Demonstrating the vital role of physiatry throughout the health care continuum: Lessons learned from the impacts of the COVID-19 pandemic on private practice musculoskeletal care

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Editor's Note:
This article is one of a series published in the June 2021 issue of PM&R that collectively form a White Paper describing the vital role of Physiatry throughout the healthcare continuum during the COVID crisis.

BACKGROUND

As of this writing, there are now >29 million cases of COVID-19 in the United States and over 524 000 deaths attributed to it.¹ As the pandemic rages on, the need for medical services unrelated to COVID-19 continues. As a result of COVID-induced inactivity, including people working from home in ergonomically suboptimal settings and initiating unguided home exercise routines, it is likely that the incidence of musculoskeletal pain issues is on the rise.²⁻⁴ Another possible contributing factor is that exercise has taken on different and often more limited form, with the closure of many traditional exercise facilities and recreational exercise options. Many home environments have been adapted for home exercise and many new outdoor exercise activities are being explored, sometimes at the expense of musculoskeletal injury. Furthermore, commonly painful disease states including low back pain, peripheral neuropathies, and cancer-related pain do not cease during a pandemic. Many chronic musculoskeletal pain conditions may become exacerbated by decreased social connection, inactivity, and depression. These events have led to an increased demand for musculoskeletal physiatry services during a time that smaller outpatient practice settings are financially strained. Physiatrists (specialists in physical medicine & rehabilitation [PM&R]) are often at the forefront of treating musculoskeletal disease in many practice settings.

Recent physician practice trends seem to favor employment rather than practice ownership. Between 1988 and 1994, ownership fell 14.4% points, from 72.1% to 57.7%, and in 2018 47.4% of practicing physicians were employed, whereas 45.9% owned their practices, marking the first time the number of employed physicians is greater than the number who own their practices.⁵ Despite these trends, surveys suggest that physiatrists often work in small private practice settings (1-3 physicians), and many self-categorize as specializing in musculoskeletal disorders, chronic pain, interventional spine, and electrodiagnostic medicine. Over the past 5 years, as managed care and medical home models gain market share, physiatrists are positioning themselves on the front line of musculoskeletal care with the goal of optimizing nonsurgical treatment as well as serving as the entry point to surgical pathways. Unfortunately, in many cases PM&R remains positioned at the end stage of the patient referral flow and the care continuum, thus counteracting their added value.

A confounding matter in the efficient delivery of musculoskeletal care is that administrative management of private practice remains an area in which most physicians are poorly trained. Although a master's
degree in business administration may support the operation of a private practice, having a strong business plan along with soliciting sound advice and taking the time to understand financial statements is most vital to the success of any business enterprise. A thorough and well-articulated business plan does not render a business recession proof but should help withstand unforeseen circumstances and emphasize retention of backup operating expenses and cash reserves. Fiscal agility, defined as the ability to transfer funds quickly, initiate new business opportunities, and retreat from unprofitable ventures, serves as a tremendous asset during unpredictable situations such as those experienced during this global pandemic. However, for most outpatient musculoskeletal physiatrists, this is the first time in their careers experiencing a completely unanticipated and uncertain burden. Physiatrists have learned new ways to adapt their practices while still providing valuable and essential care.

**SUMMARY OF IMPACTS OF COVID ON PHYSIATRIC CARE**

**Are we essential?**

The struggle to determine and argue that physiatric care is essential and germane to continued appropriate care of musculoskeletal disorders.

**Top five impacts**

1. Reduction in access to patients
   a. Reduction in patient volumes were experienced across the care spectrum and may have had the most impact in the private practice setting. Historic referral sources including physical therapy, primary care, neurosurgery, and orthopedic surgery were greatly diminished, both because these providers were seeing fewer patients or were closed other than for emergencies. Some primary care physicians redeployed to fill hospitalist roles. Additionally, both patients and physicians had trepidations regarding leaving their homes, breaking quarantine, and exposing themselves to environments over which they had little to no control. Although emphasis on patient/public fears during the pandemic has been duly warranted, less attention has been focused on the intense pressure on physicians to resume operations and put themselves at risk, especially before the availability of vaccinations.
   b. Further affecting patient volume were governmental mandates to limit elective surgical and other interventional procedures, particularly in the hospital settings. Challenges with telehealth also affected patient access. From both the physician and provider perspective, telehealth adoption was the first and often largest challenge encountered. Additionally, telehealth technology provided only the simplest of functionality. Particularly affecting outpatient physiatry practices, an ability to perform only a perfunctory visual physical examination limited and delayed definitive diagnoses. Patients, particularly those in rural areas with limited wideband internet access, and patients with limitations in technology expertise, greatly suffered from being compelled to use technology as their only source of access to providers.

