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Original Article

Determining clinical perspectives and strategies for improving enrollment of minoritized communities in prostate cancer clinical trials

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Abstract: Background: Black men and other minoritized populations have represented 4-5% or less of participants in most practice-informing clinical trials. This study sought to assess the knowledge, attitudes, and practices of clinicians around equity and inclusion in prostate cancer clinical trial initiatives in the United States. Methods: An anonymous, web-based questionnaire was administered via REDCap (Research Electronic Data Capture) with questions focused on inclusivity of minoritized populations with respect to race and ethnicity in prostate cancer clinical trials research. The survey link was distributed across the United States via several professional organizations, prostate cancer groups, and social media. Responses were analyzed both quantitatively (descriptive statistics) and qualitatively (thematic analysis). Results: Overall, 131 respondents completed the survey (70% self-identified as White, 17% as Asian, and 6% as Black). Most respondents practiced in an urban setting (89%). Of those who engaged in outreach with minoritized communities during the trial design process, 69% observed improved enrollment of minoritized populations. However, 18% of respondents noted that outreach alone does not overcome existing structural barriers to participation in clinical trials. Thematic analysis identified four key areas to address for improving equity: structural, health system, trial-/study-specific, and relationship-/engagement-related factors. Conclusion: Study participants demonstrated a knowledge of the importance of improving equity in prostate cancer clinical trials research. Designing trials that reduce issues associated with access and improving community outreach were emphasized as key focus areas for reducing health disparities in prostate cancer clinical trials research.

Keywords: Health disparities, prostate cancer clinical trials, minoritized communities

Introduction

Notable racial and ethnic health disparities exist in prostate cancer [1]. While race and ethnicity are historically derived social constructs without biological basis [2], exploitation and marginalization perpetuate structural racism within the healthcare system, contributing to disparities in prostate cancer care and outcomes [3]. Black men are at higher risk of being diagnosed with prostate cancer at a younger age and have greater risk of prostate cancer-specific death compared with non-Hispanic White men [4]. Five-year survival rates for all stages of prostate cancer are higher for non-Hispanic White men compared with Hispanic or Black men [5]. Data indicate Indigenous Americans are less likely to be screened for prostate cancer, and these rates have not increased in recent years compared with those for Black and non-Hispanic White men [6].

Despite the higher burden of prostate cancer disease and mortality experienced by minoritized groups, they are often disenfranchised from research participation. A recent prostate cancer study determined that 96% of participants in 72 clinical trials conducted globally were White [7]. Minoritized populations are less likely to live near cancer centers and have fewer

participatory opportunities in prostate cancer clinical trials [8]. Defining strategies to reduce health disparities in cancer research is essential to improve equity, inclusion, and access to quality healthcare [9]. This starts by building capacity to support clinical care and trial participation of minoritized populations. To do this, we must understand the knowledge, attitudes, and practices of clinicians with respect to developing clinical trials that better support inclusion of minoritized communities. This study aims to describe US-based prostate cancer clinicians' knowledge of the importance of diversity in clinical trials and the perceived barriers to clinical trial enrollment for minoritized populations; it further seeks to identify current practices that increase enrollment of minoritized communities.

Methods

Study population

This is a prospective study of prostate cancer clinicians, including practicing medical oncologists, urologists, radiation oncologists, and other medical professionals (e.g., primary care givers) with the capacity to refer to, enroll in, or design prostate cancer clinical trials in the United States.

Survey design

Survey questions (Supplementary Materials) were derived and adapted from published literature on barriers and best practices for recruitment and retention of patients in stroke clinical trials [10] and disparities in lung cancer care [11]. Minoritized communities were defined using race and ethnicity designations from the National Institutes of Health (NIH) [12]: African American, Black, Hispanic, Latino, American Indian, Alaska Native, Native Hawaiian and Other Pacific Islanders. Nomenclature used here complies with recommended scientific and medical terminology updated since the distribution of the questionnaire; e.g., Black/African American is now denoted as Black, Underrepresented as Minoritized, and White/Caucasian as White [2]. Questions comprised checkboxes, free text, and Likert-scale responses. The survey covered clinical demographics, patient demographics of communities served, experience in clinical trial design, and clinical trial enrollment. Study data were collected and managed using REDCap (Research Electronic Data Capture), a secure, web-based software platform supporting data capture for research studies, hosted at Fred Hutchinson Cancer Center.

The survey link was distributed for 12 weeks through professional organizations (including the Prostate Cancer Foundation, the Association of American Cancer Institutes, and the Society of Urologic Oncology), prostate cancer clinical research groups, clinical sites specializing in disparities research, and on web-based and social media platforms. Survey responses were anonymized. Response rate cannot be estimated, given survey dissemination via the publicly available REDCap link. The study received ethical approval from the Fred Hutchinson Cancer Center Institutional Review Board, Seattle, Washington (Study #10666).

