**Opioid Addiction in Ohio and the Increasing Healthcare Cost**

**Introduction**

 Overdose deaths have been on the rise in the United States, and Ohio is one of the places that have recorded a high increase. In 2017, Ohio was ranked the second in terms of high overdose deaths behind West Virginia. The numbers are still high in 2018 meaning that the problem is still rampant in the state (Buchmueller & Carey, 2018). Data shows that unintentional drug overdoses was the main cause of 4,050 death in Ohio, which represents a 32.8 percent increase compared to 2015 that recorded 3,050 overdose deaths (Strategies and policies to address the opioid epidemic: A case study of Ohio, 2017). The use of opium in Ohio has become an epidemic that has significantly affected the nature of child abuse and neglect issues in the state.

A survey by Public Children Services Association of Ohio showed that approximately a third of children in custody belong to parents who use or used opium. Such children spent a median of 240 days in incarceration (Fairbairn, Coffin & Walley, 2017). The damage caused by opiod-abuse has been recorded to be significantly high when compared to other substance-related cases. Children of parents using opiates are suffering more because of their parents’ irresponsibility towards them and other members of society.

The personal and social costs of opioid addiction and abuse are significantly high and negatively affect on society, the users, friends and their family members. Therefore, coming up with strategies to help address the opioid crisis is a public health issue as well as a significant social and economic issue (Gagliardo, 2016). The costs associated with opioid addiction are generally distributed across four categories: criminal justice costs, healthcare and treatment costs, lost productivity among abusers, and lost productivity of drug overdose deaths.

The addiction to opioids including heroin, and synthetic opioids such as fentanyl is a crisis in Ohio that affects public health as well as social and economic welfare of the state.

**Opioid Addiction**

**Drug Addiction**

Drug addiction is also referred to as substance use disorder. It is a disease that is chronic and which affects the brains’ reward structure (Kolodny et al, 2015). It causes the affected person to compulsively seek and use a certain drug or substance despite its harmful consequences. It can also be described as the physical as well as psychological need of continuing to use a substance despite the substance being harmful or having effects that are dangerous.

The cause of drug addiction is neurochemical reactions that result from the introduction of particular substances to the brain. Addiction affects and impairs the judgment ability, physiological independence as well as the emotional well-being of a person (Gagliardo, 2016). In overcoming addiction, therapeutic intervention is required and continued support from a specialist in addiction.

**Causes of addiction**

Addiction is a mental disorder. Similar to other mental health disorders, the development of drug addiction is contributed by several factors with core factors being the environment and genetics (Kolodny et al, 2015). Some of the environmental factors include the beliefs as well as attitudes of one’s family and being exposed to a peer group that abuses drugs as they play a role in encouraging the use of a drug. These environmental factors contribute to the initial stage of using drugs. There are those who develop addiction due to traits that are inherited (genetic). These genetic traits delay or fasten the progression of drug addiction disease.

**Brain changes**

Physical addiction occurs when using a drug repeatedly results in changes in how the brain of the user feels pleasure. Some nerve cells or neurons in the brain undergo physical changes from the drug that is addicted to (Gagliardo, 2016). Neurons make use of chemicals that are known as neurotransmitters when communicating. The changes that have been caused by the drug on the neurons may remain for a long time even after one has stopped using the drug.

**Risk factors**

Drug addiction can occur to persons irrespective of their age, economic status or gender. There are some factors that affect addiction possibility as well its development speed (Kolodny et al, 2015). The history of a family concerning addiction is one of the factors. Some families have a tendency of being addicted to drugs more than others because of genetics are. The possibility of a person developing an addiction when his or her blood relative for instance a parent is under addiction is very high.

A disorder of mental health can cause drug addiction. Disorders such as depression, disorder of post-traumatic stress or disorder of hyperactivity/attention-deficit can contribute to drug addiction (Buchmueller & Carey, 2018). Persons with such disorders use drugs to deal with the painful feelings that are associated with them such as anxiety, loneliness and depression resulting in addiction.

Peer pressure also causes drug addiction. It influences persons to start using and misusing a drug especially the young people. In addition, when the family is not involved chances of drug addiction are high (Fairbairn, Coffin & Walley, 2017). Situations in families that are difficult or when someone lacks a bond with his or her parents or siblings, the risk of drug addiction may be high for balancing their emotions. Addiction can also be high when there is no supervision from parents.

