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# UTILIZING INTERPROFESSIONAL EDUCATION TO TEACH TMD

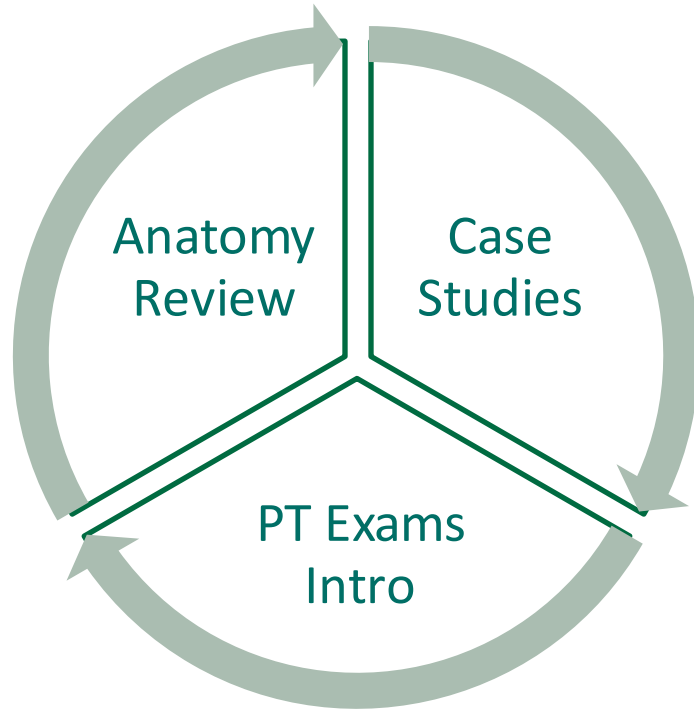
*Jose Franco, MD*  
June 5, 2024

# BACKGROUND

- Medical College of Wisconsin and Marquette University have a close relationship
- Interprofessional education valued at both schools
  - “Thread” for medical students
- Previous successful session between the two schools on TMD in 2023
- Goal to expand to other health professions that may encounter TMD patients
  - February 8, 2024

# SESSION FORMAT

- 40 minutes at each station
- 5-minute transition time



# LEARNING GOALS

1. Describe the healthy structure and function of the temporomandibular joint, muscles of mastication, and infratemporal fossa.
2. Describe common problems affecting the TMJ and their underlying pathophysiology.
3. Describe acute and chronic pain in TMD.
4. Describe the multi-system nature of TMD (discussion of pain and issues outside the face)
5. Describe the epidemiological disease burden of TMD.
6. Discuss appropriate approaches to treating TMD in multidisciplinary teams.
7. Describe examination of a patient with TMD.

# PARTICIPANTS

- Medical College of Wisconsin first year medical students
  - Milwaukee (221)
  - Central Wisconsin (21)
- Marquette University second year dental students (100)
- North Central Technical College dental hygiene students (25)

# ANATOMY REVIEW

Lead by Dr. Teresa Patitucci

- Identified the temporomandibular joint and the surrounding structures.
- Networked with a series of questions about their schooling, licensure, and future career goals.





# CASE STUDIES

Led by Dr. Yasser Khaled and Dr. Pradeep Bhagavatula

2 case studies reviewed with student work time, then debrief in large group

- 20-year-old male, chief complaint: bruxism, tight jaw in AM. Pain on right side. Joint clicks, occasional jaw locking
- 25-year-old female, chief complaint: constant 2-3/10 bilateral dull masseter muscle pain. 8-10 throbbing pain on masseter muscle. Pain aggravated by yawning, laying down, cold beverages



