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Carly Zilge

carly.zilge@umontana.edu

Canyon Hohenstein

canyon.hohenstein@umontana.edu

Claire Everingham

claire.everingham@umontana.edu

Bailey Carpenter

bailey.carpenter@umontana.edu

Sarah Wells

sarah.wells@umontana.edu

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AGENTS OF HOPE



Franke Global Leadership Initiative
University of Montana

Bailey Carpenter
Claire Everingham
Canyon Hohenstein
Sarah Wells
Carly Zilge

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Introduction

The opioid crisis in the United States is one of the worst drug epidemics in the country's history. An opioid addiction is characterized by the use and abuse of an opiate based drug, a substance originally derived from the opium poppy plant. The drug is known for creating a sense of euphoria among its users. Addiction to this class of drug is brought on due to a quick development of tolerance to the effects as well as dangerous physical dependence and withdrawal symptoms (NIDA, 2019). The two major avenues for opioid consumption are heroin, the unregulated and illegal street drug, and the more concentrated semisynthetic counterparts such as Fentanyl and OxyContin, which are commonly distributed as a painkiller. Since the crisis began in the 1990s with mass over prescriptions by doctors, around 400,000 people have died from both legal and illicit use of opioids. On average, 47,600 people die of an opioid overdose every year. The severity of the crisis has only grown; between 2016-2017 alone, the number of opioid related deaths increased by 45.2% (Scholl, 2019).

Opioid addiction is one of the most detrimental health and safety crises to ever impact the U.S., reaching across multiple facets of our society, from law enforcement to healthcare providers, to youth populations. Other countries are facing the same crisis in different levels of severity, increasing the urgency to find universally effective solutions so that a pandemic may be avoided. Individuals struggling with opioid addiction and dependency are often met with stigma and a lack of resources when seeking treatment. To propose one solution to solve the addiction crisis is not possible, however better steps can be taken to reach addicts, their families, and other

affected individuals in need of treatment and provide them with better treatment options. This proposal will investigate the extent of the crisis as it stands today and review opportunities for comprehensive treatment plans that will help address the severity of the epidemic. This paper will conclude with a concise implementation plan outlining a pilot program for treatment centers involving a peer support network model more capable of providing resources while alleviating stigma.

Literature Review

This review will discuss the existing statistics, studies, and proposed solutions to address the opioid crisis. Specifically a review of the reasons and history behind the epidemic will be followed by an analysis of critical junctures at which addicts can be reached and provided support. Next, a discussion about the community stakeholders involved in the crisis will be considered alongside an examination of the current state of treatment center practices. Finally, the methods of treatment throughout the United States will be compared to responses to the crisis by other countries

History of the Crisis

According to the *British Medical Journal* “The therapeutic use of compounds derived from the opium poppy predates written history. [...] During the second half of the 20th century, most physicians became comfortable prescribing opioids for acute pain and pain due to cancer. [...] opioids were rarely prescribed to patients with chronic pain from other causes until the

1980s, when opinion leaders began to advocate their broader use. In the 1990s, coincident with the approval and marketing of several new opioid formulations in North America, the notion that chronic non-cancer pain was under-recognised and undertreated became widespread” (Dhalla, 2011). In the late 20th century, there was an explicit push by drug companies and doctors to increase the prescription rates of opioids. There is some speculation as to whether or not doctors knew the full extent of the dangers of opioids in the 1990’s, even though the drugs have a long history. In 1914, the United States passed the Harrison Narcotics Tax Act, which outlawed the prescription of opioids to patients. The ban stemmed from research conducted in response to the increase in prescription rate of heroin in the 19th and 20th centuries that showed risks of “addiction, central nervous system depression, and death” (Dhalla, 2011). Furthermore, in 1925 the League of Nations banned heroin for medical and recreational use. Given the fact that other opioids such as fentanyl are fifty times more potent than heroin, and morphine is 100 times more potent, the historic prohibition of these drugs and seventy years of research on their addictive qualities casts doubt on the claim that physicians did not know the associated risks of opioids (Dhalla, 2011).

