The Ethical Implications and Benefits of Supervised Injection Facilities

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Three million US citizens currently struggle with opioid addiction and 500,000 are addicted to heroin (Azadfard et al., 2021). One possible solution to combat the opioid epidemic is supervised injection facilities. Supervised injection facilities are a place where people who use drugs can safely administer pre-obtained drugs while being watched by trained health professionals (Levengood et al., 2021). They are also a form of harm reduction because they seek to reduce negative consequences that may occur. Injection facilities are a controversial topic and have only been established in Europe, Australia, and Canada thus far. The Canadian facility has been widely successful. Proposed benefits have also been examined in the United States through secret facilities and data analysis. Even though many people are against supervised injection facilities their counterarguments are not supported by evidence. In the United States, the main challenge supervised injection facilities are facing is the legality of them. Facilities in the United States would help to decrease the opioid mortality rate. Supervised injection facilities would be beneficial in the United States because they are ethical, decrease overdose deaths, and decrease health disparities in this population.

First and foremost, what is opioid addiction? Opioid addiction is a psychological disorder in which one becomes reliant on the drug to achieve a sense of euphoria or pleasure (Azadfard et al., 2021). As one continues to use, higher doses of the drug are required to achieve the same effect. This phenomenon is called tolerance. Tolerance is a normal physiologic response that the body has, but in those who struggle with addiction, it is achieved at a much faster rate. When one takes an opioid, it enters the body and binds to the mu, kappa, or delta receptors in the central and peripheral nervous system (Azadfard et al., 2021). The drug binds and produces effects such as pain relief, cough suppression, and decreased GI motility. It also produces a euphoric effect. Over time, continued use of opioids leads to a change in the receptors in the brain and peripheral

nervous system (Azadfard et al., 2021 The receptors become less sensitive, and more drug is required to achieve the same euphoric effect. This creates the tolerance that can progress to addiction. There are many risk factors that can predispose someone to opioid addiction such as being prescribed opioids at a young age, family history of drug or alcohol abuse, or other psychological conditions. In 2017, opioid overdose was declared a national emergency (Azadfard et al., 2021). Opioid overdose occurs when one ingests or injects too much medication, and it causes respiratory depression. Respiratory depression is a respiratory rate of less than twelve breaths per minute. A normal respiratory rate is twelve to twenty respiration per minute. This is a medical emergency that if not quickly reversed can be fatal (Azadfard et al., 2021). An antagonistic medication called naloxone is used to reverse respiratory depression caused by opioids.

For those who try to withdraw from opioids, they are presented with many withdrawal symptoms. Some of the withdrawal symptoms include tremors, nausea, vomiting, tachycardia, dehydration, anxiety, sweating, and generalized muscle pain (Azadfard et al., 2021). If not managed properly, withdrawal can also lead to death. It is important for those seeking to withdraw to receive medical attention. Healthcare providers can provide methadone or buprenorphine for those withdrawing from opioids (Azadfard et al., 2021). Methadone is a mu receptor agonist that can be gradually tapered down until withdrawal is complete (Azadfard et al., 2021). Buprenorphine is a partial mu agonist and kappa antagonist that can also be used (Azadfard et al., 2021). For many, withdrawal or cessation is not an option. Research has proposed harm reduction as a strategy from combating opioid use and addiction.

Harm reduction seeks to meet people where they are in their journey. It has been defined as, "…any policy, procedure, or intervention with a primary goal to reduce the adverse health,

social or economic consequences of drug use without necessarily reducing drug consumption" (Verrarier, 2019). Harm reduction focuses on prevention of harm, not abstinence. Prevention of harm in people who use drugs includes helping combat skin infections, bacterial infections, and overdose deaths (Verrarier, 2019). Researchers have also found a decrease in HIV infections with utilization of harm reduction strategies. In countries that utilized needle-syringe programs, there has been a 5.8% decrease in HIV infections (Wilson et al., 2015). Needle-syringe programs are an example of a harm reduction strategy. The United States has been opposed to these strategies and has spent millions of dollars on abstinence strategies and strict enforcement of drug laws (Verrarier, 2019). This has led to an even larger opioid epidemic. Prisons are overwhelmed with people serving sentences for drug charges, and health disparities in these populations are rapidly increasing. The United States needs to implement harm reduction strategies to see an improvement in the opioid epidemic. Harm reduction measures are also cost-effective and provide healthcare to an underserved population (Wilson et al., 2015). Around the world, many countries have successfully employed harm reduction strategies such as needle exchange programs, naloxone distribution, and education (Verrarier, 2019). They have seen a reduction in opioid related deaths. Research has shown that the most successful harm reduction strategies use a combination of multiple types (Wilson et al., 2015). Supervised injection facilities implement various harm reduction strategies such as needle exchange and education. Many countries have also implemented supervised injection facilities and found them to be successful. Supervised injection facilities are a form of harm reduction that often face backlash over ethical principles.

