess gender identity and sexual orientation.[19] We used the race, ethnicity, and nativity questions from Hughes and colleagues.[20] These validated questions include granulate response options and allow participants not having to "fit into a box." Participants could select more than one racial/ethnic background; we considered more than one selection as "more than one race." We also asked participants if they have a disability, and if so, they could choose to disclose the nature of their disability. All above-listed items included "prefer not to answer" and/or "prefer to self-describe" options. (See specific questions in the online supplement). We also asked participants to report their age, the highest level of education attained, years since completion, and occupational setting (i.e., academic or non-academic). For occupational roles, we asked for title and rank (academic institutions), the nature of work (non-academic institutions), and for students (excluding postdoctoral trainees), their education program. For participants who work in more than one setting, we asked that they respond based on their primary role/institution.

For analysis, we constructed categorical indicators of gender identities (female; male; non-binary, which included non-binary, gender-nonconforming, and "prefer to self-describe"), sexual orientation (heterosexual; LGBQI+, which include gay, lesbian, bisexual, and "prefer to self-describe"; noted that we purposely did not include the T in the non-heterosexual category as transgender characterize participants' gender identity, not their sexual orientation), race and ethnicity (Asian subgroups: East, South, and Southeast Asian; Black/African American; Hispanic/Latino; other race, which includes Middle Eastern or North African and "other race"; White; and more than one race), and disability status (have or do not have). We also created four age groups for selection: 18–34 years; 35–44 years; 45–64 years; 65+ years.

2.2.2 | Perceptions of DEI in HSPR

To measure perceptions of DEI in the workplace, we adapted items developed by the Wellcome Trust Survey of Researchers.[17] We first asked participants to provide three words that embody the current state of DEI in the field of HSPR and at their current institution/organization. Participants then rated the following four statements, with a

TABLE 1 Sample characteristics ($n = 906$)

	n	(%)
Age		
18–34	208	(23.0%)
35–44	225	(24.8%)
45–64	346	(38.2%)
65 and older	122	(13.5%)
Missing	5	(0.6%)
Gender identity		
Female	661	(73.0%)
Male	234	(25.8%)
Other	4	(0.4%)
Missing	7	(0.8%)
Sexual orientation		
Lesbian/gay/bisexual/other	92	(10.2%)
Heterosexual	788	(87.0%)
Missing	26	(2.9%)
Race/ethnicity		
Asian	93	(10.3%)
East Asian	53	(5.8%)
South Asian	24	(2.6%)
Southeast Asian	14	(1.5%)
Other Asian	2	(0.2%)
Black/African American	86	(9.5%)
Hispanic/Latino	31	(3.4%)
Other race	22	(2.4%)
Middle Eastern or North African	14	(1.5%)
Other race	8	(0.9%)
More than one race	77	(8.5%)
White	590	(65.1%)
Missing	7	(0.8%)
Have a disability		
Yes	70	(7.7%)
No	816	(90.1%)
Missing	20	(2.2%)
Education		
Less than bachelor's degree	4	(0.4%)
Bachelor's degree	40	(4.4%)
Master's degree	221	(24.4%)
Doctorate or professional degrees	637	(70.3%)
Missing	4	(0.4%)
Years since completed the last degree		
Less than 1 years	41	(4.5%)
1–5 years	225	(24.8%)
6–10 years	179	(19.8%)
More than 10 years	458	(50.6%)
Missing	3	(0.3%)
Occupational setting (primary)		
Academic institution	507	(56.0%)
Academic institution - Student	83	(9.2%)
Academic institution - Faculty or staff	424	(46.8%)
Non-academic research and policy organization	103	(11.4%)

TABLE 1 (Continued)

|	n	(%)
Government	112	(12.4%)
Government - Federal	93	(10.3%)
Government - State	15	(1.7%)
Government - Local	4	(0.4%)
Hospital/Health care provider	66	(7.3%)
Other settings	115	(12.7%)
Health plan/insurer	8	(0.9%)
Manufacturing/pharmaceutical company	10	(1.1%)
Consulting firm	29	(3.2%)
Association	23	(2.5%)
Foundation	14	(1.5%)
Other	31	(3.4%)
Missing	3	(0.3%)

range from strongly agree to strongly disagree: (1) "I have witnessed diversity and inclusion initiatives successfully implemented at my institution/organization"; (2) "My institution/organization's diversity and inclusion initiatives are tokenistic (i.e., making only a symbolic effort)"; (3) "Action is taken in my institution/organization to remove barriers and provide support for researchers from underrepresented backgrounds"; and (4) "My working environment reflects the diversity within my community." Lastly, participants rated the extent to which several different stakeholders, from educational institutions and employers to funding organizations and policy makers, are responsible for improving DEI in HSPR.

