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The Harm Reduction Project

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Sobriety Works is a privately owned agency that is in the DMC-ODS (Drug Medi-Cal Organized Delivery System) Network. It is located in Santa Cruz and provides services to adults in Santa Cruz with a substance use disorder. The rates of overdose and transmission of bloodborne pathogens from drug use is too high in Santa Cruz County. The substance-using population in Santa Cruz County faces barriers in improving the quality of their life. The project will increase the knowledge of the participants on harm reduction strategies and coping skills through the use of evidence based practices. The findings from the harm reduction outpatient project indicate that there is a need for harm reduction-based treatment in Santa Cruz County among providers and substance users. The harm reduction project's implementation took longer than anticipated due to the amount of time it takes to launch a clinical group in addition to the difficulties of promoting a relatively controversial intervention. The recommendation for the agency moving forward is to continue with the implementation of the project while advertising the group as an early intervention skills treatment intervention.

Keywords: Substance use disorder, Harm Reduction, SUD, Outpatient Treatment, Evidence-Based Practices

Description of Agency

Sobriety Works is a privately owned agency that provides substance use disorder (SUD) treatment in Santa Cruz County. Sobriety Works is licensed by the State of California and their primary demographic is adults. The agency provides a variety of different services including sober living environments, outpatient treatment, intensive outpatient treatment, individual counseling, drug testing, and parent mentoring for FPC Court (Sobriety Works, 2016). Sobriety Works is a part Drug Medi-Cal Organized Delivery System (DMC ODS), which allows clients with Medi-Cal to receive SUD treatment services at no cost. The policies, procedures, clinical standards, and medical necessities are all determined by Medi-Cal as a result of their place in the DMC ODS network (DHCS, n.d.).

Sobriety Works' funding mainly comes from Medi-Cal which funds almost all of their treatment clients that are enrolled in outpatient and intensive outpatient. Outpatient treatment has a duration of four hours a week and intensive outpatient meets for twelve hours weekly. Sobriety Works does accept private insurance but most of the patients are funded by Medi-cal. The agency also receives rent payments from the four sober living environments (SLEs) that they operate. Sobriety Works has a contract with the county of Santa Cruz Health and Human Services Department that allows them to receive funding for SLEs from a variety of county departments such as probation, parole, and family and children's services. Clients without county funding have the option to pay out of pocket.

Mission Statement & Vision

Sobriety Works' mission statement is clear and concise: "Hope For The Future (Sobriety Works, 2016)." The programs offered aim to instill each client with a sense of hope for their future, regardless of the outcome of their treatment. Sobriety Works operates under harm reduction (Harm Reduction International, n.d) ideology--clients are not discharged based on positive urine analysis tests, which strengthens the therapeutic alliance between counselor and client. Sobriety Works uses unconditional positive regard and a strength-based approach to provide clients with hope for their futures.

Community Partners

Sobriety Works is a part of the DMC ODS network which means that they report to the County of Santa Cruz Health and Human Services Department. DMC-ODS is a continuum of care modeled after the American Society of Addiction Medicine (ASAM) criteria for substance use disorder treatment services. The purpose of DMC-ODS is to create a network of providers in order to improve care, increase the efficiency of resources, and provide oversight. The County of Santa Cruz Health and Human Services Department is the lead agency in the county which makes their responsibility monitoring all of the agencies in the network to ensure they are in-compliance with DMC-ODS. The Health and Human Services department also acts as middleman for the agency and State of California. Sobriety Works' reports are automatically delivered to the Health and Human Services Department through data inputted into Avatar, the county's electronic health record system (EHR). The Health and Human Services Department processes the data and regularly sends reports to the State of California Medi-Cal Department.

COVID-19

As of March of 2020, Sobriety Works has completely changed their method of delivering services due to the COVID-19 pandemic. The agency shifted to providing all group and individual counseling services over Zoom. These changes made sure there was no lapse in services and allowed the agency to continue providing services one week after the shelter-in-place order was announced. The intake process has also been changed to accommodate the shelter-in-place order. This includes mailing out paperwork to clients, obtaining verbal consent, and documenting the entire process with great detail. The counselors have adapted their curriculum to be compatible with online meetings and work hard to engage the clients in this new platform. The agency has had to suspend all drug testing services due to the risk of transmission of pathogens in bodily fluids. The employees and interns come into the office daily while maintaining standard precautions and social distancing guidelines.

