

FCPS training in the specialty of Physical Medicine and Rehabilitation for physicians in Pakistan: The option less known

Ahmad Zaheer Qureshi

Abstract

There has been a growing demand for rehabilitation services in Pakistan in recent years, likely due to increasing prevalence of disability. Physical Medicine and Rehabilitation (PM&R) is a branch of medicine which deals with the prevention, diagnosis, and treatment of functional impairments resulting from neuromusculoskeletal disorders. Physiatrists are physicians who specialize in the specialty of PM&R. College of Physicians and Surgeons of Pakistan started FCPS training in PM&R in the late 1990s. There are various training institutes within and outside Pakistan which are accredited for FCPS training in PM&R. There is a huge vacuum in this specialty in the country likely due to lack of awareness among health care providers. It is considered to be the specialty of the future due to its rapid growth potential, opportunities for sub specializations and unique skills.

Keywords: Rehabilitation services, Pakistan, FCPS training.

Introduction

There are two main aspects relevant to postgraduate training in Physical Medicine and Rehabilitation (PM&R) for physicians in Pakistan: what is Physical Medicine and Rehabilitation, and what are the available training opportunities in this specialty in Pakistan?

What is Physical Medicine and Rehabilitation or Physiatry?

Rehabilitation is a term which is generally perceived to be related to physical therapy, rehabilitation of addicts or of patients with mental disorders. Unfortunately this falsified perception is not only present among the general public, but also among medical professionals. PM&R, also called Physiatry or Rehabilitation Medicine, is the branch of medicine emphasising the prevention, diagnosis, and treatment of functional impairments resulting from neuromusculoskeletal disorders.¹

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Department of Physical Medicine and Rehabilitation, Wake Forest Baptist Medicine Center, North Carolina, USA.

Correspondence: Email: qureshipmr@gmail.com

Unlike other specialties, its focus is not limited to an organ or organ system, but it concentrates on the biopsychosocial aspects of individuals with activity limitation. The emphasis is on abilities rather than disabilities. Physiatrists, or rehabilitation physicians, are medical doctors who have completed training in the specialty of PM&R. They treat any disability resulting from disease or injury involving any organ system. They manage issues that span the entire spectrum, from complicated multiple trauma to injury prevention for athletes.

Typically, physiatrists can be involved in both inpatient and outpatient settings. In the inpatient setting, physiatrists are responsible for the medical and rehabilitation care of patients with activity limitations. They deal with a variety of conditions, including stroke, spinal cord injury, acquired brain injury, neurodegenerative diseases, multiple sclerosis, amputations, orthopaedic disorders, polytrauma, and developmental disorders.

They not only deal with medical conditions specific to these impairment groups, but also serve as leaders of the rehabilitation team. The rehabilitation team members are qualified specialists in their own fields and include physical therapists, occupational therapists, speech and swallowing therapists, psychologists, dieticians, recreational therapists, social workers and rehabilitation nurses. Unlike other medical specialties, the concept of team work is considered to be the core of inpatient rehabilitation management with every team member playing a distinct role in the rehabilitation process.

The contribution, judgment and opinion of all clinicians serve as pillars of the rehabilitation programme. This is carried out in an environment where mutual respect, understanding and equality are prevailing features.

The role of a Physiatrist

As team leaders, physiatrists have to take a lead role in coordinating patient care and supervising the goal-oriented rehabilitation plan. For example, when a patient with acute spinal cord injury (SCI) is admitted for inpatient rehabilitation, physiatrists perform a SCI-specific

assessment, including history, physical examination, functional evaluation and assessment of the psychosocial and vocational needs of the patients.

Similarly, all the rehabilitation team members perform their specific assessments and then jointly discuss the rehabilitation goals of the patient. Based upon the recommendations of the team, physiatrists direct a management plan. They are directly responsible for dealing with the medical needs of the patients.

Some common medical issues specific to spinal cord injury include treatment of pain, spasticity, neurogenic bladder and bowel, pressure ulcers, autonomic instability, cardiopulmonary impairments, venous thromboembolism, osteoporosis, deconditioning, heterotopic ossification, musculoskeletal problems, mental health disorders and complications of prolonged immobility.

They also assess the need for spinal or limb orthosis and determine what equipment is needed for mobility, self-care and activities of daily living in coordination with relevant members of the rehabilitation team. The primary goals of the comprehensive rehabilitation programme are to facilitate neurological recovery, minimise disability, maximise functional independence, decrease caregiver burden and improve the quality of life of these individuals.

In outpatient settings, depending upon the interests and training of physiatrists, their scope of practice includes procedures such as nerve conduction studies, electromyography, urodynamics, neurotoxin therapy for spasticity and pain interventions, including intra-articular injections, trigger point injections, epidural injections and sacroiliac joint injections.