2.2.3 | DEI initiatives

To assess participants' experiences of workplace DEI initiatives, we drew from the recommendations of the AcademyHealth 2015 Report[6] to construct a list categorized generally into two phases: "planning" and "implementation." Planning initiatives include evaluating and tracking DEI in the HSPR workforce, evaluating existing protocols and policies, and convening a diverse workgroup to create protocols/policies. Implementation initiatives include publicly reporting on progress towards meeting DEI goals, establishing mentoring programs for underrepresented HSPRers, and developing pathway programs for members of underrepresented groups. We asked participants to report whether they had witnessed any initiatives of either phase within the past five years, coinciding with the release of the 2015 report.

2.2.4 | Feelings of inclusion

We assessed participants' feelings of inclusion using questions from the Medical Student Cognitive Habits and Growth Evaluation Study
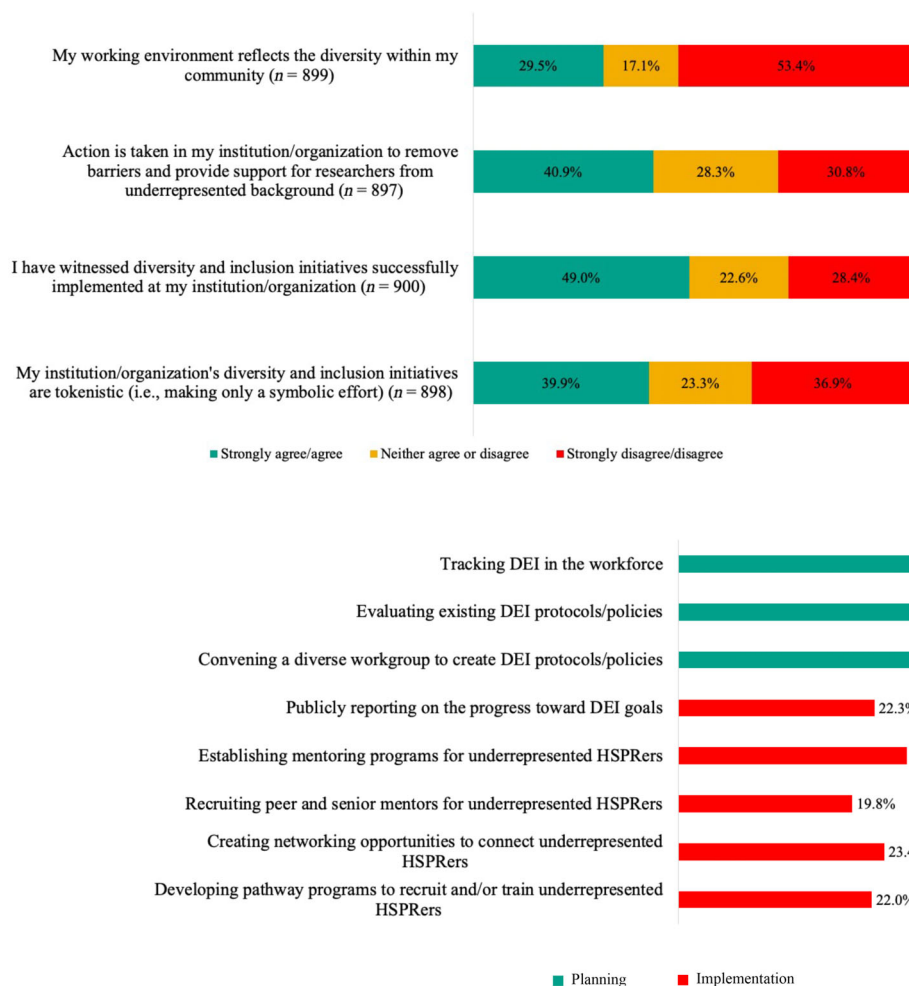
FIGURE 1 Perception of diversity, equity, and inclusion in the field of HSPR. Percentages are based on non-missing responses only. [Color figure can be viewed at wileyonlinelibrary.com]

