

To Implement or Not to Implement:
Safe Opioid Injection Sites as Solution to the Opioid Crisis

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Abstract

The opioid epidemic has been a crisis in the United States for the last 30-40 years but is just now being popularized by the American public. One potential up-and-coming solution to the opioid crisis is the implementation of safe opioid injection sites, which are locations where individuals may bring drugs to inject under the supervised care of medical professionals. They are currently being used in Canada as well as several Western European countries. The question remains, however, as to whether or not the United States is ready for the implementation sites in regard to public opinion, finances, and ethics.

To Implement or Not to Implement:**Safe Opioid Injection Sites as a Solution to the Opioid Crisis****Introduction**

The opioid crisis in the United States is an epidemic that has incited fear in many Americans within the last 10 years. However, the problem began much longer before, and many solutions to correct this problem have been attempted throughout the years. One of the more recent solutions to the opioid crisis is the development of the supervised safe injection site, a facility that allows “people to consume pre-obtained drugs under the supervision of trained staff, designed to reduce the health and public order issues often associated with public drug consumption” (Drug Policy Alliance, 2020, para. 1). Essentially, these sites provide a safe environment for individuals to consume drugs via the provision of sterile materials, administration of first aid, and correction of overdoses if necessary (Drug Policy Alliance, 2020). While there are currently not any of these facilities legally sanctioned in the United States, other countries such as Australia and Canada claim to provide overwhelming evidence for the efficacy of these sites, and the United States is jumping on the train as well (Nadelmann & LaSalle, 2017). In fact, multiple states such as New York, Pennsylvania, Washington, and California are all pushing for legislation, to legalize said facilities in hopes of reducing opioid overdoses, with support for these growing rapidly. However, there are many implications and facets of these sites that must be considered prior to approving them as an appropriate mechanism for handling the opioid crisis. Among these concerns are the efficacy of the sites, the readiness of the United States for the implementation of the sites, how the sites would change the role of the healthcare providers, and the ethics of implementing the sites.

Background: The Opioid Crisis

Despite the surge in American concern with the opioid crisis in the last 10 years, the epidemic has actually been occurring since the 1980s in 3 distinct phases (Dasgupta et al., 2017). In 1980, opioid narcotics were frequently prescribed for the treatment of acute pain, which incited fear as drug-related overdoses and injuries increased in occurrence. Thus, the United States responded with implementing behavioral and cognitive therapies and restricting the prescription of narcotics to treat pain (Dasgupta et al., 2017). However, this ended up being extremely problematic, because 10 years later in 1990, it was revealed chronic pain was being severely undertreated. In response, pharmaceutical companies took advantage of the opportunity and began to manufacture a variety of new formulations of pain medications to manage patients' chronic pain. As these new narcotic medications were developed, pharmaceutical companies underemphasized the abuse potential for the drugs, physicians prescribed them without necessarily having a good medical basis for doing so, and non-opioid medications began to be withdrawn from the market (Dasgupta et al., 2017). This characterized the first phase of the opioid crisis with the over prescription of opioid narcotics.

The second phase of the opioid crisis began in 2010 and was characterized by a surge in the number of heroin-related overdoses. This is potentially linked to two different aspects: an increase in susceptible individuals and the change in the formulation of OxyContin (Dasgupta et al., 2017). It is believed after the first opioid crisis, individuals who became tolerant to the effects of those medications and who were physically dependent on the drugs, instead of continuing to pay for the more expensive, less potent options, turned to heroin, a cheaper and more potent opioid (Dasgupta, et al., 2017). Additionally, in response to the first opioid crisis,

pharmaceutical companies manufactured a version of OxyContin that made it impossible to crush and shoot up, and these companies strongly encouraged healthcare providers to readily prescribe this new formulation. Thus, it became much more difficult for individuals to abuse, potentially causing people to turn to heroin as well.

Finally, the third phase began in 2013 and is currently ongoing. Individuals afflicted by this third wave of the crisis are those who abuse fentanyl and synthetic derivatives (Dasgupta et al., 2017). Rather than the blame being placed on the over-prescription of opioid narcotics, in this phase, most individuals who come in for treatment state they were using heroin beforehand. Regardless of where the blame lies, this crisis is not one to be ignored, as between 2013 and 2016, the number of fentanyl and fentanyl-derivative-related deaths skyrocketed 540% (Dasgupta et al., 2017). This is a staggering statistic that requires intervention. The United States has implemented many responses to the opioid crisis in an attempt to decrease the number of overdoses. These measures include responses from organizations such as the National Academy of Medicine, revision of the National Pain Strategy, working with Medicare and Medicaid Services to reach their clients who struggle with opioid use disorder, enhancing the educational tools made available by the Centers for Disease Control and Prevention, and legislation put forward by both the Trump and Obama administrations (Gross & Gordon, 2019). Despite these steps, the opioid crisis is still rampant, and many states are beginning to push for legislation to legalize supervised safe injection sites. Whether these sites are a wise implementation at this time for the United States, however, is to be determined, and there are many factors to account for when considering the site as a potential harms-reduction strategy.

