

Expansion of Naloxone for the Prevention of Opioid Overdose among Homeless Populations

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Introduction

Opioid abuse and overdose has seen a dramatic increase in the United States over the past decade. In 2015 the number of individuals who died of opioid overdose surpassed traffic fatalities related to alcohol for the first time in history. Fortunately, fatal overdose from opioids is not instantaneous and, if administered within a 1-3 hour window, pharmaceutical interventions such as nasal naloxone can reverse the overdose and save a life.

The goal for this program is to educate homeless opioid users about the risks, signs, and symptoms of opioid overdose, provide them with naloxone for intranasal administration, and provide referrals for medication-assisted treatment. The overdose training includes a short screening to assess risk and a video to teach the signs and symptoms of opioid overdose. Through the distribution of naloxone and increased awareness of the risks of opioid overdose both hospital-related admissions and opioid related deaths could be lowered, thus decreasing the strain on our healthcare system.

Population Served

Substance abuse and dependence is a rising public health crisis in the United States, effecting more than 10,000,000 people nationwide (Hawk, Vaca, & D'Onofrio, 2015). Overdose from heroin and prescription opioids has quadrupled from 6,765 in 2012 to more than 26,000 in 2015 (Lewis, Park, Vail, Sine, Welsh, & Sherman, 2016). Fatal opioid overdose is nondiscriminatory and affects the lives of the wealthiest and poorest within our communities. Overdose remains blind to age, race and socioeconomic status and is largely the end result of overprescribing of pharmaceutical opioids and the influx of heroin from Central and South America.

A significant portion of the individuals struggling with substance use disorders and at risk of overdose from drugs such as heroin and prescription opiates are homeless and lack access to

traditional treatment interventions and overdose prevention programs such as naloxone (Dahlem, Horstman, & Williams, 2016). The literature suggests that “drug overdose is the leading cause of death among homeless adults and accounts for one third of deaths among homeless adults less than 45 years of age (Baggett, et al., 2013).

Naloxone

Developed and patented in 1961 by Jack Fishman and Moses Lewinstein, naloxone is a medication that blocks the effects of opioids in the brain and rapidly reverses the symptoms of opioid overdose. If an individual is administered a dose of naloxone within a 1-3 hour window during an overdose episode, they have a far greater chance of a full recovery, provided proper medical intervention is provided post-administration (Hawk, et al., 2015). Currently, programs across the country provide training and access to naloxone for emergency medical providers and other first responders (police and fire) as well as social service providers. Opioid users, their partners, and other members of the community-at-large and also seek training and access to naloxone through various programs and at selected pharmacies in many states (Hawk, et al., 2015; Green, Heimer, & Grau, 2008).

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Substance Abuse, Opioid Overdose, and Homeless Populations

Traditional treatments modalities and prevention strategies for opioid addiction and overdose have proven ineffective. Short-term stays in abstinence based residential treatment programs and non-medical detoxification only set-up patients for eventual failure due to the recurrence of symptomology, cravings, and relapse. A different, more progressive, harm reduction approach is needed and is rapidly becoming the evidence based solution for dealing with the opioid crisis (Dahlem, Horstman, & Williams, 2016). These approaches are essential when working with extremely vulnerable populations and people experiencing homelessness.

Traditionally, homeless opioid users have abnormally high rates of overdose when compared to sheltered IV drug users (Dahlem, et al., 2016). One reason for this increase is the failure of the homeless to access traditional health systems and social service programs. Most medical clinics and programs which offer naloxone are not set-up to handle the complex needs of the most vulnerable or homeless. These individuals also have a history of oppression and are forced to overcome substantial barriers in order to access care. As a result, they have less opportunity to receive training and access to naloxone for the prevention of opioid overdose.

Needs Statement

Homeless opioid users need increased access to naloxone in order to prevent opioid overdose and improve access to effective medication-assisted treatment options.

Objectives and Objective Indicators

The key objectives of this program to expand access to naloxone for homeless populations are to 1) increase the knowledge base regarding opioid overdose and overdose prevention, including risks, signs, and symptoms of opioid overdose and options for reversing

overdose in situ; and 2) to build relationships with individuals at risk of opioid overdose whereby they can receive appropriate referrals into medication-assisted treatment programs.