Data analysis

Baseline demographic data were assessed using descriptive statistics. Quantitative data were analyzed using descriptive statistics through REDcap (version 10.9.2) or Graphpad PRISM (version 9.4.0) software. Qualitative data were thematically analyzed as per Braun and Clarke [13]. Thematic analysis was conducted by LB and reviewed by JRL. Survey responses were read several times to ensure a comprehensive understanding; responses were assessed for patterns and similarities; themes were assigned based on a numerical coding system [13].

Results

Demographics

Overall, 131 respondents completed the questionnaire. Baseline data for respondents is available in **Table 1** and Supplementary Table 1. Most respondents self-identified as White (70%). Respondents primarily practiced in an urban setting (89.3%); 2.3% worked in a rural clinical setting. An academic institution/university was the most common workplace for survey respondents (84.7%). In this study, 28 states were represented (Supplementary Table 2). Most survey respondents (74.7%, n=97/130) had designed at least one prostate cancer clinical trial (**Figure 1A**). Among them, 57.1% (n=56/98) strongly agreed/agreed that

Table 1. Survey respondent characteristics

Characteristic	Category	% (N) of total responses
Self-Identified Race	White	70 (91)
	Asian	16.9 (22)
	Black	6.2 (8)
	American Indian or Alaska Native	0 (0)
	Native Hawaiian or Other Pacific Islander	0 (0)
	Missing	5.4 (7)
	Other	3.8 (5)
Clinical Specialty	Medical oncologist	42 (55)
	Urologist	13.7 (18)
	Radiation oncologist	31.3 (41)
	Primary care giver	1.5 (2)
	Other	11.5 (15)
Place of work	Academic Institution/University	84.7 (111)
	Veterans Affairs or Federal	17.6 (23)
	Private Practice	2.3 (3)
	Hospital Employed	9.9 (13)
	NCI designated	11.5 (15)
	Other	3.1 (4)
Practice Setting	Rural	2.3 (3)
	Urban	89.3 (117)
	Other	8.4 (11)

NCI - National Cancer Institute, Other - other designation.

