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Opioid Epidemic in West Virginia

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Opioid Epidemic in West Virginia

ABSTRACT

Introduction

One of West Virginia's most prominent public health issues and concerns has been the opioid crisis. The opioid epidemic has taken the lives of so many of the West Virginia population. The purpose of this research study was to determine if the opioid epidemic had caused an increase of Hepatitis C among the West Virginia population and access treatment options.

Methodology

The methodology was a literature review. Twenty-five sources were referenced for this literature review from 2007-2020.

Results

This literature review has examined several sources of the Opioid Epidemic in West Virginia. The Opioid Epidemic in West Virginia have demonstrated to have increased the transmission of infectious diseases such as Hepatitis C. Needle Exchange Programs have provided treatment options for those addicted to opioids.

Discussion/Conclusion

The Opioid Epidemic has been proven to be the cause of transmission of Hepatitis C to increase. This literature review has indicated that Needle Exchange Programs have provided treatment options for those addicted to opioids.

Key Words: Opioid Epidemic, Hepatitis C, Overdose, Treatment, Needle Exchange

INTRODUCTION

In 2009, when the recession had hit the US, many rural communities struggled to find jobs then drug addiction emerged (Boles 2020). Increased prescription of opioid medication had caused the misuse of both prescription and non-prescription opioids before it had shown that they have been highly addictive (USDHHS 2019). It is estimated that 21% to 29% of patients have been prescribed opioids for chronic pain have been misusing those medications (NIDA 2020). The NIDA reported that among these prescriptions include prescription pain relievers, heroin, and synthetic opioids such as fentanyl (NIDA 2020). In the United States each year, the Centers for Disease Control (CDC) have reported that the prescription opioid epidemic has costed \$78.5 billion, these charges broken down include the cost of health care, lost productivity, addiction treatment, and criminal justice involvement (CDC 2018).

The opioid epidemic in West Virginia has not only caused overdoses among residents, it also has caused health concerns to those who have been around it. One of the diseases spread has been Hepatitis C which has been a viral infection that has been spread through contaminated blood and more than likely the person that has been infected has been unmindful of the virus (Mayo Clinic 2018). The epidemic has caused the rate of Hepatitis C infection to increase more than three times the amount in West Virginia (Coustasse, Phillips, Botre, Paul 2018). Hepatitis C has been a liver infection caused by the Hepatitis C virus (Nall 2018).

The CDC reported that Hepatitis C has been on rise since 2010 and has been associated with injected drug use (CDC 2017). Hepatitis C virus was very infectious and has been easily spread when a person has come in contact with surfaces, equipment, or objects that have been contaminated (CDC 2016a). The CDC reported that the virus has survived on dry surfaces and

equipment for up to six weeks and has been found on needles and syringes, preparation equipment, fingers, and surfaces (CDC 2016a). Because of drug use it often impairs judgement and has caused those who use drugs to engage in unsafe and risky behaviors (NIDA 2018). The NIDA reported that that a person who has injected themselves with drugs and has Hepatitis C was likely to infect 20 different people (NIDA 2018).

Hepatitis C was an inflammation of the liver that is was generally caused by drug use such as heroin (AACES 2020). It has taken anywhere from six months to five years before a person has experienced any noticeable symptoms that a hepatitis C infection was present in the body (AACES 2020). Once the identity of the symptoms has been diagnosed, the better chance a person has of reducing the amount of damage the virus causes and begin a course of treatment (AACES 2020). The CDC reported that the symptoms of Hepatitis C include fever, fatigued, no appetite, upset stomach, vomiting, dark urine, joint pain, and yellowing of skin and eyes (CDC 2016a).

The purpose of this research study was to determine if the opioid epidemic has caused an increase of Hepatitis C, overdoses and access the treatment options.

