Advances in Radiation Oncology (2023) 8, 101301

advances in radiation oncology

www.advancesradonc.org

Brief Opinion

Promoting Women and Historically Excluded Minorities in Medicine as Essential Leaders of Research

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Received 8 December 2022; accepted 11 June 2023

Women and historically excluded minorities are underrepresented in clinical research. At the ASTRO 2021 annual meeting, the authors reviewed several strategies to improve on this issue. Implementation of such strategies should not only improve their visibility but also provide increased opportunities for their advancement and work in clinical research.

Introduction

Women and historically excluded minorities (HEMs), which include racial, ethnic, sexual, and gender minorities, are poorly represented in the radiation oncology (RO) workforce and leadership positions.[1,2] Recent publications call for increased accountability regarding the causes of such disparities, which includes describing these populations as "excluded" as opposed to "underrepresented," as the former more accurately reflects the existence of structural processes that drive workforce disparities.[3] Other minorities, such as sexual and gender minorities, are not even captured in such statistics. For instance, men (typically cisgender, heterosexual White men) make up the majority of clinical trial leadership and cancer center directors. Many women and HEMs deserve equitable opportunities to achieve academic success and ascend to clinical and research leadership positions, but are often excluded from mentorship circles that lead to sponsorship and achievement of their goals. Academic medicine has failed to sufficiently retain and facilitate the success of women and HEM faculty, given the lack of equitable access to childcare, research support, and structured mentorship programs.

During the ASTRO 2021 annual meeting, panelists UKI, DAD, KG, SP, and SY spoke to their experiences and the importance of advancing and promoting women and HEMs in clinical research. Their overviews presented at this session and discussion are outlined here.

Sources of support: This work had no specific funding.
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https://doi.org/10.1016/j.adro.2023.101301

Establishing Clinical Research Within the Community With the Help of Mentors and Sponsors (UKI)

It is often recognized that the community is a critical place to open and enroll in clinical trials. Developing a clinical research program in the community can present certain unique challenges, especially for those just starting practice. In this session, UKI spoke to his personal experience over the past year in developing a clinical research program within his community practice with the help of mentors and sponsors. He discussed the importance of identifying past, present, and future mentors and relying on calling, emailing, or texting them about cases. He quickly learned that clinical cases do not always go by the book and that he needed to not only rely on his excellent training from residency but also affirmation of his thought process and way he would treat patients in different clinical scenarios. He found that this confirmation in simple and more difficult cases built his confidence.

Additionally, UKI spoke to the importance of identifying potential pitfalls in the equipment, processes, or infrastructure of one's community practice. Understanding this allowed him to calibrate expectations and see what work needed to be improved upon. After this identification, he subsequently transitioned to identifying and building relationships with clinical research leaders at the local community as well as the main campus/hub. This allowed him to know what trials were open network-wide and what could and should be open locally. UKI emphasized the importance of networking and getting buy-in for clinical trials from one's local medical oncologist. Garnering support not only makes enrollment in trials easier but also allows researchers to identify potential trial candidates.

UKI endorsed that it is not easy to remain academically oriented in the community setting, but it is possible. One mechanism is through the attendance of tumor boards. He noted that if there was one good thing about the coordination of patient care that came out of the COVID-19 pandemic, it was the proliferation of technology to meet virtually. This increases one's name recognition and provides a comfort level from disease site leaders in the larger city/main hub. It also provides awareness of new trials that may open in the network and trials that may be closing. UKI ended his aspect of the session on the point that patience, determination, and reliance on mentors will help one's clinical research program grow.

Gender Diversity in RO Board Certification and Disease Site Specialization (DAD)

DAD reviewed her approach to succeeding in the male-dominated subspecialty of genitourinary RO as a woman and underrepresented minority. She spoke to the fact that some may believe that women tend to gravitate toward treating breast and gynecologic malignancies because of the patient population; however, further research is needed to determine whether a lack of senior female role models in other subspecialties of ROis also a determining factor. Although she focused on the United States in her presentation, she believes an approach toward greater transparency in the composition of current leaders and processes for advancement can and should be used in other settings as well. Only with an evidence-based approach toward these issues can our field truly ensure that individuals are being treated equitably and that the field is benefiting from the full pool of talent that exists to serve.

Diversity within the ranks of the American Board of Radiology (ABR) is not strikingly dissimilar to that of the specialty of RO overall; women do appear to cluster within certain subspecialties, primarily breast and gynecologic RO. Although the composition of oral boards committees may be a minor influence in the course of a resident's long trajectory toward an academic career, it is nevertheless worth considering the fact that so many of the women who serve in ABR leadership positions do so within the fields of breast and gynecology. This may become a self-fulfilling and self-renewing pathway for women to be involved with ABR, and future female examinees could be influenced to direct their careers toward gynecology and breast RO because they see role models in those fields. These questions merit further dedicated investigation.

Structured Mentorship and Sponsorship Programs to Promote Women and HEMs in Clinical Research (KG)

KG reviewed how National Clinical Trials Network (NCTN) committees have historically suffered from underrepresentation of women and HEMs. This is likely due to multiple factors, including unconscious bias, lack of standard procedures, lack of mentorship within the committees, and absent pipeline programs to bring women and HEMs into the committees.

The NCTN Task Force on Diversity in Gastrointestinal Oncology currently seeks to expand the representation of women and HEMs on the NCTN Gastrointestinal Committees, National Cancer Institute Gastrointestinal Task Forces, and National Cancer Institute Gastrointestinal Steering Committee and to develop opportunities for women and minorities to achieve leadership roles on the committees and NCTN studies. The Task Force will establish benchmarks for membership on committees, leadership roles, and authorship and then develop strategies to promote inclusion and diversity on the committees and track progress in these areas over time.