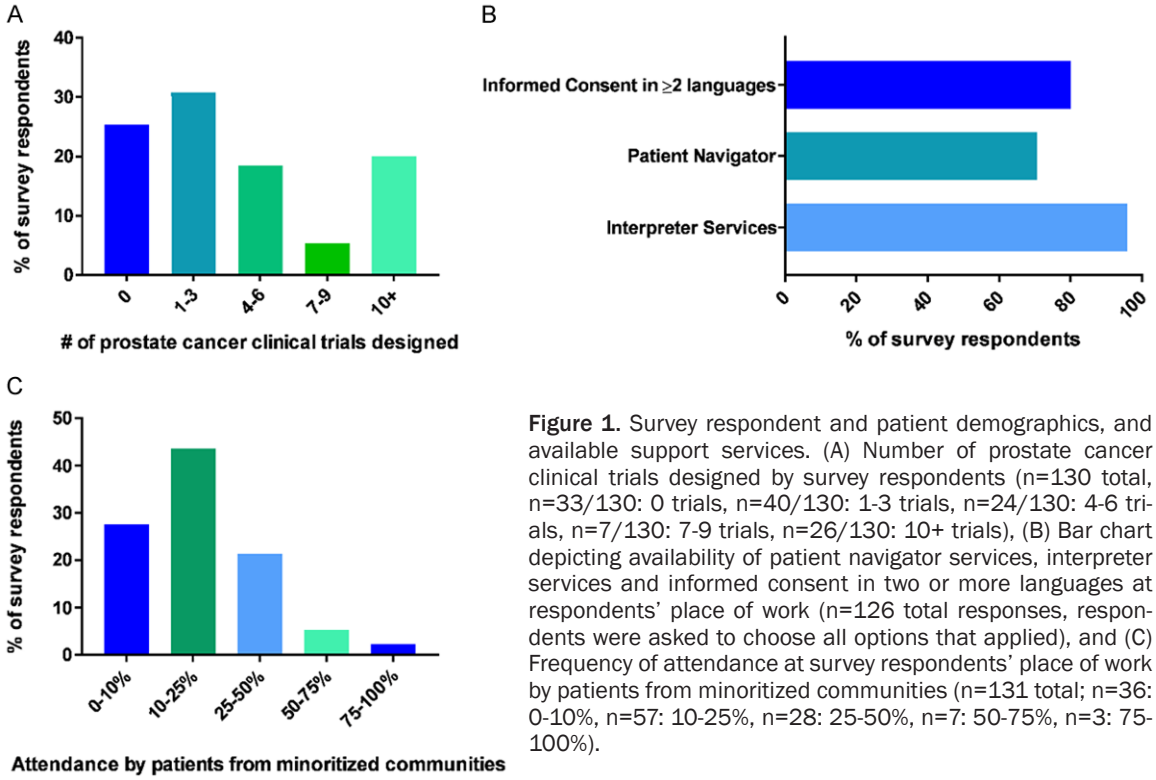

Figure 1. Survey respondent and patient demographics, and available support services. (A) Number of prostate cancer clinical trials designed by survey respondents (n=130 total, n=33/130: 0 trials, n=40/130: 1-3 trials, n=24/130: 4-6 trials, n=7/130: 7-9 trials, n=26/130: 10+ trials), (B) Bar chart depicting availability of patient navigator services, interpreter services and informed consent in two or more languages at respondents' place of work (n=126 total responses, respondents were asked to choose all options that applied), and (C) Frequency of attendance at survey respondents' place of work by patients from minoritized communities (n=131 total; n=36: 0-10%, n=57: 10-25%, n=28: 25-50%, n=7: 50-75%, n=3: 75-100%).

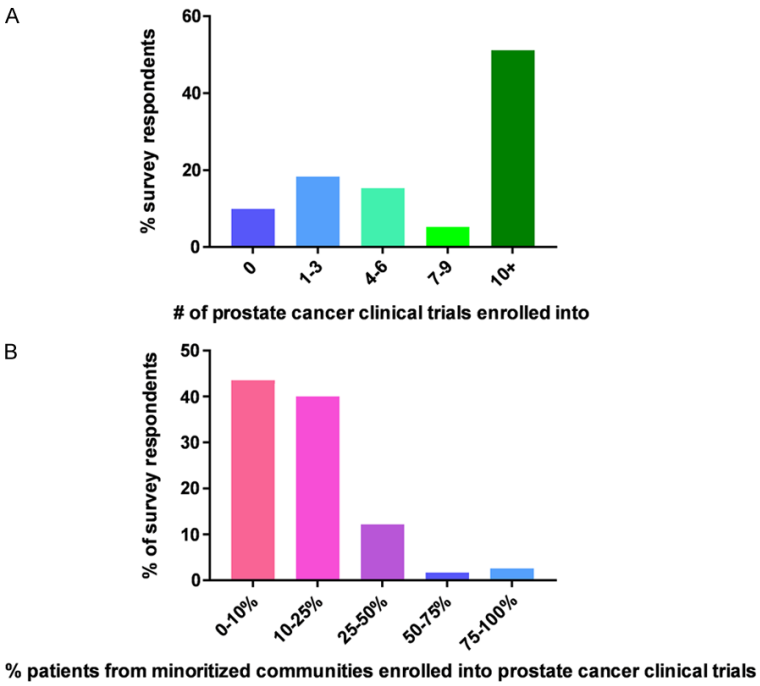

Figure 2. Clinical trial enrollment. (A) Number of prostate cancer clinical trials respondents had enrolled a participant into (n=131: total, n=13: 0 trial, n=24: 1-3 trials, n=20: 4-6 trials, n=7: 7-9 trials, n=67: 10+ trials), and (B) The percentage of patients from minoritized communities enrolled in prostate cancer clinical trials by survey respondents (n=115: total, n=50: 0-10%, n=46: 10-25%, n=14: 25-50%, n=2: 50-75%, n=3: 75-100%).

they had considered the impact of the intervention and/or comparator on the participation of individuals from minoritized communities (Supplementary Figure 1).

Attitudes and knowledge of equitable enrollment practices and barriers faced by minoritized communities

Most respondents (73%, n=93/127) said their clinical trial team members receive cultural sensitivity training. Almost half (43.5%, n=57/131) of respondents estimated 10-25% of patients they most commonly work with were from minoritized communities (**Figure 1B**). However, 23% said this figure was less than the referral demographic. Reasons given for this disparity (free text) included structural barriers limiting access to care and lack of adequate medical insurance. Interpreter services, informed consent in two or more languages, and patient navigator services were available through respondents' workplace (n=74/126) (**Figure 1C**).

More than half (56%, n=53/95) of respondents with clinical trial design experience collaborated with or sought advice from representatives of minoritized communities during trial design; 69% (n=31/45) felt such partnership/collaboration improved enrollment. However, 18% (n=8/45) of respondents felt that including a representative in the trial design process did not improve recruitment as a singular strategy, noting it did not overcome existing structural barriers such as region-specific challenges and social/economic barriers. And 11% of respondents (n=11/98) acknowledged that previous planning and design of their prostate cancer clinical trials made it harder for minoritized community members to participate (Supplementary Figure 2). Overall, 90% (n=118/131) of respondents had enrolled at least 1 patient with prostate cancer into a prostate cancer clinical trial (**Figure 2A**), with 43.5% (n=50/115) stating that 0-10% of patients enrolled in their trials were from a minoritized population (**Figure 2B**).

