ISSN: 2754-4907

Journal of Drugs Addiction & Therapeutics

SCIENTIFIC Research and Community

Review Article

Open Access

A Holistic Harm Reduction Center Model: A Commentary

Suchismita Ray[1]*, Bilal Husain[1], Saurabh Agarwal[1] and Naima Briscoe[2]

[1]Department of Health Informatics, School of Health Professions, Rutgers University, Newark, New Jersey, USA

[2]Integrity House, Newark, New Jersey, USA

ABSTRACT

Substance addiction is a chronic, relapsing disorder characterized by compulsive drug seeking, loss of control over consumption, and a negative emotional state when access to the drug is restricted. Substance Use Disorders (SUDs) are associated with severe health issues including suicide and co-occurring diseases like HIV and hepatitis C, and mental health problems. Although the present SUD treatment models prioritize abstinence, achieving abstinence during a treatment episode is challenging as majority of individuals with SUDs continue using drugs during treatment. To address this challenge in the current SUD treatment model, harm reduction has emerged as a strategy that focuses on interventions such as naloxone distribution, syringe services, safe drug use education and other strategies that reduce harmful outcomes such as substance-related overdose death and disease transmission while improving quality of life. This commentary proposes a Holistic Harm Reduction Model that can be incorporated by harm reduction centers aimed at reducing risky drug use behavior and overdose deaths, and ultimately improving public health outcomes in the community. The proposed holistic model includes new components such as trauma-informed care and referral and a brief mindfulness intervention along with the already existing harm reduction approaches such as Licensed Practical Nurses (LPNs) and harm reduction managers to provide comprehensive healthcare services, distribution of supplies; education; referral and linkage to other services, including medications for substance use disorder; and participant data collection and analysis.

***Corresponding author**

Suchismita Ray, Department of Health Informatics, School of Health Professions, Rutgers University, Newark, New Jersey, USA.

Received: September 27, 2024; **Accepted:** October 02, 2024; **Published:** October 12, 2024

Substance Addiction

Drug addiction can be defined as a chronically relapsing disorder, characterized by compulsion to seek and take the drug, loss of control in limiting intake, and emergence of a negative emotional state (e.g., dysphoria, anxiety, irritability) when access to the drug is prevented [1]. Substance use disorders (SUDs) are associated with progressive decrements to physical and mental health, and frequently lead to death via suicide, co-occurring diseases such as human immunodeficiency virus (HIV) and hepatitis C virus (HCV), and overdose [2,3].

Based on the New Jersey Department of Health, there has been a consistent increase in the number of overdose deaths (ODs) year after year since 2012 in New Jersey. Gender and age distribution reveal that males between the ages of 25 and 64 are most impacted by ODs (25-34 years: 4908 ODs; 35-44 years: 4623 ODs; 45-54 years: 4558 ODs; 55-64 years: 3243 ODs) (New Jersey Department of Health, 2024; New Jersey Office of the Attorney General, 2024). County level analysis indicate that since 2012, Essex, Camden and Ocean counties in New Jersey are most affected by ODs. Essex County has the highest ODs in New Jersey over the last 12 years (2022-450 ODs; 2023-447 ODs; 2024 May1st-123 ODs) with the African American community experiencing the highest ODs. Following Essex County, Camden and Ocean counties are also affected by ODs with White Americans facing the most ODs (New Jersey Department of Health, Data by County).

Current Methods of Addressing Substance Addiction

The majority of SUDs treatment programs in the US promote abstinence from illicit drugs and/or alcohol, however achieving abstinence during a treatment episode is challenging as many individuals with SUDs continue their drug use behavior [4,5]. Alternatively, harm reduction interventions aim to minimize the negative consequences of drug use among people who inject drugs (PWID) without the focus on cessation. According to Huhn and contrary to abstinence-based treatment, harm reduction outcomes, such as reduced risky behaviors and drug/alcohol use are more achievable for many people with SUDs compared to complete abstinence [2]. Despite some public resistance due to the use of public funds, these programs have been evaluated for their cost-effectiveness and their impact on the quality of life of participants who are often youths and young adults. According to the National Institute on Drug Abuse (2022), harm reduction designed by and for people who use drugs serves as a distinct model of substance use care separate from treatment or recovery support It aims to enhance health and well-being, even during active drug use. Well-researched harm reduction strategies include syringe services and naloxone distribution programs. According to the New Jersey Department of Health (2024), Harm Reduction Centers, also referred to as Syringe Access Programs, are community-driven initiatives that offer a safe, trauma-informed, and non-judgmental environment for individuals who use drugs. These centers provide access to sterile syringes, needles, injection supplies, and the life-saving medication naloxone (commonly known as Narcan).