Population Description

`The data presented in Figure 1 depicts the demographics of Sobriety Works clients compared to Santa Cruz and California. Due to the agency's involvement in the DMC-ODS network, demographic data is directly reported to The Health and Human Services department of The County of Santa Cruz, making reports limited and difficult to obtain. The data on Sobriety Works in Figure 1 was obtained from a quarterly report consisting of four months from April to July 2020. Sobriety Works serves adults that reside in Santa Cruz county who have a substance use disorder. Figure 1 indicates that the ratio between male and female clients is almost equal, with slightly more male clients than females. The primary race is White, comprising 54.29% of the agency's clients, and the secondary is Mexican American, which is 34.29%. A majority of the agency's clients are not experiencing homelessness however a large percentage are unemployed (County of Santa Cruz Health and Human Services Department, 2020).

Figure 1

Demographic info	Agency population	Santa Cruz	California
Gender	**Female**: 42.86% **Male**: 54.29% **Transgender** (M to F): 2.86% (County of Santa Cruz Health and Human Services Department, 2020).	**Female**: 50.4% **Male**: 49.6% (United States Census Bureau, n.d).	**Female**: 50.2% **Male**: 49.8% (InfoPlease, n.d).
Race	**White**: 54.29% **Mexican American/Chicano:** 34.29% **Other**: 11.42% (County of Santa Cruz Health and Human Services Department, 2020).	**White**: 56.8% **Hispanic**: 34% (United States Census Bureau, n.d).	**White**: 59.6% **Asian**: 10.9% **Black**: 6.7% **Hispanic**: 16.8% (InfoPlease, n.d).
Housing Status	**Not Homeless:** 94.29% **Homeless:** 5.71% (County of Santa Cruz Health and Human Services Department, 2020).	**Not Homeless:** 82% **Homeless:** 16% (United States Census Bureau, n.d).	**Not Homeless**: 74% **Homeless**: 26% (Jackie Botts, 2020)
Employment Status	**Employed:** 25.71% **Unemployed:** 74.29% (County of Santa Cruz Health and Human Services Department, 2020).	**Employed:** 60.1% **Unemployed:** 39.9% (United States Census Bureau, n.d).	**Employed:** 60.3% **Unemployed:** 39.7% (InfoPlease, n.d).

Opioid Overdose	Unable to obtain data	8.5 deaths per 100,000 residents (DataShare Santa Cruz County, n.d)	5.8 deaths per 100,000 residents (DataShare Santa Cruz County, n.d)

Demographic Profile Comparison

The demographics of Sobriety Works closely mirrors that of Santa Cruz and California, with the exception of homelessness and unemployment. The percentage of female clients in the agency is 42.86% which is relatively close to the county and state percentages of 50.4% (United States Census Bureau, n.d) and 50.2% (InfoPlease, n.d). The percentage of White clients enrolled at the agency reflects percentages of the county and state. However, the percentage of Hispanic clients at Sobriety Works, 34.29% (County of Santa Cruz Health and Human Services Department, 2020), is nearly identical to the county percentage, but much larger than the state percentage. Sobriety Works has a significantly larger percentage of unemployed clients compared to the county and state percentages. The agency's percentage of unemployed clients is 74.20%, which the county is 39.9%, and the state is 39.7%.

The primary problem faced by residents of Santa Cruz County that Sobriety Works serves is substance use disorder. According to the Health Improvement Partnership of Santa Cruz County, the rate at which doctors prescribe opioids in Santa Cruz County is higher than the state average, which also results in higher rates of overdose. In 2017 Santa Cruz County ranked 20th out of the 58 counties in California in terms of high opioid overdose death rates (Health Improvement Partnership of Santa Cruz County, n.d.). Another report, conducted by DataShare Santa Cruz County, indicates that the death rate in Santa Cruz County for opioid induced overdoses is 8.5 per 100,000 residents. The California average death rate is 5.8 deaths per 100,000 residents, which makes the rate in Santa Cruz County significantly higher (DataShare Santa Cruz County, n.d).