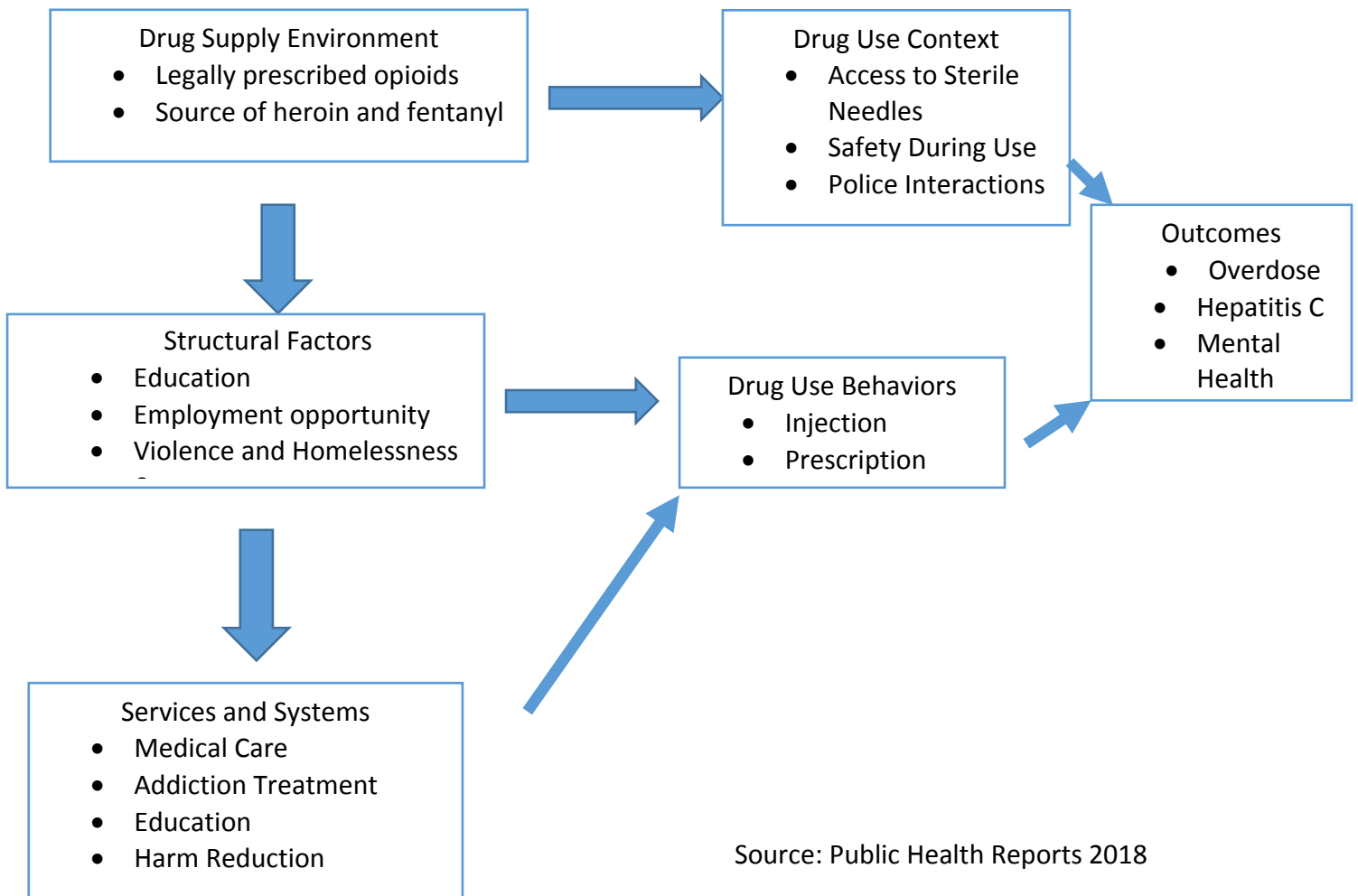
METHODOLOGY

The methodology for this study was literature and review of case studies. The primary hypothesis of this research paper was to determine if the opioid epidemic had caused an increase the rate of Hepatitis C, overdoses and access the treatment options. The method used was a literature review combined with a semi structure interview Leigh Anna Crabtree, a clinical coordinator at Neonatal Therapeutic Unit at Cabell Huntington Hospital. The interview was recorded on February 24th2020 face to face with a signed consent form, approved by IRB, and

only answers that pertinent were used to assist the information found in the literature review to provide an understanding and more complete overview of the technology and its utilization in process.

The conceptual framework used for this review was adapted from Public Health Reports (2018).

