

## EDITORIAL VIEW

## PAIN MEDICINE

# Evolution of pain medicine in Pakistan

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## SUMMARY

Although the need of adequate pain alleviation has always been felt, but the transition from immersion of body parts in ice cold water to the introduction of opium and then morphine took a long time. Over the previous few decades, the pain medicine emerged as a subspecialty of anesthesiology, but very soon it evolved itself as a whole new specialty, and with it emerged the need of clinical training. Now, most of the countries run their very own training programs, and in most of the nice hospitals pain medicine departments have been established. This editorial takes a quick look at its development around the world and particularly in Pakistan.

**Key words:** Disability; Pain; Pain Management; Pain Medicine

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**P**AIN has the ability to grab our attention, interrupt our current actions, and lead to negative emotions. It often interferes with our ability to perform everyday tasks, creating a conflict between the desire to continue with the preferred activities and the allocation of our cognitive, behavioral, and emotional resources to alleviate the pain.<sup>1</sup> Pain and its associated discomfort contribute significantly to the global burden of illness and disability. Chronic pain is a common motivator for seeking medical care and affects multiple organ systems, including mental health and sleep. The presence of chronic pain significantly affects quality of life (QOL). Without timely and appropriate treatment, chronic pain becomes more complicated and difficult to manage as the time progresses.<sup>2</sup>

The 2013 Global Burden of Disease Study assessed "years lived with disability" (YLDs), measuring the combined impact of prevalence and severity of disability for various diseases and injuries in 188 countries. The study found that chronic low back pain was the leading cause of YLDs worldwide, followed closely by major depressive disorder. Other common causes of YLD include chronic neck pain, migraine, osteoarthritis, musculoskeletal disorders, and headaches from medication overuse.<sup>3</sup> Epidemiological studies conducted worldwide show that chronic pain affects approximately 20–34% of the population,<sup>4,5</sup> with up to 8% experiencing severe neuropathic symptoms.<sup>6</sup> Chronic pain is widespread and debilitating, causing personal suffering

and significant economic costs. These include increased health care utilization, welfare use, and reduced work productivity due to absenteeism. The socioeconomic impact is substantial, estimated at 3% to 10% of GDP.<sup>7</sup>

Every healthcare professional has a duty to provide care for patients experiencing pain, as pain management goes beyond specific specialties and clinical settings. Medical practitioners play a crucial role in preventing pain, conducting thorough pain assessments, and promoting evidence-based practices.<sup>8</sup> Treating pain is a complex process that necessitates consideration of the pain type, patient comorbidities, risk factors for side effects or addictions, and the psychosocial aspects of the patient's experience.<sup>9</sup>

Unfortunately, there exists a significant gap between the expanding knowledge of pain and the insufficient treatment provided. Implementing evidence-based pain management strategies faces multifaceted obstacles, with medical curriculum design being identified as a major barrier to effective pain treatment.<sup>10</sup>

## Evolution of Pain Management

Pain management gained prominence during the American Civil War with the use of morphine for soldiers' pain. This continued post-World War II for veterans' pain. Over time, inadequate pain treatment was recognized, leading to increased opioid use for acute and cancer-related pain. The 1990s brought a significant shift in pain management. The universal acceptance of the specificity theory of pain during this time led to the

creation of two techniques for pain management: pharmacological management and surgical blockage of 'pain pathways'. In order to create regional anesthesia, the process of chemically inhibiting nerve pathways—often known as nerve blocks or neural blockade—was initially developed. Techniques were developed to 'block' almost every nerve and the different nerve plexuses in the body during the first four decades of the 21st century, allowing operating on the body part supplied by them. Many doctors and surgeons in Germany, Austria, France, Italy, and the United States at this time started to understand that these techniques might be utilized as research tools and subsequently employed them to diagnose and treat a variety of painful diseases.

By 2004, new abusers of prescription opioids rose to 2.4 million from 628,000 in 1990. Although opioid prescription rates peaked in the US by 2010 and declined after 2012, individual opioid consumption is still higher than the 1999 level. To tackle this crisis, the healthcare system enacted widespread changes, involving doctors, researchers, and pharmacies. Diverse treatments have emerged to aid recovery and help people regain control after opioid abuse.