Analysis of Community Needs and Assets

The Harm Reduction Coalition (HRC) of Santa Cruz is a community asset that could be used to address the high rates of overdose in Santa Cruz County. The HRC indicates that their mission statement is to accept that drug use is a part of the world we live in and to "to reduce the harmful effects of substance use to the individual and the community at large." The HRC provides a home delivery service that is operated through an anonymous phone line. Substance users can provide a safe location for a volunteer to meet them with harm reduction supplies including Naloxone, which is a drug used for the reversal of opioid-induced overdoses (Harm Reduction Coalition of Santa Cruz, n.d). The Santa Cruz Overdose Prevention & Education program (SCOPE) offered at Janus of Santa Cruz provides overdose prevention kits and education to substance users and community providers. The overdose reversal kits contain two intravenous doses of Naloxone, clean syringes, a sharps disposal container, and detailed instructions. The SCOPE will accept donations for the kits but if the individual is unable to pay they offer it free of charge (Janus of Santa Cruz, n.d).

Initial Capstone Project Idea

My mentor and I met and concluded that my capstone project will be developing and implementing an outpatient treatment group for adults in Santa Cruz County with a substance use disorder. The capstone project is an educational intervention with the purpose of increasing the participant's knowledge on harm reduction strategies. The group will most likely be held over Telehealth due to COVID-19, and will be a treatment option provided by Sobriety Works. The group will be an outpatient treatment group funded by drug Medi-Cal with no out of pocket cost for eligible adults. The harm reduction treatment group will be implemented in February 2021 and will either end May 2020 or remain an ongoing treatment option, depending on the success of the program. I will be entirely responsible for all components of the project, including developing a harm reduction curriculum, determining the length of the course, writing a project justification to submit to the County of Santa Cruz, and facilitating the group.

There are four areas of need that this Capstone Project will address:

Treatment

Facilitating any positive change through outpatient group counseling sessions, individual counseling, and case management.

Housing First

Supporting the belief that all individuals have a right to housing during case management sessions with clients. I will assist them in seeking referrals to harm reduction housing agencies in the community.

Public Health

Preventing overdoses and the spread of bloodborne pathogens by providing free Naloxone, cotton, syringes, sterile water, alcohol prep pads, cookers, condoms, and feminine hygiene products. I will contact local harm reduction agencies, pharmacies, and community partners to obtain these supplies for clients.

Social Justice

The harm reduction group will fulfill the social justice cause of de-stigmatizing and removing morality from treatment.

Project title: A Harm Reduction Outpatient Group for Adults in Santa Cruz County

Project Description

The harm reduction outpatient treatment group is an educational intervention that will be implemented by developing and delivering a curriculum, and assessing the effectiveness of the intervention. The curriculum will contain information on substance use disorder as a medical condition, the spirit of harm reduction, decisional balance, adjusting the set and setting of use, reducing the harm of injecting and using substances, and co-occurring disorders. The harm reduction group will consist of six to eight clients and be delivered over telehealth as a treatment option at Sobriety Works. Harm reduction supplies--including syringes, narcan, cotton, sterile water, cookers, condoms, medical supplies-- will be available at the office for pick-up. The dosage of the group will be a 120-minute outpatient group counseling session once weekly. In addition to these group sessions, all participants must attend a weekly individual meeting for up to one

hour of case management, individual counseling, treatment planning, or crisis intervention. The purpose of the weekly individual meeting is to provide the clients with additional care and to assist them in completing non-substance related goals, such as obtaining housing or other services, in order to increase their self-efficacy and confidence in their abilities.

Project Justification

In 2017 Santa Cruz County ranked 20th out of the 58 counties in California in terms of high opioid overdose death rates (Health Improvement Partnership of Santa Cruz County, n.d.). Another report, conducted by DataShare Santa Cruz County, indicates that the death rate in Santa Cruz County for opioid induced overdoses is 8.5 per 100,000 residents. The California average death rate is 5.8 deaths per 100,000 residents, which makes the rate in Santa Cruz County significantly higher and a concern for the residents (DataShare Santa Cruz County, n.d). According to The County of Santa Cruz Public Health Department, among all residents who tested positive for HIV, 7% are MSM (men who have sex with men) who also inject drugs (IDUs), and 9% are other persons who injects drugs (County of Santa Cruz, n.d). The harm reduction outpatient group will address the following problem areas: a lack of SUD treatment that needs medical standards, high rates of overdose, and the spread of bloodborne pathogens. The primary purpose of this capstone project is to provide the clients with stigma-free harm reduction treatment, to facilitate any positive change, to reduce the rates of overdose and bloodborne pathogens, and to assist the clients in developing a relationship with substances that isn't detrimental to their well-being.