The outcome indicators for increasing the knowledge of opioid overdose prevention and distribution of naloxone for overdose prevention are to ensure opioid users and community educators are able to express a working knowledge of opioid overdose prevention strategies and to understand the signs & symptoms of opioid overdose. The outcome indicators for increasing a user's knowledge of and referral to medication-assisted treatment programs are ensuring that at-risk individuals know where they can receive treatment and increased numbers of homeless opioid users seeking medication-assisted treatment.

Theoretical Orientation(s)

Identifying and applying a relevant theoretical framework is essential in guiding the development of an effective intervention. With regard to substance use disorders, overdose, and naloxone prevention programs, the research suggests viewing the work through a feminist theoretical lens (Carr, 2003). As such, empowerment theory, being born out of feminist theory, appears to be perfectly suited to guide the creation of an intervention around increased access to naloxone for homeless populations Carr, 2003; Bartram, Karimi, Leggat, & Stanton, 2014).

“Empowerment [theory/perspective] involves the fundamental premise that the population served is in some way oppressed. It can...be effectively argued that those affected by substance abuse disorders are in fact oppressed” (Karoll, 2010, p.265). Carr does an excellent job of dissecting empowerment and presenting the theory in a multi-faceted way. He provides intersectionality within populations and acknowledges the personal positions of feminist social workers as an “inflection” within the empowerment process (Carr, 2003). Similarly, Bartram, et al. identifies social identification within feminist and empowerment perspectives. This information is extremely relevant to understanding how individuals can work toward positive

outcomes and healing change through systematic and community guided interventions (Bartram, et al., 2014). While the issues of homeless and disenfranchised populations are not directly addressed, thinking critically about the theoretical models presented can absolutely allow them to be applied to this proposed project.

Harm Reduction

[Harm reduction is]...viewed as a strategy that prioritizes goals rather than as a goal itself [and] it is a public health alternative to the criminal, moral, and disease models of substance abuse and addiction” (Karoll, 2010, p.267). Harm reduction is not anti-abstinence; it is moreover an acceptance and embracing of the individual rather than their behavior. Harm reduction recognizes the importance of individual autonomy and the importance of building relationships. It strives to eliminate shaming and blaming, especially when treating individuals with mental health and substance use disorders.

Based on information from key community stakeholders, working in traditional public health settings can be juxtaposed to progressive harm reduction settings: public health as an agency fails to adopt the core values of harm reduction, strengths based philosophies, and empowerment. Additionally, social work literature has failed to include harm reduction strategies as part of the accepted clinical interventions for working with individuals with SUD’s, leaving a significant gap in the research and body of evidence based intervention strategies.

Introduction of Intervention

Historically, naloxone has only been made available to first responders and other providers who have access to training and funding to support such interventions. Research has shown that while the risk of death from opioid overdose decreased more than 5% when first responders were trained to use naloxone in the field, even greater decreases in the risk of death

are seen when naloxone makes its way into the hands of actual opioid users. One population of opioid users who consistently lack access to naloxone and overdose prevention education is users who are also experiencing homelessness. This program provides a pathway for expanding access to naloxone among homeless populations and includes the essential training and education to help prevent opioid overdose.

Overdose Prevention and Use of Naloxone

- I. What is an opioid overdose? (1-2 minutes)
 1. Opioid overdose is a process by which breathing slows down to the point that you do not receive enough oxygen to support life. This happens after taking pills, smoking, or injecting opioids such as heroin, morphine, fentanyl, dilaudid, and oxycodone.
 2. Opioid overdose DOES NOT occur instantly and is a process which generally occurs over one or 2 hours; therefore, it is possible to use medications like naloxone to reverse the overdose and save your life.
- II. What causes an overdose? (1-2 minutes)
 1. Your risks of an opioid overdose are higher if your tolerance is lower like after being released from jail, prison, a hospital, or substance abuse treatment.
 2. Every batch of heroin or illicit opioid is different and may also be cut with things like fentanyl; therefore, it is very easy to overdose even though you did not take more drugs than you normally do.
 3. Mixing different opioids together or mixing opioids with drugs like alcohol, downers (benzodiazepines), or even methamphetamine and cocaine can increase

your risk of an opioid overdose. Remember with drugs it is not $1 + 1 = 2$ it is like $1 + 1 = 10!!!$