Safe Opioid Injection Sites

What They Are

Supervised safe opioid injection sites are locations in which patients and clients are able to abuse illicit substances and opioids under the supervision of medical care (Alcohol and Drug Foundation, 2020). These locations are implemented worldwide in developed nations and go by many different titles, including safe consumption sites, safe injection sites, supervised injection facilities, drug consumption rooms, and overdose prevention sites (Barry et al., 2018). Regardless of the name by which each site goes, they serve the same function universally. According to the Drug Policy Alliance (2020), these supervised consumption services seek to provide a safe, medically supervised location for individuals to come and use illicit drugs. These locations are also safe from prosecution, so the medical personnel and clients are outside the realm of the law. The individual obtains the substance(s) prior to arriving at the facility. Once the client is at the facility, the client receives sterile medical supplies (such as needles and syringes) and is permitted to enter a room, typically private, and inject the drugs with the provided supplies. The medical staff at the location are there to answer questions regarding safe injection practices; monitor the clientele for signs of overdose; and administer lifesaving first aid such as oxygen, naloxone (an opioid-reversal agent), and other resuscitation efforts in the event of a client overdose. Additionally, the healthcare providers onsite can direct patients to support groups as well as rehabilitation facilities if that is something the client wishes to pursue. The medical personnel are not responsible for assisting clients in injecting substances nor providing substances for the clients to inject (Drug Policy Alliance, 2020).

Where Safe Injection Sites Are Currently Implemented

Safe injection sites are currently being used throughout many developed nations worldwide, including Australia, Canada, Denmark, France, Germany, Luxembourg, the Netherlands, Norway, Spain, and Switzerland (Drug Policy Alliance, 2020). One of the most studied safe injection sites opened in Vancouver, Canada, in 2003 (Ng et al., 2017). Since its opening, a study has been conducted to determine the efficacy of these sites as they relate to mortality rates, ambulance calls, and disease transmission (HIV and hepatitis C). For this specific site, it was found after the opening of the site, overdose deaths decreased from 253 to 165 out of 100,000 within 500 meters of the safe injection site, resulting in approximately 1 death per 1,137 people being prevented annually. The decrease in the number of opioid-related overdoses, however, was limited to the 500-meter perimeter surrounding the facility. Regarding disease transmission, it was determined only 9% of the site users were admitted for skin conditions to hospitals as opposed to 15% admitted prior to the site opening. Although supervised injection site nurses referred more opioid abusers to a hospital, after the opening of the site, the length of hospital stay decreased by 8 days. Finally, the average number of monthly ambulance calls in which naloxone was administered for opioid-overdose reversal decreased from 27 to 9 (Ng et al., 2017). There have been no fatal overdoses reported since the opening of the site in 2003. At first glance, it may seem this site provides several benefits, but there are several limitations as well, including that all of these statistics are limited to the immediate area around the site. They cannot be linked to the remainder of the city, much less the remainder of the country. Thus, it is difficult to universalize these sites or justify their implementation outside of the local area.

The Medically Supervised Injection Centre in Sydney, Australia is an additional heavily studied safe injection site. This Centre, however, has slightly different results presented than the location in Vancouver. According to Dertadian & Tomsen (2020), Sydney first experienced dramatic drops in localized opioid-overdose-related fatalities; ambulance callouts were decreased by 68%; and fewer individuals used illicit drugs and discarded needles in a public setting. The statistics, however, have not remained that way. In fact, from 2006 to 2015, the number of opioid-related deaths has doubled, increasing by approximately 172 deaths from one year to the next. This is believed to be partly related to the increase in available synthetic opioids but also to the lack of accessibility to the Medically Supervised Injection Centre. It is believed drug abusers in close proximity to the site have a greater advantage, and those who live more remotely from it have decreased access. Because the site is located within the inner city, many individuals who live in the suburbs are fearful of experiencing crime and violence if they come to the inner city in hopes of using the Centre. Thus, there has been a calling for an additional supervised injection site that is more accessible to the individuals who live in the suburbs (Dertadian & Tomsen, 2020). The call for a second site may seem a bit unnecessary. The first site was only effective for the first few years of its use in decreasing opioid-related deaths, as those numbers skyrocketed in the subsequent years. Thus, there does not seem to be enough evidence to support the opening of a second site. It is also important to note, much like Vancouver, the positive results that were produced from this site originally are limited to the very close area surrounding the site, meaning they cannot be universalized or expanded to the remainder of the country and continent because results are highly individualized when it comes to these sites. Thus, it is important to remember that, when considering the implementation of supervised