Additionally, they offer education on safer drug use, overdose prevention, and the proper disposal of used equipment.

Harm Reduction Through Education, Drug Impurity Checking, Sterile Drug Use Equipment and Medications

Harm reduction through education and drug impurity checking services may reduce fatal overdose risk. Research conducted Dolan and Colleagues suggest that a harm reduction approach such as education on increased likelihood of heroin impurity and overdose risk was associated with decreased likelihood of heroin use [6]. Additionally, needle/syringe exchange programs (NSEP) and opioid agonist therapy (OAT) have shown evidence in reducing HIV/HCV incidence, with risk reductions of 10-40% for NSEP and 50-60% for OAT and reducing sharing injecting paraphernalia (50% for NSEP, 25–85% for OAT; [7]. A study conducted Rando and colleagues on the impact of law enforcement naloxone distribution showed a correlation between increased naloxone availability and reduced overdose deaths, as well as improved survival rates among overdose victims [8]. Another study Coffin and colleagues indicates that co-prescribing naloxone with opioid analgesics significantly reduces emergency department utilization for opioid overdoses for up to one year following prescription [9].

The New Jersey State Governor has recently enacted a series of legislative measures aimed at enhancing harm reduction efforts to address the opioid crisis. These measures are designed to remove longstanding barriers to harm reduction services, thereby expanding access to sterile syringes, health screenings, treatment, and recovery support (The State of New Jersey). By facilitating the distribution of sterile syringes and decriminalizing syringes and fentanyl test strips, the legislation aims to prevent the transmission of blood-borne infections such as HIV and hepatitis C, and to reduce overdose fatalities. Harm reduction centers, empowered by this legislation, will now be able to offer a more comprehensive array of services, providing a non-judgmental, supportive environment for individuals who use drugs. These centers are instrumental in improving access to critical health services and connecting individuals to treatment and recovery resources.

Mindfulness as a Behavioral Intervention for Substance Use Disorder

Mindfulness is a practice that involves sustaining heightened awareness of the present moment in a non-judgmental and accepting manner. This approach has shown considerable promise in treating individuals with SUD, where it has been integrated into various therapeutic modalities such as Mindfulness-Based Stress Reduction (MBSR), Mindfulness-Based Cognitive Therapy (MBCT), and Mindfulness-Based Relapse Prevention (MBRP). In a pilot study conducted Kennelly and Ray a six-week mindfulness intervention was found to be effective in reducing perceived stress and opioid craving while improving emotional regulation among underserved patients with opioid use disorder (OUD) [10]. Additionally, mindfulness practices have been shown to reduce alcohol use in college students [11].

Furthermore, according to a literature review Bayles, mindfulness can foster an objective relationship with one's thoughts and feelings by encouraging individuals to view them as an observer [12]. This perspective helps prevent the escalation of thought patterns that might lead to relapse. By increasing awareness and acceptance of relapse triggers, mindfulness can reduce craving and minimize blame, guilt, and negative thinking - all of which may increase the risk of relapse [13,14].

Proposed Holistic Harm Reduction Model

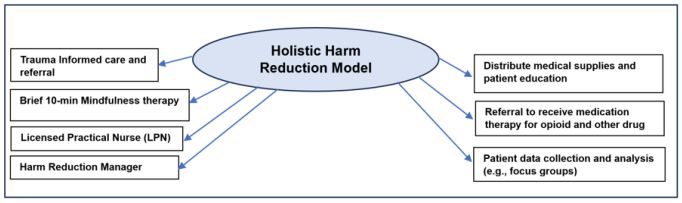

Figure 1: Proposed Model

We propose a Holistic Harm Reduction Model to be incorporated by the Harm Reduction Centers that will include the following components

- Trauma Informed Care and Referral
- Brief 10-Minute Mindfulness Therapy
- Licensed Practical Nurse (LPN)
- Harm Reduction Manager
- Distribute Medical Supplies and Patient Education,
- Referral to Receive Medication Therapy for Opioid and Other Drug Addiction,
- Patient Data Collection and Analysis (e.g. Focus Groups)
- Each of these Components is Aimed at Reducing Risky Drug Using Behavior and ODs. Each of these.