Rheumatology and musculoskeletal disorders constitute the majority of patients in outpatient care. Advance procedures such as medial branch blocks, radiofrequency ablations, intrathecal baclofen pump management, treatment of headaches with neurotoxins and minimally invasive spinal procedures are also performed by many physiatrists around the world, but the expertise in Pakistan is still lacking.

Physical Medicine and Rehabilitation in Pakistan

PM&R is considered to be the specialty of the future. Considering the growing disability population in Pakistan, the specialty of PM&R deserves more attention in the health sector in Pakistan. Just as the specialties of ENT, Psychiatry and Paediatrics have been incorporated into undergraduate medical education with compulsory

rotations in these fields, PM&R needs to be identified by introducing it into the medical curriculum.

Teaching slots for rehab doctors are available in various medical institutions in the civilian sector of Punjab province, but are mostly vacant due to lack of qualified physiatrists. Since there is a dire need of this specialty globally, most of the qualified physiatrists with fellowship of College of Physicians and Surgeons (FCPS) in civil sector are currently able to pursue their careers abroad.

It is observed that most of the physicians, medical students and patients in Pakistan are unaware of the existence of the specialty of PM&R. The first department of rehabilitation medicine in Pakistan was established at Jinnah Post Medical Graduate Centre Karachi (JPMC) in 1966. The department was supervised by Dr S. R. A Kirmani, who is regarded as the founder of rehabilitation medicine in Pakistan.² The sequence of events which led to the foundation of PM&R dates back to 1981 when a directive was issued by the president of Pakistan, General Muhammad Zia-ul-Haq to establish two centres of excellence in Rehabilitation Medicine in the country.³ It is believed that the inspiration behind this was his daughter who had special needs. The foundation stone for Armed Force Institute of Rehabilitation Medicine (AFIRM) was laid in 1991. Two Pakistani medical specialists were sponsored by Pakistan military for foreign training in Rehabilitation Medicine.

Upon their return to Pakistan, they started the Department of Rehabilitation Medicine in 1995 at Combined Military Hospital (CMH) Rawalpindi. They later established the department of PM&R at AFIRM. The outpatient setup was started in 2001, while the inpatient department was opened in 2005. These two PM&R specialists were joined by Dr Khalid Jamil, a foreign trained Rehabilitation Medicine specialist from the civil sector who established the Department of Rehabilitation Medicine in the Mayo Hospital Lahore in 1998. He was later awarded Sitara-e-Imtiaz due to his outstanding contributions to Rehabilitation Medicine.

FCPS training in Physical Medicine and Rehabilitation

The pioneers of Rehabilitation Medicine joined hands to establish a residency programme in PM&R in the late 1990s. The departments of PM&R at AFIRM and Mayo Hospital were recognised for training by the College of Physicians and Surgeon of Pakistan (CPSP) and the first batch of trainees graduated in 2001 to acquire the Fellowship (FCPS) status in PM&R. Later, institutes in other provinces were also accredited with the CPSP for PM&R

residency training.

In 2005, a massive earthquake in northern Pakistan led to 70,000 casualties and left 120,000 injured. This mandated the need for the rehabilitation of thousands of patients who sustained traumatic injuries resulting in disability. The rehabilitation services provided by physiatrists led to the recognition of PM&R at the national and international levels. Not only were the contributions of PM&R acknowledged by the local health sector, but also this laid the foundation of international collaboration between Pakistani physiatrists and foreign medical organisations providing disaster relief in earth quake affected areas.

The impact of this tragedy was immense and the individuals with disabilities continued to require rehabilitation services for many years. The need for rehabilitation grew stronger and rehabilitation services led by physiatrists resulted in further institutional and academic development of PM&R.

Moreover, since 9/11, thousands of Pakistani military and civilians from the north and northwestern regions of Pakistan have been affected. The estimated death toll currently exceeds 49,000 Pakistanis.⁴ Between 2008 and 2013, 5,678 Pakistanis were injured in bomb blasts and suicide attacks. A rise in traumatic brain injuries, spinal cord injuries, polytrauma and amputations was subsequently observed even though there are no comprehensive statistics available regarding disability among civilians and the Pakistan army populations.

PM&R Residents continue to have intense exposure to neurological and orthopaedic rehabilitation due to earthquake and terrorism. A collaborative training programme between the CPSP and King Fahad Medical City (KFMC), Riyadh, Saudi Arabia, was launched in 2009 and has enrolled six trainees in PM&R from Pakistan to date. The programme follows the same curriculum that is implemented in Pakistan as outlined by the CPSP.