Pain management services are available in community, secondary care, and tertiary care settings. The Faculty of Pain Medicine has established Core Standards for pain management across the entire healthcare system. The primary objective of pain services is to provide compassionate assistance to patients in managing and adapting to their pain symptoms. The involvement of a multidisciplinary team is integral to the effectiveness of this framework.<sup>11</sup> Pain medicine has emerged as a relatively new field and has undergone significant development in the past few decades.<sup>12</sup>

### Evolution of Pain Management in Pakistan

In Pakistan, the specialty of pain medicine was introduced in the mid-80s; however, the presence of established pain clinics remains limited. There is an ongoing discussion regarding the academic qualification of a physician to grant him permission to practice pain independently. Anesthesiologists, due to their expertise in pain management through regional techniques and their knowledge of pain medications, play a vital role in multidisciplinary teams.<sup>13</sup> Currently, anesthesiologists constitute the majority of pain physicians in the USA as well as in UK, and hold the majority of pain-related board certifications. Nevertheless, a notable minority of self-identified pain physicians do not possess pain-related board certifications.<sup>14</sup>

According to a previous survey conducted in Pakistan, it was found that only 47% of patients were aware of the presence of pain clinics, and a limited number of them

were knowledgeable about the role of anesthesiologists as pain physicians. This lack of awareness suggests that most of the general practitioners (GPs) may not be up-to-date with the latest advancements and techniques in pain management, potentially limiting their ability to provide their patients experiencing pain with proper advice.<sup>13</sup> Furthermore, even in the developed countries, many patients lack awareness regarding the role of anesthesiologists in the pain management and pain clinics.<sup>15</sup>

The field of pain medicine started developing in Pakistan in the mid-1980s, and Brig M. Salim endeavored to develop the specialty of pain medicine in Pakistan. He has been credited of being a pioneer in introducing and practicing acupuncture and pain medicine in Pakistan. His legacy has continued by his students in military hospitals and after his retirement from active service, at Islamic International Medical College, Islamabad. Brig M, Salim started Pakistan's first postgraduate training program M. Sc. (Pain Medicine) in 2006 which was soon accredited by Pakistan Medical & Dental Council (PMDC).

Aga Khan University Hospital (AKUH), Karachi also took the initiative to address the growing gaps in the country's education and healthcare system. The college's department of anesthesiology pioneered the establishment of the first official pain clinic in Pakistan. In 2005, a fellowship program in pain management was established at this college under the care of Professor Gauhar Afshan. It is a full time coaching and training program for one year, and usually restricted to only two anesthesia qualified fellows at a time. Recently AKUH has started FCPS (Pain Medicine) post-fellowship course.

Since July 2014, the College of Physicians and Surgeons of Pakistan (CPSP) established a second fellowship program in pain management. Many medical institutions have been recognized for postgraduate training for MCPS and/or FCPS (Pain Medicine). This program aims to provide students with specific training and practical instruction in the treatment of various painful conditions. Currently another fellowship program has been started at Riphah International University, called FIPM (Fellow in International Pain Management).

The author has the honor to establish Pakistan's first dedicated degree-awarding institute 'School of Pain & Regenerative Medicine' at The University of Lahore offering postgraduate diplomas.

There are not enough specialized pain management clinics in Pakistan at present. Although there are a few pain clinics in major cities, their number is small compared to the population of the people they serve. As a result, people seeking treatment for their pain often have limited access to specialized care and must rely on

general health facilities or unconventional techniques for pain relief. Initiatives need to be taken in Pakistan to increase the number of pain clinics and facilitate access to comprehensive pain management services, especially in the government sector healthcare facilities.

Assessing the quality, effectiveness, and impact of educational initiatives and programmes focused on pain management is part of evaluating pain medicine education in Pakistan. Quality of care is as important in pain medicine, as it is in any other medical branch.<sup>16</sup> A variety of methods can be used for this purpose, including assessment of curriculum, knowledge and skills, competencies, stakeholder contributions, clinical practice, patient outcomes, and long-term follow-up. These evolution techniques have been developed to assess the thoroughness of the curriculum, evaluate the knowledge and skills of health professionals, measure competency through clinical examinations, solicit feedback from stakeholders, evaluate the practical application of concepts learned, measure patient outcomes and satisfaction, and monitor the ongoing professional development of graduates. A continued involvement by the senior faculty of pain management will bring the envisioned future of pain medicine in Pakistan.

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