# PT EXAMS INTRO

Lead by Mr. Brent Bode

Demonstration of 3 exams  
physical therapists perform

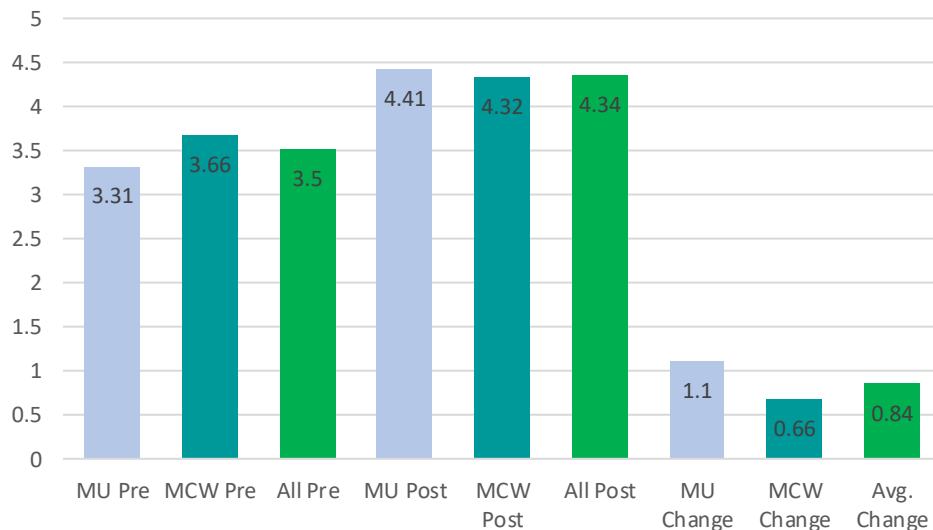
- TMJ palpitation with opening
- Fingers in ears
- Tongue blade test





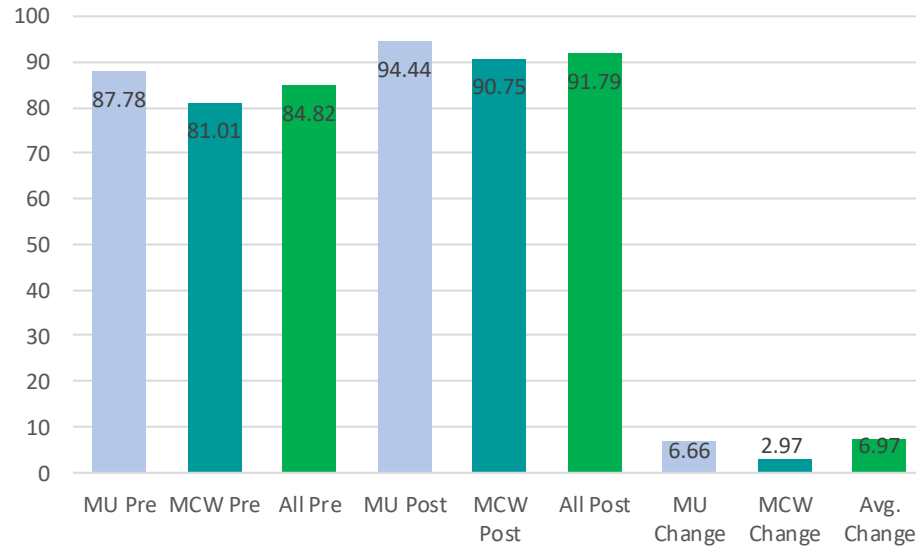
# INTERPROFESSIONAL COMPETENCIES

**Question:** Using a scale of 1=Poor- 5= Excellent describe how professionals in health and other fields can collaborate and integrate clinical care and public health interventions to optimize population health.