2. Limitations on delivery of procedural care
   a. Safety concerns regarding patient–physician interaction markedly limited patient access to elective interventional procedures - including image-guided spinal injections, joint injections, and peripheral nerve injections - especially early in the pandemic. Outpatient musculoskeletal practices followed local public health guidance by limiting patient traffic through their offices and clinics. Additionally, risk stratification affected patient access to procedures as they were restarted. Several guides were quickly published including those by the American Society of Interventional Pain Physicians, American Society of Regional Anesthesia and Pain Medicine, and the Spine Intervention Society/American Academy of Pain Medicine; however, there were incongruencies among these guidance documents. Physiatrists were able to participate in the development of these documents and provide timely guidance.
   b. Access to electrodiagnostics was also initially very limited. This likely contributed to delays in diagnosis for patients with neuromusculoskeletal conditions with the combined sequelae of ongoing pain and increased cost. This led to the publication of a guidance document from the American Association of Neuromuscular & Electrodiagnostic Medicine Quality and Patient Safety Committee for the resumption of routine electrodiagnostic testing during the COVID-19 pandemic. Once again, physiatrists played a key role in synthesizing this document.
   c. A variety of factors regarding intrathecal drug delivery posed challenges during the pandemic, including the need for patients to have their devices refilled either in person in a physician’s office or from a home visit with a nurse. Early in the pandemic, as in-office visits were curtailed and home nursing was not readily available, physicians scrambled to ensure access for continued therapy in patients already receiving
intrathecal drug therapy, particularly with medications that could not be abruptly stopped without adverse consequences (e.g., clonidine and bactrofen). Additionally, new and replacement pumps were initially not considered a high-priority surgery.

3. Medical uncertainties
   a. Medical uncertainties revolved around the use of corticosteroids as a potential amplifier of COVID-19 infection risk and severity, as well as the timing of vaccinations, once available, with the concomitant delivery of corticosteroids. The former concern faded as data emerged related to the use of corticosteroids to mitigate severe cases of COVID-19. As Food and Drug Administration-approved vaccines became available, the latter issue related to appropriate timing of corticosteroid injections in relation to vaccinations became paramount.

4. Minimization of the importance of musculoskeletal pain, health, and wellness
   a. During the height of the COVID-19 pandemic, concerns regarding assessment and treatment of musculoskeletal pain disorders were deprioritized as compared to more emergent and urgent care. However, the limitations in focused musculoskeletal care certainly resulted in greater patient suffering. Unintended consequences included the chronification of pain and increases in opioid prescriptions as a path of least resistance for patients who could not be evaluated in person and pain being treated remotely. At the very least, this has set a negative precedent for future care and we are already observing patients with chronic pain disorders now content to rely on telehealth and overrely on opioid medications.

5. Challenges in keeping small practices open
   a. The catastrophic financial impact of COVID-19 includes enormous losses in revenue and volume during the time that most practices were shuttered in the first months of the pandemic. Initially, it is estimated that up to 60% of small businesses in the United States would close or declare bankruptcy due to COVID-19, and interestingly the opposite has occurred. Much of this may be attributable to governmental programs that have rescued small businesses, at least for now. Unfortunately, accrual of debt continues. Those medical businesses that survive will still face >50% reductions in patient volume and in many cases ≥50% losses of revenue. These then have downstream impacts on staff retention, availability of services, and volume of debt. Many private practice providers do not possess the business acumen to effectively prepare for and weather national and global crises such as the COVID-19 pandemic and the complexity of the economic relief legislation.

SURVEY DATA

As we bring to bear physiatric expertise during COVID-19, there are significant barriers to overcome. In a recent survey conducted by the American Academy of Physical Medicine and Rehabilitation, 33% of respondents described their practice setting as private practice, the most vulnerable setting during the pandemic. Furthermore, 49.5% self-reported their primary practice focus as musculoskeletal medicine, with nearly 27.9% pain medicine, 23.5% spine medicine, and 16.2% sports medicine. Clearly a large majority of physiatrists practice medicine within areas affected significantly by COVID-19.

