

## COMMENTARY

### CHRONIC PAIN: MULTIFACETED DISEASE REQUIRING HOLISTIC MANAGEMENT

The International Association for the Study of Pain (IASP) definition of pain as an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage. Chronic pain is that which is persistent or recurrent lasting longer than 3 months<sup>1</sup>. The global burden of pain is enormous and has been increasing. The prevalence among adults worldwide is estimated as 20%. Pain is the commonest reason people seek medical attention and 1 in 10 patients are diagnosed with chronic pain annually<sup>2,3</sup>.

Low back and neck pain have featured consistently as major causes of disability globally, with other chronic pain conditions prominent among the top 10 causes of disability<sup>4</sup>. Chronic pain is associated with the prevalence of chronic comorbidity such as cardiovascular disease, chronic pulmonary disease and mood disorder. It has also been identified as an independent risk factor for all-cause mortality in such patients with comorbidities. The direct health care costs for chronic pain has been estimated to be up to €32 billion in Europe, \$300 billion in the United States and CAD\$ 17.2 billion in Canada. The indirect annual societal costs are estimated to be even higher<sup>5,6</sup>. These factors provide justification for the cogent call for chronic pain to be viewed as a public health priority.

Pain is an experience and not just physiological nociception (perception of a noxious stimuli). Neither should chronic pain be viewed also as an acute pain with an extended duration. The pathophysiology for chronic pain is different from that of acute pain and involves peripheral and central sensitization, altered pain modulation, microglial activation, neuroimmune signalling and neuroplasticity. Genetic, environmental, physiological, psychological and socio-cultural factors determine the risk, degree and time-course of chronification of pain<sup>7</sup>. Chronic pain affects several facets of the patient's life. It is associated with anger, frustration, fatigue, depression, anxiety, poor-quality or nonrestorative sleep, reduced libido, excessive alcohol and drug use which may put a stain on relationships with spouse, family and friends. Chronic pain is also associated with kinesiophobia (an excessive, irrational, and debilitating fear of physical movement and activity) and catastrophizing (an exaggerated negative

orientation toward actual or anticipated pain experiences) which leads to decreases in physical activity resulting in impaired work performance and reduced productivity which negatively impacts on finances. The relationship between pain the mental health is likely bi-directional with anxiety, depression, and catastrophizing beliefs being associated with poor prognosis<sup>8</sup>.

Acute pain is easily assessed using unidimensional tools whilst chronic pain due to its multi-facet effects on patients is best assessed using multi-dimensional tools which explore the impact of chronic pain on various aspects of the patient's life including but not limited to general activity, ability to work / economic impact, mood, inter-personal relationships, sleep, enjoyment / quality of life<sup>9</sup>. A dynamic integration among physiological, psychological, and social factors that reciprocally influence one another can be used to describe chronic pain and its associated disabilities. The biopsychosocial model has been used and proven to be the best model for the management of chronic pain. The diversity of its aetiology and the ramification of the effects of chronic pain makes it impossible for one specialist to adequately manage it.

Multidisciplinary teams are required for the appropriate management of chronic pain. Members of the multidisciplinary team may include Neurologists and Neurosurgeons, Orthopaedists and Orthopaedic surgeons, Anaesthesiologists, Oncologists, Psychiatrists, Nurses, Physical therapists, Occupational therapists, Psychologists/Psychiatrists, Palliative specialists, Social workers, Religious leaders among others<sup>10</sup>.

Due to the complex nature of chronic pain, single treatment modalities usually are inadequate for pain management. Successful treatment regimens often involve pharmacotherapy, non-pharmacological / complimentary methods, interventional pain procedures (Nerve /Regional Anaesthetic blocks, myofascial injections, intra-articular injections, neuro-modulation, spinal cord stimulation) and surgery. Pharmacotherapy may involve the use of traditional analgesics, antidepressants, anti-convulsants, N-methyl D-Aspartate inhibitors, cannabinoids among others. Non-pharmacological complimentary modalities include physical therapy, occupational therapy, psychotherapy, acupuncture,

Transcutaneous Electrical Nerve Stimulation (TENS), hypnosis and relaxation techniques<sup>11</sup>. Chronic Pain is no longer viewed only as a symptom of a disease but as a recognised disease entity codified in the 11th version of the International Classification of Diseases (ICD-11)<sup>12</sup>. The high prevalence of chronic pain and its profound negative socio-economic impact not just on patients but the community and nation as a whole calls for designing of effective and efficient chronic pain management services<sup>13</sup>. The utilization of comprehensive multidisciplinary teams employing a variety of strategies and specialist treatments, has been shown to be a more clinically effective and cost-efficient to management by a single-discipline<sup>14</sup>.

It is thus gratifying to note that the Faculty of Anaesthesia of the Ghana College of Physicians and Surgeons has begun a fellowship programme in Regional Anaesthesia and Interventional Pain Management and the first fellow will be graduating this year. This is the first locally trained pain specialist in the sub-region, an important milestone. Presently only the Komfo Anokye and Korle-bu Teaching Hospitals run properly organised and human resourced pain clinics. It is however, hoped that the Ghanaian health system and institutions will quickly adopt the multidisciplinary approach to the management of chronic pain, facilitate the training of the required specialists, encourage the formation of appropriate teams and establish chronic pain clinics and centre of excellence in chronic pain management.

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