One of the main arguments that supervised injection facilities face is about whether they are ethical. The four main domains of ethics are beneficence, autonomy, nonmaleficence, and

justice. Beneficence is defined as promoting good in others, and autonomy is defined as allowing people free will over their decisions (Verrarier, 2019). Nonmaleficence means to provide no harm and justice is focused on equal treatment of individuals (Verrarier, 2019). Is it ethical to watch someone shoot up with drugs even though they are harming themselves? These ethical terms can be looked at from two different viewpoints: the clinical ethics perspective and the public health ethical perspective. The clinical health perspective focuses on the individual and argues that harm reduction measures such as supervised injection facilities provide autonomy to the individual and promote their well-being (Verrarier, 2019). The public health perspective examines the benefits to the community (Verrarier, 2019). It argues that supervised injection facilities are ethical because they provide disadvantaged community members with resources and seek to close the health care gap.

Allowing one the decision to use or not use drugs promotes autonomy. In those who struggle with addiction, autonomy is typically lost (Verrarier, 2019). Supervised injection facilities aim to give autonomy back to this population by allowing them a safe space to make their own choice (Verrarier, 2019). The person is allowed to make a choice that corresponds with their goal at the time. By allowing the individual to make their own choice, we enable the ability for them to make other choices such as choosing to seek treatment or reduce drug use in the future. The public health perspective focuses on the influence of autonomy on others (Verrarier, 2019). It looks at the effect that people who use drugs have on the community. Do they cause harm or unsafe environments in the community? If they do, what lengths do we go to limit personal autonomy? Harm reduction measures and supervised injection facilities seek to decrease the harm provided to the community while allowing the individual autonomy

(Verrarier, 2019). Autonomy is lacking in this population and supervised injection facilities allow us to safely return it while minimizing harm to others.

Nonmaleficence is the most difficult ethical principle to justify. Supervised injection facilities seek to provide no harm and through research, they have demonstrated that they decrease harm. Arguments focused on supervised injection facilities being unethical focus on how they may encourage people to use and use more frequently. However, it has been found that they do not increase use. They decrease drug use. Studies have also found the injection facilities do not attract first time drug users despite that being a large concern (Verrarier, 2019). Individuals are also benefited by supervised injection facilities but do have the potential for harm. The benefits to society greatly outweigh the potential negative effects on the individual. Another specific concern in supervised injection facilities is the use of naloxone and whether this causes harm to the individual. Naloxone is an opioid antagonist that is used to reverse an overdose. Naloxone acts quickly but has a short lifespan in the body. Individuals often need more than one dose of the medication to reverse an overdose. There are concerns with naloxone providing false hope that the one is in the clear. Despite this being a concern with nonmaleficence, research has found that it prevents more opioid overdoses, and that adequate training of supervised injection employees can minimize the false hope effect (Verrarier, 2019). Another way to examine nonmaleficence is through the lens of the benefit to the individual versus society. This is the approach that the clinical health perspective seeks to examine. Supervised injection facilities greatly benefit society by decreasing medical costs and reducing crime (Verrarier, 2019). What effect does normalizing drug use and implementing harm reduction measures have on adolescents? Researchers have found that adolescents seeing needle and syringe programs and other harm reduction services had no effect on their opinion of drug

use or even deterred them further from drug use (Verrarier, 2019). Overall, no harm has been demonstrated to the individual or community through implementing supervised injection facilities and similar harm reduction strategies.