As the drugs became increasingly popular and profitable, companies began to push for higher sales, with little regard to the physical dangers placed on patients. Major pharmaceutical manufacturing corporations such as Purdue Pharma have been charged with bribing physicians to up the dosage of prescriptions for patients. According to Alec Burlakoff, a former drug salesman who testified in March, 2019 to the illicit actions of Insys Therapeutics, doctors were explicitly told by sales representatives “the more we pay you to speak on Subsyst [a synthetic opioid], the more you're expected to prescribe and the higher doses you're expected to increase

the patients to.” (Burlakoff, 2019). This case is a perfect example of how the U.S. government has begun to crack down on both the legal and illegal sales of opioids in the United States. Between 2016 and 2017, government seizures of illicit opioids including fentanyl increased by 1,000 occurrences. However, much of the problem stems from the fact that doctors have been prescribing opioids legally for decades with little legal or social repercussions.

Critical Junctures

Seeking professional treatment for opioid addiction can be embarrassing, shameful, and difficult. Often, people who are addicted won't admit themselves to treatment. It can be difficult to reach users who are in critical need of help. However, there are certain points that can be measured as stages of addiction where a person will be more open, both physically and emotionally to seeking treatment. We define these crucial moments as critical junctures. Given how vast the opioid crisis is, and how many demographics it reaches across, there are many critical junctures where an addict will be more open to getting help. We have categorized critical junctures into two primary groups: medical attention and family intervention.

- A. Medical Attention. This can involve attention that directly pertains to an opioid addiction, such as an addict suffering a non-fatal overdose. However, any time a person comes in contact with an emergency first responder or a doctor can open the door to seek help. One instance in which an addict may be more open to treatment is pregnancy. When a woman seeks medical care for her pregnancy, there is a greater opportunity for a doctor or nurse to help her find treatment plans and begin the first steps toward recovery. There are many resources for pregnant mothers, such as the March of Dimes, a nonprofit organization

which funds research and sources for both mothers and babies to live healthy lives (March of Dimes, 2019). Any encounter with first aid responders or doctors opens a person up to receiving treatment, both long term and right away.

- B. Family Intervention. Families, especially those of addicted minors, have an authoritative say in whether or not youths who are addicted to opioids seek treatment. An article published in *The Globe and Mail* in 2017 gives insight into the roles of parents in addressing the crisis when they see it happening. Journalist Wendy Stueck conducted interviews with a young woman named Caity (whose surname was not disclosed due to privacy concerns) regarding her opioid addiction and her recovery. She largely was able to check herself into a hospital to seek treatment due to her parents, who came to Vancouver to help her (Stueck, 2017). As parents and family have great say in their children's lives, especially the younger they are, family intervention is a critical point at which addicts can be more willing to seek treatment.

Community Stakeholders

The opioid crisis reaches into nearly every facet of society. First, it is important to look at the source of the problem: overprescription by doctors and corruption within pharmaceutical companies. As this crisis develops in mainstream media, pharmaceutical companies, such as Purdue, are now facing the repercussions of their actions in the form of multiple lawsuits and federal investigations. However, the crisis is far from over, as millions of people in the United States are addicted. In 2012, prescription rates in the U.S. reached an all time high, with 81.3 prescriptions per 100 people (Scholl, 2019). While this rate has fallen since then (in 2017 it was

58.7 prescriptions per 100 people), the CDC notes that in certain counties, there are still alarmingly high rates of prescriptions (Scholl, 2019). Additionally, pharmacy companies such as Purdue and Insys are now being held accountable publically for deliberately bribing doctors to over-prescribe patients in the interest of monetary gain. While addressing the wrongs committed by both institutions and physicians is important, it does little to help those already facing addiction. It is critical that we focus on the most important stakeholders of all: first aid responders, addicts and their families.

First aid responders include law enforcement officials, firefighters and paramedics who are the first to respond on the scene to an emergency call. As these individuals are the first people to witness and attempt to halt opioid overdoses, they play a critical role in the cycle of addiction. First aid responders have the ability to stop an overdose and potentially save a life. According to the North Carolina Harm Reduction Coalition, an advocacy group for public health strategies and harm reduction measures, 2,378 police departments require their officers to carry naloxone, or narcan, a drug that upon administration instantly reverses the effects of opioid overdose (2019). However, as opioid addiction is still largely a regional issue, many states have yet to implement this policy. For example, in Georgia, 189 departments implement this rule. However, in California, only 11 departments carry narcan. In Mississippi, only two in the entire state carry the drug. This suggests that addicts in some regions are still not receiving potentially lifesaving care.