FIGURE 2 DEI initiatives recommended by the 2015 AcademyHealth Report and percentage of the participants who witnessed them in the past 5 years at their institutions/organizations (*n* = 906). The green and red bars represent "planning" and "implementation" initiatives, respectively. [Color figure can be viewed at wileyonlinelibrary.com]

(CHANGES).[18] Participants rated five statements (strongly agree to strongly disagree): "I feel that I belong"; "I feel that I can be myself"; "I feel accepted"; "I feel my abilities are valued by my colleagues"; and "I feel supported in my career advancement."

2.2.5 | Experiences of discrimination

We asked participants to report both direct experiences and witnessing other incidents of discrimination in the workplace in the past five years. We defined discrimination as "the treatment or consideration of or making a distinction in favor of or against a person or thing based on the group, class, or category to which that person or thing belongs rather than on individual merit." We adapted our questions on direct experiences of discrimination from the AEA Professional Climate Survey.[16] For those who witnessed professional discrimination, we drew from the Association of American Universities Campus Climate Survey to survey actions taken after incidents occurred.[15] For

those who answered affirmatively, we then asked how discrimination manifested and the factors underlying such acts (e.g., based on age, gender identity, sexual orientation, racial/ethnic identity, and research topics). For those who reported direct experiences, we also asked about the effects of these incidents on health, well-being, and career trajectory, whether they took legal action, and rationale if not. Last, we provided an optional open-ended response item for participants to share details of professional discrimination, either experienced or witnessed.

2.3 | Participants and recruitment

Because HSPR work does not require legal or otherwise formal registration or licensure, and due to the interdisciplinary and multisectoral nature of the field, there is no "master list" of HSPRers that can be identified for participant recruitment.[1] Instead, we first engaged leadership and staff at AcademyHealth to develop a recruitment plan that leveraged the AcademyHealth Annual Research Meeting

TABLE 2 Feeling of inclusion among the survey participants (agree/strongly agree with each statement), by gender identity, sexual orientation, race/ethnicity, and disability status

	Overall	Gender identity			Sig	Sexual orientation		Sig	Race/ethnicity									Sig	Have a disability		Sig
		Female	Male	Other		LGBQI+	Heterosexual		East Asian	South Asian	Southeast Asian	Other Asian	Black/African American	Hispanic/Latino	Other race	More than one race	White		Yes	No	
	(n = 906)	(n = 661)	(n = 234)	(n = 4)		(n = 92)	(n = 788)		(n = 53)	(n = 24)	(n = 14)	(n = 2)	(n = 86)	(n = 31)	(n = 22)	(n = 77)	(n = 590)		(n = 70)	(n = 816)	
I feel like I belong	53.5%	49.8%	65.0%	50.0%	***	39.1%	55.8%	**	50.9%	33.3%	42.9%	50.0%	31.4%	38.7%	36.4%	53.2%	60.0%	***	37.1%	55.3%	**
I feel that I can "be myself"	50.9%	48.1%	61.1%	0.0%	***	37.0%	53.6%	**	47.2%	20.8%	35.7%	50.0%	27.9%	35.5%	27.3%	41.6%	59.7%	***	32.9%	52.9%	**
I feel accepted	57.9%	54.6%	69.2%	25.0%	***	46.7%	60.0%	*	54.7%	29.2%	50.0%	50.0%	38.4%	48.4%	45.5%	62.3%	63.4%	***	44.3%	59.2%	*
I feel my abilities are valued by my colleagues	56.5%	51.9%	70.9%	25.0%	***	47.8%	58.4%	*	49.1%	41.7%	57.1%	50.0%	37.2%	54.8%	45.5%	61.0%	61.0%	**	45.7%	57.8%	NS
I feel supported on my career advancement	43.7%	40.1%	54.7%	25.0%	***	38.0%	44.8%	NS	39.6%	29.2%	50.0%	50.0%	27.9%	35.5%	27.3%	44.2%	48.1%	*	32.9%	45.0%	NS