After their completion of training and passing the exit exam, physicians are awarded FCPS diploma in PM&R. So far candidates can enroll in PM&R training at five different institutions in Pakistan and one institution abroad (Table).² Since PM&R is a medical and surgical allied specialty, medical graduates can apply for PM&R residency training after passing FCPS I in "Medicine and Allied" or "Surgery and Allied".

The curriculum includes one year of training in medical and surgical allied specialties, followed by three years of extensive inpatient and outpatient rotations in various rehabilitation settings. Training also involves rotations in other accredited rehabilitation facilities to ensure

Table: Institutes accredited by the College of Physicians and Surgeons Pakistan for fellowship training in Physical Medicine and Rehabilitation (PM&R).²

1.	Dow University of Health Sciences, Karachi.
2.	King Edward Medical College & Affiliated Hospitals, Lahore
3.	The Children's Hospital and The Institute of Child Health, Lahore.
4.	H.H. Sheikh Khalifa Bin Zayed AL-Nahyan Hospital / Combined Military Hospital, Muzaffarabad
5.	Armed Forces Institute of Rehabilitation Medicine, Rawalpindi
6.	King Fahad Medical City, Riyadh Saudi Arabia

uniformity in training and exposure to practices in both civilian and military sectors.

The academics in PM&R have grown much stronger over the last five years especially due to modifications in the CPSP training and examination standards. A unique aspect of PM&R training in Pakistan is that despite the fact that PM&R community is relatively small, the contribution by physiatrists in research is proportionally comparable with any other medical specialty in Pakistan. This is reflected in the extensive involvement in research by physiatrists who undertake research initiatives during their training.

Based upon the number of publications listed on Researchgate and Pubmed, most contributions are made by Rathore FA, Gill ZA, Mansoor SN, Qureshi AZ, Bin Qureshi S, and Hanif S. These publications are in addition to the dissertation requirement of FCPS training.

The contributions of AFIRM in academic development of PM&R in Pakistan have been remarkable. AFIRM is considered to be one the largest rehabilitation facilities in South Asia and is the best equipped training institute for PM&R in the country. A few civilian applicants were also able to complete their FCPS training at AFIRM in recent years. Securing residency position at AIFRM is becoming more competitive.

The PM&R Department at Mayo Hospital Lahore is the leading training programme in the civilian sector that is chaired by Professor Emeritus and the Dean of PM&R at CPSP. Two physicians who began their residency in PM&R at the Mayo Hospital Lahore were selected to continue their FCPS training at KFMC Saudi Arabia, out of whom one trainee was able to secure fellowship in the United States based upon his FCPS training. Similarly, four physiatrists who were trained at the Children Hospital Lahore and rotated at Mayo Hospital Lahore are serving as consultants in Saudi Arabia. Two FCPS trained physiatrists from the military sector also gained experience in Saudi Arabia and facilitated the integration of FCPS training programme at KFMC.

Over the years, many physiatrists from AFIRM have undergone on-the-job training at various well-recognised institutions of the world. In 2014, the first international and third national conference of PM&R was held under the auspices of AFIRM, which has opened new horizons for PM&R in Pakistan.⁵ It was attended by the President of Pakistan and the Chief of Army staff who reinforced the need of development of rehabilitation in both military and civilian populations.

In Pakistan where the provision of basic healthcare is a challenge, disability and rehabilitation remain underemphasised entities in the health sector. Over the last 13 years, the number of qualified physiatrists in Pakistan has been less than 50. The burden of disability care clearly exceeds the manpower available to manage disability care in Pakistan. FCPS training at various CPSP recognised institutions offer promising training in PM&R. The pioneers in this field have been successful in establishing a strong and sustainable framework of PM&R in Pakistan. Its integration into undergraduate medical training and the development of PM&R departments at major teaching hospitals are the next steps in the growth of this specialty.

Currently teaching slots are vacant or are not fully operational due to the lack of available expertise. It is a well-known fact that the specialties of cardiology, paediatrics and oncology gained vast recognition after development of large specialised hospitals such as the Punjab Institute of Cardiology, the Children Hospital Lahore and Shaukat Khanam Memorial Cancer Hospital. Efforts are being made to establish a state-of-the-art rehabilitation institute staffed by locally-trained physiatrists to address the growing need of disability care in Pakistan. It will also help to identify PM&R as a distinct specialty in the medical community.

Conclusion

In Pakistan where the provision of basic health care is a

challenge, disability and rehabilitation remain underemphasised entities in the health sector. The burden of disability care clearly exceeds the manpower available to manage disability care in Pakistan. FCPS training at various CPSP recognized institutes offer promising training in PM&R. The pioneers in this field have been successful in establishing a strong and sustainable frame work of PM&R in Pakistan. Its integration into undergraduate medical training and the development of PM&R departments at major teaching hospitals are the next steps in the growth of this specialty.

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