injection sites, positive results from one area may not necessarily be generalized to the area of potential integration.

The Efficacy of Safe Injection Sites

One of the most important questions to ask regarding the implementation of safe injection sites is, do they actually work? Although there are multiple operating sites throughout the world, it is quite difficult to determine whether or not there is enough evidence in literature to support a more generalized, standardized implementation of safe injection sites. Many of the sites in operation serve a localized community, such as those discussed above in Vancouver, Canada, and Sydney, Australia. Thus, it is highly population based. Despite being focused on distinct populations, the majority of operating sites report the same numbers, including decreased length of stay in local hospitals, decreased opioid-related overdoses, and decreased incidences of naloxone use on ambulance calls (Karamouzian et al., 2017). Additionally, the implementation of safe injection sites in other countries appears to have decreased incidences of human immunodeficiency virus (HIV) and hepatitis C as they pertain to the use of unclean needles and syringes as well as needle sharing. In addition to the safe needle use, it appears as though there has been a significant decrease in the public injection of drugs and an increase in the safe disposition of needles and syringes after use. Statistically speaking, there is a great deal of evidence to support, for the most part, that safe injection sites achieve their objectives. These results, again, are limited to the communities in which they were studied (Karamouzian et al., 2017).

Karamouzian et al. (2017) also describes support even further for implementing a safe injection site as it relates to addiction treatment. In fact, multiple studies across Canada,

Denmark, Germany, and Australia determined that individuals who go to the sites are more likely to seek treatment via detoxification programs as well as are more likely to receive referrals to addiction treatment facilities. The important concept to note here is that, through the injection site, the root cause of addiction is addressed (even if not prioritized), which is often overlooked by those in opposition to safe injection sites (Karamouzian et al., 2017).

An additional consideration regarding the efficacy of safe injection sites is the mental health and well-being of the individuals who choose to use the sites. Kappel et al. (2016) conducted a qualitative study to analyze the health and well-being of Danish individuals who utilized drug consumption rooms. Although safe injection sites can have negative connotations surrounding them, there is much evidence in support of the importance of a positive healthcare provider-patient relationship. In fact, according to Molina-Mula and Gallo-Estrada (2020), a positive nurse-patient relationship affects the care provided throughout the time spent in a facility, including autonomy, decreased length of stay, and increased quality of and satisfaction with the care provided. Thus, that relationship is incredibly important. Kappel et al.'s (2016) study revealed that the safe injection sites provided a safe space for the clients who utilized them and that the healthcare providers were not judgmental but accepting. Within the drug consumption rooms, the clients did not feel the shame that is experienced elsewhere because of how the healthcare workers treated them, facilitating a positive care provider-patient relationship. Because of this positive environment, clients were better able to trust the healthcare providers when being educated, care providers were better able to prevent and treat overdoses, and care providers could refer patients to treatment and detoxification facilities when necessary

(Kappel et al., 2016). Essentially, safe injection sites appear to have the capacity to do more than just lower statistics.

Despite the apparent efficacy of safe injection sites, it still appears there is a deficit of information and literature to support a generalization of them to other locations. In fact, Caulkins et al. (2019) acknowledge this fact in a study conducted to analyze the existing literature regarding safe injection sites and their efficacies. They state that although there have been millions of uses at the sites and no deaths secondary to overdose, it is difficult to determine if the sites would be beneficial due to the fact that they are only implemented at the local population level. Additionally, there is a significant limitation in the literature due to the low number of sites studied and evaluated (Caulkins et al., 2019). The apparent deficit in the literature is also acknowledged by May et al. (2019). One of the largest concerns for May et al. (2019) in the evaluation of safe injection sites is the lack of randomized controlled trials that have been used in the process. Randomized controlled trials are of the highest experimental design and provide some of the strongest support for evidence, something that would be incredibly useful in determining whether or not to implement a safe injection site. However, the strongest evidence for the sites has been the quasi-experimental design, which does not allow for a researcher to ascertain the causal evidence that would be necessary to most accurately assess whether or not the sites are efficacious and worth implementing. May et al. (2019) also notes this lack of certain and substantial evidence is already having implications, as sites are not readily being popularized and implemented on a larger scale. This can be seen specifically in areas such as the United Kingdom and the United States who, despite several other developed nations having implemented the sites in local communities, have currently decided against the

implementation of the sites (May et al., 2019). Thus, it is important to maintain a great deal of caution when considering these sites because, despite evidence for efficacy existing, it is still fairly limited in its scope.

