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# Drug Use During Pregnancy: The Impact of Maternal Drug Addiction on Infants

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## ABSTRACT

Drug abuse during pregnancy is a universal problem. The recent work sought to identify the extent of the problem in West Texas. Although the available data was limited, the age of use is younger than other comparable areas; drugs of choice were similar to existing report from the literature. Generalizability was insufficient to develop recommendations for intervention.

Drug Use During Pregnancy: The Impact of Maternal Drug Addiction on Infants

A Thesis

Presented to

The Faculty of the Graduate School

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science

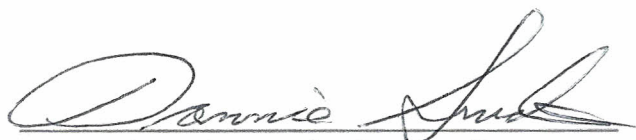
By

Eduwem Turner

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This thesis, directed and approved by the candidate's committee, has been accepted by the Graduate Council of Abilene Christian University in partial fulfillment of the requirements for the degree


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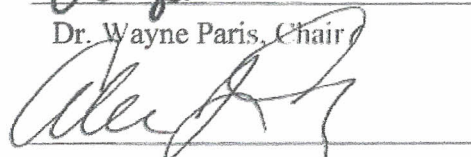
  
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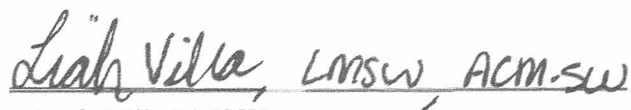
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## CHAPTER I

### INTRODUCTION

Drug abuse during pregnancy is a universal problem, and it exists in all major cities and towns. Drugs of choice may refer to illegal or prescription drugs. Regrettably, the women who consume the drugs can cause the fetus to become addicted as well. Drug abuse during pregnancy is considered as a malicious act since it is associated with a myriad of addiction related defects to the unborn fetus. Moreover, these women are not often aware of the effects of illicit drugs (Finfgeld, 2001). Consequently, these drugs are exposed and transmitted to the fetus through the mother's bloodstream during development and before maturity. This means that by the time of delivery, both the mother and the baby will require specialized treatment.

Neonatal abstinence syndrome (NAS) refers to the withdrawal effects that a newborn goes through while reacting to the lack of the drugs used while developing in the womb and in some cases lead to the death of the infant. The withdrawal syndrome can be mild to extreme depending on the level of drugs in the baby's bloodstream.

Pregnant women who abuse illegal drugs are positioned at the nexus of public health and criminal justice intervention. The impact of substance use on their personal health and the health of their fetuses is a public health concern. However, healthcare workers in Obstetrics and Gynecology (OBGYN) offices are not legally obligated to report drug use by a pregnant mother. However, once the child is born, and is tested positive for the abused substance, then the physicians are legally mandated to report the

findings. A positive toxicology is considered as potentially child abuse according to the laws in all states.

Generally, pregnant women use different types of drugs such as cocaine, cannabinoids, opiates, amphetamines, benzodiazepines, and methadone. The two primary drugs of choice found in pregnant mothers are methadone and buprenorphine (Soyka, 2013). However, it should be equally obvious that the diagnosis is not certain from solely having a positive toxicology. For example, illegal drugs, such as cocaine is an obviously illegal drug, its use present a clear and present danger to the fetus. However, the long lasting effect of cannabinoids such as neurodevelopmental problems may not be detectable on an infant until years after birth (Jaques et al., 2014).

Prescribed drugs are not automatically considered illegal; however, a legal substance, if it is misused aside from the purpose of medical treatment, is considered illegal (Therivel, 2016). The decision to misuse methadone and buprenorphine can have the same effects as smoking cigarettes or consuming alcohol while pregnant. Although these substances may be legal, they post a potential health risk to the unborn baby.