Among respondents who had enrolled a patient in a clinical trial (90%, n=118/131), the most common research team roles filled by a member of a minoritized population included recruiters/clinical coordinators (64.4%), nurses (56.8%), and co-investigators (44.9%) (**Figure 3A**). From a list of options, respondents ranked the top three challenges faced by individuals from minoritized communities with respect to participation in prostate cancer clinical trials. Mistrust of science/medical establishment (65.3%), accessibility (50.8%), and lack of transport options (46.6%) were listed as the most common challenges (**Figure 3B**).

Practices that increase enrollment of minoritized communities in prostate cancer clinical trials

Half of survey respondents (48%, n=55/114) set specific goals for minoritized population recruitment (Supplementary Figure 3). Among respondents who used outreach and engage-

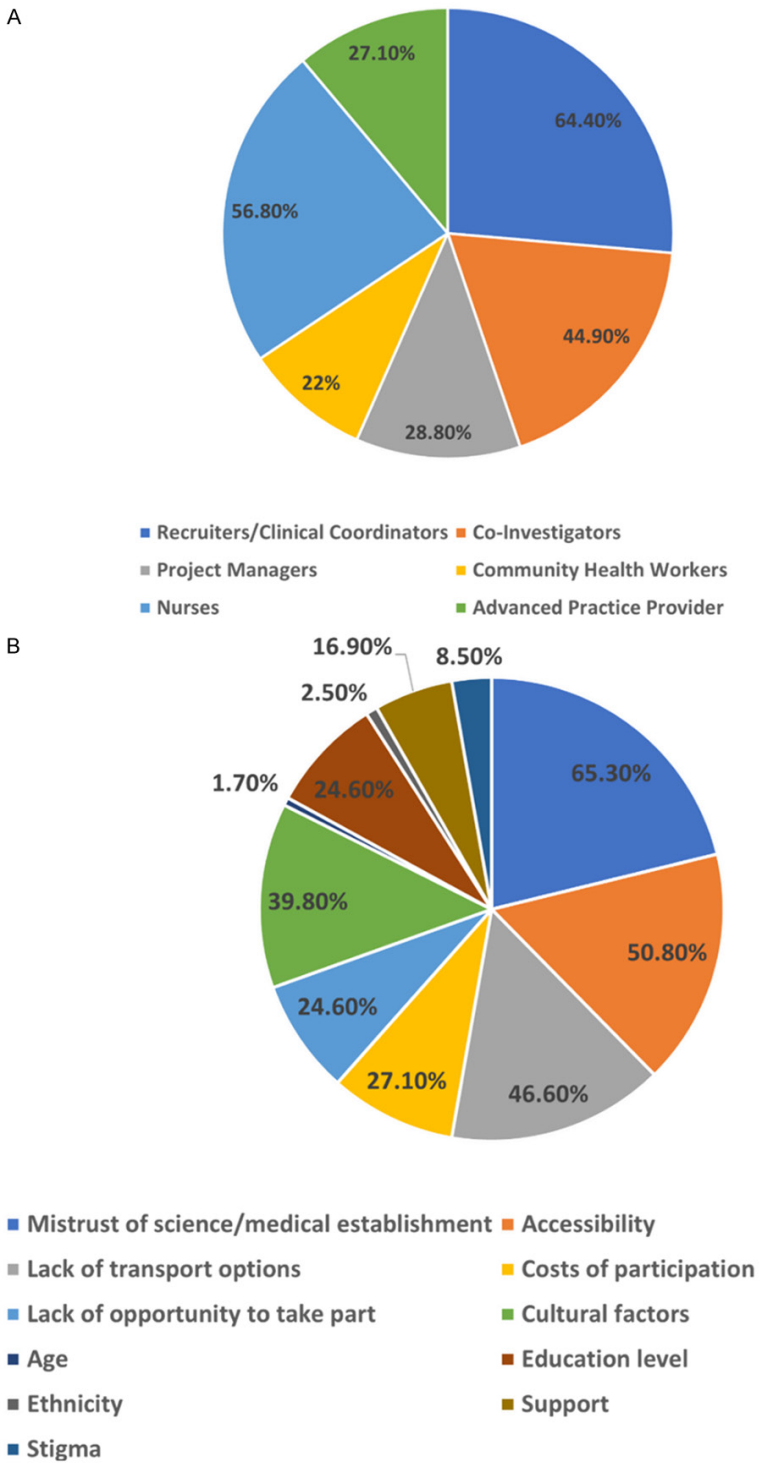

Figure 3. (A) Positions held by members of minoritized communities on clinical trial teams (%, N=118 responses), and (B) Ranking of barriers to inclusion in prostate cancer clinical trials according to survey respondents.

ment strategies (53%, n=48/90), four forms predominated: community outreach/patient engagement organizations, patient navigator, community education, and media output. Of those engaging in outreach, 58% (n=26/48) responded that community engagement improved trust and awareness surrounding trials. However, 19% (n=9/48) of respondents noted that community outreach alone did not overcome existing barriers such as socioeconomic status, medical insurance coverage, and location (free text response).