Data from 2017 shows that prescription rates were alarmingly high in extremely concentrated areas of the country, notably the Southeast and the Northwest. In Alabama, the rate of prescription was greater than 107.1 prescriptions per 100 people, and Arkansas was 105.4.

However, only 21 states had prescription rates higher than 64.1 prescriptions per person (CDC, 2019). While this may seem like a good thing, new research suggests that because the opioid crisis is so concentrated in specific regions of the United States, the full crisis hasn't happened, and that it will get worse before it can begin to improve (Caulkins et. al., 2019). A research report titled *The Future of Fentanyl and other Opioids* claims that "The U.S. synthetic opioid problem is not yet truly national in scope. Some regions west of the Mississippi have been less affected to date. Those areas should be seen as at high risk of a worsening problem." (Caulkins, et. al., 2019). Given that the opioid crisis may spread to regions of the United States that so far have been relatively unaffected, it is critical that addicts, both current, past, and potential are provided with adequate care and treatment both during the course of their addiction and after. Furthermore, while the crisis is particularly devastating in the United States, the opioid epidemic is a problem that spans across many nations and needs to be addressed as a global crisis.

Treatment Center Practices

One of the most common treatments for opioid addiction is referred to as medication-assisted treatment (MAT). According to the Substance Abuse and Mental Health Services Administration (SAMHSA), MAT "is the use of medications with counseling and behavioral therapies to treat substance use disorders and prevent opioid overdose." (2019). Opioids are often chemically treated using various additional drugs, such as methadone, buprenorphine, or naltrexone. Methadone and buprenorphine work to trick the brain into thinking its receiving a high, when it is in fact suppressing the effects of opioids, while naltrexone "blocks the euphoric and sedative effects of the abused drug and prevents feelings of euphoria."

(SAMHSA, 2019). As per federal law, MAT patients must attend counseling as a part of their rehabilitation process. However, many groups of opioid users may feel threatened or unsure of checking themselves into a treatment center. For example, a study published recently in *Drug and Alcohol Dependence* found that victims who are suffering from homelessness have a greater likelihood of extremely high addiction rates and are therefore more susceptible to fatal overdoses (Doran et. al., 2019). Given that homelessness is often stigmatized, and many homeless people do not have access to medical facilities or family support, there are still many addicts who are not seeking treatment, or do not have access to it. However, an existing treatment plan does exist to mitigate stigmatization among addicts, peer support.

Montana has developed a peer networking program, in which participants complete a 40-hour training that prepares them to specialize in “whole health recovery, one-on-one work, support group facilitation, ethics and standards, confidentiality, change model, recovery concepts and much, much more” (Montana’s Peer Network, 2019). This peer network provides recovering users with a safe space in which to heal free from stigmatization. This peer network is a type of participatory method, which involves “enabling ordinary people to play an active and influential part in decisions which affect their lives. This means that people are not just listened to, but also heard; and that their voices shape outcomes” (Institute of Development Studies, 2019). Peer networks involve community members taking action to make a change for the better, by helping their peers recover in a safe environment. Peer network support in Montana goes a step beyond MAT counseling, as the support offered is not between a professional and a patient, but rather a recovering addict and a peer who has adequate training and often shared life experience.

As an example of its effectiveness, the University of California Santa Cruz implemented a peer HIV testing program, which not only provides students anonymous HIV testing, but peer counseling as well. Volunteers are trained in how to safely administer the test, counseling strategies for delivering the results, providing patients with helpful information regarding sexual, physical, and emotional health, and creating a safe space for people being tested to feel supported (UC Santa Cruz, 2019). Peer support is an incredibly effective model that is easily transferable from a platform such as HIV testing to opioid recovery.