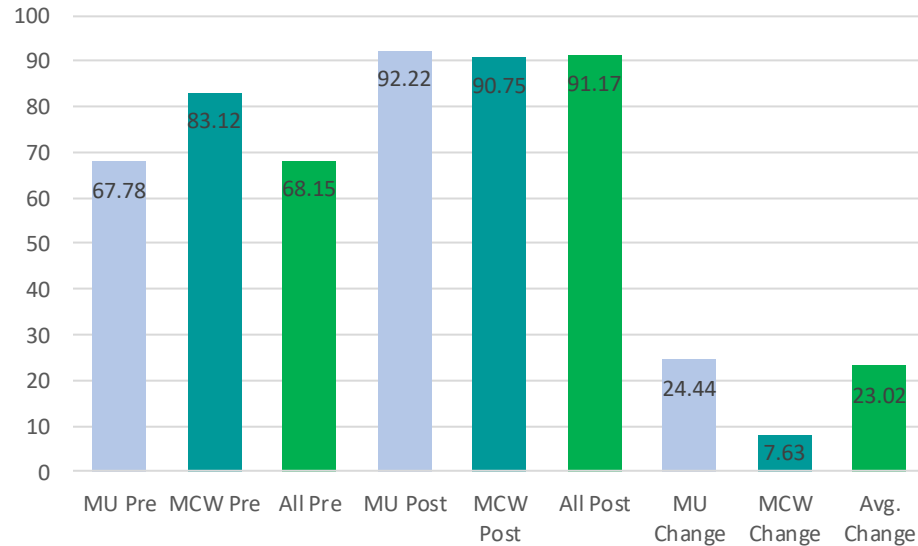
# ANATOMY QUESTIONS

**Question:** Which muscle of mastication functions to depress (open) the jaw?



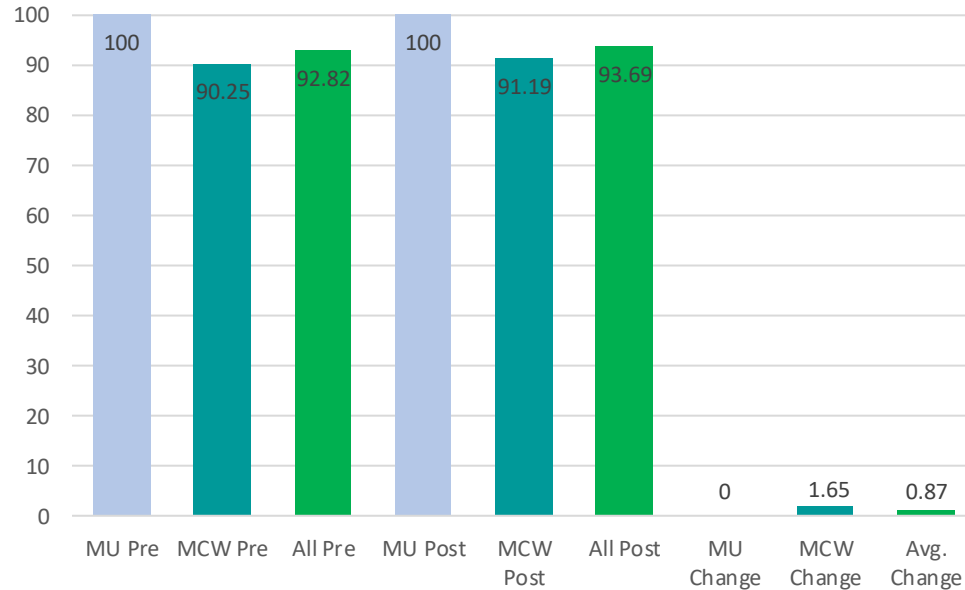
# ANATOMY QUESTIONS

**Question:** Sensation from the temporomandibular joint is transmitted by branches of which cranial nerve?



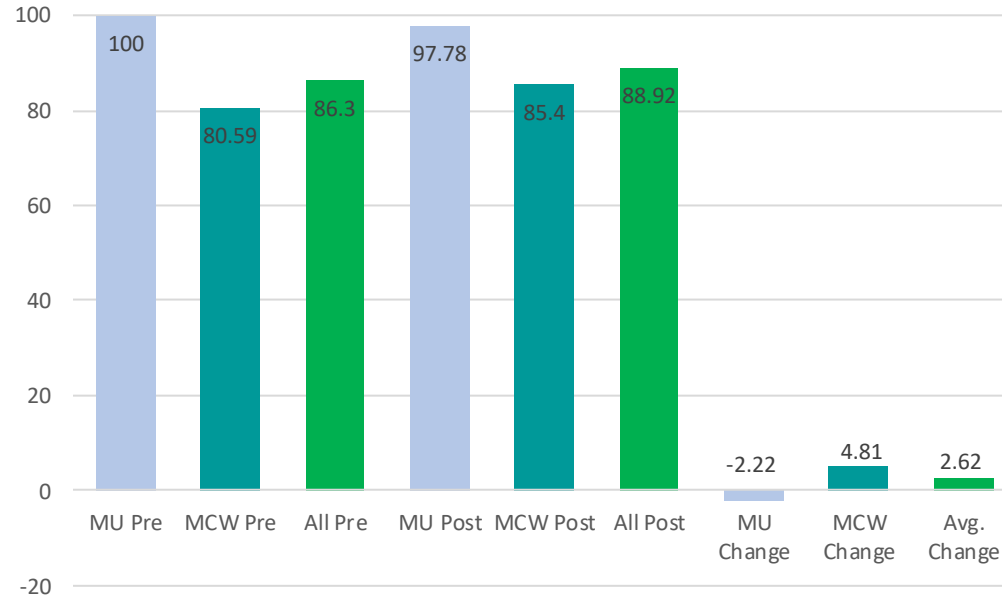