Eventually, the goal will be to improve representation across all disease sites. Ultimately, more diverse clinical trial leadership can improve the quality of clinical trials and can lead to improved participation of diverse patients on these trials.

Sexual and Gender Minorities: Out of the Shadows of Clinical Research (SP)

SP related how sexual and gender minorities (SGMs) can succeed in clinical research and highlighted the need to move SGMs out of the shadows of clinical research. Often, SGMs are underrepresented both in conducting and in inclusion as participants in clinical research. Lesbian, gay, bisexual, transgender, and queer (LGBTQ+) people experience significant health disparities, including lower-than-average life expectancy,[4] increased incidence of some cancers and other conditions,[5] and concerns over access to care with knowledgeable health care.[6]

SP related that clinical trials help us understand the prevention, detection, and treatment of disease. For clinicians to understand the safety and efficacy of an investigational product in all patients, clinical trials should have representative patient groups. Ethnic minorities and cisgender women face larger health disparities than their White, cisgender male counterparts.[7] Yet data on the LGBTQ+ community, also known as sexual orientation and gender identity data, is currently not being collected in most research settings.

Although it is known that members of the LGBTQ+ community are more likely than their cisgender-heterosexual counterparts to have trouble accessing health care, the extent of health disparities concerning LGBTQ+ individuals, including in most clinical trials, is unknown, primarily due to a lack of data. LGBTQ+ patients have reported that they search for clues in environments to determine comfortability and acceptance, such as self-reporting sections for sexual orientation and gender identity on intake forms.[8] By being allowed to voluntarily disclose this information, patients may feel safer and more comfortable with their health care provider, and the provider has more knowledge of their patients' identity, and therefore, their health. By collecting sexual orientation and gender identity data before a patient's visit or treatment, both the patient and the provider are placed in a position of being in a representative and inclusive environment, while also increasing knowledge of health disparities in the LGBTQ+ community.

Reporting on Diversity in Clinical Research (SY)

SY spoke to the importance of reporting on diversity in clinical research. Currently, reporting diversity in clinical research is conditioned by 2 major sets of stakeholders—national funding organizations and publishing entities. Policies governing inclusion in research have been issued by the National Institutes of Health and the United States Office of Management and Budget.[9-11] Industry-funded research is likewise under increasing pressure from recent United States Food and Drug Administration directives to account for these metrics.[12] To date, these mandates have not produced clear efficacy in increasing diversity in research, but increased attention is likely to change this.

On the other side of the equation, medical journals are also being challenged on how they present and promote research. Recent initiatives include the Cell Press inclusion and diversity statement and the New England Journal of Medicine (NJEM) editorial, "Striving for diversity in research studies." Cell Press requests that its authors submit a voluntary statement that assesses not only the potential limitations of the research related to diversity but also the composition of the team that produced it.[13] The NJEM has issued a mandated supplemental table of "representativeness" describing the representativeness of the study in its application to a disease or condition.[14] Following the NJEM's lead, the Red Journal has implemented a "generalizability table," which is now a supplementary table that may accompany new submissions.[15]

These measures provide readers with the ability to gauge the generalizability of research, but the greater function is making diversity issues visible. There can be no progress without visibility. By developing infrastructure around these issues, researchers are prompted to envision how to better meet the aims of the National Institutes of Health and other federal health agencies. In addition, patients are educated or see directly for themselves whether studies included people like them, so that they can decide with their doctors how research results may apply to their case. Highlighting inclusion will, over time, lead to changes that will help diverse patients gain greater access to clinical trials and increase dissemination of novel technologies.

At present, these kinds of data are not reported due to lack of awareness, uncertainty about the effect, a belief that science is inherently unbiased, or a perception that it is burdensome to collect these data. However, to enact research programs that are truly inclusive, efforts will be required on these and numerous other fronts. These include diversification of study leaders, research coordinators, and editorial staffs, as well as rewards directed to investigators or institutions with proven ability to achieve greater diversity in their clinical trials and studies. Improving visibility will be key to our success in improving diversity in clinical research.

Conclusion

Although important strides have been made to improve the state of women and HEMs as essential leaders in clinical research, much work has yet to be done. At ASTRO

2021, we taught fellow members potential pathways to success in the heavily cisgender, heterosexual, White male −dominated field of clinical research. At the completion of our session, we empowered our colleagues to seek ways promote and sponsor women and HEMs in clinical research in an effort to advance and improve our field. The positive effect of empowering women and HEMs in clinical research cannot be ignored. We hope that you, as a reader, will answer our call to diversify clinical research and help bring those who are so often invisible out of the shadows.

Disclosures

Shilpen Patel reports being American Society for Radiation Oncology (ASTRO) Sexual and Gender Minorities co-chair, ASTRO delegate to the AMA, and AMA Reference Committee F Member. Dayssy A. Diaz reports American Society of Clinical Oncology speaker honoraria, support to attend ASTRO meeting. Sue S. Yom reports grants from Genentech, Bristol-Myers Squibb, Merck, BioMimetix, and from EMD Serono, and personal fees from UpToDate and Springer, outside the submitted work. Karyn A. Goodman reports being a member of the Viewray SMART Trial data safety and monitoring board, RenovoRx Advisory Board, Philips Health Care co-chair, and the National Cancer Institute Gastrointestinal Steering Committee. Parul N. Barry reports receiving Varian Speaker honoraria, American College of Radiation Oncology (ACRO) New Practitioner Grant, support for attending ACRO and ASTRO annual meetings and board meetings, being an Elsevier Pathways Consultant, ACRO Board of Chancellors member, and on the UPMC Hillman Cancer Center data safety and monitoring board.

Acknowledgments

The authors acknowledge Committee on Health Equity, Diversity, and Inclusion Council and American Society for Radiation Oncology staff.

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