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Contextualizing and individualizing truth-telling about pain in a tough and unjust world

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Abstract

We consider recent research findings regarding patients' individual pain perception and phenotype, embodied in the altered neural network vulnerability, the result of connatal setup and acquired exposure, to question Dr. Gligorov's inferences. We contextualize Dr. Gligorov's discourse with concrete clinical cases embedded in obstetric anesthesia scenarios, where physicians may knowingly administer placebo pain medication and where truth-telling about pain has important immediate and long-term clinical consequences, in particular during subsequent repeated clinical encounters. Furthermore, truth-telling about pain implies acknowledging the social and economic context in which pain is treated, or more often *not* treated. In particular minorities and indigent populations are routinely undertreated for pain due to structural or individual bias driving cruel healthcare disparities. Finally, we argue that the patients' viewpoint is lacking in this debate at present but all stakeholders' perspective are important in the discussion of truth-telling about pain.

Introduction

With pleasure and delight, we read the target article in the American Journal of Bioethics by Dr. Nada Gligarov, joining basic neuroscience, clinical pain medicine, and bioethics. We want to elaborate on this laudable and remarkable integration with more details on recent pain research concepts on how the measurable patient's individual pain phenotype should inform pain treatment and truth-telling about pain, some of which Dr. Gligarov mentioned in passing. Furthermore, we thought it would be interesting to contextualize Dr. Gligarov's discourse with clinical examples from obstetric anesthesia. Conceptionally, we propose to consider the time domain, namely recurring encounters and prior experiences, which will resonate with the patient previous truth-telling and pain experiences. Last but not least, we feel truth-telling about pain must consider the persistent and pervasive healthcare disparities in pain medicine. This leads us to inquire about the perspectives at the receiving end of truth-telling about pain, the patients concerned.

Pain phenotype and learning pain pathways

Dr. Gligarov presented an excellent and engaging summary of how expectation, appraisal and attention impact personal pain perception in the moment to motivate her discourse about truth-telling about impending pain experiences at the bedside. Below, we will explicate recent developments in pain research, in particular regarding the transition of acute to persistent postoperative pain and regarding the individual patient phenotype, which may

allow us to predict who will experience this untoward complication after surgery. A personal passion for regional anesthesia led the author of this commentary to investigate the long-term benefits of regional anesthesia¹. The underlying physiological concept is learning in nociception. The synapsis in the posterior horn, which transmits the signal from the primary nociceptor to the secondary neuron can increase the gain. The barrage of perioperative pain signals can lead to an augmentation of the synaptic strength, inducing hyperalgesia (perceiving pain as more painful) and allodynia (perceiving normal touch as painful)^{1,2}. The unpleasant sensations on donning a shirt after a sunburn is an intuitive example for allodynia many readers may have experienced. Hyperalgesia may be beneficial when it protects a wound from further injury by making it hypersensitive. Central sensitization underlies both phenomena. Central sensitization can lead to persistent pain after surgery. Persistent postoperative pain is frequent and devastating. Regional anesthesia, by blocking pain perception, mitigates the central sensitization and may hence prevent persistent pain after surgery¹. This has obvious implications for truth-telling about pain, as we should encourage patients not to endure pain, but rather to seek effective analgesia, shown to reduce the risk of persistent postoperative pain. More importantly however, not everybody is equally likely to experience this transition from acute to persistent chronic pain³. Psychological traits, for example catastrophizing and quantitative sensory testing have been demonstrated to predict the experience and responses to pain, both acute and long-term³. The observed responsiveness to pain varies significantly between individuals as a result both of innate genetic predisposition as well as acquired exposures like trauma, surgery or stress during sensitive vulnerable periods (Figure 1)². The interaction of congenital setup and acquired experiences may lead to altered network vulnerability³. So when Dr. Gligarov postulates that the pain experience is predictable, we have to concur, but caution that predicting the individual response is difficult and may require psychological and phenotype testing³. When Dr. Gligarov proposes that physicians should set expectations and help to reappraise the pain experience, we concur, but encourage to consider the perceptual priming and the effects of truth-telling and this pain experience on future encounters. We will try to contextualize this argument with concrete cases.