Opinion-based free-text responses provided qualitative data. Based on their experience with structural barriers, respondents identified key strategies for improving racial and ethnic diversity in prostate cancer clinical trials: access to high quality care, overcoming financial restraints, overcoming persistent systemic issues that perpetuate inequities, and describing methods for building trustworthiness of the scientific or medical establishment (**Table 2**). The three most effective modes for communicating with minoritized groups about prostate cancer clinical trials were direct contact, community-level communication, and healthcare system communications (**Table 2**).

Discussion

Lack of inclusion of minoritized groups in prostate cancer clinical trials research greatly affects equity, the generalizability of results to the prostate cancer population, and our understanding of prostate cancer disease biology; it also potentially limits patient access to high-quality care [14]. Our study sought to understand clinician perspectives on equity, diversity, and inclusion in prostate cancer clinical tri-

Table 2. Themes and representative quotes for improving enrolment of minoritized communities in prostate cancer clinical trials

Theme	Representative Quotes
Strategies for improving racial and ethnic diversity	
Structural issues associated with participation and clinical trial engagement	*"eliminate barriers to participation including transportation and arranging for time away from work or home to participate"* *"improve access to care to these patient populations. Provide support with transportation or other limiting factors"* *"improving access to care and in that access make sure it is high quality care with providers knowledgeable about ongoing trials"*
Issues associated with the healthcare system	*"universal health care, opening studies in sites embedded in underrepresented communities"* *"include a diverse research team, from top to bottom. Engage Community groups to assist in recruitment. Ensure language and health literacy are appropriate"*
Clinical trial study level issues	*"simplify inclusion/exclusion criteria and screening procedures as much as is possible and safe"* *"designing trials that are logistically easier for patients. engaging community in research questions diverse patient population is interested in. patient-friendly trial information"* *"workforce diversity and team diversity"*
Addressing relational and engagement issues	*"I believe we need to be culturally relevant, especially in NY with such a hugely diverse population. We noticed, pairing a care provider who shares a language and culture helps"* *"community outreach and education re: clinical trials"* *"engage communities through community leaders. places of worship"*
Communication of information regarding prostate cancer clinical trials	
Direct contact	*"direct person to person contact, especially from someone in the community"* *"face to face"* *"in-person discussion with each patient and family"*
Community level communication	*"communication via trusted sources (trusted community leaders/ organizations, churches, etc.). This is done through partnerships with communities"* *"engage community leaders and culturally appropriate advertising"* *"need a relatable source, a narrative showing realistic consequences, use cultural specific humor and music"*
Healthcare system communications	*"during the trial design process, ASK!!!"* *"directly to the patient from the treating physician who they trust"* *"keeping urologists, radiation oncologists and medical oncologists well informed of possible trials; recruiters to scan charts; advertising"*

als and to provide insight into knowledge, attitudes, and practices employed to mitigate underrepresentation of minoritized populations. While most survey respondents acknowledged the importance of designing equitable interventions, only approximately half were actively engaged in outreach strategies with minoritized populations despite wide agreement on the effectiveness of outreach and engagement for improving enrollment and building meaningful community partnerships [15]. Respondents emphasized how community outreach alone does not always overcome existing structural barriers to participation, such as financial implications [16]. Respondents described a series of strategies for actively improving access to prostate cancer clinical trials for minoritized groups, such as covering participation costs (parking etc.) in the initial clinical trial budget planning and design. These practices have been effective for colorectal cancer. Colonoscopy is an effective screening tool for colorectal cancer, but transportation for screening appointments is a bar-

rier that decreases screening rates [17]. A prior study successfully implemented a pilot ride-share program, allowing patients without transportation to safely travel to and from colonoscopy appointments [17]. Further investigation into if and how these proposed practices improve equity in prostate cancer clinical trials is needed.

In the current study, survey respondents had knowledge and insight into the importance of improving access to prostate cancer clinical trials. Although only 27% of total respondents self-identified with a minoritized racial group, individuals from minoritized racial groups were strongly represented on their clinical trial teams. Nonetheless, low numbers of minoritized groups were accrued to prostate cancer clinical trials by survey respondents. The potential for bias when offering clinical trials and the history of exclusion of minoritized individuals must be recognized. A previous study found that over half of patients with cancer offered participation in clinical trials will accept, and self-identified Black patients agree to participate slightly more frequently than White patients [18]. Consequently, failure to extend the option of clinical trial participation to eligible patients may contribute to limiting patient access [19]. Clinical professionals engaged in oncology clinical trial recruitment were interviewed, and they described barriers to participation such as clinical trial opportunities not being extended to members of minoritized communities, based on clinicians' perceived views that they were less ideal trial candidates [20]. However, while such structural racism and bias may mean that minoritized groups are offered participation at lower rates, it cannot be assumed this is the only factor to address. Additional equity-related factors may preclude participation, including structural and social determinants of healthcare discussed later below.