Comparison of the United States to other Nations in Addressing the Crisis

The opioid addiction crisis is not unique to the United States. Various nations are struggling to combat the dangerous effects of opioids. According to the World Health Organization, approximately 27 million people suffered from opioid addiction in 2016 (WHO, 2018). While the World Health Organization recommends the administration of naloxone, it acknowledges that “The gap between recommendations and practice is significant. Only half of countries provide access to effective treatment options for opioid dependence and less than 10% of people worldwide in need of such treatment are receiving it.” (WHO, 2018). The crisis continues to affect people from every economic level of society.

Egypt

In Egypt, the opioid crisis severely impacts citizens at the lowest socio-economic level. In 2015, the pain relief tramadol was the drug of choice for 40.7 percent of Egyptian drug users

(both those who have been prescribed and those buying illegally) (*Ahram, online, 2015*). It is estimated that approximately 100,000 people are addicted to a variety of opioids, namely heroin or tramadol (Australian Broadcasting Corporation, 2018). In Egypt, government crackdowns on drug dealers and a strong stigma surrounding drug users prevents people from seeking help. Furthermore, a lack of funding from both the government and the private sector for competent treatment programs means that struggling addicts have few places to turn (Australian Broadcasting Corporation, 2018). Egypt is experiencing one of the worst opioid epidemics in the world, yet a lack of resources and extreme stigmatization means that thousands of addicts will continue to suffer with little aid (Australian Broadcasting Corporation, 2018)

Portugal

Portugal is an interesting nation to examine, as it was considered the drug capital of Europe in the 1990s, with heroin being the most commonly used substance. However, from 1998 to 2011 the rate of users who willingly access treatment centers increased by 60% (Bajekal, 2018). Portugal's solution is an interesting one: in 2001, after several decades of harsh policies for drug users (similar to the war on drugs in the United States) Portugal decriminalized all drugs, with some stipulations. Today, any drug is legal as long as it is under an amount that would provide ten days of personal use (25 grams of cannabis, 2 grams of cocaine, etc.). If a person is caught with an amount that exceeds the legal limit, they are arrested, and depending on the substance, can be charged as a trafficker. However, if the police find a person in possession of the legal amount, that person will still be required to appear before a committee, called the Commission for the Dissuasion of Drug Addiction. He or she will be interviewed by a psychologist or a social

worker before being sent to a three-person panel, who will help advise the affected person on what options they have to get clean. If he or she chooses to accept help, resources for rehabilitation will be provided. If he or she refuses, the committee can require community service, and a fine will be issued (Bramham, 2018). First and foremost, Portugal has experienced success with this policy not because drugs were decriminalized, but because the mental and physical health of citizens was put above all else.

Australia

Australia is another nation that, like Egypt, is facing a worsening opioid crisis. In 2000, Australia began approving opioid prescriptions for medical issues that were non-cancer related. Since then, the nation has seen a surge in opioid prescriptions and overdoses, specifically oxycodone (Gelineau, 2019). According to the National Drug and Alcohol Research Center (NDARC), 1,045 people died of opioid overdose in 2016. From 2007 to 2016, fatal opioid overdoses increased from 3.8 deaths per 100,000 Australian citizens to 6.6 deaths (NDARC, 2018). While the crisis is not as drastic as it is in the United States and Canada, healthcare experts fear that it will worsen in the next few years (Associated Press, 2019). Furthermore, glaring gaps in data collection methods lead to government officials greatly underestimating the scope of the problem. Due to the fact that there was no collective effort to collect information regarding the crisis. Individual states, medical centers and regions were left to compile data independently (Associated Press, 2019).

In summation, the opioid epidemic is affecting different regions of the globe in different ways. Egypt is in a full blown crisis. Portugal successfully combated its drug epidemic by

radically changing both policies and culture. Australia is a nation with a worsening crisis. While it is impossible to completely solve the opioid epidemic with one proposed solution, by examining how the crisis affects different nations we can propose a more globally comprehensive method for helping opioid users find treatment and emotional support.