This conceptual framework was properly used because both studies identify factors as they show at risk populations. The conceptual framework identifies factors that may show individuals who may develop a substance use disorder and the health consequences that affects those individuals.



Search Strategy

The review used in this study about the Opioid Epidemic in West Virginia enclosed primary and secondary data. The research explored the opioid epidemic in West Virginia, the transmission of infectious diseases, and access treatment options.

Step 1: Literature Identification and Collection

When implementing the search, the following keywords were used: “Opioid Epidemic” or “Population” and “West Virginia” or “Needle Exchange” or “Hepatitis” and “Overdose” The electronic databases of, EBSCOhost, ProQuest, Access Pharmacy and Google Scholar were searched to gather academic literature. Reliable websites of the Centers for Disease Control and National Institute on Drug Abuse were also in the review. The search identified 613 relevant citations and excluded 547 if they did not meet inclusion principles. Citations included were 45 and were relevant to the opioid epidemic in West Virginia and other articles included were 27 from this search. Only 10 references were used in the results section.

Step 2: Establishment of Inclusion Criteria and Literature Analysis

The search was limited to articles published between 2007 and 2020 in the English Language. Twenty-five sources were selected for this research. This literature search was conducted by BC and validated by AC, who acted as the second reader and double checked to ensure that references met the inclusion criteria.

RESULTS

Opioid Overdose

In 2016, a person in West Virginia was dying of a drug overdose every ten hours (Marsh 2018).

Over the years, opioid abuse has been the number one cause of death in drug overdoses in West Virginia. (State of West Virginia 2018).

An opioid overdose has happened when there has been so many opioids or in some cases a combination of opioids and other drugs in the body that the person cannot respond to stimulation and breathing has been slowed (Harm Reduction Coalition 2019). This happened because opioids fit into a certain receptor that the person needed to breathe (Harm Reduction Coalition 2019). With heroin and prescription opioids have been dangerous combo, they have been known to affect the body's central nervous system, which has been slow breathing, low blood pressure and heart rate, and reduced body temperature (Harm Reduction Coalition 2019). In 2017 there were 70,237 drug overdose death that happened in the US and out of those in West Virginia those deaths were 57.8 per 100,00 residents (CDC 2018). The CDC reported that in the US, more than 1000 emergency department visits daily were related to the misuse of opioids (Schiller, Mechanic 2019).

Figure 1

The rate of drug overdose deaths has been on the rise since early 2000s. The chart explained the rates of opioids in West Virginia by opioid category (NIDA 2019a). Drug categories are not mutually exclusive and some might have more than one substance. West Virginia in 2017, had 833 drug overdose deaths involving opioids (NIDA 2019a). The biggest increase was those using synthetic opioids instead of methadone opioids which shows a rise from 122 deaths in 2014 to

618 in 2017 (NIDA 2019a). Death tolls for those using heroin had rose to 244 deaths by year 2017.

Hepatitis C

The number of new hepatitis C infections has more than tripled since 2010, with an estimated 44,000 people newly infected and 17,253 associated deaths in 2017 (CDC 2019). On average one-third of U.S, aged 18-30 years were infected with Hepatitis C (CDC, 2016). Sixty-eight percent of Hepatitis C cases were due to an individual who injected themselves with drugs (Paul, Botre, Phillips, Abboud, Coustasse, 2018). However, in West Virginia, the abuse of injectable drugs had caused the rate of Hepatitis C infection to increase more than three times the amount and that over two-thirds of newly reported acute Hepatitis C infections had been associated with injectable drug use (Paul, et al., 2018). This usually has lasted up to 12 weeks (Mayo Clinic, 2018). The cure for an individual with Hepatitis C was \$188,859, this vast increase in the incidence of Hepatitis C in West Virginia forebode a considerable increase in health costs for the state (Paul et. al 2018). This treatment does not include other health care services that may need to be provided, such as emergency room visits or having to have the paramedics bring someone back to life.

Treatment Options

The needle exchange programs have reduced the amount of transmission of Hepatitis C by provided services such as safer injection practices, minimize the harm by drug use, education on to avoid and manage an overdose, and referrals to other health care services (Avert 2019). Needle Exchange Programs have been a way for those who use opioids to correctly dispense used needles and get new sterile needles. These programs have offered counseling for the user,

condoms for safer sex, and vaccination to protect against and Hepatitis C (Avert 2019).