Prior studies indicate that that having a clinical practitioner of the same race or ethnicity can improve cultural sensitivity, increase communication and patient discussion, and advance patient health outcomes [21]. However, a lower percentage of Black, Hispanic, and Asian American patients have a clinical practitioner who shares their self-identified race or ethnicity compared with non-Hispanic White Americans [21]. A 2018 study reported that although Black and Hispanic urologists remain underrepresented in the field, a slow shift toward a more diverse urologic workforce was observed when examining US census data from 2010 and American Urologic Association census data compiled in 2014 [22]. Working towards improved levels of diversity across all prostate cancer clinical team levels and enhancing cultural competency and sensitivity trainings may improve the ability for Black, Hispanic, and Asian American patients to access racially and culturally concordant care for prostate cancer.

Survey respondents consistently saw increased community engagement and development of meaningful relationships within minoritized communities as necessary for addressing their ongoing low enrollment in prostate cancer clinical trials. Research has noted the importance of oncologists actively discussing the purpose and risk of clinical trials research with Black patients [23]. In 2016, engaged community religious and government leaders, health care providers, and residents suggested that change in prostate cancer clinical research should be addressed from within the community, not from without [24]. Connecting men with doctors they trust [24] underscores the importance of establishing the trustworthiness of the medical and scientific community. Providing culturally appropriate and relevant programs and information that utilize different community engagement approaches is another strategy. Overcoming language and literacy barriers supports improving the inclusion of minoritized populations in clinical research [25]. In this study, 53% of respondents engaged in outreach with minoritized communities for their prostate cancer clinical trials, a figure suggesting the need for increasing commitment and resources toward active community engagement.

Respondents repeatedly highlighted major obstacles to participating in clinical trials, including barriers related to transportation and medical insurance. Inequities exist due to social and structural determinants of both health and equity, which can create constraints on care delivery [26]. Healthcare and prostate cancer clinical trials are costly; access to high-quality health insurance is often required for participation and to cover costs of care. Black and

Hispanic patients are less likely to have insurance than non-Hispanic Whites, which may preclude participation in certain clinical studies or receiving care in a hospital or cancer center with access to clinical trials [14]. Patients with lower incomes are less likely to participate in cancer clinical trials; building reimbursements for transportation, missed work, and childcare into clinical trial budgets is a strategy that may address access disparity [27]. It is important to recognize potential areas for preventing inequity in prostate cancer clinical trial design. Structural and social determinants of equity and health mean Black men are more likely than White men to have comorbidities that increase their risk of all-cause mortality [28]. These adverse health conditions can block Black men from participation in prostate cancer clinical trials, as eligibility criteria may exclude patients with pre-existing conditions-even when criteria are not contraindications to the interventions being tested. To address clinical trials inclusivity, American Society of Clinical Oncology and Friends of Cancer Research formed a working group that supports broadening clinical trial eligibility criteria and requests strong scientific rationale for excluding patients with pre-existing conditions, those taking certain medications, or those who may have an additional malignancy unlikely to affect safety/efficacy endpoints [29].

This study has limitations. First, most survey respondents self-identified as White, were based in academic institutions, and were located in an urban setting. These demographics introduce bias into their responses, based on their lived experiences and access to training and services. Second, participation of Indigenous American populations, Native Hawaiians, and Pacific Islanders was limited and this study does not reflect insights from these communities. Third, while this research purposefully focused on race and ethnicity with respect to underrepresentation and exclusion, other minoritized populations were not included, e.g., communities marginalized based on gender identity, sexual orientation, or physical ability. Studies including insights from additional minoritized and/or marginalized populations and focusing on intersectionality will provide meaningful insight in this space. Lastly, including only the clinical perspective leaves a critical knowledge gap around the barriers that patients with prostate cancer may identify. Future work determining the insights and opinions of patients with prostate cancer on healthcare disparities and comparing their responses with the clinical perspective will be an essential step in designing and implementing effective, equitable future interventions to support clinical trials of men with prostate cancer from minoritized populations.

Conclusions

Finding the balance between requirements for clinical trial participation and barriers faced by patients that could influence a decision or opportunity to enroll is important for designing durable, equitable future interventions. Clinical perspectives gained from this work have provided the foundation for future intervention studies designed to address equitable enrollment of minoritized populations. Strategies for the initial clinical trial design phase include seeking input from members of minoritized communities to design equitable interventions, offering financial planning to addresses structural barriers to participation, and opening trial sites in partnership with community healthcare centers. Taken together, these strategies aim to address health disparities, thus aiding progress in the field of prostate cancer clinical trials research.