Proposed Method

Background and Aims

There exists a large population in the world suffering from what is called “Diseases of Despair”. These diseases include alcoholism, depression, and drug dependence. Addiction often appears first as alcoholism and devolves into drug dependence. Many cases end with suicide or drug overdose. In America, Canada, and other Western countries, drug dependence involves opioids and other opium derived drugs, such as morphine and heroin. In the United States, this epidemic of drug dependency has been declared a public health emergency. While research shows the success of medication-assisted treatment in conjunction with behavioral therapy for the treatment of recovering addicts, there remains a heavy stigma surrounding addiction treatment, which harms access to care. Expert research reveals that peer support models, similar to those used in development work, community building organizations and self help groups, can be successfully implemented to treat opioid addiction. These models have been used around the world to address a myriad of issues. Support groups like these utilize the power of community,

connection and communication to help one another reach a common goal. In the case of our proposed method, we will use these same tools to provide safe places where stigma around addiction is reduced and the road to recovery is made easier.

Due to our size, limited funding and the limited timeframe of our project, we are not proposing a solution for the crisis. Rather we are aiming to address one of many shortfalls within the greater system of opioid addiction treatment. This shortfall lies in the lack of behavioral treatment resources and professionals available in the recovery process. Our peer support model, modeled on ones commonly used in international development work to address a spectrum of issues, can be applied, in conjunction with existing programs, to address the opioid epidemic.

Methodology

Peer support models already exist, and are proven to be effective for bringing about change. In the field of development, these models are typically hierarchically structured with an emphasis on power stemming from the community rather than the organization seeking to influence change. Members from the community become peers through a common goal, in this case they are peers as they cope with opioid addiction. This network of peers is organized and led, in the most passive sense, by an individual, the host, that is part of that community of peers. This host is trained and certified according to the national standards of behavioral treatment to ensure the safety of all participants, as well as to provide the most effective peer support experience. The host is responsible for identifying peers, inviting them to meetings and events and being available to them as an individual support system. This host is overseen, again in a very passive sense, by a facilitator. The role of the facilitator is to provide information, resources

and manage the monitoring and evaluation process. Due to the sensitive nature of this specific peer network, the role of the facilitator is imperative to the success, safety and well-being of all participants. The facilitators are assigned to specific regions, with a regulatory agency, either a nonprofit or a government organization, overseeing their work. By maintaining this structure, peer support networks are able to effectively address the behavior they seek to change in a safe and progressive environment.

Our role within the peer support network model will be one of advocacy. We plan to create a website where people interested in generating positive change within their community can go to and see if the peer support model is right for their situation. Studies show that to generate sustainable and effective change within a community, the desire for change must come within the community itself. As such, it will be the responsibility of members of a community to reach out and find our website on their own, which is exactly what we want for communities facing issues that carry a stigma, such as opioid abuse. The anonymity that comes with the internet is perfect for the opioid epidemic because it allows those affected by the epidemic to explore the options that are available to them, one of which will be our website with its resources on the peer support model. It will be an important first step for us to advocate for our program, and the podcast is one of the ways in which we will do so.

A podcast is applicable in this situation because it will cast a wider net and reach out to audiences that are not initially seeking an answer for the issues their communities face and are instead looking for an interesting story to listen to. We already have multiple examples of the peer support model being put to good use, and we want to talk about all the amazing ways this model has produced positive, long term change in communities around the world. People will

come for the podcast, and, if they want to use the model in their own community, they will stay for our website and the resources we have available.

Expected Outcomes

In the next phase of this project, we imagine our website being taken on by a local government or an international NGO. With the detailed layout of the peer support model and evidence from research and experts which back the legitimacy of it within our website, an agency will be able to take what we have gathered and create a peer support network of their own which can be used to address the issue that they are focused on.