Other pertinent questions for private practice physicians included sources of referrals. In order of frequency, physiatrist referrals originated from primary care physicians, orthopedic surgery, neurosurgery, other specialists, and physical therapy followed by self-referrals and word of mouth. Referrals to physiatrists were severely affected in some areas. Primary care physicians were focused on addressing life threatening issues often deprioritizing patient’s musculoskeletal complaints. One provider group that was catastrophically affected were physical therapists, particularly those in private practice who saw their work hours decrease by up to 45%. 8

With regard to impact from COVID-19 on physician practice, the greatest reported challenge was an inability or restriction in performing procedures, followed closely by telemedicine and restriction in access to physical therapy. Interestingly, increased demand and need for medications as a substitute for other treatments, and medication monitoring and compliance, were also reported as significant challenges.

The majority of physiatrists also noted a tremendous transition of patient visits to telemedicine, with 85% reporting that none of their practice was dedicated to telemedicine before COVID-19. Further, 50.5% of the respondents noted that telemedicine was not as effective as in-person visits. Particularly challenging areas included new patient visits, medication refills, and opioid monitoring.

FACILITATED PROGRAMMATIC AND PROCESS CHANGES

Outpatient musculoskeletal physiatrists have deliberately and decisively responded to the COVID-19 pandemic with fundamental changes. Steps that outpatient physiatrists have taken include:

1. Telemedicine innovations
   a. Physiatrists have formalized musculoskeletal physical examinations for virtual visits, optimizing musculoskeletal care as the pandemic
progressed. Access to expert care for patients with acute and chronic musculoskeletal disorders has increased despite the restrictions of in-person medical visits. Further, physiatrists can evaluate patients in their home environment and can directly address ergonomics and home exercise programs.

2. Sharing best practices with regards the business management of small practices.
   a. Although challenging to respond to in real time, outpatient physiatry practices were flexible and adaptable with regard to right-sizing their practices and creating pandemic-resistance. Additionally, physiatrists were uniquely willing to share their business insights and learnings from the fiscal impact of COVID-19 with their colleagues.

3. Coordinating musculoskeletal care
   a. Outpatient musculoskeletal physiatrists continued to support and make themselves readily available to their colleagues and referral sources. They continued to embrace coordinated interdisciplinary care, functioning in that “sweet spot” between primary care and surgical providers. This role enabled primary care providers to focus on more immediate patient medical concerns and directed patients to surgical care for appropriate musculoskeletal injuries when necessary. Physiatrists also continued their long-standing collaborations with physical and occupational therapy, with a focus on virtually based home exercise regimens.

4. Providing an alternative to large health systems
   a. This continues to be a unique opportunity for outpatient musculoskeletal physiatrists. As an example, as large university or system-based hospitals minimized patient throughput and access and governmental mandates limited elective procedural care, outpatient practices were able to step into the void. These restrictions on larger practices ultimately presented an opportunity to sustain outpatient musculoskeletal practices some of which remained open and benefited from performing procedures in office and ambulatory surgery center settings.

FEEDBACK FROM THE EXTERNAL STAKEHOLDERS RELATED TO PHYSIATRIC SYSTEMS/PROGRAM CHANGES AND DELIVERY OF CARE

Paradoxically, small, agile outpatient-focused musculoskeletal clinics have likely benefited from their ability to stay open during COVID-19 shutdowns as large-scale health care organizations have imposed more stringent measures restricting access for patients and triaging care based on severity. In fairness most large health care organizations have understandably been focused on emergency care particularly as it applies to COVID-19.

We have observed greater outreach from our external partners to help accommodate patients who would otherwise go elsewhere or without treatment. Even among referring physicians that work within large organizations there has been a willingness to seek partnership external to their organizations. Historic referral patterns have also seemingly evolved at least for the time being.

Furthermore, as smaller related organizations such as physical therapy practices suffer the economic consequences of COVID-19, we have also seen outreach from their part to seek synergies that might benefit both groups.