In 2000, Colorado became the first state to legalize marijuana for individuals ages 21 and over. Accordingly, physicians were encouraged to educate pregnant women about the potential risk of consuming marijuana during pregnancy (Colorado.gov, 2017). Although Colorado laws protect a pregnant woman of being prosecuted criminally; if after giving birth and the baby is tested positive for THC, Colorado laws states that the result should be reported to child protective services for further evaluation.

Nationally, America is known to have a large number of people with drug abuse disorders, and as a result have exposed infants in utero. According to Miles, Francis, and

Chapman (2010), 6% of pregnant women used illicit drugs (e.g., cocaine, cannabis, and benzodiazepine) and 14% used methadone as part of treating opioids addiction (Jones, Finnegan, & Kaltenbach, 2012). Women undergoing methadone maintenance treatment (MMT) who test positive for other substances present with a whole host of medical problems and are considered to be in the abuse category (Clausen, Aguilar, & Ludwig, 2012).

The means by which states choose to treat the problem are equally diverse. Some states imprison or criminalize substance abusers as a result of avoiding their parental rights while others have recommended treatment to these addicted abusers. Only South Carolina, for example has convicted mothers for using cocaine during pregnancy (Lollar, 2017). Other states have approached the problem differently by introducing treatment programs to pregnant women, and give them priority to treatment access. Colorado is one of the few states that provide health care services to pregnant women who are considered to be at greater risk to have complications during birth due to substance use (Olds, 2006).

The literature selected to review includes scholarly works including books, peer reviewed journal articles, and governmental database of departments actively involved in monitoring babies born to women addicted to drugs. The primary aim of this literature review is to report the extent of drug abuse during pregnancy, estimate the spread of the problem and investigate the potential outcome of this problem. Laws, policies, and strategies are required to help address the problem and protect mothers and infants. This paper will address issues of economics (the cost of pursuing treatment for the infants), efficacy (the working policies), and politics (who supports or opposes).

This paper will help in creating awareness about drug abuse during pregnancy and expose the incidence of the problem as it exist in West Texas. The result will hopefully enhance the ability of local health providers to plan and deliver services to those who suffer from the problem.

## CHAPTER II

### LITERATURE REVIEW

In West Texas, individuals are identified based on their socioeconomic status, the neighborhood they live in, their color, language, sex, cultural beliefs, and history. For purposes of this discussion one can look at the history of women with a drug addiction, their experiences that they faced, the process by which they are recognized, and how they may be assisted.

Pregnant women with an addiction problem face numerous barriers in life that have led to some of them becoming traumatized. Based on prenatal care, these barriers may be classified as structural or personal to each individual. With this in mind, the access to health care is important to this study. It is not a one-dimensional problem that pregnant women face. This is important because what society does to help prevent and treat the problems is equally important. Effective treatment has two faces: one is the ‘true self,’ and the other one is the ‘addict self’ (Kilty, 2011).

Criminalized women try to reconcile both of these identities, and in doing so further isolate themselves from potential help. Experts believe that even though the addiction is an element of their identity, it does not define who they really are. Rather, addiction is an interference with their ‘true self’ (Kennedy-Hendricks, McGinty, & Barry, 2016). While trying to come to terms with their actions, addicts see their addiction as a disease created out of choice. Therefore, becoming sober once more is a sign of transforming back to one’s true self. However, returning to one’s true self-image is faced

with stigmatization because no one trusts the former addicts because of their history and imprisonment. When the mother comes out of this traumatic experience, she faces additional challenges that make her more vulnerable. For instance, having a criminal record makes it more difficult to find housing or work to support themselves and their loved ones. Similarly, mending broken family relationships is hard work. Family members might have lost their trust in the addict, and some family members may be more suspicious than others. With stigmatization such as fear of losing their children to the custody of the state and feeling alienated from society members, women addicts end up questioning the exact nature of their own perception of self-worth or identity. The result being that it will always be a challenge to establishing the identity as a functional and healthy adult (Kennedy-Hendricks, et al., 2016).

