

UC San Diego
Symposium 2025

Title

Joint Effort: A Pain-Free Approach to MSK Notes!

Permalink

<https://escholarship.org/uc/item/1134h3zg>

Author

Xu, Jason

Publication Date

2025-05-20

UC San Diego Health

Joint Effort: A Pain-Free Approach to MSK Notes!

Jason Xu, MD

UC San Diego Department of Family Medicine

Background

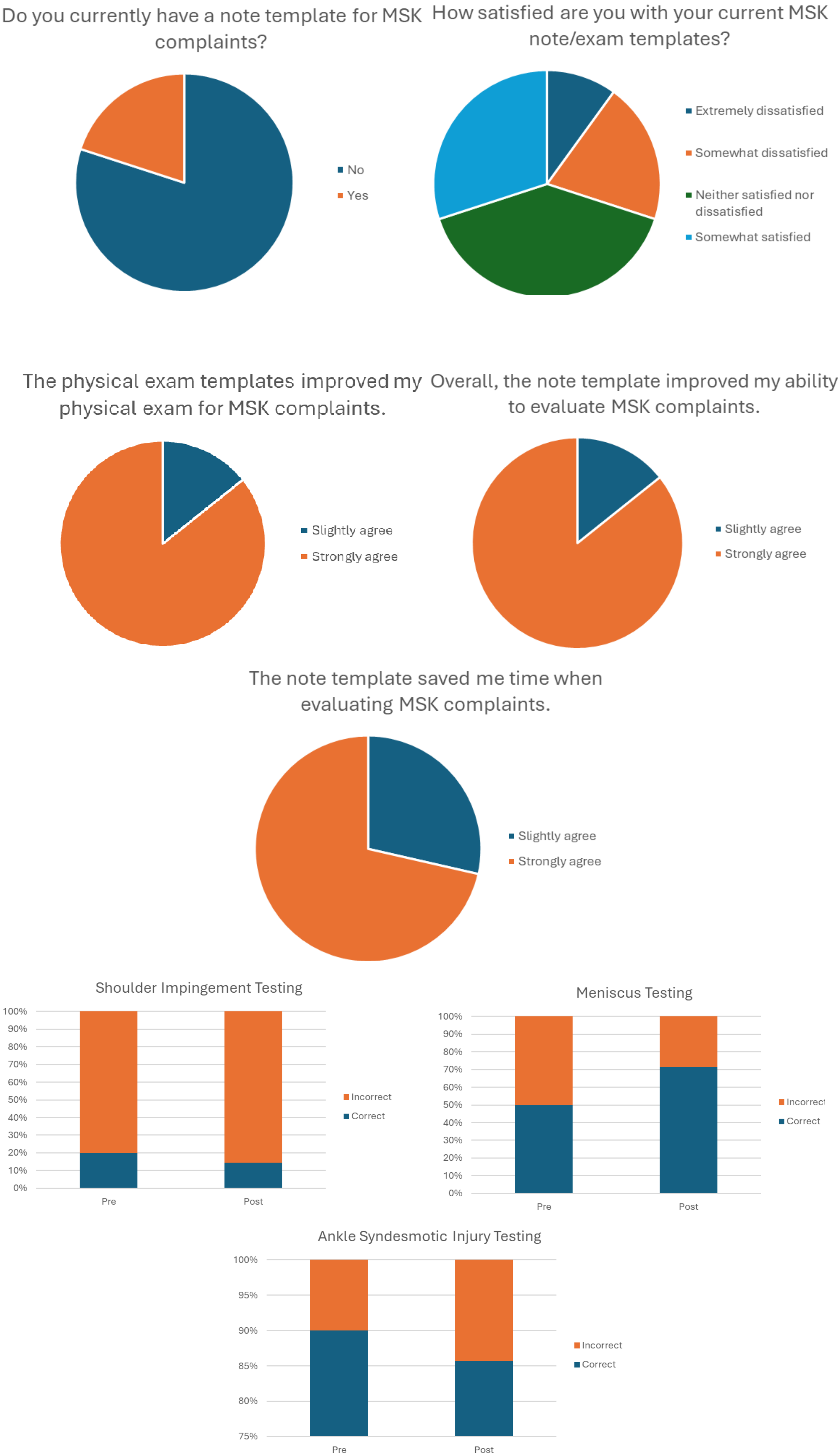
- Musculoskeletal (MSK) complaints comprise more than 20% of all visits to healthcare providers each year, and more than 50% of adults in the US suffer from MSK conditions.^{1,2} These visits will only continue to be more prevalent as the US population ages.^{1,3}
- Unfortunately, residents often enter residency deficient in MSK skills and graduate with suboptimal confidence in diagnosing MSK conditions.⁴⁻⁷ This includes uncertainty regarding physical exam skills and ascertaining what special tests may help narrow the differential diagnosis.
- Moreover, the EHR and documentation is a significant burden on physicians and is a significant contributor to physician, especially primary care physician, burnout.⁸ Note templates have been demonstrated to improve provider satisfaction with time spent documenting as well as EHR burden and efficiency.⁹