Readiness of the United States

Community readiness and receptiveness toward the implementation of safe injection sites is also a key factor in determining whether the United States should move forward with this. As with any new initiative or program, the most important step is assessing the needs and desires of the community, because, if the community is not prepared, then the initiative will not be successful (Evans-Agnew et al., 2016). The community, in this case, is the population of the United States. First, it is important to note there are already several states seeking approval for the implementation of a local safe injection site, including New York, Pennsylvania (which has already received approval for a pilot site), Washington (which has received approval for two pilot sites), and California. Thus, the idea is already in the heads of the governing authorities of certain states in the United States, and it is likely that if it is implemented in one, others will follow. However, there are other considerations to keep in mind regarding the readiness of the United States.

Readiness for Change

Prior to taking any further action toward the implementation of safe injection sites, it is incredibly important to assess whether or not the American public would be receptive toward such a move or whether something such as this would be feasible. To begin, there is no doubt Americans are aware of the opioid crisis and how it has afflicted the United States, touching many individuals personally. Through several public opinion polls, it has been found the

majority of United States people are receptive to the increase of general community-based initiatives as a response to the opioid crisis (Cook & Worcman, 2019). This may demonstrate a potential attitude of readiness toward change.

Unsanctioned Safe Injection Site

In addition to the general positive attitude toward community-based initiatives, there are a few other indications that could demonstrate a potential readiness for the implementation of safe injection sites in the United States. First, there is the opening of an unsanctioned safe injection site that is already in operation. According to Kral and Davidson (2017), in September 2014, a social service agency, with the approval of an institutional review board (IRB), opened an unsanctioned site at a nondisclosed location somewhere in the United States. The location contacted the researchers in hopes of evaluating the efficacy of the site since its opening in 2014. The site only allows users by invitation to protect privacy and security and is open for four-to-six hours for five days a week. The site is one large room that can accommodate approximately 60 clients at one time. It operates much like the safe injection sites or drug consumption rooms that are used in other countries; the individual supplies the substance(s), the facility supplies sterile injection tools, a trained professional supervises the room at all times, and once the client is finished using, the facility cleanly and safely disposes of the equipment used. The medical professionals at the facility are also able to administer naloxone in the event of an overdose, perform resuscitative efforts, and provide education to the clients regarding safe injection as well as other harm-reduction efforts (Kral & Davidson, 2017). During the first two years of its opening, the clients have had highly positive things to say about the site. They report that 80% of the time, they feel they have to rush injections when in private areas such as restrooms, which

can cause trauma to the blood vessel. When injecting in the site, they do not feel rushed and are able to use better technique, reducing skin infection and damage to blood vessels. Over 90% of the clients report that if the site was not in operation, they would be forced to use drugs and dispose of the needles in public, including in restrooms, streets, and parking lots. Finally, the site estimates because of its resources and availability, there were 1725 instances of improper, unsafe disposal of needles and syringes avoided during its first two years of operation. The evaluators noted it is likely even more benefits could come forth from the site if it was sanctioned. Currently, the site does not have licensed medical personnel but just individuals who are trained in resuscitative efforts and naloxone administration. Thus, the full benefits of the site may be unknown (Kral & Davidson, 2017). However, although limited in its scope, it seems to be highly effective to the extent that it can be at the current time.

The same evaluators conducted a qualitative study on the participants of the same unsanctioned site mentioned above (Davidson et al., 2018). Davidson et al. (2018) interviewed 23 individuals associated with the facility, including the clients, faculty and staff, and volunteers at the site to determine how the facility impacted their lives as well as how the illegality of the situation affected the ability to provide services at the site. The interviewers determined the facility, though unsanctioned, is able to produce a lot of the same results as sites which are legally sanctioned in other countries. One area of noticeable difference on behalf of the users is the overall well-lit aspect of the site and cleanliness the facility has to offer, something which is seen in legally sanctioned facilities outside of the United States. Several clients commented that because they did not have to rush to inject drugs, the overall condition of their arms was much better than when having to rush to inject in public areas. Other users described the benefit of

learning needle and syringe safety in that there were fewer skin infections and abscesses because of the accessibility of clean equipment. They were able to learn the importance of not reusing the same needles and syringes each time they inject, to not share with other people, and to not dispose of needles and syringes just by throwing them in the trash. They also stated that they had been educated on how to use naloxone in cases of overdose and how to recognize overdose symptoms (Davidson et al., 2018).