Beneficence has been demonstrated in supervised injection facilities through clinical ethics because they provide individuals with clean needles, community resources, and naloxone if needed (Verrarier, 2019). Injection facilities allow people who use drugs to have decreased risk of harm. Research has found that those who use supervised injection facilities have decreased skin infections from needles (Verrarier, 2019). Many injection facilities also provide resources such as tests for HIV and Hepatitis C, counseling, referrals to treatment programs, and education on safer practices for using (Verrarier, 2019). Individuals have a better and safer quality of life with access to these programs. The best way to provide beneficence to these individuals is through abstinence, but for many, this is not desired or attainable. Meeting individuals where they are with supervised injection facilities helps promote beneficence. Research from the clinical health perspective has also supported that supervised injection facilities enable beneficence. Decreased risks of infection have been found in the communities where various facilities have been instated (Verrarier, 2019). Facilities also allow for proper disposal of needles and drugs which benefit the community (Verrarier, 2019). Less drugs are found in the community.

Supervised injection facilities provide and enable justice in this population in various ways. Clinical health ethics focuses on how people who use drugs are often unable to access health resources, unsure of how to gain access, or unable to afford access (Verrarier, 2019). This is unjust because these people have unequal access to healthcare. Supervised injection facilities aim to close this gap and provide justice to this population. They provide individuals with basic

healthcare services and education. Public health looks at how injection facilities contribute to societal justice by ensuring everyone has access to healthcare and overall cost effectiveness (Verrarier, 2019). It also looks at the benefits of these programs financially. These programs decrease financial cost related to drugs such as hospital and incarceration costs (Verrarier, 2019). Lastly, the public health framework examines the general public's perspective on providing solutions such as harm reduction and supervised injection facilities. These solutions promote community and replace the framework of punishment and criminalization which divide community members (Verrarier, 2019). These facilities promote justice which has been demonstrated through numerous facilities around the world

Worldwide there are currently 177 supervised injection facilities (Davidson et al., 2021). There are currently none legally operating in the United States. The first facility to open in North America was Insite in Vancouver, Canada in 2003. Insite faced extreme backlash before it opened its doors in 2003 (Boyd, 2013). Research from Insite has been resoundingly in support of supervised injection facilities. There has been less public use of drugs and less syringes found on the streets. It has also improved the immediate surrounding areas outdoor spaces by making it much cleaner (Boyd, 2013). In a 2006 journal, researchers stated that there had been 300 total overdoses at the facility, but none had led to death (Boyd, 2013). Workers at Insite were able to administer naloxone and provide medical care, preventing overdose of these 300 individuals. Use of Insite facilities has also been found to increase the likelihood of an individual to enter a detoxification program (Boyd, 2013). Insite provides individuals with education on the different options that one has. They allow the individual the autonomy to make their own choice. In 2007, the Canadian government did their own research on Insite to examine the effects on crime and the area surrounding Insite. From their research, they found no correlation with Insite increasing

crime in the area (Boyd, 2013). They also found that many residents in the area viewed Insite positively. In 2011, the Canadian government conducted a trial on Insite and as to whether it should remain open. The judges all unanimously voted that Insite should remain open (Boyd, 2013). Evidence demonstrated that Insite provided multiple benefits to individuals who use drugs and the community.

Supervised injection facilities have been found to have a multitude of benefits. Data comes from the facilities around the world and demonstrates the benefits. Individuals using the facility have a decreased risk of mortality (Levengood et al., 2021). For example, there was a "26% net reduction in overdose deaths in the area immediately surrounding a SIF in Vancouver, Canada after its establishment compared with that in the rest of the city" (Levengood et al., 2021). Facilities provide individuals with trained medical professionals who can intervene if needed. Naloxone can be administered by a trained individual if an overdose occurs. Supervised injection facilities also provide users with clean needles, therefore decreasing the risk of skin infections (Levengood et al., 2021). Researchers found a 49% decrease in developing skin infections in users who used supervised injection facilities (Levengood et al., 2021). Skin infections are common on the street where needles are shared. Workers at the facilities, provide the individual with a clean needle. The use of clean needles also helps reduce the overall infection rates in the community. Another benefit of supervised injection facilities is that individuals who present with skin infections at the facility have decreased lengths of hospitalization (Lloyd-Smith et al., 2009). This is because the nurse at the facility can treat the infection initially. In a study examining the most common issues that nurses were utilized for at facilities, 65% of visits to the nurse were related to skin infections (Lloyd-Smith et al., 2009). Consequently, this reduces the cost of healthcare for the individual. Research on existing