4. The biggest risk of dying from an opioid overdose comes from using alone...when possible DO NOT use alone!!!
- III. What are the signs of an opioid overdose? (1 minute)
1. The person cannot wake up, even with shaking or yelling.
 2. The person's skin turns pale grey and their fingernails and lips are turning blue.
 3. The person does not appear to be breathing or their breathing is slower than normal.
 4. The person is snoring deeply, gurgling, and/or has foam or vomit coming out of their mouth.
- IV. How to respond to a suspected opioid overdose. (4-5 minutes)
1. Give sternal rub and try to wake them up by shaking them and shouting their name.
 2. Call 911
 - i. Even if you are going to give naloxone, it is essential to call 911 because you are only suspecting that the person is overdosing on opioids.
 3. Give naloxone.
 - i. Use the Nasal Narcan® provided in your kit to give 1 dose in the person's nose.
 4. Give rescue breathing.
 - i. Naloxone can take up to 1 minute to begin working so it is important to give rescue breaths. Tilt the head back, lift the chin, and pinch the nose.

- ii. Give 2 full breaths every 5 seconds.
 5. If no response from the overdose victim – give a second dose of naloxone.
 6. Continue rescue breathing until the person wakes up or medical help arrives.
 7. Remember naloxone only lasts 30-45 minutes and the effects of opioids (like heroin or fentanyl) could cause the person to overdose again; therefore, you MUST call 911 and seek medical assistance for anyone suspected of opioid overdose.
- V. Watch Naloxone Training Video (4 minutes)
1. The following 2 videos are examples of training videos for the administration of naloxone for the prevention of opioid overdose. A new video, specific to this target population is being produced and will be made available within the next 30 days.
 - i. <https://www.youtube.com/watch?v=hGVSaO1oxpg>
 - ii. <https://www.youtube.com/watch?v=xH04qvoKkhk>
- VI. Post-Test (2 minutes)
1. See Appendix A
- VII. Referral to Medication-Assisted Treatment (2-3 minutes)
1. Following completion of training and dispensation of naloxone kit (including Nasal Narcan® Spray) an attempt should be made to connect the at-risk individual with appropriate medication-assisted treatment programs.

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Appendix A

Pre and Post Overdose Training Test

A. Naloxone is used for:

1. Helping someone get off drugs
2. Bringing someone back from a methamphetamine overdose
3. Bringing someone back from a heroin overdose
4. None of the above

B. Your risk of overdose increases when you:

1. Mix opiates with other downers like alcohol or benzodiazepines (valium, diazepam, etc.)
2. Use after your tolerance has gone down (because you were in jail or detox, for instance)
3. Use a stronger (more pure) product than usual
4. All of the above

C. You can tell when someone's overdosing (not just really high) when

1. They don't respond to loud calls, shaking their shoulder or grinding a fist hard into their sternum
2. Their lips and nails look blue
3. They emit a deep gurgling sound
4. All of the above

D. Which one of these methods is a good way to deal with a person who is overdosing?

1. Put the person in a cold bath
2. Hit them hard to shock them awake
3. Kick them in the chest
4. Do rescue breathing and call an ambulance
5. Inject them with salt water

E. Naloxone should be injected:

1. Under the skin
2. Into the stomach
3. Into a big muscle like the upper arm, butt, or thigh
4. Into a vein

F. After you inject the naloxone, it is important to:

1. Continue rescue breathing until help arrives or the person revives
2. Call an ambulance or make sure someone does
3. Stay with the person or make sure someone does
4. All of the above

G. If the first dose of Naloxone doesn't work within 3 minutes, you can try another dose

1. True
2. False

H. An overdose can outlast a dose of naloxone, so after the person is revived someone needs to stay with them for at least an hour to make sure they don't slip back into an overdose.

1. True
2. False

I. You can overdose on naloxone

1. True
2. False

Staff Initial: _____