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Disclosure of conflict of interest

LB, JL, DL, FS, and JLG have no disclosures to declare relating to this work. EYY reports consulting fees from Janssen, Merck, Bayer, Advanced Accelerator Applications, Oncternal, Exelixis, and Clovis, and institutional support from Daiichi-Sankyo, Taiho, Dendreon, Merck, Seattle Genetics, Blue Earth, Bayer, and Lantheus unrelated to this study. PSN has served as a paid consultant for Janssen, Bristol Myers Squib, and Pfizer for work unrelated to the present study and received research support for work unrelated to the present study. YAN serves as scientific advisor for Ortho-Clinical Diagnostics for work unrelated to the present study and has no conflict of interests with the work presented in this manuscript.

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Supplementary Materials

Survey questions

Demographics

1. Please specify your self-identified race.

White/Caucasian

Black or African American Asian

American Indian or Alaska Native

Native Hawaiian or other Pacific Islander

Other

Prefer not to answer

2. Please classify your self-identified ethnicity (e.g., Hispanic, non-Hispanic, Southeast Asian, Prefer not to answer).

3. What specialty best describes you?

A Medical Oncologist

A Radiation Oncologist

A Urologist

A Primary Care Giver

Other

4. Please describe your place of work? (please check all that apply)

Academic institute/University

VA or Federal

Private practice

Hospital employed

NCI designated

Other

5. Please check your practice setting.

Urban

Rural

Other (please define)

6. In which state do you practice? (please circle)

AL	HI	MA	NM	SD
AK	ID	MI	NY	TN
AZ	IL	MN	NC	TX
AR	IN	MS	ND	UT
CA	IA	MO	OH	VT
CO	KS	MT	OK	VA
CT	KY	NE	OR	WA
DE	LA	NV	PA	WV
FL	ME	NH	RI	WI
GA	MD	NJ	SC	WY

Prostate cancer clinical trial practices

7. What percentage of the patients you most commonly work with in your clinical practice/research are from Underserved communities? (Underserved communities defined according to the NIH definition as: Black or African American; Hispanic or Latino; Native Hawaiian and other Pacific Islander; American Indian and Alaska Native)

0-10%

10-25%

25-50%

50-75%

75-100%

7a. Is the % answered less than the referral demographics? If so, why do you think that is?

8. Which of the following are available to patients at your place of work? (please check all that apply)

Interpreter services

Patient navigator

Informed consent in 2 or more languages

9. How many prostate cancer specific clinical trials have you designed?

0

1-3

4-6

7-9

10+

10. Do you consider the following: will my trial intervention and/or comparator make it harder for any underserved groups to engage in the intervention and/or comparator?

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

N/A

11. Have you collaborated with or sought out advice from representatives from underserved communities in the planning stages of your potential prostate cancer clinical trials?

Yes

No

Not applicable/have not been involved in trial design

11a. If yes, has this strategy improved enrollment of members of Underserved communities? Please explain your response or mark N/A.

12. Do you think the way you planned your trial and/or designed your trial made it harder for members of underserved communities to take part?

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

N/A - Please skip question 12a

12a. If agree/strongly agree, what would you do differently next time?

13. How many prostate cancer specific clinical trials have you enrolled participants in?

0

1-3

4-6

7-9

10+

14. Are any of the following positions on your clinical/research team held by individuals from Underserved communities? (Underserved communities defined according to the NIH definition as: Black or African American; Hispanic or Latino; Native Hawaiian and other Pacific Islander; American Indian and Alaska Native)

Recruiters/Clinical Research Coordinator	Yes/No
Co-investigators	Yes/No
Project managers	Yes/No
Community Health Workers	Yes/No
Nurses	Yes/No
Advanced practice provider	Yes/No

15. Do you actively set specific goals for recruitment of Underserved populations into prostate cancer clinical trials?

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

N/A - not involved in clinical trial recruitment

16. Have you engaged in any forms of outreach with underserved communities regarding enrollment in prostate cancer clinical trials?

Yes (please describe)

No

16a. If yes, has this strategy improved enrollment of members of Underserved communities?

Yes

No

Please explain your response

17. What percentage of the patients you enroll in prostate cancer clinical trials are members of Underserved communities (Underserved communities defined according to the NIH definition as: Black or African American; Hispanic or Latino; Native Hawaiian and other Pacific Islander; American Indian and Alaska Native)?

0-10%

10-25%

25-50%

50-75%

75-100%

N/A - do not enroll patients in clinical trials

18. Based on your experience, what are the top three challenges faced by members of Underserved communities with respect to participation in prostate cancer clinical trials? (please choose three)

Mistrust of science/medical establishment

Accessibility

Lack of transport options

Costs of participation

Lack of opportunity to take part

Cultural factors

Age

Education level

Ethnicity

Support

Stigma

Other (please list)

19. In your opinion, what is the best strategy for improving race and ethnicity-based diversity in prostate cancer clinical trials?

20. What do you feel are the best methods for communication of information about prostate cancer clinical trials to Underserved communities?