Outpatient musculoskeletal physiatrists have maintained a mantra of access to care while taking the appropriate recommended precautions to safeguard patients. Many physiatrists have reached out to colleagues during the pandemic to educate their colleagues about service availability. Broadly reaching out to all referrers and within the medical center has served practices well. Openness and willingness to partner, both within existing networks but also examining new opportunities to serve patients, have benefited musculoskeletal physiatrists. Feedback from a variety of sources has reaffirmed these decisions to seek out collaborations. Interestingly, we found a greater number of our referring providers reaching out to us in an unsolicited manner to inquire about the availability of our services during the height of the pandemic. Our practice entertained conversations with a large, national physical therapy group regarding practice synergies. The need to “band” together during these times became quite evident. Further, accelerated conversations regarding mergers with larger groups including specialty practice groups and hospital systems were initiated in a manner that was surprising, primarily because of the normally glacial pace of these conversations. Identifying other accessible service providers (radiology, physical therapy, etc.) provided added value for patients, as we found ourselves making appointments for our patients for their imaging studies, with physical therapists and even directly with other physicians. Coordinating care reduced patient burden and reiterated physiatric expertise in managing musculoskeletal conditions and connecting the dots for patients as they attempt to navigate complex systems.

PROJECTIONS RELATING TO FUTURE UNIVERSALLY IMPACTFUL EVENTS

Despite the tremendous impact of COVID-19 on the economy of the United States and the health care
industry, the need for ongoing musculoskeletal care did not diminish despite its deprioritization, both actual and perceived. Threats to the future of outpatient musculoskeletal physiatrists include a persistent label of “non-essential” that might survive the current crisis, loss of referrals to more abundant surgical providers, the inability to distinguish PM&R physician care from other rehabilitation therapy services, the inability to remain in business due to a rapid loss of revenue, and the inability to evolve beyond strictly rudimentary interventional care as the physiatric “calling card.” These threats to outpatient musculoskeletal physiatry may in turn negatively affect the access to diverse, interdisciplinary, functionally based care for patients with a multitude of musculoskeletal disorders. Even as the pandemic likely transitions to endemic status, nimble, creative and efficient care models will flourish. Although some practices will not survive these tumultuous times, those that do will have the opportunity to thrive and lead.

There are specific opportunities that have emerged as a result of the COVID-19 pandemic:

1. Musculoskeletal gatekeeper models/value-based models

Outpatient musculoskeletal physiatrists highlighted their ability to facilitate emergent musculoskeletal care and triage in certain emergency departments and urgent care centers to offload the intense crush of COVID-19 patients at the height of the pandemic. This is the just the tip of the iceberg of this opportunity. Now is likely the time to fully embrace the musculoskeletal gatekeeper model. Comprehensively evaluating patients with musculoskeletal symptoms in a value-based system is certainly an area of strength for outpatient musculoskeletal physiatrists. Physicians provide efficient, patient-centric, minimally invasive, cost-effective treatment while considering the whole patient. Specifically, opportunities exist to pilot shared risk programs with insurance providers to manage musculoskeletal patients in a comprehensive fashion. This includes an opportunity to position outpatient musculoskeletal physiatry as the key specialty to manage these patients. Outpatient musculoskeletal physiatrists are poised to provide tremendous value to the health care system by offloading primary care providers and become efficient referral sources for more appropriate surgical referrals.

Physical therapists have leveraged the direct access concept to position themselves as the entry point for patients with musculoskeletal conditions. There is no reason to believe that this success cannot be replicated by outpatient physiatrists. Musculoskeletal physiatrists are the “jack of all trades” providing care across the spectrum of diagnoses and include pain physicians, electromyographers, sports medicine physicians, and general physiatrists focusing on outpatient musculoskeletal care. The diversity of this “group’s” practices is its greatest strength. Other areas of focus that leverage this advantage may include partnering with larger institutions seeking external partners to manage musculoskeletal providers or virtual practice groups whose association with one another may facilitate tremendous increases in efficiency.

Another trend to capitalize upon is the transition of procedural and surgical care away from hospital settings. There is tremendous cost savings realized by performing interventions and surgeries outside of the hospital whether that be in an ambulatory surgery center or office setting. Musculoskeletal physiatrists can help to control costs in a value-based setting positioning physiatry in the driver’s seat of owning musculoskeletal care.

