Musculoskeletal Lecture Series: Neck Pain

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Background

In 2010, ~83% of medical schools required an MSK course. But of those 83%, only 54% of those students felt that their MSK education was adequate. When further studied, 57.1% of osteopathic students versus 26.8% of allopathic students believed their MSK curriculum was adequate.[4] Given that this study was done 12 years ago, the curriculum of medical school education continues to change each year. But, as residencies choose multiple residents from a variety of medical schools, it is hard to determine what was taught to each resident. Another study in 2016 looked into MSK exams being taught during clinical rotations during medical school. They found that MSK medicine was underrepresented with the number of schools requiring it in their curriculum was ~< 20%.[2] This study is limited as it looked into 141 US medical schools, but did not differentiate between allopathic and osteopathic schools. Another study looked at California alone and found a large variation in content and structure of MSK curriculum. They looked at 11 medical schools and found that on average 58.7 hours of MSK was taught in the classroom. No school required a clinical rotation in musculoskeletal medicine.[6]

Objective

Prepare Family Medicine Residents to diagnose and treat an undifferentiated patient presenting with neck pain in the outpatient setting

Methods

A formal lecture that included important discussion on important patient history components, physical exam techniques, special testing, imaging, and treatment options.

Study Period: January 4, 2023

Participants: PGY-1, PGY-2, PGY-3 Family Medicine Residents and PGY-1 Transitional Year Residents

Data Collection: Pre- and Post-Workshop Workshop survey rating resident confidence on a 5 point scale

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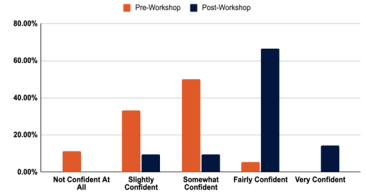
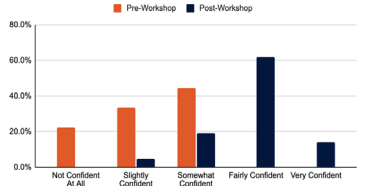
Results

Total Participants	Question 1		Question 2		Question 3	
Pre: 18 Post: 21	Pre	Post	Pre	Post	Pre	Post
Not Confident At All	11.1%	0.0%	22.2%	0.0%	11.1%	0.0%
Slightly Confident	33.3%	9.5%	33.3%	4.8%	27.8%	4.8%
Somewhat Confident	50.0%	9.5%	44.4%	19.0%	44.4%	9.5%
Fairly Confident	5.6%	66.7%	0.0%	61.9%	16.7%	52.4%
Very Confident	0.0%	14.3%	0.0%	14.3%	0.0%	33.3%

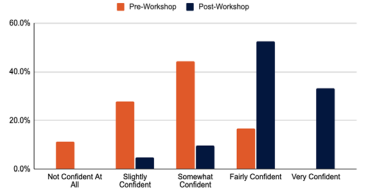
Q1. How confident are you in managing an undifferentiated patient presenting with neck pain?



Q2. How confident are you with the physical exam maneuvers and special tests for neck pain?



Q3. If indicated, how confident are you in ordering the correct imaging in neck pain?



Discussion

- Participating residents improved in self reported confidence in ability to manage an undifferentiated patient with neck pain including physical exam and imaging considerations.
- This workshop was one hour in length and seems to provide beneficial teaching to resident physicians
- Resident were not separated by post graduate level or training FM vs TY. In the future it would be interesting to see if there is more benefit in providing musculoskeletal training earlier on in residents post graduate education.
- This format can easily be applied across different patient musculoskeletal complaints by location of pain

Conclusion

- There is a lack of formal musculoskeletal training in medical school curriculums, however, musculoskeletal complaints remain a large portion of chief complaints in primary care. Formal didactic lectures throughout residency can improve resident confidence in diagnosing and managing musculoskeletal pathology.

References

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