21. Are clinical trial team members at your place of work required to participate in cultural sensitivity training?

Yes

No

22. Additional comments?

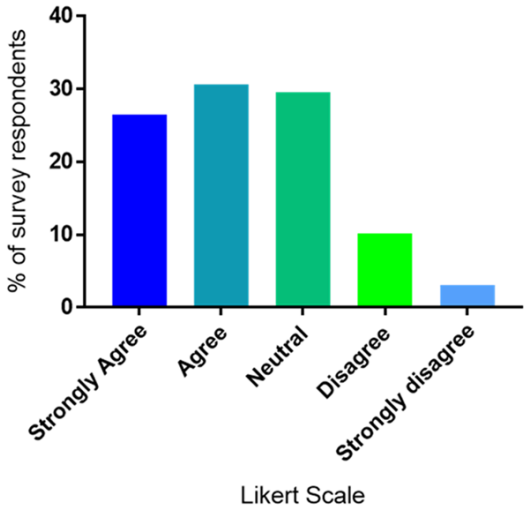
Supplementary Table 1. Survey respondent self-identified ethnicity

Characteristic	Category	% (N) of total responses
Self-described ethnicity	African American	1 (1)
	American	1 (1)
	Asian	1 (1)
	Caribbean	1 (1)
	White	6 (6)
	Central European	1 (1)
	Chinese/Chinese American	4 (4)
	French Korean	1 (1)
	Greek	1 (1)
	Hispanic	11 (11)
	Irish American	1 (1)
	Jewish	1 (1)
	Korean American	1 (1)
	Middle Eastern	1 (1)
	non-Hispanic	54 (54)
	South/South-East Asian	8 (8)
	West European	1 (1)
	Unregistered Native American	1 (1)
	Prefer not to Answer	4 (4)
	Missing	31

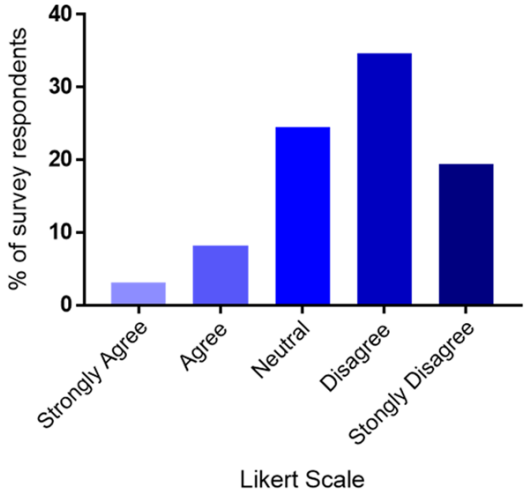
Supplementary Table 2. State of practice of survey respondents

State	% (N) survey respondents
California	7.9 (9)
Colorado	0.9 (1)
Delaware	1.8 (2)
Florida	1.8 (2)
Georgia	1.8 (2)
Illinois	3.5 (4)
Kansas	0.9 (1)
Louisiana	1.8 (2)
Maryland	8.8 (10)
Massachusetts	4.4 (5)
Michigan	7 (8)
Minnesota	0.9 (1)
Missouri	0.9 (1)
New Mexico	0.9 (1)
New York	8.8 (10)
North Carolina	6.1 (7)
North Dakota	0.9 (1)
Ohio	1.8 (2)
Oklahoma	0.9 (1)
Oregon	1.8 (2)
Pennsylvania	1.8 (2)
South Carolina	7.9 (9)
Tennessee	0.9 (1)

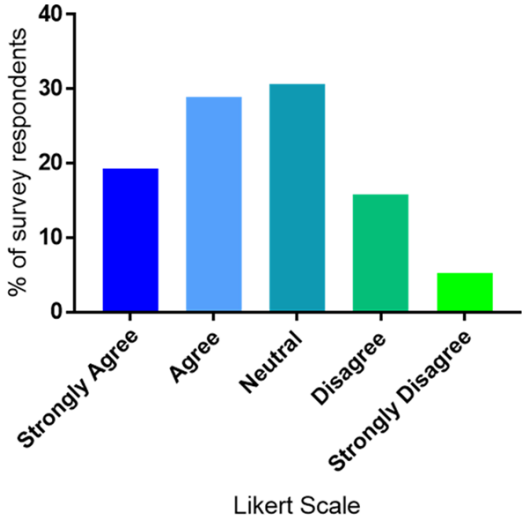
Texas	2.6 (3)
Utah	0.9 (1)
Vermont	0.9 (1)
Washington	15.8 (18)
Wisconsin	6.1 (7)
Missing	17



Supplementary Figure 1. Likert Scale depiction of respondent responses to being asked whether they consider if their trial interventions and/or comparators will make it harder for minoritized populations to participate.



Supplementary Figure 2. Likert Scale depiction of % survey respondents who were asked if the way they planned and/or designed their trial made it harder for members of minoritized communities to participate.



Supplementary Figure 3. Likert Scale graph of % of respondents who set specific goals for recruitment of minoritized populations in prostate cancer clinical trials.