Stakeholders

The residents of Santa Cruz County will benefit from the harm reduction outpatient treatment program because less tax dollars will be used to alleviate the societal harm of substance use disorder. The cost of providing clients with treatment for substance use disorder is minimal compared to the price of frequent emergency room visits and housing individuals in jail. The amount of evidence pointing towards the cost benefits of investing more time and resources into treatment is immense. NIDA estimates that the cost of drug abuse to society is $193 billion. Out of this, $113 billion goes towards crime related to drugs,

the cost of the criminal justice system, and the expense of the crime to its victims. The typical price of treating substance use disorder, which includes medical costs, hospitalizations, and treatment funded by the government, is $14.6 billion (NIDA, 2014).

Benefits

The harm reduction substance use disorder treatment group will provide substance users in the community with medical treatment, unconditional positive regard, and the opportunity to develop self-efficacy. The substance use disorder treatment community in Santa Cruz will have a treatment option that currently does not exist. The harm reduction outpatient treatment group will allow more clients, who would not qualify for treatment elsewhere, to engage in services.

Implementation Method

The harm reduction outpatient treatment group is an educational intervention that will be implemented by developing and delivering a curriculum that utilizes evidence-based practices that have proven effectiveness in harm reduction. Research indicates that two of the best practices for harm reduction treatment are trauma-informed care and motivational interviewing (Vakharia, 2016). A significant component of harm reduction treatment is delivering trauma informed therapy. Most substance users who reach the level of severe substance use have a history of trauma. Trauma-informed therapy is an evidence-based practice with the purpose of remaining mindful about the effects of trauma on the client's behavior, asking intrusive questions, potentially triggering the client, and using shaming language (Buffalo Center for Social Research, 2020). The curriculum will include education on adverse childhood experiences and the associated negative health outcomes, in order for clients to understand the impact of their trauma. Motivational interviewing is another evidence-based practice that has a proven effectiveness when working with harm reduction clients. Motivational interviewing utilizes the transtheoretical model of change to assess the client's stage of change (Motivational Interviewing Network of Trainers, n.d). Ambivalence is

viewed as positive and considered to be at the heart of change. It is also highly prevalent among the harm reduction cliente as many are contemplating whether or not to make a change in their substance use.

Participants

The primary participants in the program are the clients that will receive treatment services. During the intake process the clients will be informed of the agency's practices surrounding confidentiality, grievance procedures, informed consent, telehealth etiquette, group rules, and other agency guidelines. The clients will complete paperwork that documents the presence of (or revoked) informed consent. The clients will have the opportunity to add whoever they would like to a release of information document, which would make the individual a secondary participant in the client's treatment. The clinical director of Sobriety Works will oversee the project by monitoring the counseling, documentation, and use of evidence based practices. The County of Santa Cruz will add the harm reduction treatment group in the list of DMC-ODS treatment options, which will advertise the group to other providers in order to make referrals.

Resources

The group will be held over telehealth due to the shelter-in-place mandate enforced by the county of Santa Cruz. Sobriety Works already has a licensed Zoom account that is in compliance with HIPAA. The outpatient treatment group will be conducted during my work hours as an employee and I will be compensated with my hourly wage as a substance use disorder counselor. The group will take approximately 15 hours each week including:

- 2 hours/120-minutes facilitating outpatient group counseling x1 week
- Up to 2 hours to document progress notes and to bill Medi-Cal
- Up to 8 hours for meeting with clients 1:1 for case management, individual counseling, and crisis intervention
- Up to 3 hours for group preparation and other administrative tasks

Resources

No agency resources will be used to fund the outpatient treatment group. The group will be covered by MediCal with no share of cost for the clients. Other community agencies, such as The Homeless Person's Health Project and The Harm Reduction Coalition of Santa Cruz, will provide safe injection supplies including cotton, syringes, torniquetes, sterile water, alcohol preparation pads, bandages, neosporin, condoms, naloxone, and tampons (Harm Reduction Coalition of Santa Cruz, n.d).