As it is, all societies have a fixed image of how women should handle their children right from the moment of conception, until birth, and beyond. Ashraf, Ashraf, Asif, and Basri (2016) have opined that the role of women in society is childrearing. Therefore, anything falling short of the ideal picture is considered as inadequate, to say the least. Although a rather harsh view, in reality it is a rather realistic perception of what women face.

While the law does not state whether it is illegal to use opiates, cannabinoids, amphetamines, benzodiazepines, or cocaine during pregnancy, the law intervenes in cases where the abuse of these drugs by a mother expose the child to addiction and other health problems (Robert 1991). The question of whether it is illegal to take drugs while pregnant has been left to the state supreme courts to determine. In most states, it is illegal to engage in drug abuse while expecting a baby (Jones, O'Grady, Johnson, Velez, &

Jansson, 2010). Some of these states have passed laws that require expectant mother to be tested for drug use while seeking prenatal care. Medical practitioners are required to make reports to the authorities concerning cases of expectant mothers testing positive for illicit drugs.

In many states, pregnant mothers who expose their unborn fetus to drug addiction are charged for using drugs (Kampschmidt, 2015). While giving reasons for its judgment in the *In re Baby Boy Blackshear*, the Ohio Supreme Court upheld that when a newborn is found to contain drugs in its bloodstream, this is a case of child abuse (Pierce, 2014). The court ruled that child abuse is any form of mental or physical injury that threatens to harm or harms the welfare of the child. The court found the mother of the child to have harmed the child's health by exposing the child to dangerous drugs and consequently neonatal abstinence syndrome (Hofstetter, 2010).

According to Dorothy Robert in her 1991 article on punishing drug addicts, Robert explains how pregnant women are charged and prosecuted for exposing their babies to drugs. The author talks about the very first mother to be convicted in the United States in 1989 for exposing her two babies to cocaine addiction (Robert, 1991). Jennifer Johnson, a 23 year-old, black mother of two, was convicted by Florida law enforcement after cocaine was found in her two children's bloodstream at birth. Since the Florida law does not apply to a fetus, the prosecution applied the novel interpretation of the law. The prosecution proved that Johnson delivered a controlled substance to her newborn baby during the sixty seconds between the birth of the baby and the cutting of the umbilical cord. Since this instance, several other women have been charged with exposing their newborns to hard drugs and addiction (Dodich, 2015).

What many fail to realize is that having children is one avenue that many of these women use for making changes toward living a healthier lifestyle. Because these women are concerned for the health of their babies, they are motivated to seek treatment for their addictions. It is safe to conclude that the main reason women who use illicit drugs are judged more than men are because the society sees them as irresponsible (Spielman, Herriott, Paris, & Sommer, 2015). Because of this reason, the majority of these women are empowered by their pregnancy because it provides them with opportunities to prove their abilities as mothers.

According to Gaspari (2016), drug uses during pregnancy also produce economic and social problems. Tennessee is the first state to apply a statute that precisely addresses the matter of pregnant drug users by outlawing those whose use damages their child. Since drug abuse may include addiction in many circumstances, the statute offers a protection to those who take judicious steps to pursue help and get clean before the child is born. Gaspari (2016) suggests that every state adopt this approach, while supporting pregnant mothers' drug treatment and through drug courts rather than the criminal justice system.

Clausen et al. (2012) reported that newborns of parents with substance abuse problems go in foster care at a greater rate than infants of non-abusing parents and are at a higher risk for attachment difficulties and child cruelty. The study gauges the influence of a 10-week infant massage intervention intended to escalate attachment between parents in a drug rehabilitation facility and their infants. The program focused on parental awareness of infants' internal states, the development of skills for self-regulation of affect, the calming of the child, and the development of a capacity for continuous



optimistic parent-child communication so that parents can become more accessible in the psychological space and time they spend with their infant children. Results indicate trends towards decreased parental stress, increased knowledge of good parenting practices, better relatedness between parent and infant, and improved parenting self-efficacy. This suggests that attachment interventions with substance dependent parents may have substantial benefits for the parent-child relationship as well as the mental health functioning of parent and child.