supervised injection facilities has also found that individuals who use supervised injection facilities are more likely to utilize addiction and counseling services at the facility. In a study at a supervised injection facility, individuals who frequently used the facility had a 1.4 to 1.7 increased likelihood of accessing addiction services (Levengood et al., 2021). In another study at a facility in Spain, frequent SIF users were two times more likely to access addiction services (Levengood et al., 2021). Since supervised injection facilities don't focus on getting people to refrain from using drugs, these options and services are there with little pressure. Facilities meet people where they are at and provide them with education and information. If they are interested, facilities also provide individuals with education about how to inject safely. Staff encourage individuals to only inject in places where they know naloxone is available in case of overdose (Irwin et al., 2017). Individuals are also taught to only inject a small amount of the drug initially to see if the drug has a different effect than normal (Irwin et al., 2017). This helps reduce mortality because individuals can figure out if they have a pure or mixed drug. Data from a survey at the facility in Sydney demonstrated that 80% of supervised injection facility users changed their injection practices based on education they received at the facility (Irwin et al., 2017). Supervised injection facilities reduce harm and provide this population with endless resources. They also have many benefits to the surrounding community.

Benefits to the community are decreased costs of healthcare and increased safety. Supervised injection facilities decrease the cost of healthcare because they allow for proactive measures to be utilized with people who use drugs This results in less unpaid emergency room visits which reduces the cost of healthcare. Data from the site in Sydney, Australia has also found that there were less ambulance calls and emergency room visits relating to drug overdoses in the area surrounding the facility (Irwin et al., 2017). This resulted in a decrease in healthcare

system costs. Opening of facilities have also been found to increase safety in the surrounding area. In a 2017 research study in Vancouver, the area surrounding the supervised injection facility had a decrease in crime compared to the rest of the city (Levengood et al., 2021). People who use drugs now have a place that they can go instead of using on the streets. Many of the areas where facilities were opened also saw decreases in needle litter on the streets. Individuals who use supervised injection facilities are more likely to dispose of needles safely (Folch et al., 2018). In Vancouver, they noticed this trend in the neighborhood surrounding the facility. Residents in Sydney, Australia also saw a decrease in individuals injecting drugs on the street after the opening of a supervised injection facility (Levengood et al., 2021). The community of individuals who use drugs also benefits because they have access to medical care. Mental health and other community resources are more readily available to individuals at these facilities. This population oftentimes faces disparities in access to healthcare services. Injection facilities can provide a wide variety of these services to these individuals at their convenience. Data from a facility in Australia found that seventy percent of people who used the supervised injection facility had never accessed health care services in their life (Longnecker, 2020). These facilities help to close a large health disparity that exists in the community.

Benefits in the United States are very similar to those seen abroad. In an undisclosed location in the United States, a supervised injection facility was opened. Participants were selected via invite-only based on their involvement in the nonprofit organization. The invitations were capped at 60 individuals (Davidson et al., 2021). The facility had six areas where people could inject their drugs. Staff members were not allowed to handle any of the drugs that were brought in but were able to provide clean needles. The specially trained staff members received education on how to intervene in the event of an overdose. Naloxone and other overdose

monitoring equipment was also present in the facility. In the first two years that the site was open, 2,574 injections occurred at the site and two overdoses were reversed with naloxone (Longnecker, 2020). Researchers who opened the facility studied the crime in the area and found no increase in drug related crimes after opening the SIF and no increase in crimes of any kind (Davidson et al., 2021). This demonstrates that supervised injection facilities do not increase crime. “Ninety two percent of participants” who use the facility also said that they would have injected in a public place had the facility not been accessible to them (Longnecker, 2020). Therefore, the facility is also decreasing public injections. Supervised injection facilities such as this unsanctioned one have similar results to facilities that were observed in Canada and Australia.