*** p < 0.001; **p < 0.01; *p < 0.05, NS p > 0.05 based on Fisher's exact test.

(ARM) in 2020, including publishing an AcademyHealth blog post to introduce the study, sending emails from AcademyHealth's leadership to the membership listserv, and asking leading HSPR experts to remind attendees about the survey during the meeting. However, the HSPR workforce extends beyond AcademyHealth. Frogner's recent HSPR workforce estimate identified 9351 active and inactive members of AcademyHealth, whereas ResearchGate analysis identified 26,500 researchers in the area of health policy and economics.[1] To reach HSPRers who are not AcademyHealth members, we therefore also advertised through social media and other social science and public health channels (e.g., Twitter, Association of Schools and Programs of Public Health's Friday newsletters), and coordinated press releases from the study team's institutions. All recruitment activities intended to reach participants who self-identified as HSPRers broadly and did not target specific subgroups within the HSPR workforce. Furthermore, to reduce priming in recruitment and participation, we advertised the study as an assessment of workplace culture, without explicitly mentioning of DEI until participants reached the corresponding survey items.

2.4 | Data collection

After pilot-testing with HSPR trainees and subsequent revisions, we collected responses with the final survey instrument using the online platform Qualtrics[21] from July 28 to September 4, 2020. Participants who completed the survey in full were directed to a separate site to enter a random draw for one of four Visa gift cards worth either $50 or $100. Those who only completed the survey partially had the option to contact the study team if they wanted to enter this drawing.

2.5 | Analysis

We conducted descriptive analyses to summarize participants' perceptions of DEI, the prevalence of DEI initiatives, and experiences of professional discrimination. To examine response differences by participant's sociodemographic characteristics (gender identity, sexual orientation, racial/ethnic background, and disability status), we calculated sample proportions of responses by group and used Fisher's exact test, which accounts for small cell counts within some survey response options. Unless specified, we conducted complete-case analyses (i.e., among non-missing responses only) as participants who completed the survey in full were similar on the key sociodemographic characteristics to those who did not (see the online supplement). Data management and analyses were conducted in R version 4.0.2.

3 | RESULTS

We received 1284 individual responses to our survey, and of those, 906 were completed in full (70.6% completion rate). Our

TABLE 3 Reporting of professional discriminations or unfair treatments in the HSPR workplace, by type

Type	Overall (n = 906)	Gender identity				Sexual orientation			Race/ethnicity										Have a disability		
		Female (n = 661)	Male (n = 234)	Other (n = 4)	Sig.	LGBQI+ (n = 92)	Heterosexual (n = 788)	Sig.	East Asian (n = 53)	South Asian (n = 24)	Southeast Asian (n = 14)	Other Asian (n = 2)	Black/African American (n = 86)	Hispanic/Latino (n = 31)	Other race (n = 22)	More than one race (n = 77)	White (n = 590)	Sig.	Yes (n = 70)	No (n = 816)	Sig.
Gender identity																					
Experienced	21.3%	27.2%	3.8%	50.0%	NS	21.7%	21.1%	NS	15.1%	41.7%	14.3%	0.0%	15.1%	19.4%	22.7%	24.7%	21.9%	NS	32.9%	20.2%	NS
Witnessed	26.2%	28.3%	20.5%	0.0%	NS	38.0%	25.1%	NS	34.0%	25.0%	42.9%	50.0%	24.4%	19.4%	18.2%	29.9%	25.8%	NS	31.4%	25.9%	NS
Sexual orientation																					
Experienced	3.6%	2.7%	6.0%	0.0%	NS	23.9%	1.4%	NS	3.8%	12.5%	0.0%	0.0%	3.5%	16.1%	4.5%	3.9%	2.7%	NS	10.0%	3.1%	NS
Witnessed	14.3%	15.1%	12.4%	0.0%	NS	28.3%	13.2%	NS	11.3%	16.7%	21.4%	50.0%	15.1%	22.6%	4.5%	13.0%	14.4%	NS	21.4%	14.0%	NS
Racial/ethnic identity																					
Experienced	18.4%	18.9%	17.1%	25.0%	NS	26.1%	17.1%	NS	35.8%	54.2%	28.6%	50.0%	70.9%	54.8%	40.9%	26.0%	3.9%	NS	24.3%	17.9%	NS
Witnessed	44.6%	46.9%	38.0%	50.0%	NS	54.3%	43.7%	NS	45.3%	54.2%	50.0%	0.0%	54.7%	54.8%	18.2%	44.2%	43.6%	NS	41.4%	45.1%	NS
Disability status																					
Experienced	3.6%	3.6%	3.4%	25.0%	NS	7.6%	3.0%	NS	7.5%	4.2%	0.0%	0.0%	1.2%	3.2%	4.5%	6.5%	3.4%	NS	31.4%	1.0%	NS
Witnessed	19.2%	19.1%	19.7%	25.0%	NS	31.5%	18.1%	NS	20.8%	16.7%	21.4%	50.0%	18.6%	32.3%	9.1%	18.2%	19.2%	NS	30.0%	18.1%	NS
Research topics																					
Experienced	23.7%	25.7%	18.4%	25.0%	NS	32.6%	22.7%	NS	30.2%	41.7%	21.4%	50.0%	50.0%	32.3%	27.3%	23.4%	18.1%	NS	38.6%	22.4%	NS
Witnessed	29.7%	29.0%	31.6%	25.0%	NS	37.0%	29.4%	NS	18.9%	29.2%	50.0%	0.0%	39.5%	35.5%	13.6%	42.9%	27.6%	NS	21.4%	30.5%	NS