Substance abuse facilities that have offered Hepatitis C testing has played a significant role in identifying and interrupting transmission, and help prevent outbreaks from happening in the future (Sayas et. al 2018).

These programs have been supported by the American Medical Association, the Centers for Disease Control and Prevention, and the American Academy of Pediatrics, all have been major public health institutes (National Minority AIDS Council Building Healthier Communities, 2012). The CDC has recommended that the needle exchange programs as a way for Injection-Drug Users to prevent the transmission of blood-borne viruses, Hepatitis C Virus (CDC 2007). The CDC has been recommended that a person who has injected drugs must use a new sterile needle for each injection; with the needle exchange programs, it can be monitored and assessed in the Hepatitis C prevention measures along the U.S (CDC 2016b).

The needle exchange has improved public health by reducing the risk of diseases spread, along with helping the substance use disorder epidemic (Lilly, et al., 2019). Needle exchange programs had proven public health intervention in the fight against opioid addiction.

DISCUSSION

The purpose of this research study was to determine if the opioid epidemic has impacted Hepatitis C and overdoses and access the treatment options. The primary hypothesis of this research paper was to determine if the opioid epidemic had caused an increase the rate of Hepatitis C and overdoses and access the treatment options. Results from this literature review revealed that the opioid epidemic has caused an increase of Hepatitis C infections and that

needle exchange programs have helped decrease the amount of transmission of Hepatitis C infections.

Studies revealed facts that the opioid epidemic has had an impact on the residents in West Virginia. West Virginia has been one of highest states in the country of the use of prescription pain relievers. Opioid abuse has been the number one cause of death in drug overdoses. Over the years prescribed opioids for pain have been inappropriately used causing overlapping prescriptions and long-acting or extended-release prescription pain relievers for acute pain and high daily doses. That was where the drug epidemic started, and when users could not get the prescriptions, they turned to drugs like heroin and fentanyl.

Hepatitis C have been on the rise because of the opioid epidemic. Hepatitis C, a viral infection that has been spread through contaminated blood and more than likely the person that has been infected has been unmindful of the virus. The epidemic has caused the rate of Hepatitis C infection to increase more than three times the amount in West Virginia.

According to Leanna, Clinical Coordinator at Cabell Huntington Hospital, the help from the community has to come together to battle this epidemic and has to be educated and understanding on addiction. The patients at Cabell Huntington Hospital that have been battling addiction has been through some sort of trauma in their life that has caused their addiction. Leanna included that for those battling addiction and it has been going through treatment they need to have a support system from either peers or family members to overcome the addiction. Leanna included that a treatment facility that Cabell Huntington has been affiliated with is PROACT. PROACT has been dedicated to reduce the impact of addiction in the community. This facility has provided education, assessment, intervention, and treatment

solutions. It has brought together behavioral, social, and medical resources from the community to effectively treat patients that have been suffering from addiction. PROACT has been an outpatient medical facility that has assessed patients following discharge from local emergency rooms and inpatient detox units and has referral from quick and emergency response teams. This facility has also accepted self-referrals and referral from community providers.

Treatment options include needle exchange programs. The needle exchange programs have reduced the amount of transmission of HIV and Hepatitis C by provided services such as safer injection practices, minimize the harm by drug use, education on to avoid and manage an overdose, and referrals to other health care services (Avert 2019). Avert included that exchange programs offered counseling for the user, condoms for safer sex, and vaccination to protect against HIV, sexually transmitted disease, and viral hepatitis

Study Limitations

Limitations have been in every literature review due to the restrictions in the literature search strategy because of the following reasons. Since the topic was on Opioid Epidemic in West Virginia, peer-reviewed literature on this topic was limited. Additional databases were explored; however, the databases had the same articles that were obtained by the four databases. The restrictions included the number of databases accessed and the publication and researches bias cannot be ruled out.

Practical Implications

A practical implication for the Opioid Epidemic is to reduce the number of transmitted diseases and it ultimately involves the participation of the different programs in West Virginia, and as

well as drug users who utilize the Needle Exchange programs. Providing new, sterile syringes to persons who inject drugs illicitly is one of the most effective means for preventing disease transmission in the community.

