

# Patient Education to Enhance Virtual Visit Outpatient Musculoskeletal Physical Examination Efficiency and Practitioner Satisfaction

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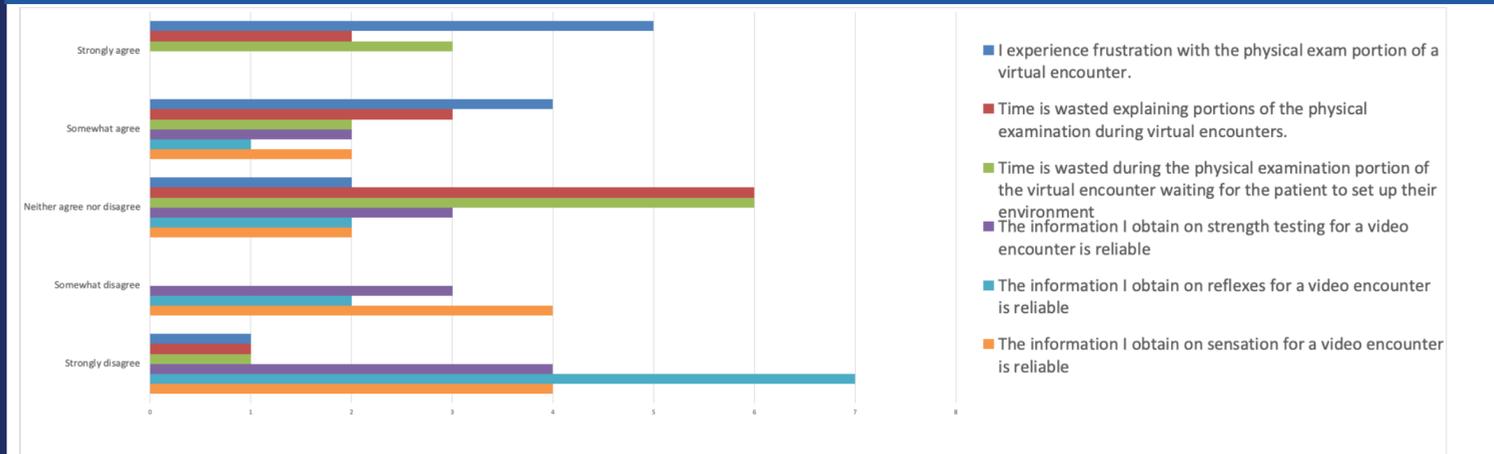
## Plan

- COVID-19 drastically altered the delivery of outpatient musculoskeletal physiatry care.
- Virtual visits have emerged as a valuable tool to maintain physical distance and prevent further spread of the virus while continuing to deliver non-essential medical care.
- Virtual patient examination challenges due to physical distance, environmental restrictions and technological difficulties may cause inefficiencies.
- Physical distance challenges include inability to palpate, assess passive range of motion, test strength, sensation and reflexes or perform provocative maneuvers.
- Environmental challenges include inadequate space to achieve full-field of view of the problem area or assess movement.
- Technologic challenges include patient unfamiliarity with virtual software, low bandwidth connections and camera positioning and adjustment difficulties.
- The goal of this project is to develop a pre-visit physical exam patient-education video to improve virtual visit efficiency and provider satisfaction.

## Do

- Baseline assessment of providers (N = 12)
- 84% provided no virtual pre-visit education at baseline
- Provider approach to virtual examination
  - 8% try to mimic in-person exam
  - 25% modify exam to capture everything they feel they can reliably assess virtually
  - 42% perform basic screening exam
  - 25% do no examination except observation during history
- Patient education video distributed to all new PM&R and Spine virtual visits as of 10/16/20 to improve provider satisfaction and visit efficiency

## Baseline Data



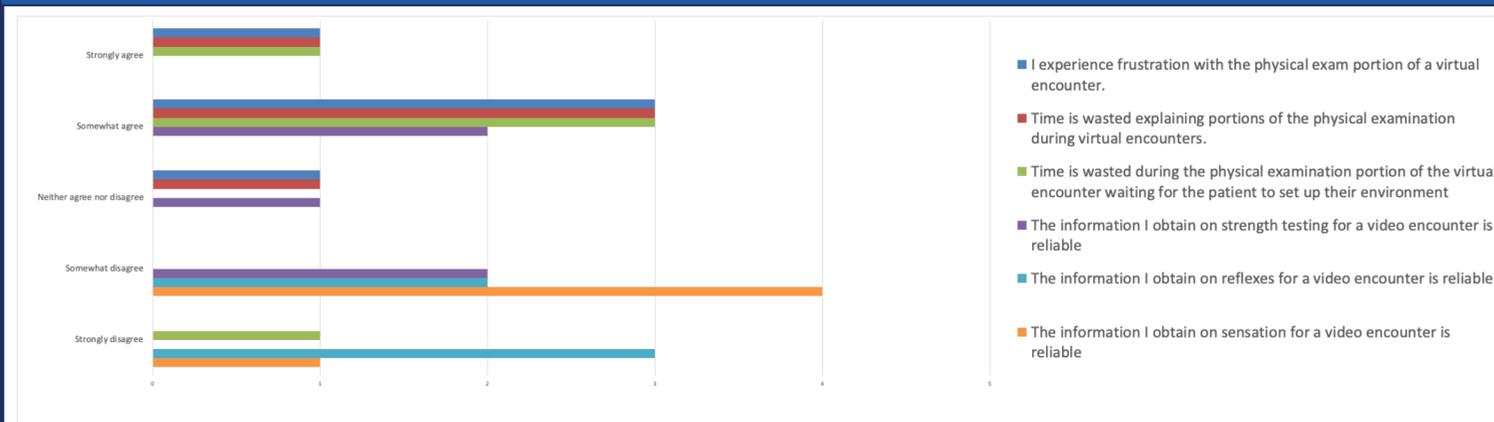
## Video Stills



Representative still images from the video shared with patients demonstrating important landmarks and approaches to approximating an in-person examination including key components such as inspection, palpation, range of motion, strength, reflexes and special tests.

Full length video: <https://youtu.be/U3AswzGgDS8>

## Study (Follow-up Data)



## Act

- Follow-up assessment of providers (N = 5)
- 4/5 in Dept of Pain (patients did not receive video)
- 1/5 in Dept of PMR (patients did receive video)
- 1/1 PMR providers and 0/4 pain providers perceived improvement in patient preparedness for virtual encounter (expected given distribution of video)
- Limitations
  - Low follow-up assessment return rate
  - Short duration of intervention, perhaps not long enough to see positive result
  - Volume of virtual visits has drastically decreased possibly diminishing potential impact of intervention
  - Patient perceptions not formally assessed
- Future
  - Continue to collect follow-up responses to gain better understanding of success of the intervention
  - Continue sending video to new patients
  - Continue to assess patient and provider satisfaction and make improvements to education
  - Plan to explore potential value in implementing a similar video for international patients who may benefit from virtual visits even outside of the COVID-19 pandemic

## References

1. American Academy of Physical Medicine & Rehabilitation to Members of the American Academy of Physical medicine & Rehabilitation. March 20, 2020. COVID-19 statement from the AAPM&R Board of Governors, Rosemont, IL.
2. Laskowski, Edward R., Shelby E. Johnson, Randy A. Shelerud, Jason A. Lee, Amy E. Rabatin, Sherilyn W. Driscoll, Brittany J. Moore, Michael C. Wainberg, and Carmen M. Terzic. "The telemedicine musculoskeletal examination." In *Mayo Clinic Proceedings*, vol. 95, no. 8, pp. 1715-1731. Elsevier, 2020.