

Multi-Institutional Journal Club as a Component of Diversity, Equity, and Inclusion Curricula in Residency Programs

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ABSTRACT: Topics of diversity, equity, and inclusion (DEI) are an integral component of post-graduate medical education. However, it is currently unclear the extent to which physical medicine and rehabilitation residency programs have incorporated a DEI curriculum into their training programs. Here, a novel, multi-institutional DEI journal club is described. This journal club format can be an important component of the DEI curriculum as it provides non-local perspectives and insights into specific issues and allows for a simple way to introduce DEI training in programs currently without such training. The virtual format also provides further opportunities for discussion and networking.

KEYWORDS: Journal club, healthcare disparities, medical education, curriculum, surveys

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Background

There has been a growing awareness of the need to address the topics of diversity, equity, and inclusion (DEI) in post-graduate medical education.^{1–3} However, it is currently unclear to what extent physical medicine and rehabilitation (PM&R) residency programs throughout the United States have incorporated a DEI curriculum into resident physician education. One of our authors previously corresponded with PM&R program directors throughout the United States, with very few reporting an active DEI curriculum within their program. DEI curricula in health care have come in the form of, for example, clinical simulations, small group discussions, case-based learning, lectures, or journal clubs.^{4,5}

Methods

An inaugural, multi-institutional journal club presentation was organized between 4 PM&R residency programs from various geographic regions. This was scheduled on a Friday morning for 1 hour during a time mutually dedicated among each program for resident didactics, free of clinical duties. The journal club was attended virtually by residents and faculty of each program using a video conferencing service. Participants, including multiple individuals sharing one device, were instructed to type their email into the chat function to log participation. The article chosen was entitled “Ethnic and Racial Diversity in Academic Physical Medicine and Rehabilitation Compared with All Other Medical Specialties” by Sanchez et al,⁶ which is a comparative study

that identified a disproportionately smaller number of under-represented minorities (URM), namely Black and Hispanic individuals, as compared to White individuals among PM&R trainees, faculty, and program directors. A resident representative from each program presented either the introduction, methods, results, or discussion sections of the article. In our case, the author of the journal club article presented the discussion section and led the subsequent open discussion. These discussion questions included the following:

- What did you find most surprising about the article?
- If the data evaluated sex instead of race, how would you expect the results to change?
- In what ways do you feel that the conclusions of this study reflect your own experiences within our academic environment in medical school and residency?
- How do you think the change in the grading of the United States Medical Licensing Exam Step 1 from a score to a pass/fail system will affect future diversity in the field?
- What do you think are the greatest barriers to recruitment and retention of persons of color in our field?
- What are some helpful strategies to improve diversity efforts in our field?

Following the presentation, members of each institution shared their own viewpoints and experiences in relation to the conclusions of the article. After the presentation was completed, a



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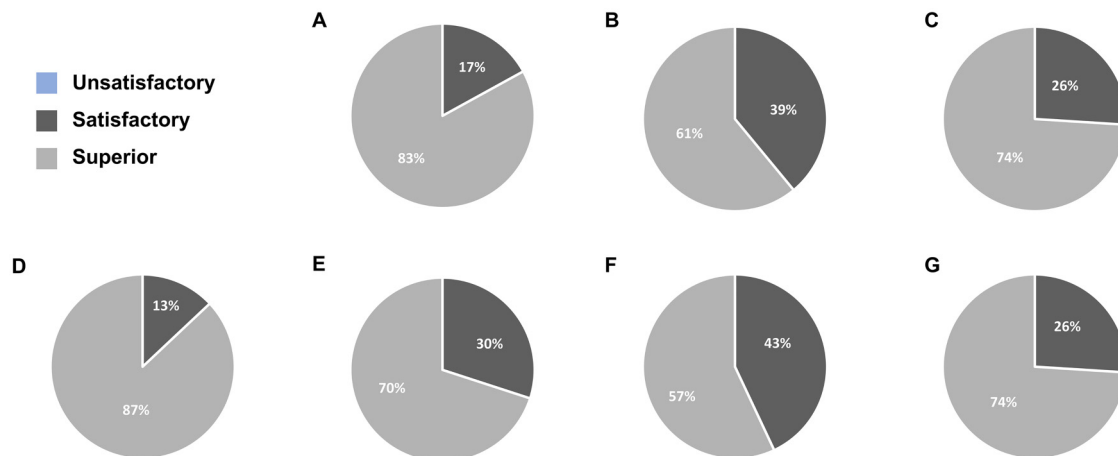


Figure 1. Post-presentation survey results gathered from participants from each institution with $n = 23$ participants. (A) Rate the overall educational value of this session. (B) Rate the presenters' ability to apply knowledge of study designs and statistical methods to appraise the journal article. (C) Rate the presenters' ability to recognize the importance of personal, social, and cultural factors in the conduct and outcome of the study. (D) Rate the quality of presentation preparation. (E) Rate the presenters' ability to recognize and discuss ethical issues related to the research article. (F) Rate the presenters' ability to discuss the conclusions of the article as it relates to cost effectiveness and quality of health care. (G) Rate the presenters' investigatory and analytical thinking skills in the review of the article.

survey was sent out to all participants to assess the educational value of this format of journal club.