Challenges

The biggest challenge will be engaging the clients through Telehealth instead of in-person groups. It is difficult to engage clients in the agency's regular outpatient groups so working with harm reduction clients, who could potentially be under the influence, will be challenging over Zoom. Additionally, clients who are actively using substances may have limited access to technology. This obstacle will have to be addressed by connecting the clients to resources for obtaining a phone or tablet to access the Zoom sessions.

COVID-19 Protocols

The harm reduction outpatient treatment group will be held entirely over telehealth. This includes the assessment, intake, group sessions and individual case management, counseling, and crisis intervention sessions. When clients come into the office for scheduled safe injection supplies pickups, they will have to follow pandemic safety guidelines including social distancing, standing behind a glass screen, wearing a mask, using hand sanitizer, and taking their temperature before entering the building. A part of the harm reduction curriculum will be an educational portion to inform clients about strategies to reduce the risk of COVID-19 while using substances.

Scope of Work

Figure 2 illustrates a scope of work timeline that outlines the main phases, activities, expected deliverables and a general timeframe for the completion of each outcome. The first phase of the project is selecting a capstone project by generating a list of ideas in September 2020. The planning of the capstone project occurs November 2020 to January 2021, and consists of conducting research on evidence based

practices, contacting local agencies for harm reduction supplies donations, researching treatment models and evidence based practices for harm reduction, and developing a harm reduction curriculum. The project will be implemented in February 2021 by providing direct services to clients including case management, individual counseling, group counseling, and crisis intervention. The harm reduction treatment group will be assessed for outcome measures in April 2021.

Figure 2

Scope of Work					
Title: Harm Reduction Outpatient Treatment for Adults in Santa Cruz County					
Project description: The harm reduction outpatient treatment program will address the need for treatment in Santa Cruz County for substance users who are not looking to achieve abstinence and to reduce the harm to those who are still using. This will be done by providing outpatient group counseling, harm reduction supplies, and individual counseling sessions.					
Goal: To reduce the rates of overdose and decrease the spread of bloodborne pathogens.					
Primary objective of the project: To assist clients in learning about harm reduction strategies to reduce the harms caused by their substance use and facilitate any positive change in their lives.					
Phases		**Activities/Tasks**		**Deliverables**	**Timeline/ deadlines**
1	Select capstone project	1.1	Discuss capstone project ideas with mentor and agency staff	Generate a list of capstone project ideas.	Sept 2020
		1.2	Discuss ideas with agency staff	Submit a list of potential ideas to mentor for review/approval	Oct 2020
2	Plan project	2.1	Conduct research on evidence based practices	Submit research findings to mentor	Nov 2020
		2.2	Contact local agencies for harm reduction supplies donations	Obtain harm reduction supplies	December 2020
			Research treatment models and evidence based practices for harm reduction	Submit research to mentor for approval	December 2020
			Develop a harm reduction curriculum	Submit draft curriculum to mentor for review and approval	March 2021
4	Assess project	4.1	Conversation assessing project with mentor	Recording conversation with mentor	May 2021

5	Report on project findings	5.1	Complete reporting requirements	Final agency and capstone reports	May 2021
		5.2	Prepare capstone presentation in selected format	Present at Dress Rehearsal for grading	May 2021
		5.3	Final preparation for Capstone Festival	Final Capstone Festival presentation!	May 2021

The substance-using population in Santa Cruz County faces barriers in improving their quality of life, which results in the population's health being compromised. The substance-using population in Santa Cruz County is at risk of overdose (DataShare Santa Cruz County, n.d) and transmitting bloodborne pathogens (County of Santa Cruz, n.d). When the population experiences barriers in accessing services that would improve the quality of their life, they do engage in resources that would assist them in preventing overdoses and bloodborne pathogens. This contributes to a macro-level public health concern surrounding the rates of overdose and transmission of diseases.