Timeframe

December 3rd - January 12th: Build the framework of our website

January 13th - January 20th: Write first episode of the podcast, gather list of experts we want to interview, reach out to Montana's Peer Network and see if we can refer people to their website for peer support training

January 20th - January 27th: Begin first round of interviews, look at logistics of taping a podcast

January 27th - February 24th: Tape first podcast episode, gather research on the peer support network that will be included on the website, gather important contacts for people who use our website, transcribe what we learn from the interview and make sure that what they say is backed up by the research we have done

February 24th - March 2nd: Conduct more interviews if necessary, write the second episode of the podcast, begin to work on the accessibility and organization of our website

March 2nd - March 30th: Complete website. Website will have a complete description of the peer support model, written examples of ways in which the model has been used, contact information for those seeking help, a link which will give information on how someone can be a facilitator of the peer support model, a link to our podcast, written testimonies on the feasibility of the peer support model from experts around the world, and information on our group and why we created the website

March 30th - April 13th: Begin to reach out to NGOs and government agencies to see if they will take on our website, and take everything we have created and turn it into a presentation

April 13th-27th: Practice Presentation.

Project Portfolio

Findings and Analysis

Despite our greatest efforts, there were a few limitations that caused us to restructure our final outcome. The largest challenge was the COVID-19 pandemic everyone is experiencing, which required us to work remotely. As a result, the number of podcasts we produced is far more limited than our initial plan. We were also unable to conduct further interviews in local treatment centers to gauge the support of implementing our project at the local level. Another limitation we experienced had little to do with the pandemic, and more to do with our target audience. Initially, our team planned on hosting a pilot peer support network on campus to experience first hand what it would take to build one. However, given the vulnerability of our target population and our lack of personal experience with addiction, we chose not to conduct a pilot program. This decision was supported by our advisors and the IRB.

Regardless of these challenges, we were able to develop a high-quality website, which provides information someone would need to build a peer support network in their community. General information on peer support networks, in conjunction with a global field guide, provides the step-by-step process for how individuals or organizations can develop such a network. Ultimately, the Agents of Hope website equipped participants with an accessible solution to the global problem of largely inadequate behavioral support for community members struggling with opioid addiction.

Studies have shown that, generally, younger generations consume media differently than older generations do. For this reason, creating a podcast allowed us to reach another layer of our target audience while also providing our users with easily-accessible information on peer support. This information had added value in that it was coming straight from the experts. Our team didn't have to translate our findings, rather we provided a platform for the consumer to hear it straight from the professionals themselves. A large part of understanding the effectiveness of peer support networks also comes from experienced participants of these support systems. Although talking to experts is important, talking with those who have overcome their addictions with the support of peer networks is invaluable. People who have actually been in the system know better than anyone how it works, why it does, and aspects that do not work. Engaging in conversations with peer support participants, both within networks and outside of them, provided us with the greatest insights in developing our project. For this reason, we felt the podcast was important to include.

One of our findings from engaging with peer support participants is that the desire for change has to be generated from within the community itself. Opioid addiction cannot be addressed with a top down solution. Intervention from fellow community members who understand the trials and tribulations that come with opioid addiction, and are typically specific to local contexts, are much more likely to facilitate positive, long-term change. People are much more willing to trust a fellow

community member than an addiction expert who has no ties to the community. Our project's aim was not to provide a solution for addiction, but to provide people around the world with the information and strategies they need to develop their own peer-based solutions.

Of the experts and professionals we interviewed on the subject of peer support, all substantiated the idea of peer support networks as being an effective approach to addressing the recovery needs of addicts. Specifically, peer support networks address the need for behavioral treatment, in conjunction with medical treatment. Although, some interviewees had reservations about the effectiveness of the peer support model. One discussion with a nurse at an addiction treatment center, for example, shed light on some potential challenges of a peer support network approach. She noted that a program of such nature would require well-established oversight to ensure that the peer connections are consistently beneficial and supportive. She also mentioned the possibility that the mentors might do more harm than good if they are not properly trained and independently motivated to help their peers become clean.

Our project directly addresses these potential challenges in a few ways. Firstly, by creating the independent organization, Agents of Hope, we have developed a tool to account for the oversight of all the included networks. We also included applications for both entering a network and building your own to ensure a level of oversight at the local network level. In addition to the benefit of oversight, these applications provide a stage of vetting to ensure each participant is independently motivated to support their peers in overcoming addiction. The vetting process will fall on the responsibility of the agency, Agents of Hope. Although we support the implementation of this project, in its entirety, we are aware of our limitations in being a hypothetical organization for the sake of our project. Therefore, we recommend, and are actively looking for, agencies or individuals to take ownership of this project in order to carry out the obligations laid out here.