Components is Described Below

Trauma informed Care and Referral

A clinical psychologist with expertise in trauma care will train the LPN on a brief trauma history and PTSD screening protocol, and on trauma counseling and referral [15]. Epidemiological research shows that most individuals with PTSD also experience comorbid conditions, notably depression and anxiety disorders, and SUD [16]. Individuals with trauma history will receive trauma counselling by the LPN and will be referred to receive PTSD treatment to alleviate mental health symptoms and substance use.

Brief 10-Minute Mindfulness Therapy

A 6-week Mindfulness Based Stress Reduction (MBSR) intervention has shown to decrease perceived stress, difficulty in emotional regulation, drug craving and to improve sleep-in individuals with OUD [17,18]. Importantly, a 10-minute guided Mindfulness-Oriented Recovery Enhancement (MORE) intervention has shown to significantly improve positive mood in women with OUD [19]. Our proposed holistic Harm Reduction Model will utilize a 10-minute MBSR intervention for the individuals those who will participate in the harm reduction program. Specifically, the substance users will be trained on a 10-minute MBSR therapy by the LPN while they appear in the harm reduction center for the first time and then they will also be provided with a 10-minute audio recording of the MBSR therapy. The audio recording will be texted to their cell phone so that they can practice the intervention in order to improve their mental health and reduce substance use.

Licensed Practical Nurse (LPN)

The LPN will be critical to the success of a harm reduction center. He/she will provide vital care monitoring and health assistance to clients of the center on items such as prevention of infections/communicable diseases, safer sex information, self-care including the safe use of needles/syringes, wound care and hydration/nutrition. The LPN will also provide clients access to STD testing and treatment, medical care, dental care and other critical health services in the community. He/she will also provide brief mental health and trauma screening and referral, and the brief mindfulness intervention.

Harm Reduction Manager (HRM)
The HRM will be responsible for providing daily oversight for center operations and education on harm reduction practices, and the establishment of partnerships that support client health and well-being.

Distribute Medical Supplies and Patient Education
The HRM and LPN will be responsible for the distribution of needles, syringes, wound care/first aid kits, contraceptives, HIV/STD and viral hepatitis testing kits to ensure safe drug use and prevention of transmission of communicable diseases. Additionally, the HRM and LPN will ensure the successful distribution of Narcan (Naloxone) and adulterant test strips to prevent overdose ODs. They will also facilitate educational workshops on overdose prevention and response, safe substance use practices, harm reduction and the law, self-care and other topics that will benefit clients.

Referral to Receive Medication Therapy for Opioid and Other Drug Addiction
The HRM and LPN will facilitate the following

- Referral to HIV, Hepatitis C, and/or other STI testing for 100% of participants that request or need services
- Provide immediate linkage to substance use and mental health including trauma treatment for 100% of participants who request it and
- Provide robust care coordination services, including facilitated referral to housing, job training, food pantries, primary care, and other resources.

Patient Data Collection and Analysis (e.g. Focus Groups)
The harm reduction centers will aim to collect feedback from 100% of center clients to ensure a satisfaction rate of 80% or more. On a monthly basis, the centers will disseminate a brief survey that will address clients' satisfaction with key aspects including the following: Core services (e.g., harm reduction supplies and education, care coordination, trauma screening and referral, mindfulness intervention, etc.); Center location; Staff engagement (i.e., do clients feel as if they have received compassionate care and treated with dignity); and Center atmosphere. This survey will be administered electronically; however, paper versions of the tool will also be available. The harm reduction centers may incentivize participation by offering gift cards. The qualitative (e.g., focus groups and surveys) and quantitative (e.g., weekly census, number of supplies distributed) data will be analyzed in order to inform evaluation activities. The harm reduction centers and their community partners will engage in quality improvement activities through focus groups to ensure center services are effectively meeting community needs.

Conclusion
Our proposed holistic harm reduction model adds innovative components such as trauma-informed care and referral, and a brief mindfulness intervention along with already existing harm reduction approaches such as Licensed Practical Nurses (LPNs) and harm reduction managers to provide comprehensive healthcare services, distribution of supplies and participant education, referral for medication assisted treatment for substance use disorder, and referral to mental health, housing, food services, and other resources. This holistic model will aim at reducing risky drug taking behavior and overdose deaths, and ultimately improve public health outcomes in the community at large [20,21].

Acknowledgements
This work was funded by a Rutgers University School of Health Professions' Dean's Grant (#303121).

Conflict of Interest
The authors declare no conflict of interest.