In his article, Lewis (2017) states that all drug users require a concrete support system to facilitate their recovery. The first group of people who should show their support is the healthcare providers in rehabilitation centers as well as those from in-house programs assigned with the responsibility of counseling addicted pregnant women (Lewis, 2017). Healthcare providers must understand the relationship between motherhood and substance abuse. This will go a long way in helping these women to recover fully. Many reasons why these women fail to recover or relapse is simply because they lack a firm support system in private as well as public spheres. If they feel emotionally sidelined, the apparent effect is that they will go back to their old habits without considering that the life of the unborn child is at stake.

Of late, state support for programs dealing with drug addiction has dwindled. Instead, the focus has been redirected towards compulsory drug testing, reporting, treatment, child protection services and criminal prosecution. These alternatives are time-consuming and costly, to say the least. With this in mind, medical practitioners have introduced a Harm Reduction Model to assist in childbearing and mothers involved (Finfgeld, 2001). The harm reduction model is a public health option to the disease and

moral models dealing with drug abuse. According to research, the harm reduction model offers insights, which help in solving the drug abuse problem among pregnant women. Under this program, it enables drug users to use drugs more safely. For example, social workers or employees can pass out clean syringes and condoms to meet the client's needs and minimize harm at the same time. The model adopts a variety of strategies such as personal responsibility and choice among pregnant women. Another approach is sponsoring any change that pregnant women with addiction problems seek to take on as long as it is deemed appropriate and beneficial. The best part of harm reduction model is that it is easily accessible, nonstigmatizing and is flexible for use by pregnant women in many parts of the globe. Inventors of the harm reduction model travel widely to offer help to women addicts (Finfgeld, 2001).

The transtheoretical approach has been used as a supplement to the harm reduction model, (Finfgeld, 2001). Five major stages were identified in drug use resolution: Pre-contemplation, contemplation, preparation, action, and maintenance. Under pre-contemplation stage, pregnant women are not aware of that they have an addiction problem. Consequently, they have no intention of seeking help let alone asking for treatment. At this stage, the future of such women is unclear. Moving on to the contemplation phase, pregnant addicts become conscious of their problem and try to formulate ways of dealing with it. Even so, they still lack the capacity to change and might become defensive when the option is proposed to them. A commitment to change is still not in their minds at this stage. It is important to note that the addicts are still coming to terms with the fact that they need help so it would be wise to move with caution (Finfgeld, 2001).

During preparation stage, the addicts try out new changes in their behaviors and intentions. Priorities and attention shifts from drug use to taking care of the unborn child and themselves. Just like the contemplation stage, the preparation stage is equally delicate and must be handled with utmost care. Necessary procedures are affected to reduce substance intake although it is hard to tell if abstinence will be achieved. The commitment to change and change of character is evidenced in the action stage. Significant efforts are made to ensure that self-made objectives are met. It is at this stage that one can rate the progress of an individual and the energy and time utilized in the process. Finally, an individual goes through the maintenance stage. As the name suggests, maintenance is the process of making sure that the individual does not backslide. Steps that can be taken in this instance are regular checkups and signing for group programs. Finfgeld (2001) expressly explains that maintenance is not always a walk in the park as some individuals fall off the wagon and the whole process is repeated again. Of all the stages involved in the transtheoretical model, maintenance takes the longest time. In fact, it may last a lifetime.

