Pain is the precise individualized expressed feeling of every human being whether they need relief from it or not. Since time immemorial hundreds of interventions have been recommended for relief of pain. Yet in this new millennium and in the era of “Evidenced-based medicine”, all the managements of need scientific evaluation by applying highest research integrity before they can be adopted as standard treatment protocol. As “healer, teacher, and preacher”, healthcare providers have the historical role to ensure the superior role of one protocol over another in pain relief as well as safety.

We need soul searching in our standing as of now regarding the genuine problems of individuals presenting with pain. We have to keep in mind that pain management is continually assessed by care-seekers regarding their caregivers by judging their sincerity as well as updated knowledge that builds trust. Effective management of pain can be achieved through sincere evaluation, diagnosis and action plan designed to decrease pain, improve function and positively impact quality of life. Furthermore, to supplement clinical pain management, basic and advanced research play a vital part in patient care through clinical trial, meta-analyses and systematic reviews apart from case reports, case series, and different epidemiological research studies.

What we practice in pain management is an array of problems ranging from back pain, neck pain, cancer pain, fracture pain, neuropathic (nerve) pain or neuropahty, diabetic neuropathy (shooting pains in your feet), thoracic pain, disk herniation, complex regional pain syndrome, osteoporosis and/or arthritis, pain after an injury or surgery, shingles among other ailments. Age old and modern treatments include: comprehensive medication management, epidural steroid injections, nerve blocks, radiofrequency rhizotomy, provocative discography, vertebral augmentation (kyphoplasty), diagnostic imaging, spinal compression, spinal cord stimulation, infusion therapy for pain and spasticity, psychological support and stress management, biofeedback and relaxation therapy, behavior modification, exercise and physical therapy, acupuncture and acupressure, community-based rehabilitation, etc. There is scope of development in each mode of intervention through research and development.

We need holistic primary care approach as the main burden of pain management by default falls on the ever increasing broad shoulder of primary healthcare providers and common over the counter (OTC) drugs are analgesics. The problem is so deep rooted that the self-proclaimed specialists and subspecialists (those have or have not proofs of degree-diploma-certificate-courses) should stop indiscriminate prescription of newer brand names containing newer or older molecules in permutations and combinations. Nobody dares to tell the bitter truth that all the analgesics physiologically constrict the afferent arterioles of glomerulus inside human kidneys and this should be the most important reason not to consume these groups of drugs to avoid impending renal injuries toward chronic kidney diseases leading to renal failure in near or distant future. In the name of immediate as well symptomatic pain relief, the hypocrisy of suggesting analgesics by so-called qualified and unqualified healthcare providers ("quacks") should be stopped unless there are excruciating painful situations destabilizing “activities of normal life”.

In clinical pain management, there is eternal debate of source of pain—body and mind. Health caregivers of all shades-levels-paties are infrequently faced with situations which are purely somatic, rather than hundreds of psychosomatic in origin (and ‘insertion’). To find out “how much pain has been generated from biochemical and physiological activities out of anatomical structures within human tissue-organ-system” vis-a-vis “How much is subjectively assessed by the care-seekers” often puzzles caregivers. Further, pain threshold is variable across sociodemographic as well as socioeconomic strata wherein persons from low socioeconomic strata often do not get time to think of their pain moving in search of square meals.

In the era of evidence-based medicine, old analgesics are not always “Gold” standard molecules. Classical age-old nonsteroidal anti-inflammatory drugs (NSAIDs) are notorious for renal damage. Yet how much safe are newer molecules also need to be evaluated with highest research transparency and show courage to say “no” to all odd requests from pharmaceutical producers. “Claim of superiority” should not end in “blame of inferiority” later after years of use, because at the end of the day the healthcare providers will have to face the wrath of consumer protection legality. Though the drug “thalidomide” has recent reincarnation as the drug of choice of multiple myeloma, yet nearly a century ago it was among few drugs to be declared analgesic with distinct defamation of teratogenicity with disastrous generation of phocomelia.
Research does not mean a desire to get “Nobel”. Any lateral thinking or accepted wisdom outside the glass box of books and literature that has the probability of enriching the ocean of knowledge (not published before in the publication arena is research). While an extensive body of research on pain pharmaceuticals is currently being developed, strong ethical as well legal binding can save human population in the days to come. Plagiarism check software had made sea changes to detect unauthorized replication of previous literature in the time zone when internet is flooded with information and copy-paste has become a common practice as well as art—“receiver of own stolen properties” now declared as self-plagiarism. Punishments for “plagiarism” may be the lifetime lesson for anyone if detected at the right time and right place by right authority.