Contextualizing the ethical discourse

As an anesthesiologist with an interest in acute perioperative pain, I had a hard time to conceive clinical scenarios in which a physician would knowingly give a placebo to his or her patients, while pretending to administer a veritable effective pain killer. Admittedly, in clinical research, patients often do not know if they receive the experimental or the inert comparator treatment, (while the providers may not be blinded), but presumably Dr. Gligarov's argument was about clinical truth-telling, not research ethics? While we are looking forward to learn about some clinical cases Dr. Gligarov might have had in mind, we discuss obstetric anesthesia practice, in particular labor analgesia. Here the consideration for safety of the child to be born may induce caution, because pain killers given to the mother, can cross the placenta and lead to intra-uterine compromise or postnatal respiratory depression in the child. In a critical phase of labor, a physician may conceivably administer a placebo to the patient, telling her the injection would alleviate her pain, to comfort her, while coaching her through a situation difficult for her, when the administration of effective pain

control (e.g. a labor epidural) is for whatever reason impossible at that moment in time. In fact, obstetric anesthesia is arguably the realm where anticipation of, and preparation for pain are routine practice, e.g. in birth preparation classes. Here reappraisal of the meaning and situation are paramount, for example when we inform the patient before her cesarean section that despite her spinal anesthetic, the extraction of the child from the uterus will be painfully uncomfortable, albeit brief, and that this is the very moment we have ask the mother to work with us, while we all work together to deliver the baby safely. While this concrete realization of the theoretical situation posited by Dr. Gligarov seems to support her argument, there is reason to pause. A significant number of parturients experience the birth of their child as traumatic⁴ and as a consequence many women opt for elective cesarean section, with inherent comorbidity of its own. Our point is that untreated or excessive pain can and will have consequences in the future, during repeat encounters and situations. Persistent postoperative pain and elective cesarean section secondary to birth trauma illustrate our point. Without even touching on the intricacies of agency, capacity, ascent and consent in minors, just as an illustrative example of the consequences of truth-telling about pain on subsequent encounters, we propose to finally consider a child about to have a painful procedure, say a blood draw. If we lie about how painful the experience will be, an obvious consequence could be that the child may distrust the providers in subsequent encounters. So even in the face of benign intentions, the long-term sequelae of (not) telling the truth about imminent pain should be considered.

Healthcare disparities in pain medicine

A discussion on truth-telling about pain would be incomplete without addressing the grave and unfair disparities in perioperative⁵ and chronic pain medicine⁶. Having explained above how cultural differences, individual physiological and psychological traits can predict individual pain experiences and responses, opens the door to the fallacies of race and ethnicity as presumed justification for “different but equal” pain treatment⁷. First of all, there is the ecological fallacy, i.e. incorrect inferences about the pain responses of individuals deduced from responses predominant in the group the individual is presumably member of. Analogous yet more important is the empirical observation that differences between individuals within a race are much larger than differences between races⁷. Both errors may translate to implicit bias, for example assuming that a young patient presenting with pain in the emergency room is likely suffering from either a sickle cell crisis or drug withdrawal, solely based on the patients darker skin color. Or in more plain terms, racism and bigotry often interfere in the idealized patient-physician relationship Dr. Gligarov describes and may become an unholy influence in their discussion of what pain the patient should expect and tolerate, as both the patient and the provider come with baggage of bias and prior experience from similar encounters that may color their perspective, cloud their judgment and drive their experiences and responses⁸. These are among the any mechanisms driving unjust and intolerable disparities in pain medicine⁹.

Eliciting and integrating stakeholder perspectives in bioethics

What is missing from Dr. Gligarov’s and our expose above so far are the voices of the people at the receiving end of truth-telling about pain: our patients. Empirical research

demonstrated repeatedly the diversity of perspectives among stakeholders, often contingent on their prior exposure to and familiarity with the subject matter¹⁰. For example institutional review board members are often at odds with research participants regarding ethical issues concerning capacity of people living with drugs and risk associated with their use¹⁰. In conclusion, we propose to conduct empirical work to investigate how patients feel regarding truth-telling about pain, for example how they might experience the administration of a placebo presented to them as an active pain killer, how helpful they found the efforts of physicians to reappraise the pain when only the patient felt it and how they perceived the power balance in the physician-patient relationship, in particular if there was a incongruence in socioeconomic, racial or cultural background.

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Figure 1.

An individual's perception of pain is predisposed by genotype, gender and intrauterine exposures. Surgery, stress, trauma and illness can modify and alter this conatal setup during vulnerable periods, leading to perceptual priming. Innate setup and acquired mechanisms interact with psychological response pattern to form the individual person's unique pain phenotype.