

The overwhelming majority of PM&R applicants intend on using MSKUS in their future practice and seek to achieve competency in residency training. MSKUS exposure/curriculum may be a significant influencer for future PM&R applicants for residency selection.



Musculoskeletal Ultrasound as a Motivator for Selecting a Physical Medicine & Rehabilitation Residency Program – A Multi-Center Survey Study

A. Raja, DO, CSCS¹, A. Shustorovich, DO¹, D. Robinson, MD³, K. Alfonso, DO⁴, R. Meyer, MD¹, R. Roemmich, PhD^{1,2}, P. Cabahug, MD^{1,2}
 1. Johns Hopkins University School of Medicine; 2. Kennedy Krieger Institute; 3. Harvard/Spaulding Rehabilitation Hospital; 4. Mayo Clinic



Introduction

- Musculoskeletal ultrasound (MSKUS) education is becoming more prevalent in residency programs due to its increased utility.
- With many PM&R graduate pursuing outpatient musculoskeletal practices, it is plausible that applicants pursuing PM&R strongly consider MSKUS while selecting a residency program.^{1,2}

Objectives

- To determine the influence of MSKUS exposure on applicants during the residency selection process.

Materials & Methods

Participants:

- 180/666 (27%) of applicants for the Johns Hopkins, Harvard, and Mayo Clinic PM&R programs who entered the 2020 NRMP Match.

Survey:

- Sent via Qualtrics in June 2020.
- Respondents scored the influence of a MSKUS curriculum/exposure on decision-making [Likert-scale (0-4)].
- Ranked top 3 areas of interest in PM&R for ROL creation.
- Ranked MSKUS education preferences.

Materials & Methods

Statistical Analysis:

1° Outcomes

- Marginal Homogeneity Tests: % responses for Likert values b/w categories.
- 1-sample chi-squared test of proportions: Likert values vs. chance.

2° Outcomes

- 2-sample chi-squared tests of proportions: study demographics compared with total ERAS applicants, and Likert value differences for participants reporting top areas of interest (interventional vs. non-interventional).

1. While considering programs to interview at for PM&R residency, how important was having a musculoskeletal ultrasound curriculum/exposure to you

- Not important at all Of little importance Of average importance Very important Absolutely essential

2. While constructing your rank order list, how important was having a musculoskeletal ultrasound curriculum/exposure for your decision?

- Not important at all Of little importance Of average importance Very important Absolutely essential

3. How likely are you to use musculoskeletal ultrasound in your future practice?

- Very unlikely Unlikely Neither likely or unlikely Likely Very likely

4. How likely are you to recommend a program with musculoskeletal ultrasound to future candidates?

- Very unlikely Unlikely Neither likely or unlikely Likely Very likely

5. Regarding musculoskeletal ultrasound education in residency, what do you think is most important? Please rank 1 to 5 (1 = most important, 5 = least important)

- Dedicated MSK ultrasound curriculum led by faculty Faculty who use MSK US in clinic routinely MSK ultrasound lectures Resident driven US training curriculum Opportunity to teach medical students MSK ultrasound

6. Exposure to which area of PM&R was most important when determining your rank order list? Please select THREE of the following:

- Sports General Rehab Interventional spine Spinal cord injury MSK ultrasound
 Stroke Traumatic brain injury Pediatrics Pain Other (Neuromuscular, Cancer, Burn, EMG, etc.)

Figure 1: Survey (No demographics)

Results

- MSKUS was commonly included in top 3 areas of interest when constructing ROL.
- **71%** responded with “very important” or “absolutely essential” when asked if MSKUS presence within a program had an effect during the **interview selection process** (p<0.001).
- MSKUS exposure in residency was important factor when **creating ROL** for **74%** of applicants (p<0.001).
- **93%** of applicants stated that they are “likely” or “very likely” to **use MSKUS in their future** and **83%** would **recommend a program** with MSKUS to future candidates (p<0.001).
- Dedicated MSKUS curriculum led by faculty was the most popular method of education.