Early use of a drug can also lead to drug addiction. Use of certain drugs at an early age such as opioids triggers development of some changes in the brain, which increase the possibility of development of drug addiction (Gagliardo, 2016). Highly addictive drugs can also cause addiction. Drugs such as stimulants, opioid painkillers or cocaine develop addiction at higher rates. Injecting drugs or smoking increases addiction potential.

**Signs and symptoms of addiction**

The development of addiction is when a person is mostly dependent to a drug physically, emotionally and psychologically. Characteristics of drug addiction include an inability that is chronic of someone not being able to stop or abstain from using a certain drug (Gagliardo, 2016). The addicted person also develops continuous cravings for a particular drug.

There is also the symptom of the impairment of behavior or not being able to control the use of a drug. Another sign one is the use of a drug continuously despite its harmful consequences (Buchmueller & Carey, 2018). The user cares less about the consequences of the drug even if they are damaging. When the particular drug that is abused is removed, the addict displays emotional responses that are inappropriate and dysfunctional.

**Effects of addiction**

Drug addiction causes short and long-term effects. For instance, methamphetamine, opiates and cocaine can cause seizures, psychotic behavior and death when overdosed (Penm et al 2017). Flunitrazepam and GHB cause loss of memory, confusion and sedation. They can cause comas, seizures or even death when overdosed.

Molly (MDMA) causes dehydration and seizures. Their long-term use results in brain damage. The forms of drugs found in the streets and those that are manufactured illegally contain substances that are not known (Gagliardo, 2016). These substances can be toxic to the body. The toxicity nature of inhalants may cause brain damage of various levels.

**What opioids are**

Opioids can be defined as a class of drugs that are used in controlling and managing pain. These drugs contain synthetic or natural chemicals that are morphine based which is an active component of opium (Kolodny et al, 2015). Opioids can best be described as the chemicals that have a tendency of binding to the receptors that are associated with pain, behaviors that are addictive and reward in the brain and the body. The medications of opioid are used by the providers of healthcare in relieving pain that is chronic which less powerful drugs cannot treat. When used in a proper way, opioids such as morphine help in relieving pains such as those experienced after a surgery or advanced stages of cancer or chronic pain that is not associated with cancer. They reduce pain within a short time.

Those that want to use them for long-term purposes have to undergo screening and monitoring. This is because if they are used for a long time, they are likely to lead to addiction disorders, abused or those using them giving them to others (Gagliardo, 2016). Some of the common examples of opioids include heroin and medications that are related with narcotics such as oxycodone, morphine, methadone, buprenorphine, codeine and fentanyl. Some of the disorders related with the use of opioid include overusing them, misusing them and overly depending on them. They include opioid intoxication, opioid use disorder and opioid withdrawal.

**Why opioids are addictive**

Opioids produce endorphins that are artificial in the brain. Endorphins are hormones of any peptide group that are found in the brain and which act as neurotransmitters (Buchmueller & Carey, 2018). They have same properties as those of morphine. These artificial endorphins that are formed by opioids are responsible for the production of warm and good feelings in the person using them in very early stages of their use. With time, the brain is tricked by the opioids to stop producing these endorphins in a natural way. At this point, the user of the opiates turns to using them so as to experience the positive feelings. The user easily turns to relying of the drug for the positive feelings and this explains why they are very addictive.

**Children of the Ohio Opioid Epidemic**

**Ohio's foster care system**

The crisis of opioid in Ohio is overwhelming its foster care system. This is because of the high number of children that are being removed from homes of their parents that have been addicted to opioids (Penm et al 2017). The number of children that are under foster care is increasing each year. For instance by the end of 2017, approximately more than 15,500 children were in foster care. This number had risen from 12,600 in the year 2013. This is according to a report from the Public Children Services Association of Ohio (PCSAO).

According to the report, by 2020, the state is planning of placing more than 20,000 children in foster care. This rising trend of children under foster care is due to the increasing opioid epidemic (Buchmueller & Carey, 2018). The increased use of opioids has resulted into the abandonment of children by their parents. Others have been left as orphans as result of their parents dying due to overdose of opioids. For instance, in the County of Franklin in central Ohio, in most of the children were put under foster care in 2017 were from parents that had a problem of drugs. Of the drugs that were identified, half of them were opioids (Gagliardo, n.d.).

**Ohio children neglected**

Many children are being neglected by their parents in large numbers in the state of Ohio. This is evident with the high number of children in foster care and this continues to strain the budget of children services (Buchmueller & Carey, 2018). Statistics from PCSAO indicate that by December 2017, the number of children that were spending their holidays in foster care had increased from the previous year. PCSAO indicated that most of these children had watched their parents overdosing or dying (Pidcock, 1991).