Results

A total of 37 journal club participants logged in their attendance. Post-presentation survey results are found in Figure 1. A total of 23 participants responded to the survey, including 16 resident physicians, 4 attending physicians, and 3 medical students. 83% of respondents found the overall educational value of the session superior while 17% found it satisfactory. 61% of respondents rated the presenters' ability to apply knowledge study designs and statistical methods to appraise the journal article as superior while 39% rated it as satisfactory. 74% of respondents rated the presenters' ability to recognize the importance of personal, social, and cultural factors in the conduct and outcome of the study as superior while 26% rated it as satisfactory. 87% of presenters rated the preparation of the presentation as superior while 13% rated it as satisfactory. 70% of respondents rated the presenters' ability to recognize and discuss ethical issues related to the research article as superior while 30% rated it as satisfactory. 57% of respondents rated the presenters' ability to discuss the conclusions of the article as it relates to cost effectiveness and quality of health care as superior while 43% rated it satisfactory. 74% of respondents rated the presenters' investigatory and analytical thinking skills in the review of the article as superior while 26% rated it as satisfactory.

In response to the survey question "Share your thoughts on how best to structure similar sessions in the future," respondents included a recommendation to incorporate small group discussions with the use of guided questions, to provide a means of continuing further discussion among participants

beyond the presentation such as through a forum, and to invite alumni from each institution for additional perspectives. In response to the survey question "What other topics, if any, would you like to see discussed in a multi-institutional format," respondents requested topics on sex and gender disparities in medicine, issues of sexual orientation and gender identity within PM&R, and differences in the availability of educational and research opportunities in relation to sex, gender, race, or ethnicity.

Discussion

During the presentation, a highlight of the article discussion pertained to the importance of academic mentorship of URM's, as well as specific barriers to such mentorship and barriers of entry for URM's to administrative roles within academia. The article itself recognizes that URM applicants to residency programs are more likely to rank programs that have a higher percentage of URM faculty.⁷ A previous study identified this phenomenon specifically within orthopedic residency programs, in which a lack of URM faculty correlated with a lack of diversity among recruited resident physicians.⁸

The format of such a multi-institutional journal club described here can be an important component of a DEI curriculum within post-graduate medical education. The Society of General Internal Medicine Health Disparities Task Force previously created recommendations regarding curricula on healthcare disparities for residencies of all specialties, including a recommendation to designate local experts on issues of DEI as teachers on the subject.⁵ However, this may present a challenge for certain programs that have yet to identify such local experts. A multi-institutional journal club is a simple and effective opportunity for these programs to draw from the

DEI expertise of non-local faculty members, sometimes from article authors themselves. It also provides a feasible starting point for incorporating DEI training by bringing awareness to important issues of DEI faced by both our patients and faculty. This can introduce a culture and platform for ongoing discussion of these issues. Those wishing to organize such an event in their own programs may choose to collaborate with institutions in different geographic locations. In this case, including residency programs from a wide array of geographic regions provided each institution with a unique opportunity to gain from a variety of perspectives beyond their own locale. However, organizing a multi-institutional journal between programs within the same geographic location, such as multiple programs within a single state or city, also has its own advantages. These programs may be able to identify common trends or differences in approaches to shared issues of DEI.

Other specialties have discussed the numerous advantages of virtual, multi-institutional journal clubs. Chetlen et al⁹ described the advantages of multi-institutional journal clubs in the field of radiology, including recruitment of non-local experts, convenience of scheduling and accessibility, flexibility of viewing digitally recorded sessions, and opportunities for networking. Chetlen et al⁹ also highlighted best practices for a virtual journal club, including designating key roles for presentation, incorporation of platforms for publicity such as social media, ensuring the relevance of articles to audience members, and follow-up in the form of post-session discussion and feedback.⁹

Ideas for future journal clubs or formats include presenting multiple, complimentary articles in a journal club, as well as a multi-institutional interprofessional journal club with other medical specialties or disciplines. Such a journal club would help practitioners draw from an even wider array of medical perspectives on issues of DEI. The greatest challenge of organizing such a journal club would be finding a mutual time that would work for multiple institutions, especially in different time zones. Another disadvantage of our journal club format was the size, which may have potentially limited discussion by some participants. Future journal clubs may improve and facilitate discussion by dividing the open discussion section into smaller break-out groups.

Conclusion

Multi-institutional DEI journal clubs are a simple and effective way to establish or enhance DEI curricula within graduate medical education. Such journal clubs provide a means for programs across the country to share and discuss their perspectives, experiences, and knowledge regarding important topics in DEI.

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Author contributions

Jonathan L Liang: Formal analysis, Investigation, Methodology, Writing - original draft. Samuel J Lee: Conceptualization, Writing - review & editing. Francis J Lopez: Conceptualization, Writing - review & editing. Michelle Poliak-Tunis: Conceptualization, Investigation, Methodology, Writing - review & editing.

Ethical Approval

Not applicable.

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