Another aspect the clients commented on is the lack of stigma that is associated with the safe injection site. When the clients use in public, they are forced to do it as quickly as possible to prevent people from seeing what is occurring; however, there are instances of being seen by others, accompanied by shaming and stigmatizing. They do not find that to be the case inside the safe injection site. The employees and clients have found a sense of community and understanding; despite the circumstances, they are able to be compassionate toward one another and create an area that is nonjudgmental and accepting (Davidson et al., 2018). They comment that even the illegality of the situation enhances their sense of camaraderie and community. Once again, this concept of community is something that has been found universally among legally sanctioned safe injection sites. Thus, the existence of this unsanctioned injection site and its apparent success and support from those who use it may serve as a signal for readiness for change.

Cost-Benefit Analyses

An additional consideration regarding readiness for change and feasibility is cost of implementing the safe injection sites. Two cost-benefit analyses were created for cities which are seriously considering, and would seem to benefit from, opening the sites: San Francisco,

California, and Baltimore, Maryland (Irwin et al., 2016; Irwin et al., 2017). The first cost-benefit analysis for the creation of a safe injection site was created in 2016 for San Francisco (Irwin et al., 2016). The analysis was conducted on the premise the potential site would be of the same size and capacity as the main facility in Vancouver, Canada, that was previously discussed. The researchers accounted for upfront costs, operating costs, the cost of equipment and staff, and the increased cost of living in San Francisco as opposed to Vancouver. The annual total cost came to approximately \$2.6 million. Though this upfront cost seems high, the analysts accounted for the estimated savings that would come from opening a site, including averted HIV and hepatitis C infections, reduced skin-and-soft tissue infections, averted overdose deaths, and increased medication-assisted uptake, saving approximately \$6.1 million annually (Irwin et al., 2016). Essentially, this would be a major operation to implement as well as an expensive endeavor, likely leading to increased taxes. However, it is believed the perceived benefits of this site would outweigh the cost because, in total, every dollar spent to establish the facility would yield a \$2.33 return and result in several million dollars more saved each year than spent to keep the facility operating (\$4 million net savings). Although this cost-benefit analysis was done for the potential opening of a safe injection site, it yielded very positive and hopeful results regarding the facility's potential success.

Irwin et al. (2017) conducted a similar cost-benefit analysis in 2017 for Baltimore, Maryland. According to the analysts, Baltimore has one of the highest overdose fatality rates in the United States with numbers increasing each year as heroin-laced fentanyl is becoming more easily available and more frequently distributed. The cost of opioid-related overdoses and hospitalizations is quite significant, and it is believed that potentially opening a site in this

location would be beneficial to the community and help to alleviate some of these costs. Much like the cost-benefit analysis for San Francisco, the analysts used the facility in Vancouver as a reference point and model for a potential site in Baltimore in regard to staff, size and capacity of the facility, equipment, and operating cost. They accounted for the upfront and operating costs as well as for the increased cost of living in Baltimore compared to Vancouver. At the conclusion of the study, it was deduced the facility itself would cost \$1.79 million annually and result in a savings of \$7.77 million with the net savings being \$5.98 million. Included in the savings are the prevention of HIV and hepatitis C cases secondary to needle sharing, prevention of hospitalizations secondary to skin-and-soft tissue infections, decreased overdose fatalities, reduced ambulance calls, and increased medication-assisted treatment benefits. The cost of this facility appears lofty as well and would likely increase taxes, but the benefit outweighs the cost again because, in total, it was revealed for every dollar spent to establish the facility, there would be a \$4.35 return, with net savings being approximately \$6 million each year. This is an 87% higher cost-benefit ratio and a 71% higher total net savings in comparison to San Francisco. Additionally, the Baltimore facility is estimated to be significantly more effective in preventing overdose deaths, with an estimated 5.9 lives saved annually in Baltimore and 0.24 lives saved annually in San Francisco. Because of the potential benefits demonstrated by the study, the researchers recommend the consideration of opening such a facility in Baltimore, a fact which those in authority should consider as this idea gains more popularity in the United States.