### **Neonatal Abstinence Syndrome**

Neonatal abstinence syndrome is a condition, which affects the autonomic and central nervous systems in the body of the child or the mother thus resulting in seizures, annoying diarrhea, and irritation and vomiting among others. Approximately 4% of women take drugs while they are pregnant (Johnson, 2017). Substance use by women who are pregnant is closely associated with violence, stress, depression, poverty and mental illnesses. Nelson (2013) also offers insights into the drug problem and its effect

on children. The report indicates that there is an increase in the number of children born with neonatal abstinence syndrome.

Once children are born, they are at risk of ending up having growth problems. At birth, their body weights are often low. Experiments have also indicated the presence of cardiac abnormalities. Brain hemorrhages and respiratory abnormalities also show in babies born of women who took drugs. These babies have weak breathing systems, which tend to make breathing more difficult. The good news is that the breathing abnormality can be treated if noted earlier before they result in complications. For heroin using mothers, their children show signs of stuffy nose, skin discoloration, excessive sweating, excessive crying, fever, and their sucking reflexes are poor.

The federal government has provided additional funds for treatment. Additionally, healthcare providers have taken it upon themselves to offer the much-needed education to affected families. Nurses have also undergone training to learn more about neonatal abstinence syndrome so that they can provide reliable and relevant advice about it. Nurses are placed in the center of taking care of the babies and their mothers who suffer from neonatal abstinence syndrome (Bauer, Southard, & Kummerow, 2017).

Nurses need to ensure that the mother bonds with the child, which can have a positive impact in the sense that the child can be a motivator for the mother to seek treatment. Nurses ought to control their bias so as not to affect the recovery process of both mother and child. They also need to maintain open communication with the mother and family members. This can be achieved by explaining to them in steps about neonatal abstinence syndrome and what can be done to improve the situation (Olds, 2006). This is the same as fostering relationships and ensuring that mother and child have a strong

support force. At this point, the nurse looks at the long-term outcomes that are beneficial to both mother and child. Volunteers can also be allowed to chip in so that while they are with the child, nurses and the mothers plan ways in which the child can be cared for once they are discharged. Planning is about trust, and nurses need to work efficiently to earn it. The process can be a success if groups such as social workers, physical therapy services, and drug addiction programs are included in the plans. All the teams must be provided with information on the financial status and health of the mother before they can plan (Therivel, 2016). They also must cooperate for the sake of the child involved. It is these groups that will help mothers cope with the experiences and link them with resourceful partners.

Miles et al. (2010) reiterates what other authors have already pointed out. The fetus is not protected in any way from drug use. In fact, concerns were raised mainly because of the effect that taking drugs had on the unborn children. The illicit drugs pass without restraint through the placenta. The speeds at which the drugs pass on to the fetus depend on of drug that the mother is taking as well as the amount. Problems begin to arise during delivery in the form of vasoconstrictions. Vasoconstriction is known to cause high blood pressure and eventually, it causes pre-eclampsia (Miles et al., 2010). It is entirely possible for a pregnant mother to undergo cesarean birth but this depends on the prenatal care received. For this reason, experts have advised women to seek care and treatment early because delaying until labor starts can lead to undergoing cesarean. Impulsive labor has been linked with cocaine use and leads to insufficient oxygen supply to the infant at birth (Miles et al., 2010).

## Opioids

The most common opioids methadone and buprenorphine are also contained in many other prescriptions. These two opioids are the major causes of addiction among the prescription drugs (DeCristofaro & LaGamma, 1995). In her research Lacroix et al. (2011) compare the exposure of women to opioids contained in buprenorphine against those in methadone. It examines the concentration of cocaine, heroin, and cannabis in these prescriptions and studies the level of exposure to pregnant women who are on these prescriptions. It monitors the neonatal withdrawal syndrome of infants born of these mothers, the general growth of these infants and the probability of an addicted mother undergoing stillbirth.

Another study explores the various ways the law can protect the unborn child by making it illegal for pregnant mothers to use hard drugs (Gaspari, 2016). This scholar also suggest that pregnant mothers who are on drugs get access to treatment which will lower the chances of the infant contracting neonatal withdrawal syndrome.