# ANATOMY QUESTIONS

**Question:** What is the cause of temporomandibular disorder (TMD)?



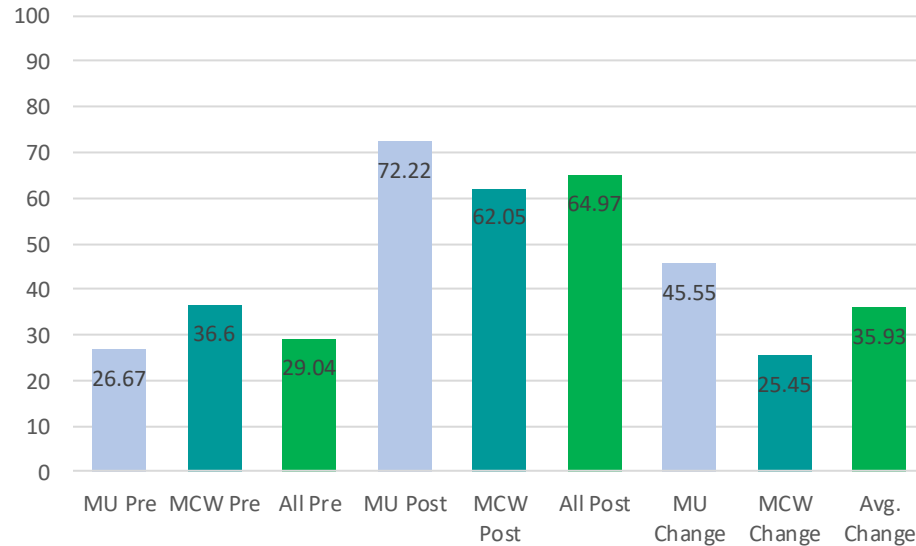
# ANATOMY QUESTIONS

Question: What is bruxism?



# PHYSICAL THERAPY QUESTIONS

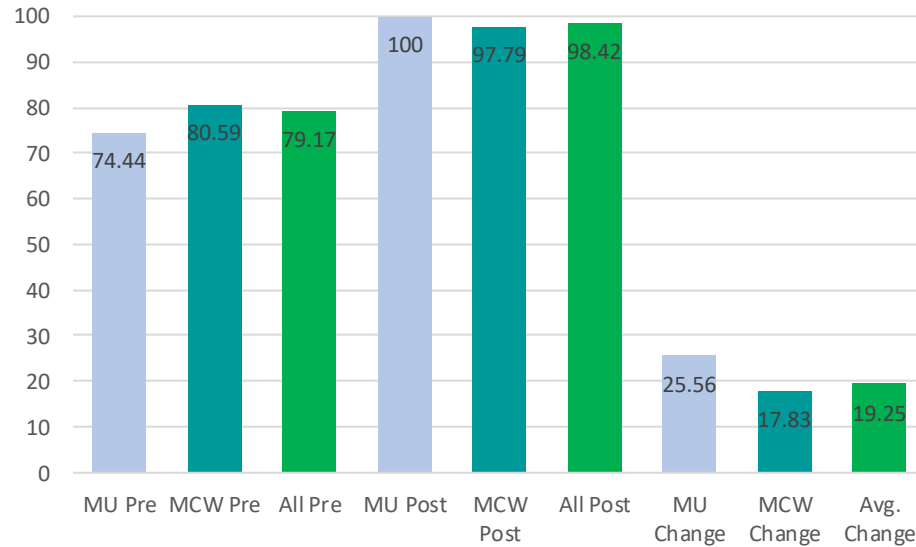
**Question:** A shift of the mandible from midline during opening that persists with further opening is known as?





