Exploring the Interest Level and Potential for Expanding Radiology Education and Curriculum during Medical School, with Particular Interest in Students Not Entering the Field of Radiology

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Introduction

- Despite the central role of radiology in modern medicine, **radiologic education remains underrepresented** in U.S. medical school curricula
- **Preclinical education often prioritizes core clinical specialties** such as internal medicine, surgery, and pediatrics, with radiology receiving minimal dedicated time or integration
- As a result, many **medical students graduate with limited training in essential radiologic principles**, including:
  - **Choosing the appropriate imaging modality** based on clinical presentation
  - **Understanding basic interpretation** of common imaging studies
  - **Navigating radiologic safety** including contrast use and radiation exposure
- In clinical practice, **physicians are expected to know radiologic indications and have a foundational ability to interpret critical results** to effectively collaborate with radiologists for efficacious patient care
- This investigation seeks to evaluate medical student interest in enhancing radiologic education and to explore opportunities for expanding radiology exposure throughout the medical school experience

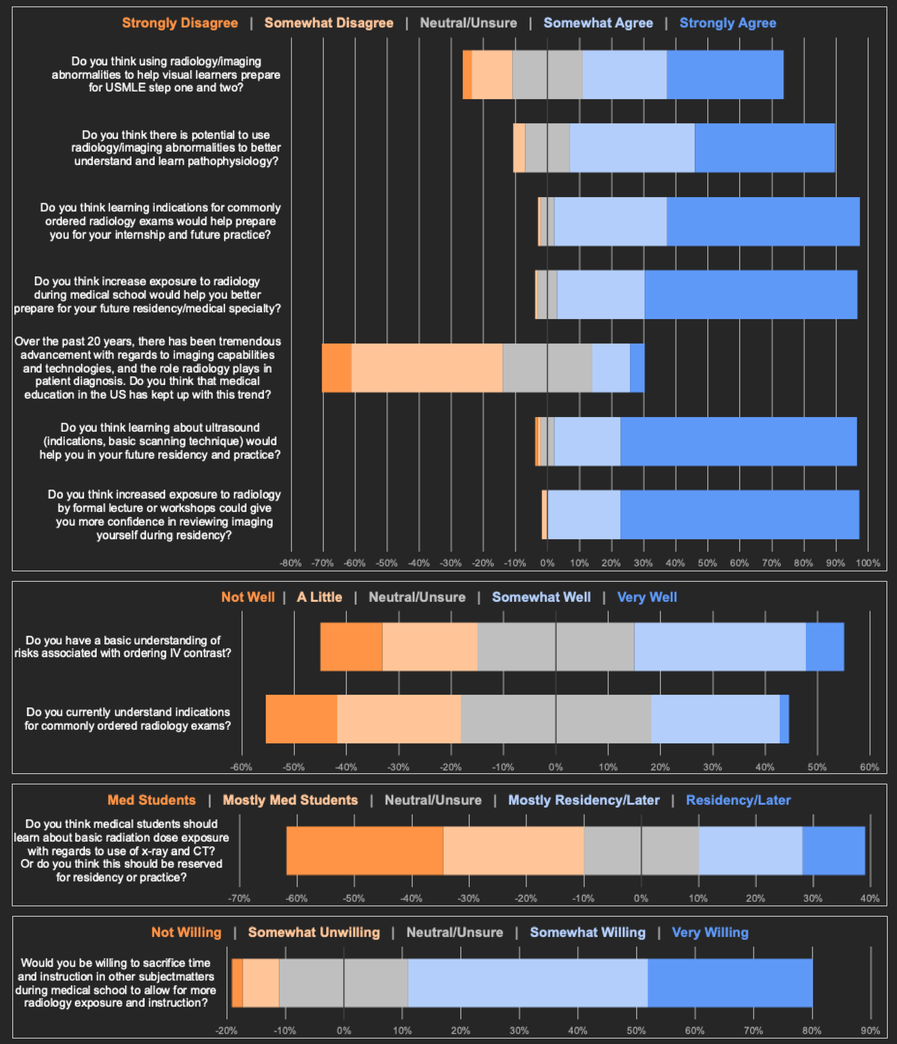
Purpose

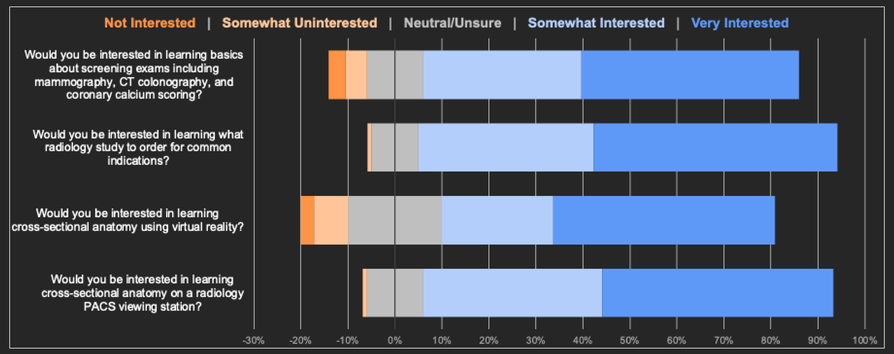
- The purpose of this investigation is to gauge interest levels amongst medical students to assess opportunity and interest to expand radiology curriculum during medical school

Methods

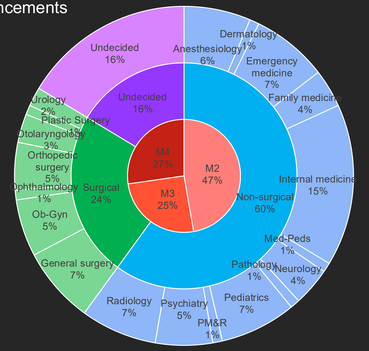
- A survey of 2nd – 4th year medical students at the University of Louisville was performed with questions graded on a 5-point scale of student interest regarding increasing radiologic education and exposure to address clinical topics such as study indications and limitations, contrast safety, basic ultrasound skills, basic CT anatomy and radiology screening exams

Results





- **Overall Interest:**
  - Over 90% of respondents rated ≥3 (on a 5-point scale) in support of expanding radiology education
- **Highest Interest Areas (>98% rating ≥3)**
  - Radiology lectures/workshops to improve confidence in reviewing imaging during residency (98.2%)
  - Learning the basics of ultrasound (98.2%)
  - Instruction in cross-sectional anatomy (99.1%)
- **Additional Findings:**
  - 99.1% interested in better understanding radiologic indications
  - 91.7% (100/109) interested in radiology screening exams (e.g., mammography, CT colonography, calcium scoring)
  - Only 43.1% agreed medical education keeps pace with imaging advancements



Backgrounds of 2nd – 4th year medical students surveyed

Conclusions

- We feel that there is potential via workshops, video lecture, and even some limited hands-on exposure to increase radiology curriculum during medical school
- This could give future residents improved understanding of how radiology can better help their patients, provide trainees with increased confidence to review their own imaging results, and even potentially decrease ordering patterns of low yield radiology exams
- This improved understanding and knowledge could therefore contribute to improved care co-ordination with our future referring physicians
- Interest level to learn more about our field is quite high amongst medical students across the board. Further investigation and dialogue to learn about how we can fill this gap is warranted

Future Directions

- Further curriculum development informed by ongoing student feedback and interest
- Implementation of pilot educational modules to evaluate impact
- Broader collaboration between radiology departments and medical education offices to bridge existing gaps