NS $p > 0.05$ based on Fisher's exact test.

final analytical sample consisted of participants from all age groups, with majorities who identified as female (73%) and White (65.1%) (Table 1). Fewer than 10% identified as Black/African American and 3.4% as Hispanic/Latino. Among the 10.3% who identified as Asian, over half reported East Asian ethnicity. Approximately 10% reported a sexual orientation as LGBQI+. Fewer than 1% identified as a gender identity that was neither male nor female. Fewer than 10% reported having a disability. Seventy percent had a doctorate or professional degree, and a slight majority had 10+ years of work experience in HSPR. More than half of the participants worked in academic settings. Comparison of a sociodemographic profile of our sample to those of the AcademyHealth membership is available in the online supplement.

3.1 | Perceptions of DEI in HSPR

Less than one-third (29.5%) of the participants reported either agreeing or strongly agreeing with the statement, "My working environment reflects the diversity of within my community." (Figure 1) With respect to diversity initiatives at their institutions/organizations, 40.9% agreed/strongly agreed that their organization takes action to support researchers from underrepresented backgrounds, and 49% reported that they had witnessed DEI initiatives successfully implemented. However, nearly 40% also reported that they agreed or strongly agreed that DEI initiatives were "tokenistic" (i.e., symbolic rather than substantive).

We further examined the characteristics of those who described tokenistic DEI initiatives at their institutions/organizations. Higher proportions of the participants who identified as female (42.6%, vs. 31.5% of male), LGBQI+ (55.4%, vs. 37.9% of heterosexual), Black/African American (61.6%), and Hispanic/Latino (58.1%, vs. 32.8% of White), and participants with a disability (43.5%, vs. 39.7% no disabilities) agreed/strongly agreed with this statement. (Refer to the online supplement for detailed distributions.)

3.2 | DEI initiatives

Participants reported the most common DEI initiatives consisted of planning activities such as evaluating existing DEI policies/protocols (49.4%) and convening a diverse workgroup to DEI policies/protocols (55.2%) (Figure 2). In contrast, fewer participants reported implementation activities, such as recruitment of mentors for underrepresented minoritized (URM) professionals (19.8%) or developing URM educational pathway programs (22%).

3.3 | Feelings of inclusion

On average, half of the participants reported affirmatively to inclusion measures at their institution/organization (Table 2). For example,

56.5% reported that they "feel [very/extremely] my abilities are valued by my colleagues" and 43.7% "feel [very/extremely] supported on my career advancement." Approximately half of the female participants reported feeling very/extremely "like I belong" (49.8% vs. 65% of males), and 40.1% felt supported on their career advancement (vs. 54.7% of males). Only about one-third of Black/African American (31.4%), Hispanic/Latino (38.7%), LGBQI+ (39.1%), and participants with a disability (37.1%) reported feeling very/extremely "like I belong."