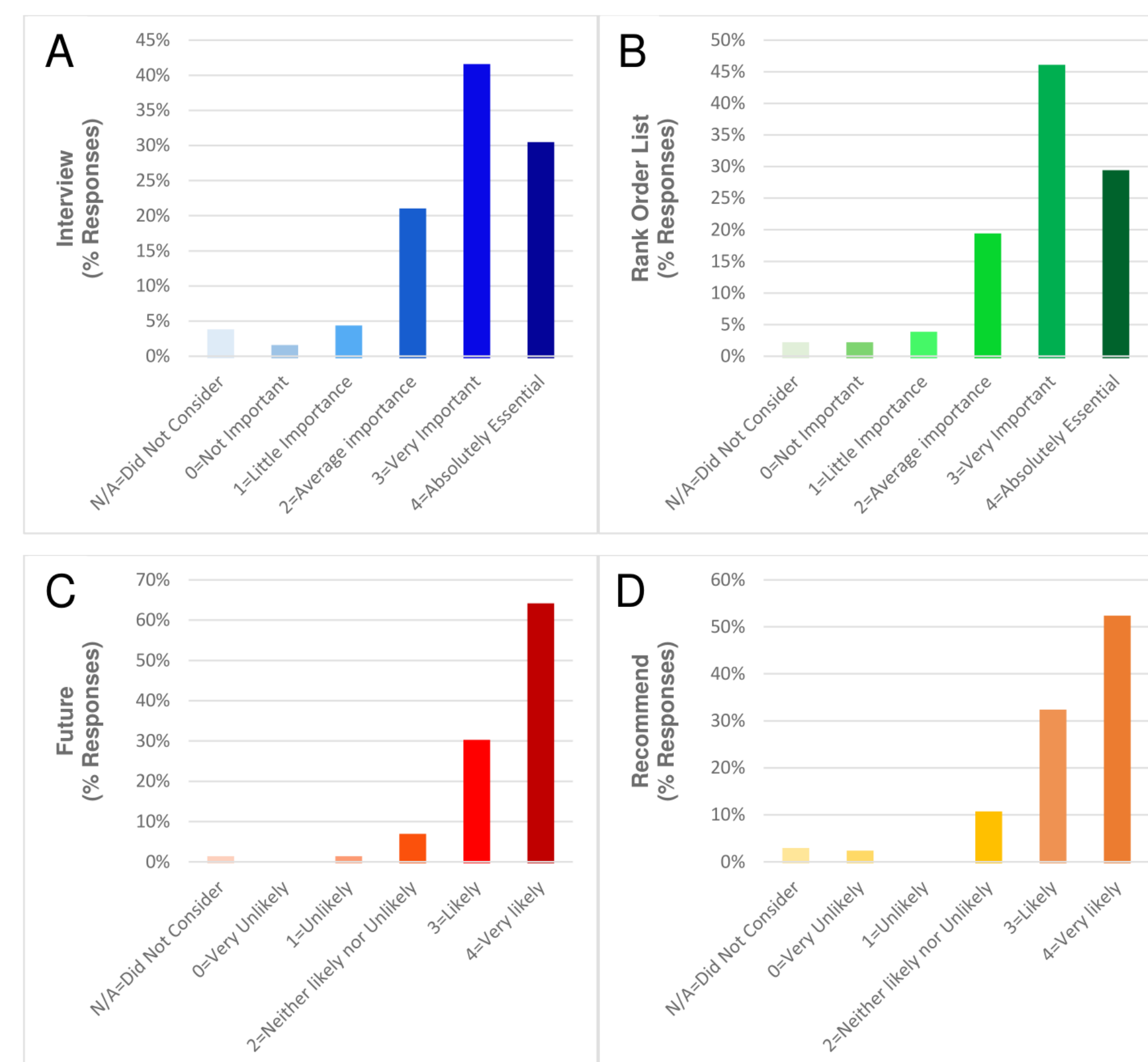


Figure 2: MSKUS Motivator Questions

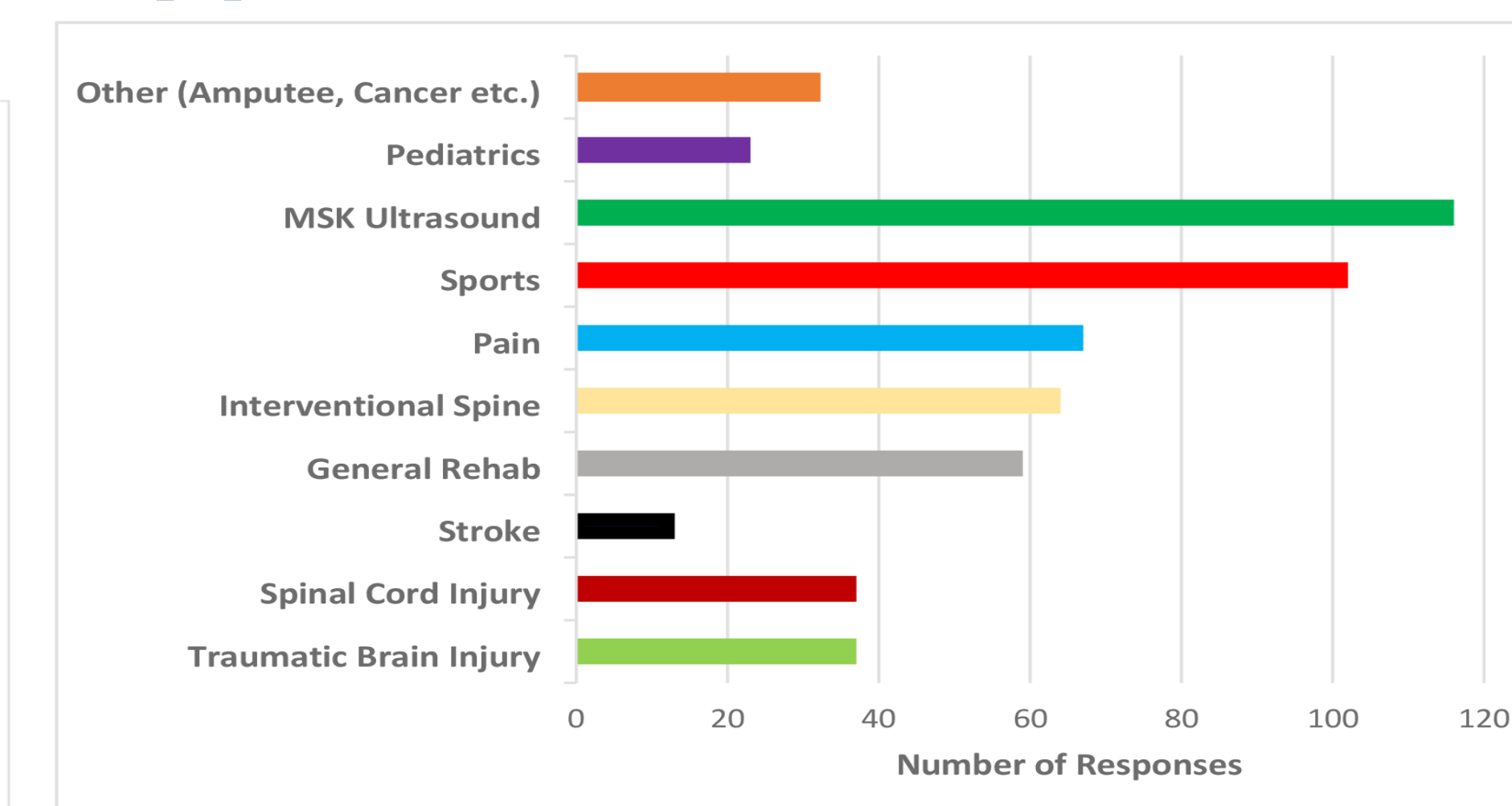


Figure 3: Top 3 Interests

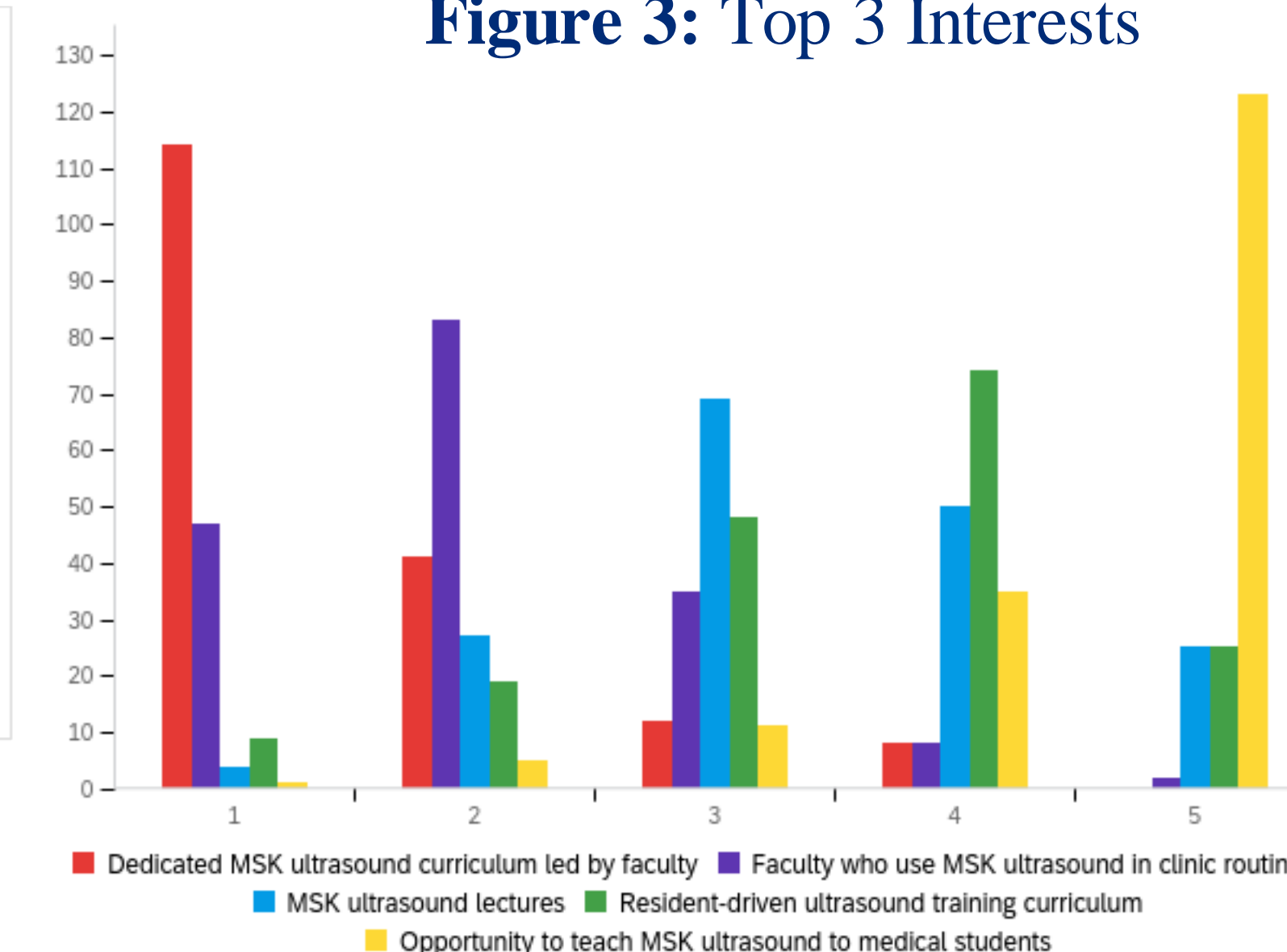


Figure 4: Rankings for MSKUS Education

Discussion

- **Majority of respondents in this study plan on using MSKUS in future practice (93%).**
- Candidates are likely to seek MSKUS education and exposure in residency to prepare them for future practice and recommend programs to future applicants.
- **Faculty involvement in education is regarded as most valuable by future PM&R residents.**
- Barriers to a formal curriculum include adequate faculty expertise, equipment, etc.³
- Studies have proposed practical and feasible approaches to incorporate MSKUS education in PM&R residency curricula.⁴
- **Formalized MSKUS training may benefit program recruitment efforts.**

Conclusions

- Residency programs without these resources in place may benefit from a formalized MSKUS curriculum and/or strengthening their current curriculum to improve the residency recruitment process.

References

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