

Development of Alternative Medication Development and Reducing the Risk of Opioid Dependency and Overdosing

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Reducing Opioid Dependency Confluent with Alternative Medication

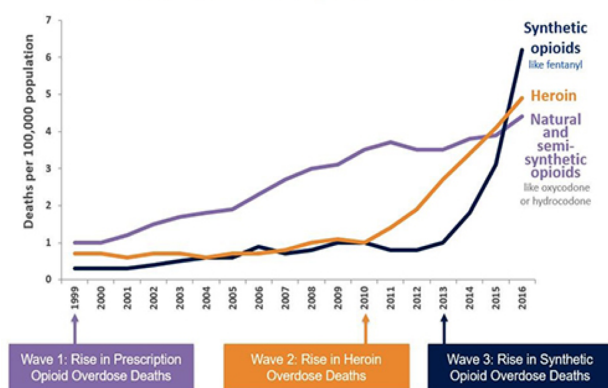
Opioid overdose is an imminent threat to the public's health, and addiction is quickly becoming a nationwide and global epidemic. Opioids are associated with significant adverse health consequences, estimated to be used by roughly 275 million people worldwide, approximately 5.6 percent of the worldwide population. In the past two decades, unparalleled access to prescription opioids such as hydrocodone, oxycodone, and fentanyl has led to a full-scale epidemic (Hawk, 2015). This statistical measure relates to 31 million people who are active drug users that suffer from drug abuse. With this accounted for, opioids are continuously leading the nation in deaths, as 76 percent of fatalities were drug related (U.N., 2018). Many countries are failing to provide adequate drug treatments and health services to reduce the harm caused by drugs, failing to offer alternative medications and reduction methods to help dependent users. With little to no recognition, the opioid crisis that the world is facing reached a record number of deaths each year, roughly 450,000, decreasing the life expectancy for the last two consecutive years in the United States (U.N., 2018). Many strategies and research are trying to conduct and implement new policies and therapies for users, though little progress has been noted since 2015. Primarily, prevention and access to treatments are sought after, though alternative medication and dependency reductions have made little progress. There will be attention to the development of alternative medication and reducing the risk of opioid

dependency as sought-after complementary measures are looked upon in overcoming addiction and deaths.

Reducing the risk and prevention

As the notable opioid epidemic confronts the global headlines, the epidemic is not slowing down. Afton Wagner, former senior manager of federal affairs & pharmacy initiatives at HIMSS, a global cause-based organization focused on health through information and technology, established that death tolls would increase without drastic reduction measurements. It is crucial for researches and policies to analyze the root cause of the opioid epidemic. New prescriptions are made without complete testing or finalizations, resulting in doctors and patients to believe that many medications were non-addictive. This statement was later determined misleading as many of the medicines had severe side-effects or addictive properties. Leading to a large over prescription for patients, in 2015 "there were enough opioids prescribed to keep every American medicated around the clock for three weeks straight" (HIMMS, 2018). The CDC and the Prescription Drug Monitoring Program (PDMP) are working on innovative approaches to "Prescription Medication Monitoring's," to instill knowledge and mandates in federal legislation for opioid treatments and reductions. In the 2017 Governors Letter to the Presidents Commission on combating drug addiction and the opioid crisis, the first points included curbing the overprescribing of opioids, increasing emphasis on recovery, as well as increased awareness of the epidemic (HIMMS, 2018). The key areas which the commission looked to create initiatives for were decreases in fatal overdoses and users, primary preventions, increase access to treatment, and hard reduction strategies. Providers are able to review a patient's history of controlled substances and prescriptions to determine whether the patient is receiving dangerous medication or opioid strength dosages. The CDC is fighting to implement a mandatory computer system for prescribers to check every prescription once every three months to keep a tentative watch on the use of the drug. This system, "allows providers to identify patients who are obtaining opioids from more than one provider and thus might be receiving high total daily doses of opioids. It identifies patients who are being

3 Waves of the Rise in Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

prescribed other substances, such as benzodiazepines, that may increase risks associated with opioids. (CDC)