References

1. Koob GF, Volkow ND (2016) Neurobiology of addiction: a neurocircuitry analysis. Lancet Psychiatry 3: 760-773.
2. Huhn AS, Gipson CD (2021) Promoting harm reduction as a treatment outcome in substance use disorders. Experimental and Clinical Psychopharmacology 29: 217-218.
3. Le Moal M, Koob GF (2007) Drug addiction: Pathways to the disease and pathophysiological perspectives. European Neuropsychopharmacology 17: 377-393.
4. Peele S (2016) People Control Their Addictions: No matter how much the "chronic" brain disease model of addiction indicates otherwise, we know that people can quit addictions - with special reference to harm reduction and mindfulness. Addictive behaviors report 4: 97-101.
5. Jones CM, Han B, Baldwin GT, Einstein EB, Compton WM (2023) Use of Medication for Opioid Use Disorder Among Adults with Past-Year Opioid Use Disorder in the US. JAMA Netw Open 6: e2327488.
6. Dolan SB, Johnson MW, Dunn KE, Huhn AS (2021) The discounting of death: Probability discounting of heroin use by fatal overdose likelihood and drug purity. Exp Clin Psychopharmacology 29: 219-228.
7. Tonin FS, Alves da Costa F, Fernandez-Llimos F (2024) Impact of harm minimization interventions on reducing blood-borne infection transmission and some injecting behaviors among people who inject drugs: an overview and evidence gap mapping. Addict Sci Clin Pract 19: 9.
8. Rando J, Broering D, Olson JE, Marco C, Evans SB (2015) Intranasal naloxone administration by police first responders is associated with decreased opioid overdose deaths. Am J Emerg Med 33: 1201-1204.
9. Phillip O Coffin, Emily Behar, Christopher Rowe, Glenn-Milo Santos, Diana Coffa, et al. (2016) Non-Randomized Intervention Study of Naloxone Co Prescription for Primary Care Patients Receiving Long-Term Opioid Therapy for Pain. Ann Intern Med 165: 245-252.
10. Kennelly NR, Ray S (2023) Efficacy of a Brief Mindfulness Intervention in Underserved Individuals Receiving Inpatient Treatment for Opioid Use Disorder: A Pilot Study. Cureus 15: e40525.
11. Blume AW (2012) Seeking the middle way: G. Alan Marlatt and harm reduction. Addiction Research & Theory 20: 218-226.
12. Bayles C (2014) Using mindfulness in a harm reduction approach to substance abuse treatment: A literature review. International Journal of Behavioral Consultation and Therapy 9: 22-25.
13. Bowen S, Chawla N, Collins SE, Witkiewitz K, Hsu S, et al. (2009) Mindfulness-based relapse prevention for substance use disorders: a pilot efficacy trial. Substance abuse 30: 295-305.
14. Witkiewitz K, Bowen S, Douglas H, Hsu SH (2013) Mindfulness-based relapse prevention for substance craving. Addictive behaviors 38: 1563-1571.
15. Rytwinski NK, Scur MD, Feeny NC, Youngstrom EA (2013) The co-occurrence of major depressive disorder among individuals with posttraumatic stress disorder: a meta-

analysis. J Trauma Stress 26: 299-309.

16. Ray S, Kennelly N, Fox HC, Greendyk S, Hipol-Ligot C, et al (2022) Efficacy of a 6-Week Mindfulness Intervention in Underserved Residents Receiving Treatment for Opioid Use Disorder during the COVID-19 Pandemic in New Jersey: A Multisite Pilot Feasibility Study. J Addict Addictv Disord 9: 104.
17. Suchismita Ray, Jamil Bhanji, Nicole Kennelly, Helen C Fox, Patricia Dooley Budsock, et al. (2024) Mindfulness-oriented recovery enhancement in opioid use disorder: Extended emotional regulation and neural effects and immediate effects of guided meditation in a pilot sample. Explore (NY) 20: 434-438.
18. Bowen S, Witkiewitz K, Clifasefi SL, Grow J, Chawla N, et al. (2014) Relative efficacy of mindfulness-based relapse prevention, standard relapse prevention, and treatment as usual for substance use disorders: a randomized clinical trial. JAMA psychiatry 71: 547-556.
19. Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB (1995) posttraumatic stress disorder in the National Comorbidity Survey. Arch Gen Psychiatry 52: 1048-1060.
20. Schnurr P, Vielhauer M, Weathers F, Findler M (1999) The Brief Trauma Questionnaire (BTQ) https://www.ptsd.va.gov/.
21. Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, et al. (2013) The PTSD Checklist for DSM-5 (PCL-5)- Standard https://www.ptsd.va.gov/.