CONCLUSION

The Opioid Epidemic has been proven to be the cause of transmission of Hepatitis C virus. This literature review has indicated that the Needle Exchange Program has reduced the transmission of Hepatitis C.

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Appendix A:

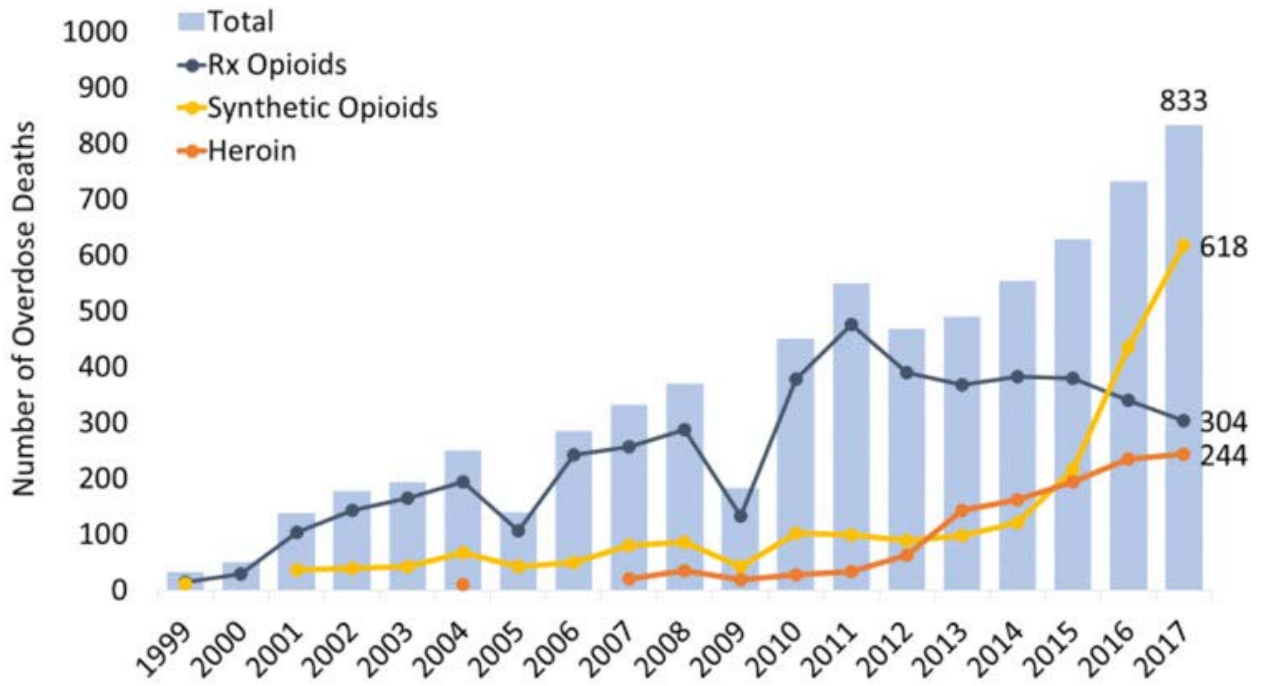
Semi Structured Interview:

The person I plan to interview is someone at Cabell Huntington Hospital and who works closely and knows about the opioid epidemic. The questions I plan to ask are

- 1.) Are there any programs that can help those suffering from addiction?
- 2.) Is there a proper way to dispose of unused opioids?
- 3.) What can the residents do as a whole about the opioid epidemic?
- 4.) How success is treatment for addiction?
- 5.) What are the warning signs of opioid abuse?
- 6.) How does drug addiction treatment help reduce the spread of HIV and Hepatitis C?
- 7.) How do mental disorders coexisting with drug addiction affect drug addiction treatment?
- 8.) If nothing is done about the opioid crisis, how will that affect the crisis in the future?
- 9.) If you had to narrow down the cause of the Opioid Epidemic in West Virginia to three main contributing factors what would they be?
- 10.) In your professional opinion, are there alternatives to treating chronic pain with opioids?

Table and Figures

Figure 1



Source: CDC Wonder

Figure 2

PRISMA-Overview of Literature Evaluation