Barriers to Implementation

Despite indications that the United States is ready for implementing localized safe injection sites, there are significant barriers to this change as well. First, in the United States,

there are multiple legislative acts and federal laws that would conflict with individual states' authorities to establish safe injection sites (Nadelmann & LaSalle, 2017). The implementation of the sites would directly violate federal laws regarding possession of and consumption of illicit substances, thus making it difficult for individual states to implement safe injection sites. Some states and municipalities, however, supersede the authority of the federal government and would be able to establish sites independently, such as Baltimore, Seattle, San Francisco, Philadelphia, New York City, and Ithaca (Barry et al., 2019). Regardless, those individual cities comprise a miniscule portion of the country, creating a barrier to nationalized change. In addition to federal and state laws being in place, there is a great deal of political resistance as well (Kennedy & Kerr, 2017). There are several senators in Congress who are opposed to safe injection sites and have denounced proposed state legislative acts for the legalization and implementation of safe injection sites. Because a change such as this would have to be approved and authorized on the legal side, governing officials would have to be in support, and at the current time, there is too much resistance for such a change to be enacted, thus creating a significant barrier to change (Kennedy & Kerr, 2017).

Despite legal regulations that may cause barriers to change, there is also the issue of the attitudes of the American public toward the implementation of safe opioid injection sites. In July of 2017, Barry et al. (2019) conducted a study to determine what the general American attitude is toward these sites. The researchers selected 10 arguments for and 7 arguments against the implementation of safe injection sites and sent them out in a survey for a total of 1004 respondents. The respondents were asked to rate their agreement with each argument using the Likert scale from 1 (strongly disagree) to 5 (strongly agree). After an in-depth analysis of the

data, the researchers discovered the respondents rated the 7 arguments opposing the implementation of safe injection sites higher than the 10 arguments supporting the implementation of safe injection sites. The respondents also listed their reasons for their ratings of each argument, as indicated by the following paragraph from the study:

The most popular arguments in opposition to legalization were that public funds are better spent on improving opioid addiction treatment (58%) and that drugs used at these sites are illegal (56%). All of the other arguments in opposition to safe consumption sites were endorsed by a majority or near majority of respondents including [the following]: Sites encourage people to continue using drugs (53%), they make it easier for people to use drugs (52%), they would lead to more illegal activity in the neighborhoods where they are located (51%), medical professionals would be encouraging harmful health behaviors like opioid use (50%), and government should not tolerate illegal activity (49%). (Barry et al., 2019).

As the researchers were conducting this research, they ensured the participants were a fair representation of the American public to present the most accurate results possible. Essentially, what they discovered is there is a general hesitancy toward the implementation of safe injection sites for a variety of reasons, including that taxpayer money could be spent on other alternatives and the apparent illegality that the sites would endorse and allow for. The researchers also noted less than half of the total respondents gave support for the arguments in favor of implementing safe injection sites, with the more popular arguments being that the sites would be better for drug abusers than arrests, decrease infections from needle sharing, decrease hospital costs, help connect drug abusers with resources for treatment, redirect law enforcement focus to violent

crimes rather than small drug offenses, and reduce the mortality rate associated with overdose (Barry et al., 2019). Despite the presentation of valid arguments from both sides, the overarching opinion for the general American public is a non-receptive attitude toward the implementation of safe injection sites.

The authors also noted these findings directly correspond with a separate study that was conducted in 2018 which revealed a mere 29% of the United States' adult population would be in support of safe injection sites (McGinty et al., 2018). McGinty et al. (2018) used a similar means of obtaining the data as Barry et al. (2019): via an online survey. Their study surveyed 1429 United States adults using equal probability sampling to ensure the most accurate representation of the American public. Participants were sent links to surveys that were introduced with descriptions of two harm reduction programs: the implementation of safe injection sites and syringe service programs. After the descriptions of each, the participants were then asked to rate their support for those two things via the Likert scale where 1 is strongly oppose and 5 is strongly support. The researchers also asked questions designed to assess the stigmas and prejudices toward opioid abusers. After the study concluded, the researchers determined only 29% of the American public would be in support of the implementation of safe injection sites, and 39% would be in support of legalizing syringe service programs in their local communities. They also discovered those who were in opposition to safe injection sites tended to have more stigmas toward opioid abusers (McGinty et al., 2018).