Figure 1. Problem Model Template (Updated)

CONTRIBUTING FACTORS TO AGENCY PROBLEM	**AGENCY-SPECIFIC "MICRO-LEVEL" PROBLEM ADDRESSED BY PROJECT**	**CONSEQUENCES TO AGENCY**
Only "abstinence-only" Treatment is available	The population faces barriers to reducing harms caused by substance use and improving their quality of life	49% client completion rate
Available services are not mainstreamed		Client needs are not being met by agency
Co-occurring disorders		Unsuccessful treatment episodes lead to worse health outcomes.
CONTRIBUTING FACTORS TO BROADER PROBLEM	**BROADER "MACRO-LEVEL" HEALTH/SOCIAL PROBLEM**	**CONSEQUENCES TO SOCIETY**
Barriers in accessing harm reduction supplies	The health of the population is compromised.	Overdoses

Fentanyl		Transmission of bloodborne pathogens
Overprescribing of opioid prescriptions		Opioid Epidemic

Micro-level Problem

People who use substances in Santa Cruz County face barriers to improving the quality of their lives. According to the US Census Bureau Population Division 2016 estimate, nationwide (?) 65–82 million people (≈20–25%) are using substances at risky levels, 23 million people (7%) have problems that need treatment but are not receiving it, and 2.6 million people (0.8%) are receiving treatment This major discrepancy is a phenomenon referred to as "the treatment gap (NIDA, 2015)." According to the Sobriety Works quarterly report generated by The County of Santa Cruz Health and Human Services Department, 51.43% of the agency's clients left before completion of treatment (County of Santa Cruz Health and Human Services Department, 2020). This data indicates that over half of the agency's clients do not successfully transition out, which directly impacts the agency's ability to bill for services and their reported completion rates. This also directly affects the clients since they are not able to complete the program. In 2015, 22.7% of adults in Santa Cruz County reported needing help for their alcohol and drug use, which is greater than the percentage reported (15.8%) for the state of California. By gender, "26.9% of females reported needing help compared to 18.3% of males in Santa Cruz County (Santa Cruz Salud, 2015)."

The contributing factors to the barriers that residents of Santa Cruz county experience are abstinence-only treatment options, inaccessible services, and a lack of co-occurring disorder treatment.

Abstinence-based programs project ideas of what recovery should look like onto clients and prevent substance use disorder from being treated as objectively as any other medical condition. Substance use disorder has a very long and complex history of being viewed as a moral deficiency in society. While there has been progress towards treating substance use disorder like any other medical condition, it is still far from what is needed. "The effects of drug dependence on social systems have helped shape the generally held view that drug dependency is primarily a social problem, not a health problem. In turn, medical approaches to prevention and treatment are lacking." (A. Thomas McLellan et al, 2000). Abstinence based programs have been the traditional standard for substance use disorder treatment and play a large role in upholding those stigmas that have defined the condition for so long. When compare the current attitudes and expectations of substance use disorder to a condition such as diabetes, there are salient differences. Patients that are diagnosed with diabetes are not expected to have completely cut down their sugar intake before coming to treatment, won't be discharged for relapse or declining health, and wouldn't be sent to programs with such a limited time frame with the expectation of sustained success afterward, especially without closely monitored aftercare (McLellan et al, 2000). All of the substance use disorder treatment options in Santa Cruz County follow abstinence based treatment models.

Many individuals who have been diagnosed with a substance use disorder also have a dual diagnosis in mental health. The National Institute on Drug Abuse [NIDA] estimates that about half of the people that experience a substance use disorder will also be diagnosed with a mental health condition at some point in their lives. The statistics show that "Substance use disorders also co-occur at high prevalence with mental disorders, such as depression and bipolar disorder, attention-deficit hyperactivity disorder (ADHD), psychotic illness, borderline personality disorder, and antisocial personality disorder. (NIDA, 2018)." As stated earlier, substance abuse can have unexpected effects on brain chemistry and the potential to trigger or exacerbate pre-existing genetic predispositions. NIDA approximates that 40-60% of an individual's chance of developing substance use disorder is purely genetics. The gene interactions can control how pleasurable a substance feels, stress responses, the likelihood of engaging in high-risk behaviors, and a higher risk of

dependence (NIDA, 2018). The research indicates these complex chemical neurotransmitter and gene interactions can develop co-occurring disorders. These predispositions in the genes can remain "dormant" and not present until an external environmental factor triggers it. There is evidence that this can be passed down from generation to generation (NIDA, 2018).