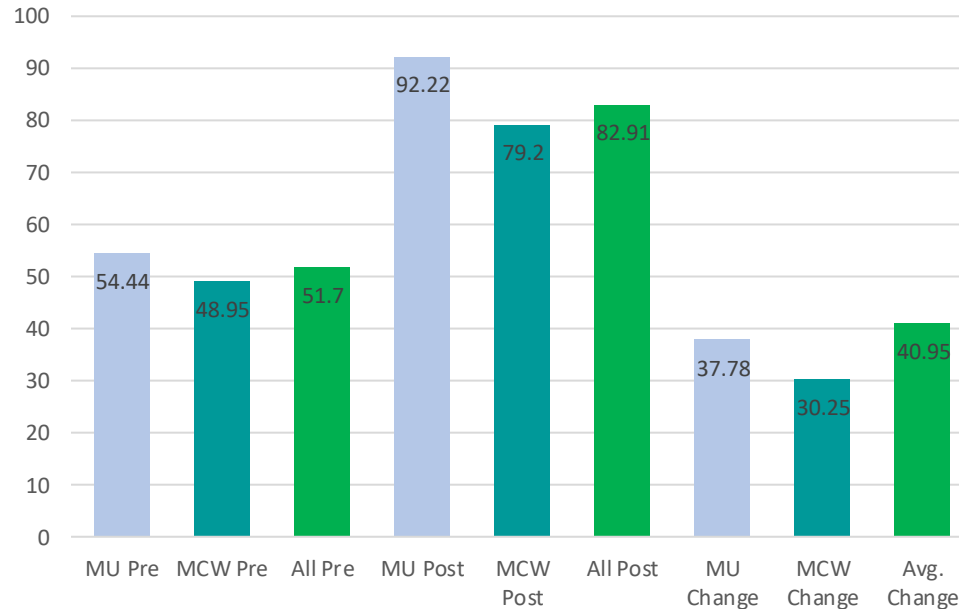
# PHYSICAL THERAPY QUESTIONS

**Question:** A person who is able to open their mouth to \_\_\_\_\_ range of motion is considered normal for regular functional activities.



