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PHARMACY STUDENTS VISIT TO INDIA SHEDS NEW LIGHT ON THE UNDERSTANDING OF OPIOID EPIDEMIC IN USA

In the United States, abuse of opioids has become a serious healthcare problem. In 2015, the opioid epidemic claimed about 52,000 lives in USA. The abuse of these pain relievers is estimated at 4.6% of the total population of the USA.¹ During our advanced pharmacy practice rotation, we became aware that even though India is a much larger country, with much less stringent pharmacy practice regulations and the involvement of well-trained pharmacy professionals, the extent of opioid problem in India is negligible compared to the USA. In this article, we share our perspectives for these differences and discuss the learning opportunities from the Indian setting that will help in our goal to decrease the opioid epidemic in USA.

While the documentation regarding drug transactions in India needs significant improvement, based on the most reliable data, opioid addiction occurrence is around 0.7% of the Indian population.² NSAIDs are used as first line treatment for all types of pain, except for the most severe conditions and neuropathic pain. Unlike in the United States where opioids are given in excess to someone coming out of a simple surgery, say wisdom teeth extraction, a NSAID rather than opioid would be prescribed in India for post-procedure pain. Based on conversations with pharmacy students and other healthcare professionals, these NSAIDs work well for pain in those individuals.

As available healthcare resources in India are less and patients are economically constrained compared to patients in the United States, the lower costs of NSAIDs are a significant contributing factor for its preference over opioids. The second major reason that NSAIDs are more commonly prescribed for Indian patients may be the ability of this population to tolerate pain and one's perception of pain as a result of environmental conditions. In the United States, safety is emphasized and implemented in all walks of life, partly as a result of increased awareness and partly due to the fear of liability. In turn, we have fewer injuries and lower incidences of pain for patients in the USA, but unfortunately fewer pain experiences also lead to lower tolerance to pain. The average citizen in India suffers various degrees of injuries on a periodic basis and, with limited availability of strong pain-relieving medications, develops better tolerance to pain over time, which results in a greater responsiveness to pain medications when they are actually used. Direct marketing of drugs to patients in the US and the pharmaceutical firms profit motives also plays a major role in promoting opioid use and addiction.

Another major factor might be relating to culture. In the United States, patients are much more likely to pop a pill to treat their various ailments. In the fast-paced US, with ability for instant gratification in every sphere of life, convenience of quick onset pain relief with opioids is very appealing to patients. However, in India, for most patients, the first line of treatment typically doesn't not involve a prescription medication. Many Indians, both because of cultural traditions and cost constraints normally choose a lifestyle modification or herbal product to combat their ailment rather than a prescription pill.

Influence of ancient Indian traditions on patient behavior was further confirmed in our next stop of our pharmacy practice rotation— an Ayurvedic Medical School. Ayurveda – meaning “knowledge of life”, is the traditional form of Indian medicine. In Ayurveda, the underlying cause of most diseases is attributed to the disturbance in state of balance, or “dosha”, in an individual. Treatment often involves returning the patient to balance by way of modifying the patient's diet, lifestyle, exercise, including yoga, and use of selected



herbs. Pain treatment in a purely Ayurvedic setting, for both acute and chronic pain, was devoid of the use of opioids or NSAID's and relied solely on herbal medication from the likes of boswellia, ginger, and other unique herbs. Our interview of patients undergoing such treatments and the physicians prescribing these treatments reported satisfactory outcomes. We were also informed that the opium plant was banned in India and disregarded in favor of an herbal approach to pain management. For pain therapy, in addition to the oral consumption of herbal medications, oil massages were performed which aided in the efficacy of the treatment.

The limited use of opioids was witnessed while rounding with the physicians and other medical/pharmacy students at the Bangalore Baptist Hospital. We noted that at the urban clinic, a local dentist would complete tooth extractions and only prescribe a NSAID for pain, as previously mentioned. In contrast, patients are more likely be discharged with a prescription for 20 tablets of hydrocodone/acetaminophen after getting a wisdom teeth extraction in the United States. In many situations, the pain from the procedure will resolve after a few tablets, leaving the extra tablets in the hands of the patient. As a result, the opportunity presents for the drug to be misused by the patient or even misused by others with access to the drug.

Pain treatment throughout the world is a highly debated and controversial issue in the field of health, especially when dealing with opioids. With the Center for Disease Control recently releasing their updated guidelines on the prescribing of opioids and our current opioid crisis in the United States, the discussion on this topic will not likely come to a close in the near future.³ However, a common belief among healthcare professionals is that an effective and efficient pain management option needs to become available for those that opioids are either ineffective or inappropriate.

While we may not have found a solution to opioid addiction in our journey, we became acutely aware that we in US overuse opioids when pain can be adequately controlled for comparable conditions in India with NSAID's. We also became more aware of the holistic

treatment options available in Ayurveda. We hope to share our awareness in our practice of pharmacy and patient counseling to make our contribution in decreasing the opioid epidemic in US.

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