One interesting fact noted in both studies by McGinty et al. (2018) and Barry et al. (2019) is the responses to the surveys correlate with political affiliations of the participants. Both studies deduced that Democrats and Independents are more likely to be in support of

implementing safe injection sites and other harm-reduction strategies whereas Republicans are more likely to be resistant as well as stigmatize individuals with a substance use disorder. This explains why states which are more left leaning on the political spectrum (New York, California, and Washington) have already begun interventions in support of implementation, such as gaining legislative approval for pilot studies and sites; where there is public support, interventions and policies gain more traction and success. Republican states, on the other hand, are much more resistant. Because of this divide, it is difficult to discuss safe injection sites on a national level. The overarching theme of the attitude of the American public toward safe injection sites is a negative perception of the sites themselves as well as the individuals who would be using them. Should the United States choose to permit legalization of some of these sanctioned sites, those in leadership positions with the authority to approve policies should be aware of the significant barriers to change that exist.

Role of the Nurse

One of the most important considerations as safe injection sites are gaining more popularity as a harms-reduction strategy is how the implementation of the sites will impact the role of and perception of the nurses in the facility. Nurses are among the most trusted individuals: advocates, protectors of rights, caregivers, and so much more. In fact, they have maintained the status of being the most trusted profession for the last several years (Gaines, 2021). How, though, would the implementation of the sites change the role of these healthcare providers?

Gagnon et al. (2019) created a consensus statement to clarify the ambiguity of this by addressing the philosophy of care, framework, nursing role, training requirement, and needs of

nurses within safe injection sites. Despite safe injection sites not being legally sanctioned, the philosophy of care remains the same: promoting harms-reduction strategies and promoting health equity. Nurses are to be nonjudgmental and provide holistic care to patients regardless of the circumstances that bring them into the sites as well as choose to be advocates for patients in regard to health disparities, which cause inequity in the provision of health services. Patients that will enter the sites fall under the category of a vulnerable population, and it is the responsibility of the nurse to protect and to advocate for the patients. Nurses should offer a variety of services in the site and not limit their scope of practice because of the nature of the facility, including providing education, testing, and treatment initiation if this a route that a client wants to pursue. In other words, the role and scope of practice of the nurse should not change. However, a key distinction between being a nurse in a regular care facility as opposed to a safe injection site is the need for specific training in regard to opioids, pain management, drug policy, overdose recognition and resuscitation, and substance use treatment models. Research has demonstrated that there is a huge deficit in nursing education regarding the opioid crisis and pain management, so it is essential that this training would be provided to nurses prior to working in one of these facilities so that the most optimal care can be provided (Gagnon et al., 2019). As previously stated, though, nurses are not to actively inject the patients with the drugs brought to the facility nor provide drugs for injection. They are there to educate the patients on safe-injection practices, the importance of using clean needles and syringes, how to dispose of the equipment properly, recognize signs of overdose and provide resuscitative efforts, and help to direct patients to treatment facilities if that is a route the patient would choose to pursue.

Essentially, it is expected that nurses would maintain the same level of care provision, honesty, advocacy, and integrity that is demonstrated in any other care facility.

Ethical Implications

Beneficence vs Non-maleficence

A final consideration moving forward with safe injection sites would be the ethical implications that would follow suit, beginning with the ethical principles of beneficence and non-maleficence. The principle of beneficence is the responsibility of a healthcare provider to promote well-being; it is a direct action done on behalf of the patient for the sake of promoting health (Stone, 2018). On the other hand, the principle of non-maleficence can be summed up in three words: Do no harm. Although they sound similar, the principle of non-maleficence is more passive in that it is the absence of action and requires the intentionality of not harming patients. Additionally, when the principles of beneficence and non-maleficence are being considered, non-maleficence almost always takes the priority and moral high ground (Stone, 2018). This arises from the idea that it would be better for a healthcare professional to withhold action regarding patient care (non-maleficence) as opposed to taking a direct action (beneficence) that ultimately results in harm being inflicted on the patient. If a direct action from the healthcare provider causes harm to the patient, then the principle of non-maleficence has been violated. Thus, typically, healthcare providers defer to the principle of non-maleficence when the two principles are conflicting with one another. These two principles must be considered when evaluating the ethical side of safe injection sites. On one side, the principle of beneficence would argue that taking action (establishing the site) is optimal for health promotion because of all of the apparent benefits that the sanctioned sites demonstrate, such as reducing hospitalizations, teaching clean

syringe and needle use, and reducing opioid-related overdoses in the localities in which the sites are implemented. On the other hand, the principle of non-maleficence would argue that the safe injection sites directly cause harm to the patients in multiple ways and thus violate the concept of “do no harm.” First, patients are receiving positive affirmation for doing something that directly harms the body, and the facility reinforces the addiction of the individual and thus causes harm. Rather than establishing a site or location that directs the substance abusers to a treatment facility or rehabilitation or the hospital, the safe injection sites are established with the intent to enable substance-abusing behavior. There are other solutions to the opioid crisis that do not require the allowance and enabling of harmful behavior, and most other substance addiction programs do not promote the use of the substance as a means of treatment. Thus, it is quite important to consider these two ethical principles surrounding the implementation of safe injection sites in the United States.