Despite the fact that there is often a need for treatment that addresses both the substance use disorder and mental illness, most facilities do not have comprehensive treatment for both. According to a study that sampled 256 programs across the United States, "approximately 18% of addiction treatment and 9% of mental health programs met criteria for dual diagnosis capable services. This is the first report on public access to integrated services using objective measures" (A. Thomas McLellan et al, 2000). These percentages show a major discrepancy in the number of patients that qualify as co-occurring and the appropriate services available to them. The County of Santa Cruz County Community Dialogue Report indicated that there is a severe lack of programs that address substance use disorder and mental health. "Participants expressed that people suffering from both mental illness and substance use disorder often go undiagnosed and untreated (County of Santa Cruz, 2016)."

Substance use disorder treatment is not integrated into delivery systems easily accessible by the general public at the appropriate level of care. Of the 23 million in the United States that are in need of treatment, meaning they are currently not enrolled anywhere, 1.1% made an effort to seek services, 3.7% felt they needed treatment but did not seek it, and 95.2% felt they did not need help. This information shows that the majority of people with a substance use disorder are not engaging in services and will rarely enter the treatment database (Comer, 2015). "Only about 1 in 10 people with a substance use disorder receive any type of specialty treatment. The great majority of treatment has occurred in specialty substance use disorder treatment programs with little involvement by primary or general health care. (SAHMSA, 2016)." Many clients are unwilling to enter time-consuming intensive programs and need to be met at lower levels of care.

Macro-Level Problem

The rate of overdoses and transmission of bloodborne pathogens from drug use is too high in Santa Cruz County. The Health Improvement Partnership of Santa Cruz County indicates that the rate at which doctors prescribe opioids in Santa Cruz County is higher than the state average, which also results in higher rates of overdose (Health Improvement Partnership of Santa Cruz County, n.d.). The death rate of opioid-induced overdoses in Santa Cruz County is significantly higher than that of California. In Santa Cruz County, the average death rate is 8.5 deaths per 100,000 residents while the state of California reported an average of 5.8. Compared to other counties in California, Santa Cruz ranks 20th in opioid-induced overdose deaths out of 58 counties. In the United States in 2017, there were approximately 44,700 new cases of acute Hepatitis C. Among these cases, 86.6% reported intravenous drug use prior to experiencing the onset of acute symptoms (CDC, 2019).

The contributing factors towards a high-rate of opioid induced overdoses, the transmission of bloodborne pathogens through intravenous (IV) use, and the monetary cost to society is the presence of fentanyl in street drugs, overprescribing of opioids, and barriers in accessing harm reduction supplies. In 2017, according to the CDC, there were fifty eight opioid prescriptions written for every one hundred Americans. Over 17% of Americans had at least one opioid prescription filled which results in approximately 3.4 prescriptions dispensed per patient (CDC, 2019). A study indicated that 86% of heroin users used opioid pain medication prior to heroin (NIDA, 2018). In 2018, more 31,000 deaths in the United States involving synthetic opioids occured in the United States, which is a 10% increase from 2017. The rates also specifically increase from 2017 to 2018 among males, females, individuals over the age of 25, non-Hispanic whites, non-Hispanic blacks, Pacific Islanders, and in metro counties. The increase in synthetic opioid deaths have been associated with the presence of fentanyl, a lethal opioid used to increase potency, in street drugs (CDC, 2018).

The United States has witnessed a 98% increase in the cases of Hepatitis C between 2010 and 2015. Around 60-70% of the cases were among intravenous drug users. A disproportionate amount of cases of Hep C occur in the Central Appalachian region of The United States. The spread of HIV, Hep C, and other

diseases through IV use is 100% preventable with the use of clean syringes, yet the incident rates are extremely high. Studies have analyzed the barriers that substance users experience in accessing clean syringes and report that the main obstacles are pharmacies harassing substance users when trying to obtain needles, the fear of being harassed by the police, and free syringe programs being hard to access (Davis, 2019). This data indicates that the poor accessibility of syringes correlates to the high rates of Hepatitis C and HIV among substance users.

Assessment Plan

The expected outcome of The Harm Reduction Project is to create an outpatient treatment implementation plan and curriculum. The initial outcome measure will be a conversation with the clinical director and Chief Executive Officer of the agency to assess the construction and implementation of the project. As a result of the time required to launch a treatment and develop a clientele, the component of the project that will be assessed during the duration of the capstone project could possibly be the development of the harm reduction curriculum.

