# Impact of a Virtual Physical Medicine and Rehabilitation Rotation for Fourth-Year Visiting Medical Students During the COVID-19 Pandemic

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## Introduction

- Opportunities for fourth-year medical students to obtain exposure to Physical Medicine and Rehabilitation (PM&R) have been limited because of the COVID-19 pandemic.
- Few medical schools have required rotations in PM&R and others may not have PM&R rotations available with a residency program.
- The goal was to create a one-week virtual rotation (VR) to provide an introductory exposure to PM&R with an accredited residency program.



## Methods

- A one-week VR was designed to include an interactive introductory rotation with exposure to residents and faculty, and conclusion with student presentations.
- This was offered over two separate weeks and seven students participated.
- Pre- and post-rotation surveys were used to evaluate students' understanding of the associated topics in PM&R.
- An anonymous rotation evaluation was also included.

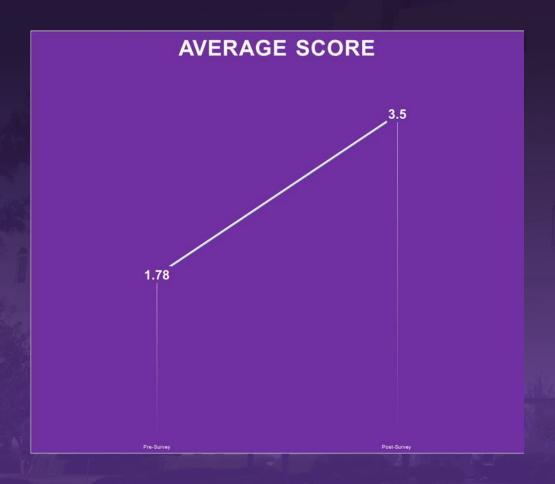
	Monday	Tuesday	Wednesday	Thursday	Friday
AM	8 am: Intro to PM&R and to the Residency Program at ECU	8 am: General Rehab and associated topics	<ul> <li>8 am: PM&amp;R         Grand Rounds</li> <li>9 am: Lifestyle         Medicine with         Dr. Norbury</li> <li>10 am: Join         into Resident         Didactics</li> <li>11 am: MSK         US cases with         Dr. Norbury</li> </ul>	<ul> <li>8 am: Intro to Wound Clinic and Hyperbaric Oxygen</li> <li>Tour of HBO with Dr. Faulk our Program Director</li> </ul>	8 am: Intro to Spinal Cord Injury and Pediatric Rehab
PM	1 pm: Intro to MSK Ultrasound	• 1 pm: Interventional Spine	1 pm: Intro to Traumatic Brain Injury and Stroke Rehab	1 pm: Intro to NCS/EMG	<ul> <li>1pm: Ten         Minute Talks         by Visiting         Students</li> <li>Conclusion:         Post-Surveys</li> </ul>

General Medical Student Survey - Physical Medicine & Rehabilitation Topics					
Based on your medical training to date, please rate your current level of understanding of					
each topic listed below. Use the scale below. All responses are anonymous. THANK YOU					
FOR YOUR PARTICIPATION!					
4	Excellent; I understand this topic extremely well & could teach others about it				
3	Very Good; I understand this topic well				
2	Fair; I have a limited understanding of this topic				
1	Poor; I do not understand this topic well at all				
	Topics:				
1	Amputation rehabilitation				
2	Assistive devices (e.g., wheelchairs, prosthetics/orthotics, adapted living space)				
3	Brain injury rehabilitation				
4	Chemodenervation/botox/phenol				
5	Debility (cardiac/pulmonary/cancer)				
6	Developmental problems in disabled children				
7	Disability awareness				
8	EMGs/nerve conduction studies				
9	Impact of disability on patients' & caregivers' social lives				
10	Medical aspects of disability (diagnosis & examination)				
11	Multidisciplinary/team management of rehabilitation patients				
12	Musculoskeletal medicine/neuropathic pain				
13	Patient/caregiver education related to rehabilitation				
14	Pediatric rehabilitation medicine				
15	Prevention of disability				
16	Prevention of secondary medical problems in disabled patients				
17	Psychosocial aspects of disability/rehabilitation				
18	Referral of patients to PM&R				
19	Spasticity/intrathecal pump issues				
20	Spinal cord injury rehabilitation				
21	Stroke rehabilitation				
22	Support services for disabled patients/families				
23	Therapeutic exercises/procedures for rehabilitation patients				



# Results

- 100% of students responded to the pre-survey and 71% to the post-survey.
- 71% of students responded to the rotation evaluation and reported an average of 5/5 for satisfaction with the course.







## Conclusion

- Introductory VRs in PM&R can be a substitute for inperson rotations during the pandemic to expose students to the field and provide face-to-face interaction.
- There is potential for VRs to be offered in the future for students otherwise unable to pursue a rotation.
- Limitations of a VR include access to hands-on education especially with procedures.