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An International Collaboration in Interventional Radiology Training: Cultivating Knowledge and Fostering Interest Among Radiology Residents in East Africa

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To the Editor,

Our study in Tanzania offers crucial insights into the potential impact of educational interventions on radiology residents' perceptions and career interests in interventional radiology (IR), especially pertinent in a region where this specialty is in its nascent stage. Our findings demonstrate not only a strong interest in IR among trainees but also the transformative power of education in shaping this emerging field in East Africa.

Though a pivotal component in modern healthcare systems, IR often finds limited representation in medical training [1]. This gap is particularly pronounced in sub-Saharan Africa, a region with stark inequities in IR

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physician and service distribution [2, 3]. Our study, therefore, aimed to explore the current perception of IR among radiology residents in Tanzania, examining the influence of a half-day educational intervention comprising lectures and workshops on IR basics.

We conducted a study in Tanzania to assess the perceptions of radiology residents toward IR. Our methods involved delivering an IR lecture series to radiology trainees, led by local and international interventional radiologists. The study's efficacy was measured through pre- and post-lecture surveys, focusing on residents' exposure to IR, their interest levels, and their awareness of relevant pathologies.

The results were telling: Of the 68 residents, 44 (64.8%) and 40 (58.8%) completed the pre- and post-lecture surveys, respectively. Initially, only a quarter reported having hands-on IR training, and less than half had theoretical IR training. However, following the lecture series, interest in pursuing a career in IR surged from 43.2 to 80.0% ($P = 0.04$). This significant increase underscores the impact of educational interventions in cultivating interest in emerging medical fields. Additionally, correct identification of pathologies treatable by IR improved markedly, from an average of 6.3 to 7.5 ($P < 0.001$).

Our findings also highlighted key factors that draw residents to IR (Fig. 1), including the use of advanced technology, management of diverse organ systems, and the curative potential of IR procedures. Conversely, it identified prevalent concerns, notably the potential risks associated with radiation exposure and the implications of an IR career on lifestyle. Understanding these factors is crucial for designing future educational and training programs that address specific areas of interest and concern, thereby nurturing a skilled IR workforce in the region [4].

Addressing the challenges and harnessing the opportunities identified in our study requires a concerted effort. It is imperative to integrate comprehensive IR education into the standard radiology training programs in East Africa. This approach can align with the growing interest among residents and address the current gaps in practical and theoretical knowledge.

In conclusion, our study emphasizes the need for strategic educational efforts in IR to cultivate a proficient workforce in sub-Saharan Africa. By focusing on IR in medical training and addressing specific concerns related to the field, we can bridge the gap between current practice and the immense potential of IR, advancing the healthcare landscape in the region [5]. Such initiatives are not just about enhancing a medical specialty; they are about transforming healthcare delivery in a way that makes it more effective, inclusive, and responsive to the needs of

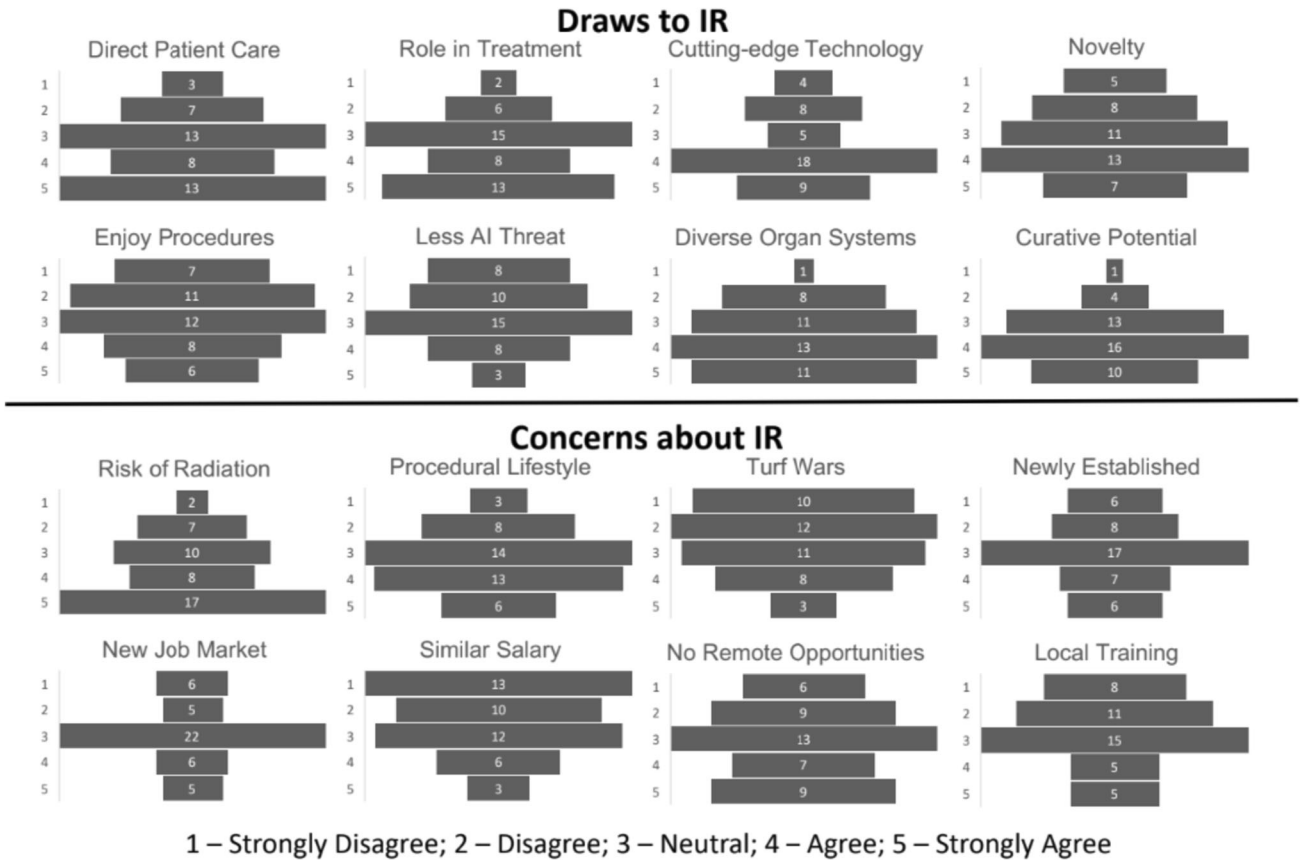

Fig. 1 Draws to and concerns about IR (pre-lecture results). *AI* Artificial intelligence; *IR* Interventional radiology

diverse populations. Understanding and addressing the unique qualities and challenges of IR in Tanzania is crucial to nurturing its development and integrating it into regional healthcare systems.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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Consent for Publication For this type of study, consent for publication is not required.

Informed Consent Verbal informed consent was obtained from all individual participants included in the study.

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