Aim/Purpose

- This project was aimed at improving both provider efficiency with documentation of an MSK visit as well as improving confidence in and ability to diagnose MSK conditions. A major component of the MSK exam is special tests that are used to help localize injuries.
- To improve provider comfort with these tests, physical exam templates were created that labeled the special tests with the pathology they tested for.
- Additionally, a note template was created to capture relevant HPI to properly evaluate MSK complaints as well as including a drop-down menu for the physical exam templates.

Methods

- A pre-survey was distributed to collect pre-intervention data.
- Key variables that were evaluated included current use of a note and/or physical exam template as well as knowledge base questions regarding special tests.
- The MSK visit note template with physical exam templates were then distributed to the residents in the UCSD Family Medicine Residency.
- A post-survey re-evaluating the knowledge base questions as well as questions to evaluate the note template were distributed after 1 month.



Results

- Both the pre- and post-surveys had 10 respondents
- Most residents did not have a note template for MSK complaints. Most residents were not satisfied with their pre-existing note and/or physical exam templates.
- There was an increase in the proportion of residents who correctly answered special tests for meniscus injuries, but there was a decrease in the proportion of residents who correctly answered about shoulder impingement and ankle syndesmotc injury testing in the group of residents who had used the note templates.
- All residents who used the note template thought it improved their efficiency and ability to evaluate MSK complaints.
- After using the template, more residents asked about baseline and desired level of activity while evaluating MSK complaints.

Conclusion

- Residents who utilized the template had improvement in their history taking and efficiency evaluating MSK complaints.
- There was some improvement in resident understanding of special tests for evaluating MSK complaints.
- While passive learning via note templates is not sufficient for resident learning, it may provide benefit for reinforcement of MSK exam skills.
- Family medicine residents should continue to be given opportunities to learn and practice MSK exam skills. Note templates should be offered for providers to improve efficiency and reduce burnout.

References

1. Lezin N, Watkins-Castillo S. The Burden of Musculoskeletal Diseases in the United States: Prevalence. Rosemont, IL: Societal and Economic Cost; 2018.
2. Lynch TS, Hellwinkel JE, Jobin CM, Levine WN. Curriculum Reform and New Technology to Fill the Void of Musculoskeletal Education in Medical School Curriculum. J Am Acad Orthop Surg. 2020;28(23):945-952. doi:10.5435/JAAOS-D-20-00485.
3. March L, Smith EU, Hoy DG, et al. Burden of disability due to musculoskeletal (MSK) disorders. Best Pract Res Clin Rheumatol. 2014;28(3):353-366. doi:10.1016/j.berh.2014.08.002March L, Smith EU, Hoy DG, Cross MJ, Sanchez-Riera L, Blyth F, Buchbinder R, Vos T, Woolf AD. Best Pract Res Clin Rheumatol. 2014 Jun; 28(3):353-66.
4. DiGiovanni BF, Sundem LT, Southgate RD, Lambert DR. Musculoskeletal Medicine Is Underrepresented in the American Medical School Clinical Curriculum. Clin Orthop Relat Res. 2016;474(4):901-907. doi:10.1007/s11999-015-4511-7.
5. Petravick ME, Marsh JL, Karam MD, Dirschl DR. A Survey on Recent Medical School Graduate Comfort With the Level 1 Milestones. J Surg Educ. 2018;75(4):911-917. doi:10.1016/j.jsurg.2017.10.004.
6. Wu V, Goto K, Carek S, et al. Family Medicine Musculoskeletal Medicine Education: A CERA Study. Fam Med. 2022;54(5):369-375. doi:10.22454/FamMed.2022.975755
7. Amoako AO, Amoako AB, Pujalte GG. Family medicine residents’ perceived level of comfort in treating common sports injuries across residency programs in the United States. Open Access J Sports Med. 2015;6:81-6.
8. Budd J. Burnout Related to Electronic Health Record Use in Primary Care. J Prim Care Community Health. 2023;14:21501319231166921. doi:10.1177/21501319231166921
9. Apathy NC, Rotenstein L, Bates DW, Holmgren AJ. Documentation dynamics: Note composition, burden, and physician efficiency. Health Serv Res. 2023;58(3):674-685. doi:10.1111/1475-6773.14097.