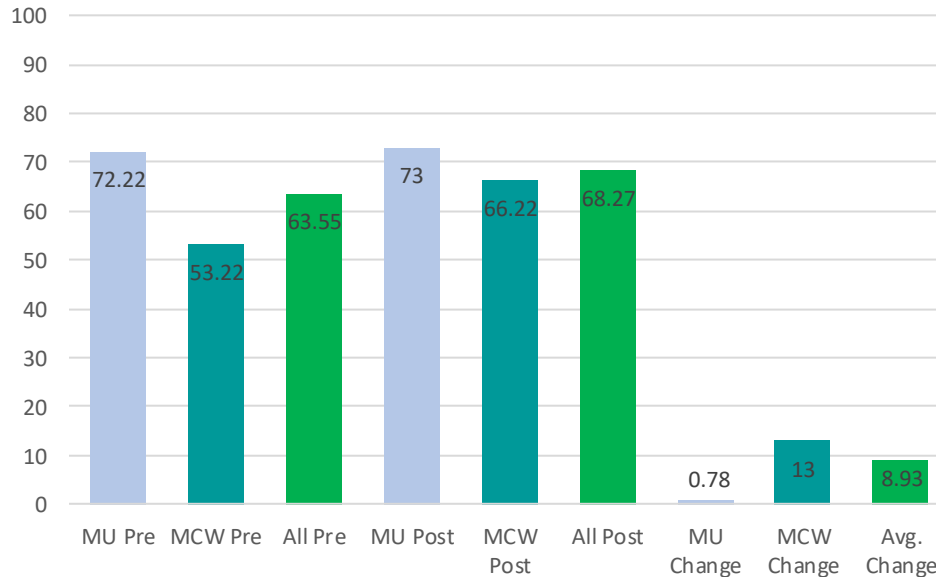
# PHYSICAL THERAPY QUESTIONS

**Question:** The tongue blade test for assessing the TMJ is used to determine if:



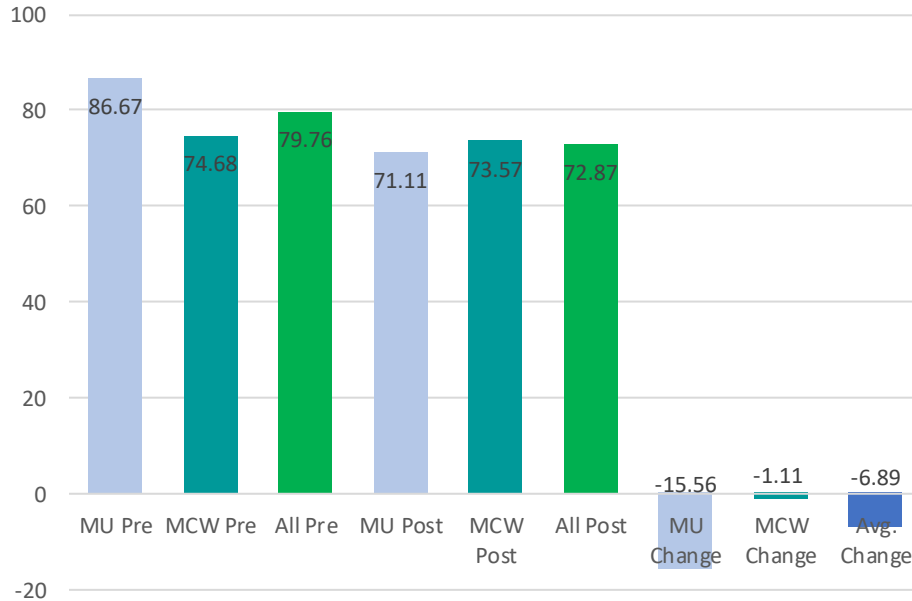
# PHYSICAL THERAPY QUESTIONS

**Question:** Myofascial trigger points of the \_\_\_\_\_ can commonly refer pain to the head and face.



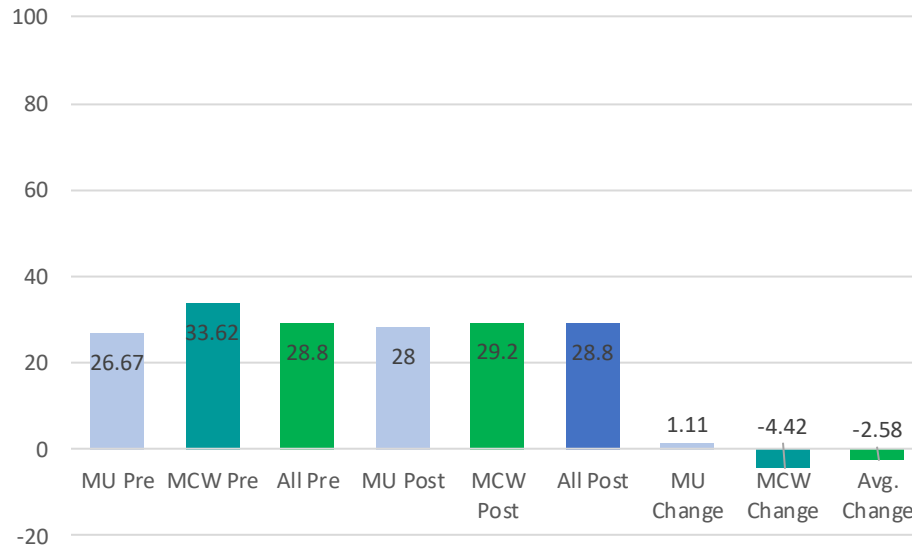
# DENTISTRY QUESTIONS

**Question:** All the following are cardinal TMD signs and symptoms except one. Which one is the exception?



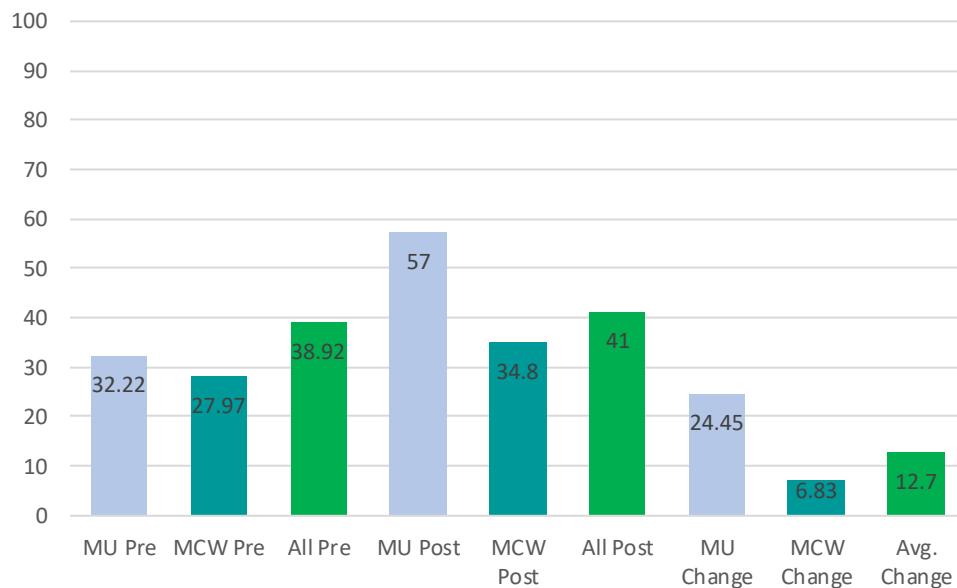
# DENTISTRY QUESTIONS

**Question:** Crepitus sounds of the TMJ are usually related to all the following except one. Which one is the exception?