Vulnerability

The vulnerable status of the patient population who will be using the sites is a great ethical and moral consideration regarding implementation. Vulnerable populations are those groups of individuals who may readily be taken advantage of in research-based situations (babies, children, disabled, veterans, homeless individuals, etc.) or who have a lower socioeconomic status and thus may not have the same access to medical resources that the rest of society does (Richard et al., 2016). Perhaps the largest issue regarding vulnerable populations is the lack of equal access to primary healthcare and other healthcare resources. Unfortunately, this results in poorer health outcomes for individuals who fall into vulnerable populations. In fact, it is readily known and accepted that substance abusers fall under this category and do not have

equal access to many treatment options or primary healthcare providers (Richard et al., 2016). Therefore, when it comes to the topic of safe injection sites, the vulnerability of the substance abusers who are potentially going to use these facilities must be considered. It is well-known the primary purpose of the sites is not to provide or refer patients to rehabilitation facilities for actual treatment of the substance use disorder (Drug Policy Alliance, 2020). Thus, since the facilities are not directing clients toward treatment, could they potentially be contributing to the health disparities and inequities which these patients face already by deterring them from receiving and seeking out primary care? If they are not being referred to treatment, they are not gaining access to a primary healthcare provider, which is just contributing to the vulnerability of the population that already exists. Therefore, it must be taken into consideration as the United States considers safe injection sites as a solution to the opioid crisis.

ANA Code of Ethics

Nurses specifically have a set of ethical and moral principles set forward by the American Nurses' Association to guide their practice. The ANA Code of Ethics (Virginia Commonwealth University, 2021) should be taken into consideration as the possibility of safe injection sites becomes more real, and nurses are hired to work and provide care in these facilities. Provisions 3, 4, 5, 6, and 9 all correlate because they outline nurses' moral responsibility to promote optimal health and safety for their patients (Virginia Commonwealth University, 2021). In support of safe injection sites, these principles can be applied in that, in the localized communities in which the sites are used, there are overdose fatalities prevented, patients are taught safe practice when using needles and syringes, and nurses are able to refer patients to rehabilitation and detoxification facilities if the patient desires. On the other side, however, it can be argued that

safe injection sites violate the provisions regarding health promotion and safety because they allow the individuals to continue to use and abuse drugs rather than initially helping them to seek treatment. The sanctioned facilities in other countries state their primary goal is to create a safe, nonjudgmental environment in which people with substance use disorders can inject illicit substances. Essentially, this means the primary goal is not to reach the root and core of the abuse or to assist the clients with seeking treatment, thus violating health promotion and safety. Thus, there are many ethical and moral concepts that must be accounted for before the United States decides to move forward with the implementation of safe injection sites.

Recommendations and Conclusions

Overall, there are many, many facets to take into consideration with the implementation of safe opioid injection sites in the United States, including the success of other countries which have chosen to implement them, the efficacy of the sites, the readiness and receptiveness of the United States for such a significant change, the feasibility of implementing them, the impact on the role of nurses, and the ethical and moral principles involved. Although on a surface level the sites may seem like a valid harms-reduction strategy, there should be a considerably larger amount of research conducted to determine their efficacy. Currently, the sites in operation have only been evaluated through quasi-experimental studies and lower levels of evidence such as qualitative studies. Typically, a random-controlled trial should be conducted, as this would provide the strongest evidence for or against implementing the sites. In addition, there are only a few sites that have been studied thoroughly, and those sites even only produce results to a localized community and population. Thus, it is difficult to see benefits that would support generalizing to larger populations because the facilities are limited to a local community in

scope, practice, and benefit. The lack of evidence-based trials and research is also compounded with a general attitude of hesitancy toward the sites on behalf of the adult American public.

Therefore, at the current time, it does not seem that moving forward with the implementation of safe injection sites is the correct route, and the United States should consider alternate options until demonstrating more of a readiness for change.

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