Siqveland and Moe, highlights long-lasting strategies to curb illicit drug use. These strategies are reducing the supply of illicit drugs, the demand for the drugs and harm caused (Siqveland & Moe, 2014). Reducing supply chain can be achieved by placing harsh sanctions on any person who is found supplying drugs. Incarceration of the drug suppliers can act as a lesson to the rest of those who are involved in the business. As for the demand strategy, research has shown that women taking illicit drugs were introduced during their teenage years. This age bracket should be focused more attentively because it is a period when peer pressure begins (Siqveland & Moe, 2014).

Teens can be easily swayed to practice drug use and before they know it; it has turned into a habit. A good place to start is giving information to students about drug use and its effects. Making the students aware of the matters that affect their well-being will have an impact on their life choices and behaviors. Learning institutions must introduce a curriculum that accommodates lessons on drug use and its outcome in the health and social life of individuals. Harm caused strategy is all about viewing the effects that result out of taking drugs and correcting the same. The goal of these strategies is to reduce costs associated with health and social care services. A lot of finances can be channeled in more urgent programs. Worth noting that punitive measures attract excess costs especially in litigation processes and since most of the women are poor, they end up bowing to the decisions made in court (Fingfeld, 2001).

### **Barriers**

We cannot complete the discussion without mentioning the barriers that hinder effective substance abuse treatment. For starters, resources available are limited. Treatment institutions, funds as well as the labor force used in the treatment of pregnant women who are addicts, are a handful. Governments need to take the issue of drug addiction among women seriously because the number is rapidly rising and can end up being a disaster. Limited labor force does not guarantee provision of health care services to pregnant women.

Discrimination arising from every direction has become rampant and has led to relapses among women. They end up questioning the very existence of why they changed, to begin with. Where laws cast a blind eye on rights and freedoms of citizens, vulnerable groups in society including women are placed at a drawback. Historically,

women bore the more significant burden of effects of governance. In a non-democratic system of governance, women were put at a disadvantage in decision-making. To anchor the rights of women, local governments as well as the international community ought to come up with regulations aimed at protecting women. Under-representation of women in treatment programs also poses a challenge. Under-representation means women needs and interests are not raised by the victims themselves. Once the voices of pregnant women with addiction problem are locked out from participating in decision making, their exceptional needs and interests will not be addressed.

### **Conclusion**

Illicit drug use among pregnant women has increased rapidly over the years in many parts of the globe. The demand to find a lasting solution is important in all areas of society. In the course of doing so, all groups are faced with numerous barriers ranging from lack of resources, discrimination, limited funds to perform functions of offering treatment to addicted mothers and high costs of litigation.

Pregnant women are discriminated against because they are drug users. To discourage pregnant women from using drugs, states prosecute them, but they fail to look at the broader picture. Addiction is a disease that has a root cause and finding it will be more effective than dealing with the problem after the problem has occurred. Prosecution of pregnant mothers by states has been termed by some critics to be wrong and infringe on the fundamental rights of privacy, dignity, and equality in society. The problem contributes to injury in the workplace, crime, violence, breakdown in family relations, diseases and illnesses. A more severe outcome would be the death of the mother and baby



or one of either. Pregnant mothers who use illicit drugs are at risk, and their babies are too.

CHAPTER III  
METHODOLOGY

**Data Collection**

To determine the extent of the spread of the abuse of opioids and other drugs, and to identify the profile of the women tested positive, the study adopted a descriptive study technique that will evaluate existing medical data collected between July 1, 2016 through June 30, 2017 at Hendrick Medical Center. The selection of data to be collected will be from existing patient files of pregnant women who have tested positive for any type of drugs after giving birth. The demographics include ethnicity, age and relevant information.

