One Step Closer to Effective Pain Management Around the World?

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GLOSSARY
EPM = essential pain management; HICs = high-income countries; LMICs = low- and middle-income countries; PNG = Papua New Guinea; RAT = recognize, assess, treat

A badly burned baby suffers frequent painful dressing changes without analgesia.

A young woman in excruciating pain from metastatic sarcoma receives only acetaminophen for treatment. She suffers in silence in a culture where stoicism is paramount.

A man with a compound femoral fracture after a motorbike accident spends weeks in traction. He is frightened, in pain, and slowly sinking into depression.

A young man on day 1 post laparotomy is suffering from severe pain. His culture encourages him to “be strong,” and his health care providers are fearful of opioids. He is sweating, dehydrated, and has not slept. He has only had 500 mg of acetaminophen since his surgery.

These situations are the reality for many people around the world in which untreated pain creates immense suffering. Barriers to effective pain management include knowledge gaps, lack of medications, fears and biases, and the sad truth that pain is invisible. Pain management, if practiced at all, takes a low priority in systems that are overwhelmed with urgent laparotomies, obstetrical emergencies, and trauma.

In troubling contrast, high-income countries (HICs) are in the midst of a severe opioid crisis. In 2017, there were 3996 opioid-related deaths in Canada1 and 70,237 opioid-related deaths in the United States.2 An excess of opioids is clearly not a solution, but the dearth of opioids in low- and middle-income countries (LMICs) is wrong. The Lancet Commission paints a vivid picture of these extreme imbalances, describing the gap in pain management in LMICs thus: “staring into this access abyss, one sees the depth of extreme suffering in the cruel face of poverty and inequity.”3

Opioids are essential in relieving suffering from trauma, acute postoperative pain, and cancer. They should be used sparingly, if at all, for chronic non-malignant conditions.4 Health care systems in LMICs should not repeat the mistakes of HICs that have led to the opioid crisis. Nevertheless, there is a desperate imbalance when 92% of the world’s morphine is consumed by people in HICs (21% of the global population) and 8% by people in LMICs (79% of the global population).5 Indeed, opioid consumption in Germany is 44,000 times that of in Nigeria.6 Medical educators may not easily solve the complex legal, political, and financial barriers to opioid supply in LMICs, but pain management education and advocacy tools are within our purview.

There is an urgent need for health care providers around the world to address these entrenched inequities. In their article, “Addressing the Challenge of Pain Education in Low-Resource Countries: Essential Pain Management in Papua New Guinea,” published in this issue of Anesthesia & Analgesia, Marun et al7 describe the essential pain management (EPM) course and elaborate on the impact of the course in Papua New Guinea (PNG). They describe how EPM originated in response to a request by anesthesia providers in PNG for help with pain management. This course offers a powerful tool for pain education and advocacy around the world.
The curriculum for EPM was designed with sound educational principles. Key features include teaching interprofessional participant groups, use of simple protocols, interactive learning methods, and an embedded training-of-trainers for sustainability. Course participants include nurses, surgeons, physicians, anesthetists, physiotherapists, psychologists, administrators, and pharmacists. This leads to rich discussions and insights into the challenges faced by colleagues. Conscious of the power of simple protocols, course authors have developed a model of recognize, assess, and treat (RAT) that is easily understood and applied. Key messages of EPM are summarized in a simple pocket bookmark, providing a clear cognitive aid. These protocols include the appropriate use of opioids and other medications as well as nonpharmacologic treatments that are enormously helpful but often overlooked (eg, massage, music therapy, exercise). Interactive learning methods are used throughout the course with small group discussions and collaborative problem solving of local barriers and identifying locally relevant systems for pain management. The course is available in French and English, improving accessibility to many nations.

Like PNG, Rwanda also has a shortage of health care providers, challenging geography, and patients who present in late stages with advanced pathology. EPM was first delivered in Rwanda in 2013 to an interprofessional group of participants. Feedback from the course was overwhelmingly positive with participants eager for more training. Inspired by this, additional courses were delivered, and a comprehensive pain management service was established. The greatest barriers to management of postoperative pain in Rwanda were found to be knowledge gaps; fear of opioids preventing their appropriate use for severe postsurgical pain; and systemic barriers, particularly lack of essential medications.8 The EPM was used to address these barriers to care by providing education on pain management, including safe and appropriate use of opioids and collaborative discussions to address systemic issues. Early involvement of hospital administration was crucial in obtaining support. From this foundation, pain management practice was strengthened through multimodal protocols, implementation of policies, and monitoring of practice.

Measuring results of educational initiatives is challenging. Marun et al7 have used the Kirkpatrick model of evaluation.9 EPM includes a pre- and postcourse quiz and course evaluation. Measurement of behavior changes and results are far more difficult, but the quotations from PNG health care providers speak to improvements in practice and advocacy. It is encouraging to learn that after EPM, health care providers found it unacceptable to allow patients to remain in uncontrolled pain. Future areas for research could focus on patient experiences with pain before and after EPM.

In 10 years, EPM has already been delivered in over 60 countries around the world—a phenomenal achievement but still not enough. Pain management education needs to be included in curricula for training health care providers worldwide. In a systematic review of pain education in medical schools in North America, Europe, Australia, and New Zealand, Shipton et al10 found that 96% of medical schools in the United Kingdom and the United States and 80% of medical schools in Europe lacked compulsory teaching on pain medicine. Briggs et al11 found that medical students in the United Kingdom had less training in pain management (average 13 hours) than students of veterinary science (average 27.4 hours) and physiotherapy (average 37.5 hours).11 The authors comment that this “is woefully inadequate given the prevalence and burden of pain.”11 EPM is now embedded in medical curricula in the United Kingdom, India, and New Zealand; the Foundation programme curriculum in the United Kingdom for postgraduate physicians; undergraduate nursing curriculum in Thailand; and anesthesia residency curriculum in Rwanda.12,13 We believe that EPM should be implemented worldwide in training programs for health care professionals and disseminated extensively among current practitioners. Significant suffering would be alleviated if the course’s key messages were understood and applied. Education is a powerful tool for change. EPM—a short course that teaches interprofessional teams to recognize, assess, and treat pain—is a proven and valuable tool in addressing worldwide suffering from untreated pain.

DISCLOSURES

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REFERENCES