2. Going beyond telemedicine, leveraging digital technologies for exercise and function

Although every specialty has adapted to the use of telemedicine and will continue to use these platforms as long as they are reimbursed, the opportunity for outpatient musculoskeletal physiatry is unique and much broader. Telemedicine is likely to persist in the health care delivery model, but outpatient musculoskeletal physiatrists have the opportunity to embrace digital health technology more broadly. These technologies include, but are not limited to, virtual physical therapy, tele-home exercise, the use of artificial intelligence and virtual reality to facilitate the rehabilitative process and measure pain, remote monitoring, and development of tools to monitor exercise output to measure physiological recovery. Physiatrists have developed programs such as Limber Health (www.limberhealth.com), a digital health solution for patients, providers, and employers, designed to help manage musculoskeletal conditions. Other digital solutions such as Virdio (www.virdio.com) provide an online marketplace, mini environment for virtual fitness and physical therapy; Virdio is working with outpatient musculoskeletal physiatrists to focus on patients by providing services such as predefining activities and movements such as time-based or repetition-based activities, whiteboard functionality to more directly interact with patients, and recording and measurement functionality. Continuing to leverage wearable technologies is also a part of this digital revolution.

3. Diversification of offerings, functional medicine, non-traditional treatments

Diversifying treatment options for patients is another area of physiatric expertise. To a great extent, interventional physiatry sits on the verge of a transition
into significantly more invasive care. A useful analogy is to consider that interventional physiatry sits where interventional cardiology sat 20 to 30 years ago, gaining access to more invasive tools that allow us to offer our patients options that were not possible as recently as 5 years ago. Procedures such as percutaneous interspinous spacers to treat spinal stenosis, percutaneous sacroiliac joint fusion to treat recalcitrant sacroiliac joint dysfunction, and cellular and regenerative therapies have pushed us into the historic territory of surgeons. The pace of development of novel procedures is unlikely to slow down anytime soon. Appropriately engaging and embracing these therapies allow more to offer our patients, typically at a lower cost.

On the other end of the spectrum are a range of nontraditional treatments with a focus on health and wellness. These include “functional medicine,” nutritional services, and personalized medicine. These gain importance particularly as people remain physically active later into life, leveraging physiatrists as the experts of function. Physiatrists treat injury and illness but also treat healthy patients looking for an edge, for an opportunity to optimize their performance. A particularly relevant example of this is sports medicine. The concept of “athlete” continues to evolve as what was once the purview of a very small group of individuals is now increasingly available to the general public, and the general public is hungry for this information. Many patients continue to view themselves as athletes long after they stop “competing”, continuing to work towards improving performance. No other specialty combines expertise more than physiatry when it comes improving and optimizing function, preventing injury and illness, but also providing avenues for recovery when these do occur.

4. Consolidation, a double-edged sword

COVID-19 has given rise to a historic push towards consolidation, one that has been ongoing for some time but has been emphasized during this crisis. Although the closure of smaller practices is a negative outcome, there may be some advantages to adding outpatient musculoskeletal physiatrist expertise to larger groups that would not have necessarily organically developed that strength. Creating teams that include outpatient musculoskeletal physiatrists adds a physician who serves an integral role in coordinating the care of patients with musculoskeletal disorders, not simply a source of referrals for surgery. There is a potential downside to consolidation; bigger is not always better. Once an organization exceeds a certain size, efficiency may precipitously drop, and patients can be lost in the system. This is where other intriguing opportunities may arise. Whether joining virtual care groups, virtual accountable care organizations, management service organizations, or independent practice associations, outpatient musculoskeletal physiatrists in small practices can maintain their independence while leveraging larger group dynamics, and facilitating and optimizing referral relationships.

5. Positioning ourselves as advocates for patients with musculoskeletal disorders

Finally, musculoskeletal physiatrists must continue to advocate for patients with musculoskeletal disorders. Physiatrists are the most well-trained physicians to care for these patients in a comprehensive, interdisciplinary fashion. Preserving and extending access is a vital aspect of that advocacy. Physiatrists have been trained to function as members of treatment teams but also as leaders of those teams and in the care of patients with musculoskeletal complaints. Outpatient musculoskeletal physiatrists are essential because they keep patients healthy and safe, maximize function and quality of life, and keep patients out of the hospital while providing cost savings for the health care system.

CONCLUSION

Outpatient musculoskeletal physiatrists provide a vital service for a diverse group of patients with a variety of diagnoses across the spectrum of care. Fundamentally this large group of physicians is realizing their impact over the past year. They are engaged in serving as musculoskeletal gatekeepers, innovating with digital health technologies, and sharing best practices with their colleagues. As they realize the impact of their efforts on behalf of their patients they will also serve as advocates for care and access. Their continued leadership during and beyond the COVID-19 pandemic will be transformative, both for the specialty of PM&R and for their patients.

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