**Search Terms**

Using ACU library OneSearch database, a search was conducted for documents and scholarly journal articles that are related to the research topic. The search terms used were “babies born addicted to drugs,” “drugs and pregnancy,” “prenatal drug use and the effects on the newborn.” Articles for English language were selected and the search parameters used were successful.

Internet search was also done to collect information from government records to get a clear view of the topic. Government records are important in determining the spread of drug abuse in women in different states within the nation.

**Human Subject Approval**

Participants were patients from Hendrick Hospital who were identified as having been exposed to illegal drugs for the purpose of appropriate medical care and psychosocial referral, according to hospital drug screening policy. According to the

hospital drug policy, a drug test occurs only after patient consent unless the patient is suspected of drug use, is intoxicated, unconscious, or has signs and symptoms of complications from intoxication. There will be no contact with these patients; however, only patient records of those testing positive will be analyzed. Research has been approved by the ACU Human Subject Committee as evident prior to data analysis (see Appendix A).

## CHAPTER IV

### DATA ANALYSIS

All data was entered into SPSS data file and kept on a password-protected computer. The computer was kept in a locked office or a room. The data was analyzed with SPSS software using the appropriate descriptive under the supervision of Dr. Wayne Paris.

#### **Purpose**

This paper focuses on the babies born to women addicted to drugs. The paper seeks to explore the cases of drug addiction in pregnant women, the spread of addiction in women, and the effects of opioid and heroin on babies born by mothers addicted to drugs. The paper seeks to inform the readers to the local incidence of the problem to the long-term effects of babies addicted to drugs at birth, and how to inform women of the dangers of drug abuse during pregnancy.

The research focused on the preference of drug abuse according to the demographics such as color or race, social class, geographical location, and the laws concerning drug abuse during pregnancy within Texas.

#### **Results**

The total numbers of mothers tested for the period of July 1, 2016 to June 30, 2017 was 94; the overall incidence of positive toxicology was 26% (see Table 1). Cannabinoids were the drug of choice for the 46% women who tested positive for illicit drugs; followed by opiates with 33%.

Table 1		
<i>Positive Drug Test</i>		
<b>Types of Drugs</b>	<b>Percent of Total</b>	<b><i>n</i>=24</b>
Cannabinoids	46%	11
Opiates	33%	8
Amphetamines	13%	3
Benzodiazepines	4%	1
Cocaine	4%	1

*N: number of mothers tested positive*

The demographic profile of the women who tested positive is reported in Table 2. Most of the participants were Hispanic followed by Caucasian and African American. The ethnicity of the two individuals was unknown.

Table 2		
<i>Demographic Profile</i>		
<b>Demographic</b>	<b><i>n</i>=24</b>	<b>Percent</b>
<b>Age:</b>		
< 25	13	54.17%
25-34	8	33.33%
35-44	3	12.50%
<b>Ethnicity:</b>		
Hispanic	10	41.67%
Caucasian	8	33.33%
Black	4	16.67%
Unknown	2	8.33%
<b>Marital Status:</b>		
Single	16	66.67%
Married	4	16.67%
Divorced	2	8.33%
Unknown	2	8.33%

*N: number of mothers tested positive*

## CHAPTER V

### DISCUSSION

The data collected presented several limitations. Some of the limitations that the researcher encountered included: smaller than anticipated sample size, very limited demographic information, and no outcome measures. The researcher had been initially informed that greater patient profile information would have been made available. Thus, only minimal profile and assessment could be accomplished.

#### **Types of Drugs**

The recent research showed that the most common drug detected in pregnant women in West Texas was cannabinoids. According to one study, the drug of choice found among pregnant women was heroin, followed by amphetamines, benzodiazepines, and opioids (Olsen, Banwell, & Madden, 2014). Another study found that cannabinoids for the majority of women was the drug of choice followed by opioids (McQueen, Murphy-Oikonen, & Desaulniers, 2015). This suggests that the current result is consistent with other studies in that the most commonly used illicit drugs among pregnant women are cannabinoids and opioids.