Ethics in medical research need special attention in the basic philosophy of “what we ought not to do” to be weighed with “what we can do” in the name of research has to be learnt by heart in letter and spirit. Ethics in medical research in pain need special consideration in line with the international streamlining of ethics release of reports after Tuskgee and Nazi unethical researches. Every researcher should be conversant with the process of ethical researches including Institutional Ethics Committee (IEC), informed consent, etc.

There are few points of concern in traditional researches on pain management that marks their outcome analysis with limited generalization across global population.

Firstly, majority of research studies on pain management, those have been reported in the literature are hospital or clinic-based with limited variables and/or limited interventions. We need community-based studies comparing outcomes of different interventions which will be able to truly enrich this field of research in medical sciences.

Secondly, randomized controlled trials with robust samples and multi-centric studies are the need of today. This type of researches can produce data to be generalized across the globe.

Thirdly, women are half of the population of the world, still not only in last century but also in the new millennium, the participation of women in clinical trials had been undervalued with their involvements have been kept minimum in pain cohorts to develop new drugs, disease models, and health-related parameters. In the downstream effect of exclusion of female gender from being research participants, information on pharmaceutical treatment protocols, dosage, and adverse effects may not be accurate for or applicable to a large segment of the population, namely, women. In United States, the National Institutes of Health (NIH) and the Food and Drug Administration (FDA) guidelines have already formalized participation of women in clinical trials as a vital component of researches in the target of evidence-based medicine. Role of genetic makeovers of female gender including downstream hormonal medley blueprint in pathogenesis and salutogenesis of pain has not been thoroughly been studied yet, though literature reported gender specific biological pain modulation systems. In the researches on pain management in India, researchers need to be sensitized to perform subgroup analysis for responses involving female gender and they should prospectively design to evaluate potential sex differences.

Fourthly, similar problem is true of non-inclusion of elderly population also. Globally, people have begun to live longer due to upgraded medical facilities, elderly persons constitute a growing subgroup. It is indispensable that researchers have to rethink the exclusion of the elderly within our population and cultivate ways to answer the emerging trends in life expectancy and disease prevalence with complex medical backgrounds. It is most unfortunate that the clinical trial guidelines also frequently call for exclusions for technical reasons of elderly age groups even when the research question is very much related with elderly population to find ways to delimit the variance in the research data. Women live longer than men and likely consume more of newer molecules, need attention in researches.

Fifthly, the prevalence of poverty in minority groups is linked to an increase in disease burden as they experience adverse social and environmental risk factors. Historically, research data on these subgroups are less due to many hidden agenda except post-market surveillance. This is against the fourth pillar of research ethics, i.e. justice.

Lastly, we need to explore newer analgesic approaches with lesser use of drugs viz hypnoanesthesia that have been proven beneficial in dental pain, labor pain and even neurosurgery that need prolonged analgesia in compromised situations.

A question for sincere researchers come regarding what topics of research do we need in India. In my humble opinion, a clear set of clinical practice guidelines with health service research in the call of the day in India. Further, other than renal failure, cardiovascular complications of analgesics also increasingly being reported. Adverse drug reactions (ADR) on analgesics need to be explored in community-based research in relation to OTC sales.

To sum up, we need to walk around the barriers to in-depth clinical research on the zig-saw puzzle of pain...
management and examine the implications of a research bias for pain management. Pain is the tailor-made feeling of each individual, so conventional protocol based management of modern medicine depicting “common size fit to all” approaches fail and frustrated citizens move from pillar to post in search of answer to their “pain”. We have to find the answer—one way is to conduct researches with logical backbone of empathy. There are innumerable of unexplored opening for potential researches and change of downstream policy with the impending strengths to supplement the knowledge base to block the loopholes in the area of pain management. Then only we will be able to provide critical information to the healthcare providers as well as stakeholders in search of a world of “living with pain”.

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