As the harm reduction project continues past the end of the semester, the participant's knowledge of harm reduction strategies and improvement in treatment will be assessed through client satisfaction surveys and American Society of Addiction Medicine (ASAM) risk ratings. During the intake process, client's are rated on a scale of 0-4 in six different dimensions, with 0 being no risk and 4 meaning severe. The six dimensions include: withdrawal potential, physical health, mental health, readiness for change, relapse potential, and living environment. The clients will continue to be assessed every two weeks, and the risk ratings will be recorded in a spreadsheet to track the change, or lack of change. This rating system is especially beneficial in a harm reduction setting because while a client's substance use might not make significant improvements, the clients will have the opportunity to improve other areas of their life such as their physical health, and this change can be documented. Client satisfaction surveys will be provided to

clients at the time of discharge to assess their knowledge of evidence based practices, early recovery tools, and harm reduction strategies before and after their participation in the outpatient treatment group.

The short term goal of The Harm Reduction outpatient project is to develop a harm reduction curriculum and launch the treatment group during the duration of the California State University Monterey Bay Capstone timeline. As the group continues as a treatment option offered at Sobriety Works, the intended intermediate outcome is to increase the participant's knowledge of early recovery tools, evidence based practices, and harm reduction strategies. The long term outcome is to decrease the rates of overdose and blood borne pathogens in Santa Cruz County.

Short term outcome(s)	**Intermediate outcome(s)**	**Long-term outcome(s)/Impacts**
To develop a harm reduction curriculum and implementation plan for the future launch of The Harm Reduction Project.	To increase the participant's knowledge of early recovery tools, evidence based practices, and harm reduction strategies.	A decrease in the rates of overdose and blood borne pathogens in Santa Cruz County.

Findings

The findings from The Harm Reduction Project were derived from a conversation with my mentor about an analysis of the implementation plan. We concluded that harm reduction is an effective evidence based practice for people in the precontemplation stage of change. We also found that the implementation plan I created is thorough and provides a clear guide on how the group would be delivered moving forward.

Assessment Results

The project did not achieve the initial expected outcome, which was a deliverable service. This was due to my lack of knowledge on a realistic timeline for a large scale clinical project and the challenges of navigating the laws, ethics, and liabilities that govern treatment capabilities. I spent most of the duration of the capstone project conducting behind the scenes work including developing a knowledge of evidence based practices, creating a curriculum, and establishing the logistic components of the group. While the project did not achieve the goal of providing a deliverable service to clients, it did create an implementation

plan for the agency to use if they choose to provide the group moving forward past the capstone project. This newfound knowledge on planning and implementing a clinical project will be an asset to the agency moving forward as they create new pilot programs and timelines.

Recommendations

My first and most pressing recommendation to the agency would be to use the implementation plan I created to deliver the harm reduction group as a service. My assessment of community resources and client interest indicated that there is a need for this service and it is not already being provided. I would also recommend that the agency continues calling the pilot program by the name of "harm reduction" instead of "early recovery skills" to stay true to the nature of the program and to advocate for harm reduction within the community.

The research that I provided to the agency on best evidence based practices for harm reduction treatment indicates that harm reduction is the most effective intervention for the population it serves. Based on the assessment with my mentor, I concluded that my implementation plan widened the agency's scope of knowledge on harm reduction. This contributes to a greater understanding for my agency on how to approach the macro problem of overdoses and the transmission of blood borne pathogens. If the group is eventually implemented, the agency would be addressing the problem directly by serving the population it affects.

Conclusion

What I learned most from working on my capstone project was the clinical aspect of harm reduction treatment and the realistic timeline and obstacles of creating and launching a new (and controversial) treatment group. I spent a huge amount of my capstone hours researching how to deliver evidence based practices in a harm reduction setting. This really strengthened my clinical skills and my confidence in my abilities to facilitate the curriculum with the harm reduction cliente. Another important lesson I had to learn is the amount of work that goes into the implementation of the project. It was really hard for us to market the group to other providers, and I was completely and utterly blindsided by this. If I ever choose to start a new pilot program or treatment group, I now have learned the important lesson of designating enough time for the implementation, instead of putting the majority of my time in the preparation. As I continue to pursue harm reduction in my career, I will remember that this capstone project was the catalyst for this path of advocacy.

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