3.4 | Professional discrimination

Table 3 displays the proportions of participants who reported experiencing or witnessing professional discrimination by gender identity, sexual orientation, racial/ethnic identity, disability status, and research topics. Noted that differences by groups shown in this table did not reach the alpha level of 0.05, likely due to differences in sample sizes between groups. Yet, these summary statistics still highlight a consistent theme about discriminations in HSPR workplaces. Concerning direct discrimination, the percentage of females who reported experiencing discrimination due to gender was higher than that of males (27.2% vs. 3.8%). Nearly one-fourth of LGBQI+ participants experienced discrimination due to sexual orientation (vs. 1.4% among heterosexuals). Over 70% of Black/African American participants, 54.8% Hispanic/Latino, and 54.2% of South Asian participants experienced discrimination due to their race and/or ethnicity (vs. 4% of non-Hispanic White). These same groups also reported more experiences of discrimination due to research topics, particularly among Black/African American participants (50%). Approximately one-third of participants with a disability reported direct (31.4%) or witnessed (30%) discrimination based on disability status. Among participants working in academic settings who responded to how professional discriminations manifested, most were related to compensations (45%), inappropriate behaviors of colleagues (44.4%), service obligations (38.6%), and promotional decisions (33.1%). For those working in other settings, discriminations related to job promotions (47.3%), compensations (40.6%), access to professional development opportunities (38.3%), and inappropriate behaviors of colleagues (38.3%) were most common (summary data is available in the online supplement).

4 | DISCUSSION

Although professional organizations, research institutions, and health systems have recognized the need to improve DEI in HSPR for many years, little is known about what progress, if any, has occurred. To our knowledge, our study is the first to examine the current state of workplace DEI within HSPR and thus offers insights for areas for improvement. While most participants perceived the profession as lagging in diversity, HSPRers from structurally excluded groups were more likely to report DEI initiatives as tokenistic, and reported higher rates of both witnessed and experienced professional discriminations. Prior

work has shown that non-inclusive work conditions have driven the exodus of Black/African American and Hispanic/Latino scholars from academic institutions.[22]

A majority of HSPRers who participated in our survey perceived the demographic make-up of the current workforce as not reflecting the communities most impacted by HSPR. This is expected, as prior reports by McGinnis and Moore and Frogner have found that the HSPR workforce has been predominantly White and female.[1,23,24] Furthermore, this is consistent with workforces in other closely related fields, such as medicine,[25] nursing,[26] epidemiology,[14] and economics.[16] The persistent lack of diversity may partly inform why more than one-third of our participants believed that DEI initiatives at their institutions/organizations are symbolic rather than substantive. Not surprisingly, we found that the perceptions of current workplace DEI initiatives differed by race, gender identity, sexual orientation, and disability status. Sociologist Victor Ray characterizes racialized institutions as those that "enhance or diminish the agency of racial groups," "legitimize the unequal distribution of resources," "use Whiteness as credential," and "decouple formal commitment to equity, access, and inclusion from policies and practices that reinforce, or do not challenge, existing racial hierarchies."[27] In racialized institutions, such as universities and health systems, high-level leaders who make organizational policy decisions are more likely to be White, male, heterosexual, and without disabilities[28] – groups who are not the target populations of DEI initiatives. Those who tend to benefit from DEI initiatives (e.g., underrepresented racial/ethnic groups, female, LGBQI+, and people with a disability) will conclude such efforts are tokenistic if existing hierarchies remain,[29] as initiatives come and go. Prior studies in higher education have found that a lack of consistent leadership commitment, coupled with a lack of lived experience of historical and structural exclusion, also undermines the effectiveness of DEI workplace initiatives.[29–31]

Our participants may have also perceived their workplace initiatives as superficial because they more often observed their organizations conducting "planning" rather than "implementation." For example, only about one-fourth of our participants witnessed initiatives that directly support historically and structurally excluded HSPRers, such as mentorship, networking opportunities, and pathway programs. In many settings, repeated meetings, workgroups, and general discussion of DEI can become conflated with enacting needed reform to advance DEI.[29,30] Thus, despite the publication of several strategies outlined in the AcademyHealth 2015 Report, conducting planning activities can be presented as "doing something" on the part of an organization.