In looking at theoretical benefits of a facility in New York City, numerous benefits are proposed. The total annual cost of opioid overdoses in NYC for the health care system is forty-one million dollars (Behrends et al., 2019) If a facility were placed in a NYC neighborhood where there are high rates of drug use, it is estimated to reduce the percentage of overdose by 6-12% (Behrends et al., 2019). That would be nineteen to thirty-seven less deaths per year (Behrends et al., 2019). The facility would also reduce the total health care costs by $831,700 per year. If four facilities were place in NYC, there would be an estimated 2.9-5.7-million-dollar savings each year (Behrends et al., 2019). Placing a facility in New York City would decrease health care costs and reduce mortality. Researchers didn’t examine other benefits such as a reduction in crime and skin infections which also most likely would be observed. This research study shows that a city like NYC could greatly benefit from a supervised injection facility.

Despite there being multitudes of evidence about the benefits of supervised injection facilities, there are still many counterarguments. The counterarguments are not factual and come

solely from a place of fear and lack of education. One popular counterargument focuses on how supervised injection facilities would make the opioid epidemic worse. The US Attorney General from 2017-2019, Rod Rosenstein was a strong adversary to injection facilities. He opposed opening of supervised injection facilities and stated that they would "make the opioid crisis worse," "normalize drug use," and "encourage addiction" (Longnecker, 2020). Data shows that this is false. Supervised injection facilities lead to more people seeking addiction treatment (Irwin et al., 2017). They also do not make the crisis worse. Evidence has shown that by implementing these facilities, there are less overdose fatalities (Levengood et al., 2021). Another counterargument is that people who do drugs and deal drugs will be drawn to the area where supervised injection facilities operate (Davidson et al., 2021) Research from Canada & Australia has demonstrated that this is not an evidence-based concern. There has been no increase in crime or drug incidences in the area surrounding supervised injection facilities (Davidson et al., 2021). Another popular counterargument is that the data that has been collected should not be generalized to the United States, as we have a different culture and socioeconomic population. The data from the unsanctioned site in the United States shows that facilities in the US would have similar results to facilities abroad (Davidson et al., 2021). The last common counterargument is that money and resources should be used to get individuals to abstain from drugs and not keep using them (Zlotorzynska et al., 2013). Evidence has found that trying to get individuals to abstain doesn't promote autonomy and has made the opioid epidemic worse (Verrarier, 2019). People who use supervised injection facilities also have increased likelihood of using addiction resources (Levengood et al., 2021). Despite, there being a vast number of concerns and arguments against supervised injection facilities, they are a product of

misinformation. The number one issue for supervised injection facilities in the United States is the legal hurdles.

The main problem with opening facilities in the United States is the government's firm stance on them. There are two main legal challenges that supervised injection facilities face. The first is the possession of a controlled substance. Possession of a controlled substance is illegal, and violators are charged with simple possession (Longnecker, 2020). This is a concern for supervised injection facilities because it would be an easy place to catch people with drugs, as people are coming to them to inject. Another concern is that employees at supervised injection facilities would be charged with possession (Longnecker, 2020). Employees are not supposed to touch drugs that individuals bring in but could be subject to a constructive possession charge. Constructive possession means that one has knowledge of a controlled substance being there and has some sort of control over it (Longnecker, 2020). Constructive possession would be difficult to prosecute but is a concern of many who are trying to open these facilities. The second legal challenge that supervised injection facilities face is the crack house statute. The crack house statute allows prosecution to anyone who operates or facilitates drug use (Longnecker, 2020). Supervised injection sites may potentially fall under this category. To challenge these laws and open facilities, states need to exercise their power and challenge the federal government. States do have the ability to open supervised injection facilities because they have police power. Police power means that states can do something if it allows for better health and safety of their residents (Longnecker, 2020). The problem is that supervised injection facilities still break federal laws so they would be subject to federal persecution. The best solution is for states to create their own legislature relating to operation of these facilities.

In conclusion, supervised injection facilities have a tremendous impact on the opioid epidemic. In all the areas where facilities have been implemented, they help to reduce the morbidity and mortality rate. They also provide relief to the healthcare system by decreasing medical costs and hospitalizations. Ethical analysis has shown that despite backlash, they are ethical and allow individuals autonomy, justice, beneficence, and nonmaleficence. Lastly, they decrease health disparities in a population that lacks access to healthcare.

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