We also recognize the importance of proper peer support training for network hosts, though due to the scope of our project we were unable to develop our own training program. We do have an Agents of Hope email set up so participants can contact us for further information on training opportunities happening in their region. Unfortunately, there are a limited number of training programs around the world, so we felt it unrealistic to require hosts be peer support trained to develop their own networks. Though, if given the opportunity and resources, Agents of Hope could expand to include mandatory peer support training for network hosts on a global scale.

Conclusion

The expert, participant, and professional testimonies, as well as our own literature review provided the substantial evidence that peer support networks are not only an important aspect of combating the opioid crisis, but a necessary one. Our research has shown that the opioid crisis is only worsening as the drugs are becoming deadlier and the crisis moves across the country and the world. Promoting alternative behavioral treatment methods, such as peer support networks, and extending support to change agents in local communities around the world are the next critical steps in overcoming opioid addiction.

Reflection

Prompt #1: In what ways do you feel your project represents a multidisciplinary effort? What were the challenges and benefits of working across disciplines?

Due to the severity and size of the opioid crisis, it is necessary to consider it from an interdisciplinary perspective. This issue is a medical, social and political issue, and some of the past downfalls of addressing the crisis are directly related to not considering just how many perspectives

must be included in order to begin working towards a solution. It is as important to consider local community dynamics. Addressing the opioid crisis must be on an individual basis with strong programs such as peer support models, but it must also involve the policymakers and government officials who are responsible for key components such as the allocation of funds. When considering how to approach a project such as this however, the vast network of disciplines made this challenging, since too broad of a focus would divide the efforts and produce a subpar project. It became necessary to find a way to incorporate multiple disciplines without making the project too broad, or overextending our ability to fit the needed work into the time and resources available. The goal became developing several approaches that would include multiple perspectives, but would include valuable and necessary work and fit within the parameters and time frame of an undergraduate research experience.

Having a group of peers with multiple backgrounds helped provide a broad range of approaches and overall gave a more polished, comprehensive finished product that did not focus too much on any one aspect and thus did not lose touch with its wider scope. This also allowed for better division of labor within the group as tasks could be assigned based on individual strengths to ensure the best quality possible.

Prompt #2: Explain the challenges your group faced in designing and carrying out the substance of the project. For example: How did you attempt to address these challenges? How did the project change after the proposal stage? How might you do things differently?

An initial challenge involved the logistics of developing and maintaining a website and to what extent such a platform would aid in the goals of this project. A sophisticated website developed with an unlimited budget could have easily met the aims of this project, but working within a budget

and a limited timeframe required making compromises. This was done fairly easily however, since many of the goals of the website were mostly theoretical. Despite choosing a less expensive website platform, we met many of our goals of disseminating important information and providing a resource platform for the public.

Another challenge was identifying and contacting community members to interview and discuss their opinions and thoughts on the opioid epidemic. Many healthcare professionals and members of local organizations either didn't respond or were too busy or too far away for an interview. Thankfully, those who did contact us were able to meet for interviews and gave volumes of extremely valuable information and perspectives on the issue.

Prompt #3: Read the global context section above. How did considering the global context of the problem your group identified influence your thinking, the project, and the complexity of your work? What challenges did you encounter and how did you resolve them? What would you do differently if you were to repeat this process?

A large challenge with considering a global context was extending the scope of the active part of the project to include global perspectives, since there are limited resources to pursue investigations of such a broad range. This project, however, does fulfill the global context perspective in respect to identifying a larger problem that exists in the global sphere, and by proposing solutions that are applicable to any country experiencing an opioid crisis.

Developing a global field guide helped create possibilities for this project to be used by members of the global community in the future. A further step in this project if time had allowed would be to extend contact to members of the global community, or even those in the United States who operate on a global scale, to incorporate their perspectives into the results and methods of operation.

The opportunity to translate the website into Russian allowed for a demonstration in which this project can be adapted and produced in other regions across the world. This exercise was also a good indication of how a multidisciplinary approach was easily achieved within the group, using the talents of certain individuals to strengthen the overall project in ways that are unique and productive.

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