Last, our findings suggest that many HSPR workplaces remain non-inclusive and inequitable environments. As seen in other scientific, academic, and health professional settings, those from structurally excluded groups also experience contemporary exclusion in their workplace.[16,17,22,32] Black/African American, Hispanic/Latino, South Asian, those with a disability, and LGBQI+ had lower reports of feeling welcomed into their organizations. Professionals from historically and structurally excluded groups frequently experience excessive demands for service, microaggressions, hostility, isolation, and overt discrimination,

even in high-status occupations.[33] As described by Wingfield, health care organizations that claim an interest in diverse communities but minimize investment will engage in racial outsourcing, in which they abdicate responsibility to their Black professionals, without support or protection from hostility.[33] A high proportion of participants reported witnessing professional discrimination; over 70% of Black/African American and over 50% of Hispanic/Latino and South Asian participants personally experienced professional discrimination. HSPRers in academic and non-academic settings reported discrimination most often manifested in promotion and compensation. These responses are consistent with persistent disparities in the US workforce, both in leadership and pay, for Black and Hispanic/Latino populations. The relatively higher proportion of East versus South Asian participants reporting feelings of belonging and lower proportion of discrimination reported is also concordant with the broader literature on impacts of racism, colorism, and Islamophobia among South Asian populations.[34,35]

4.1 | Implications

Advancing DEI in the HSPR workforce and workplaces will be a long-term endeavor that requires considerable investment and leadership change in the field. First, organizations and funders can move beyond planning to implementation by building upon existing successful models for recruitment of undergraduates, such as partnerships with Minority Serving Institutions. They can also build on existing pathway programs, such as the Robert Wood Johnson Health Policy Scholars.[36] Second, funders can create more opportunities to recruit, retain, and invest in the success of scholars who graduate and continue into leadership, as seen with biomedical research programs.[37] Third, institutions and organizations need to implement policies that both reward scholars for their contributions to DEI across a range of activities, and set minimum expectations for promotion for those who have not contributed to their overall workplace inclusion. Fourth, organizations need to create and institute reporting and accountability mechanisms, so that HSPRers have safe outlets for disclosing discrimination and harassment, and have clear expectations on when and how such incidents will be addressed.[38] This includes specific programs for the repair of harms, ranging from education and discussion to professional consequences for those who repeatedly violate workplace safety. Last, HSPR organizations need to establish tracking of their DEI progress and require external accountability; examples of institutional accountability include DEI standards for accreditation (as seen in schools of medicine)[39]; use of DEI measures in external rankings systems; creation of DEI targets as requirements for receipt of funding.

4.2 | Limitations

While our study provides insight on DEI in the HSPR workforce and workplaces and highlights pressing barriers to such advancement, our

results are not without limitations. First, and most prominently, it is difficult to ascertain if our sample is representative of the HSPR workforce. There is not strong data available on the demographics of the workforce in the field in the US. Second, our survey results are based on self-reported questions administered cross-sectionally in 2020. While participants responded based on their experience from the past five years, it is insufficient to assume causal inference between the 2015 Report and the progress (or lack thereof) toward DEI reported by the participants. Third, while our sample is diverse, it does not consist of all groups historically underrepresented in the HSPR workforce. For example, our sample does not include any Native American HSPRers. As a result, data reported in this paper may not represent the experiences of members of these groups. Given that there are very small Native Americans in higher education (e.g., 22 public health faculties in the entire US between 2016 and 2016),[40] future research should oversample this group and/or use qualitative design to collect key data. This strategy may be applied to other groups, including Asian subgroups (e.g., Southeast Asian) and gender non-binary individuals. Fourth, given our relatively small sample size, we were not powered to examine the effects for subpopulations (e.g., people with multiple marginalized social identities). We encourage future studies with a larger sample size to apply statistical models to investigate the role of intersectionality in the professional experience of HSPRers. Last, we administered the survey soon after the 2020 social justice movement commenced, after the murder of George Floyd, Jr. by the Minneapolis police officers. The heightening attention drawn to structural racism in the US may affect how participants responded to our survey questions. However, given that our findings are generally consistent with other climate studies, the effect of this reporting bias on the integrity of our findings may be minimal.

5 | CONCLUSION

Results reported in this paper, while not exhaustive, highlight key findings and important barriers that hinder the progress towards a diverse HSPR workforce, and inclusive and equitable workplaces. These quantitative results contribute to the literature and support policy and organizational attempts to improve DEI in HSPR. Moving toward DEI must be an ongoing endeavor for everyone, everywhere. Indeed, the field will not continue to improve toward creating a diverse workforce, and inclusive and equitable workplaces until a critical mass of people, especially leadership, begin working together seriously to address these issues. Declaring that DEI is important is not enough; effective actions must accompany such declarations.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.