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Perspective: update on pain education

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Pain education is entering a period of growth and development spurred by many factors, both positive and negative. Inspired by Bonica's vision to "improve the education of health-care providers" [4] yet driven by persistent gaps between practice and theory [10,17,22], many are seeking to advance proficient care of patients with pain, whether as a primary or secondary condition. The passion of 'pain champions', as some are known, is a potent source of energy directed toward effective solutions in both high- and low-resource settings [5,7,20].

For 2018, IASP acknowledges a Global Year for Excellence in Pain Education [6]. This presents an opportunity for pain champions to reinvigorate their efforts, for initiates to engage in and accelerate improvements, and for all to strengthen the identity, goals, and professional culture of pain education. The Global Year Task Force identified several goals to advance pain education, focusing on healthcare professionals, patients, and stakeholders, as well as the need to advance the understanding of pain education research [24]. The goals of the global year arise from a context of IASP's decades-long commitment to pain education, the motivations for these goals are described here in brief.

Pain education for health professionals takes place in many settings, has a variety of purposes, and produces diverse outcomes [7,8,10,14,24]. Educational needs across the breadth of health professions trainees are not well characterized globally, with gaps surmised

from the prevalence of misbeliefs and ineffective treatment outcomes [8,14,17]. Local and regional enhancements in expertise, training, and competence have been noted in specialty journals [15]. A variety of educational models have been proposed, tested, and advanced including pre-licensure preparation, residency training, fellowship programs, and continuing education efforts, incorporating a broad spectrum of clinicians. Ideas regarding excellence in pain education continue to develop but importantly, many pain educators embrace the ideals of interprofessional education for health professionals [2]. Interprofessional education (IPE) occurs when students of more than one profession undertake learning together [18]. Among the goals of IPE is communicating and operationalizing a collaborative treatment program designed to optimize efficacy, recovery, and cost. By contrast, medication-centered management can perpetuate passive treatment patterns and risks increased opioid dependency in some countries [11]. Goals of interprofessional and profession-specific education include preparing prescribing trainees together with other health professions trainees to incorporate pain active and self-management strategies while tempering the overutilization of passive treatment approaches [2]. IPE envisions healthcare professionals working together to build a new culture of pain care, one where each patient and health professions team member is involved in planning how to mitigate pain effectively through a combination of positive lifestyle changes, moderated pharmacological treatment, and active engagement with therapy [19]. To this end, interprofessional pain curricula, related competencies, and design models have developed [2,5]; where implemented, these provide graduates with a foundation to understand and implement collaborative care [21,22].

Because the patient is at the center of all clinical efforts, pain education includes involvement of the person with pain [18]. This extends to patients and providers engaging with and learning from each other, incorporating the patient's support system, and ultimately forging a therapeutic alliance [13]. Through education and engagement as a member of the team, barriers to activity are removed [12]; patients contribute to defining the treatment plan and more effectively engage in managing their pain. Indeed, much of cognitive behavioral therapy, so effective for chronic pain, involves preparing patients to monitor and self-regulate stress while implementing pain self-management strategies [1]. Overall, the orientation toward patient education and engagement in pain treatments that arise from principles of self-efficacy have positive outcomes [14] and are most meaningfully and efficiently implemented by a coordinated healthcare team. Importantly, patient education oriented towards self-efficacy and clinical education of healthcare providers toward interprofessional practice should develop in tandem for the field to move forward most effectively.

Improvements to healthcare do not occur without resources. For this reason, pain education includes the need to inform and advise stakeholders and policymakers, including governmental representatives, NGOs, healthcare systems, patients, caregivers, the public, and providers. Entities potentially driven toward expedient but short-sighted solutions need education about patient-centered health imperatives – balancing relief of pain and restoration of function. Financial support for pain education and research, and public involvement are crucial for changing the current culture and the acceptance of unrelieved pain [1]. The need for more effective approaches is clearly demonstrated by existing solutions that limit access to healthcare while suffering and disability remain prevalent [3,11,17]. At this juncture,

resources and persistent determination to right-size pain education are needed regarding pre-clinical and clinical preparation for healthcare careers. By consistently engaging in joint interprofessional efforts in advocacy, new opportunities arise to advance pain clinical care.

Finally, there is a need to better understand how pain education outcomes are defined, gauged, and implemented for desirable change to occur. This requires pain education research. The challenges here are protean. Conceptual challenges include work to define content, curricula, competencies, and capability, identification of effective yet ethical testing paradigms, and approaches to hypothesis development. Pragmatic challenges include the design of implementation studies, creation and appraisal of outcome measures, data analysis planning, and application of statistical principles. More scholarship is needed including foundational considerations and instantiation of relevant educational paradigms, unbiasing of content, appropriate incorporation of socioemotional competencies including compassion for patients, empathy for caregivers, reliable collegial conduct, and respectful, mutual, appreciation of learners and teachers [16]. Ultimately, providing educational resources and programs across regions utilizing technology may enhance learning globally, but further studies are needed to address potential limitations including the role of local mentors and elimination of biases, implicit or not [9].

The way forward involves continued effort toward an educational frameshift in healthcare entailing awareness that 1) pain care is essential to clinical care, 2) patient engagement as part of the care team rightly reflects each person's human dignity, and 3) coordination of clinical care for patients with both simple and complex pain-associated conditions requires collaboration and awareness that each member of the healthcare team can contribute complementary skills that taken together more effectively reduce pain and improve outcomes. Clearly pain education is needed on all fronts.

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