# DENTISTRY QUESTIONS

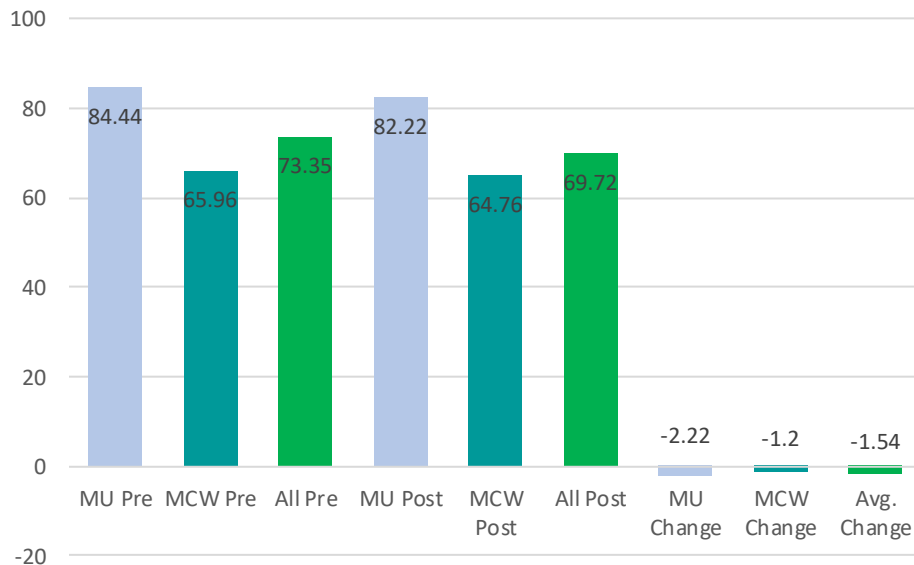
**Question:** The osseous portion of TMJ can be assessed with all the following except one. Which one is the exception?





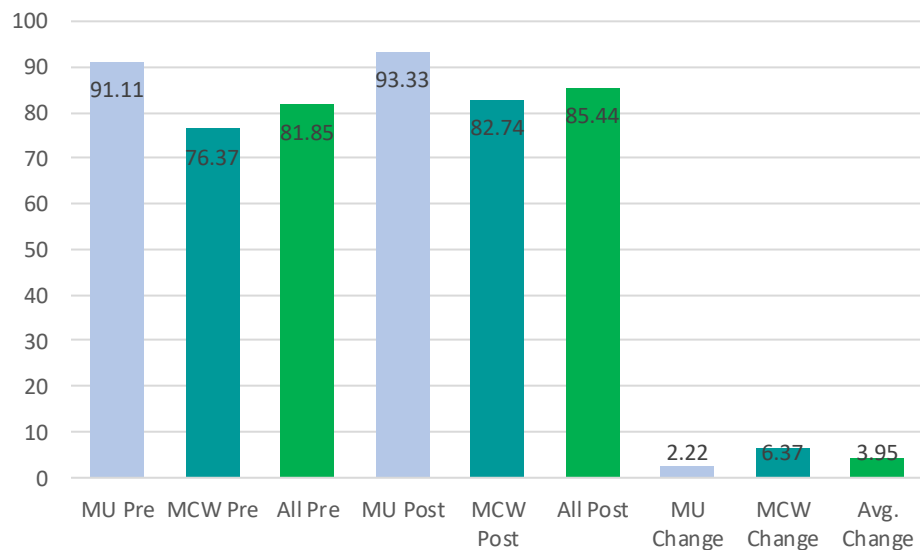
# DENTISTRY QUESTIONS

**Question:** Frequent habits that contribute to TMD include all the following except one. Which one is the exception?



# DENTISTRY QUESTIONS

**Question:** Self-management therapy for TMD includes all the following except one. Which one is the exception?



# CONCLUSIONS

- IPE is effective in bringing multiple disciplines together to teach TMD
- Requires coordination and willingness to collaborate
- Data supports strong baseline knowledge but also identifies opportunities for further education
- Next steps
  - Family Medicine
  - Otolaryngology

# JOSE FRANCO'S RECOMMENDATIONS\*

- Introduction of systemic complications
- Gatekeeper: Family Medicine
- National curriculum necessary