Health IT and the PDMP programs are an essential part of the solution in solving the epidemic. Reducing the time and resources for multiple accounts, pharmacy's management systems will have an integrated platform for all physicians to understand and manage. This implementation of policy benefits the fight in decreasing the number of individuals who abuse opioids, reducing the number of new opioid abusers and by increasing engagement of current users in effective specialized treatment programs (NCBI, 2015). Educational interventions for primary prevention and target high-risk individuals help reduce the number of individuals who are at risk for fatal overdose or further addiction. States such as Main or Florida have anonymous "take back programs" where large quantities of medications are recovered by family members or outside aid and sent the drugs back via the mail-in programs. Drug Enforcement Administration (DEA) has conducted nine country-wide medication take-back days since 2010, in which pharmacies and hospitals can accept and collect unused medications, resulting in the collection of 2,411 tons of controlled medications (NCBI, 2015)

The urgent surge in reducing opioid use and increase in prevention has also incentivized health care providers to charge a larger deductible for medication claims if a pattern of abuse starts to show. This is legal on the base that many health care providers require patients to have a "pain contract." These contracts can have stipulations towards the amounts of medications prescribed by implementing urine drug testing, routine prescription monitoring programs, and "dry" periods where users are not able to purchase or stockpile medications. Forty-nine states have either implemented or are working legislation to implement PDMP's as research has come to prove that these programs do change the prescriber's behavior.



Alternative medications do exist and are made for alleviating pain, just as an opioid would. Opioids do a poor job managing many types of pain, as explained by Roy Soto, M.D., Beaumont

anesthesiologist and member of the Michigan Prescription Drug and Opioid Abuse Commission. Dr. Soto says, "opioids do nothing to alleviate menstrual cramping pain caused by dilation and curettage procedures, or procedures are done on the kidneys, bladder, and uterus" (Beaumont, 2019). Procedures that are invasive require medication post-surgery. Clinicians and the U.S. Department of Health and Human Services are working to develop and encourage practiced physicians to alleviate the ve amount of prescriptions written, leading them towards recommending nonsteroidal anti-inflammatories, acetaminophen, and others. Notable research has been done that recognize serotonin and norepinephrine reuptake inhibitors actin appropriate for treating nerve, muscular, and skeletal pain. A reuptake inhibitor is a known drug that inhibits the plasmalemmal transporter-mediated reuptake or a neurotransmitter from the synapse into the pre-synaptic neuron (Mayo, 2018). As the opioid crisis infringes upon the country, parents are concerned for the wellbeing of their children and how their child might handle such strenuous doses of medication.

As millions of people suffer each year in pain, and thousands annually become dependent on opioid-based drugs, new alternatives are progressing in the market and are viable options for many users. The American Society of Anesthesiologists and the CDC have partnered in developing guidelines for non-opioid treatment plans for minimizing pains; headaches, back pain, recovery from surgery, sports injuries or accidents. There are some over the counter medications such as ibuprofen (Motrin), acetaminophen (Tylenol), and aspirin (Bayer). On a holistic approach to recovery and pain management, non-drug therapies that can be done alone or with professional assistance are; physical therapy, acupuncture, nerve blocks, radio waves, eclectic signaling, and stimulation. In this list of alternative practices, many patients have reported a significant relief in pain and irritability. Over five-percent of patients who used medication as their primary source of treatment that switched to alternative non-opioid treatments have reduced their dependency and pain levels (Wiley, 2012). Physical therapy is used as a person who specializes in medicine and rehabilitation, creating programs to help you improve your functionality while decreasing pain. Many athletes and physicians will recommend physical therapy as a recovery and nonopioid based treatment from the physical aspect of recovery, and there are minimal medications to take and get dependent on. Physical therapy is a wholesome approach as the determination in a person will help avoid wanting to take any foreign substances. Nerve blocks are small doses of numbing medication that blocks and dampens the pain, stopping chronic pain and

dependability of drugs as the blocking helps stimulate the receptors. This type of treatment is a new-age therapy that is used by pain medicine physicians, localizing the initial area of irritation. Isolating the problem allows a patient not to take an opioid that has many side effects and alters other parts of the body, such as motor skills, and cognitive response. A new technology along with nerve blocks are electrical signals. Electrical signals "Transcutaneous electrical nerve stimulation can provide short-term pain relief, especially for various types of muscle pain, by sending low-voltage electrical signals from a small device to the painful area through pads attached to the skin" (ASA). As the opioid epidemic is climbing to a national and worldwide high the CDC and other civic organizations are on high alert, demanding research to be done, minimizing the number of prescriptions written and how many people are taking medications.

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