Most of these children miss milestones with their families for instance birthday parties and other important holidays. In addition, their parents relapse is making them to stay for longer in the foster care systems (Buchmueller & Carey, 2018). Half of the kids that were placed under foster care in 2015 were taken from a parent that used drugs. The use of opioid use in parents as a factor for foster care accounted for 28% of the children in foster care in 2015. Most agencies of children reported a number that was higher than that of the state of children whose parents use opioids. The agencies spend a lot of funds in taking care of these neglected children because foster homes are less in number and they are full in capacity.

**Lasting emotional effects on young children**

The emotional effects that children face because of opioids affect them over a long period of time. The effect is as a result of prenatal exposure (Fairbairn, Coffin & Walley, 2017). Such children face neonatal abstinence syndrome (NAS) which is characterized with tremors, poor feeding, excessive crying and breathing that is rapid. There are young children that have witnessed their parents overdose the opioids and dying. This affects them and destabilizes their emotions for a longtime. The children also face abuse from their parents, which affects their emotional state.

**Health care costs**

**The economic cost of the opioid crisis**

The use of opioids continues to strain the budgets because of the high costs of taking care of the children in foster care. More than half of the funding that is used on children under foster care comes from the levies of the county and the local government (Fairbairn, Coffin & Walley, 2017). Ohio provides $45 million for children services. Due to the straining of the funds, the lawmakers added $15 million on top. However, the placement costs of foster care have alone increased by $45 million since 2017. The high number of deaths and parents who use opioids continues to trigger the number of children under care hence the high costs.

**Naloxone**

This is a drug that rapidly reverses the overdose of opioid. It is an antagonist of opioid implying that it binds to the receptors of opioids and has the ability of reversing or blocking the effects that are caused by opioids (Fairbairn, Coffin & Walley, 2017). This drug quickly restores the respiration of a person having slow breathing caused by heroin overdose or medication of opioids to normal. It can also reverse extreme drowsiness that is caused by opioids. The drug can be injected or sprayed into the nose of the affected person.

**Government solutions to the Opioid Epidemic**

**Sensitization and awareness**

The public should be sensitized on the dangers that are related with the use of opioids. This will make the public to realize the dangers that they face (Penm et al 2017). This will help in discouraging them to use them. The public should also be sensitized to avoid stigmatization those addicted. This will enhance their coming out for help.

**Prevention from addiction**

More people should be prevented from getting addicted to opioids. For instance, in 2016, prescription of opioids resulted in 11 million Americans abusing them (Buchmueller & Carey, 2018). Heroin was used by almost a million people. Those that developed disorders related from opioids prescription were 2.1 million. These numbers can be reduced through cautious prescribing. Statistics indicate that millions suffer from addiction but its only 1 in 10 that gets treatment. Therefore, for those already addicted, outpatient treatment should be made easier in terms of access and effective than opioids prescription, fentanyl or heroin. This will reduce disorders related to opioids prescription and heroin.

**Availability of naloxone and Emergence responders**

Naloxone should be made available to the medical providers in high amounts to take care of the emergence cases of overdose. Those responding to such emergences should adequately be equipped with this drug (Penm et al 2017). The drug should also be made available to people that are likely to experience an overdose.

**Cooperation**

The crisis of opioids is public health problem that is complex. It requires the attention of all the stakeholders (Kolodny et al, 2015). It requires the efforts of the federal, state as well as the local governments and partners outside the government in addressing this crisis. Government agencies, providers of healthcare, the industry of medical products, policymakers, patients as well as their families must coordinate in addressing the crisis.

**Conclusion**

 The use, addiction and trade of opioids including heroin, and synthetic opioids such as fentanyl is a major problem in Ohio. This issue negatively affects public health, social and economic welfare of the people in the state. The opioid epidemic of Ohio has serious had serious negative effects particularly on parents using them and their children thereby causing a strain on Ohio’s foster care system. This has also caused a negative effect on the affected child’s mental state because of the experiences they go through. The costs associated with opioid addiction are broadly distributed across four categories mentioned above. Proper control and interventions of opium use is required to provide a long-term solution. The effect of opiod-abuse in Ohio has been clearly documented and required the input of different stakeholders, such as the government, individual people, the healthcare system, and community based organizations, religious institutions and childcare institutions among others to find a proper solution that would reduce or end the effect that it has on society.

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