Although most studies present different outcomes in their results, it has been concluded that the difference in results is that the utilization of illicit drugs by pregnant women disproportionately occurs in the urban and rural area. Pregnant women in the urban area are more likely to use heroin because it is easily available and cost-effective, whereas, pregnant women in the rural area are more likely to use cannabinoids and

prescription opioids illegally (Coppinger, 2017). Little research has been done to compare and determine the difference in characteristics between the two demographics.

### **Age**

In the recent work, the majority of the women who tested positive were under the age of 25. In other study less than 5% of young pregnant women tested positive for drugs during their pregnancy (McQueen, Murphy-Oikonen, & Desaulniers, 2015). The literature found that those who were between the ages 24 to 30 ranked as the most frequent users of drugs during pregnancy. It was among these groups, those 24 to 30 that were more likely to use primarily cannabinoids followed by multiple types of opioids, as found in the recent work (MacMullen, Dulsk, & Blobaum, 2014).

In one study of young women who were pregnant and using illicit drugs, the researcher found that the majority of these women experienced barriers such as socioeconomic and social isolation (Therivel, 2016). Some of these women have low level of education, homelessness and lack of family support system. From an observational perspective, it would appear that part of the reason for the younger pregnant women in West Texas testing positive is due to the higher rate of teen unwed pregnancies compared to the other parts of the country. However, this is purely speculative given the limited amount of data that was made available for the study. Hopefully, later work could address the question more thoroughly.

### **Ethnicity**

One disparity was observed among the different categories of individuals reported to be using illicit drugs. Those of Hispanic heritage had the largest proportion of testing positive. Most studies showed that minority women have a higher prevalence of prenatal

exposure to illicit drugs (Olds, 2006). Some studies suggest that it is because these women are from a lower income and educational background (Lollar, 2017). One study suggested that minority women were drug tested more often than Caucasian women during delivery (Lollar, 2017).

There is no information to conclusively suggest that this is the case here, but given the limited amount of information available for analysis, it certainly would be considered a possibility. There are other factors associated that may explain this finding. For example, Hispanics are the fastest growing segment of the U.S. That is certainly the case in West Texas. Again, the limited demographics provided does not afford the opportunity to better determine the specific ethnic or financial profile. In other words, the exact ethnic profile of those testing positive or negative for the mothers could be conclusively determined.

### **Marital Status**

One study found that the majority of the women who used an illicit drug during pregnancy were more likely to be from a single household. Another study reported that the prevalence of substance use is highest among single mothers and lowest among the divorced (Jaques et al., 2014).

MacMullen et al. (2014) noted that support systems had a significant factor and connection to women using illicit drugs. Most women turned to drugs to suppress their depression or to escape from unhealthy relationships. In a study investigating low-income families, it was concluded that lack of emotional support from spouses or significant others and challenges from single household predicted women turning to drugs for comfort as a significant factor.



### **Limitations**

The limitations of the present study include a relatively small sample size; the result should, therefore, be interpreted with caution. Furthermore, we do not know whether the participants were representative of a larger population, as the researcher did not have access to data such as the extent of use of illicit drug and its distribution concerning its use by women of different races, social class, age, location and level of education. Even when the researcher did control for important demographic variables such as age, ethnicity and marital status, the present small sample size did not allow controlling or and investigating some other variables that could potentially influence outcomes.

Despite these limitations, the result is relevant to the study. The result indicates that the distribution according to race showed that many Hispanic mothers use drugs while pregnant, and are a threat to the wellbeing of their children. This revelation is not corroborated by the scholarly journals, which found that African American mothers had a higher exposure to drugs and opioids than any other race in the United States (Robert, 1991). Although the dissimilarity was not very high, the specific percentages were a bit different from the literature findings though the overall impressions of the percentages had the same meaning. For instance, the percentage of women who were tested positive for cannabinoids in the literature was reported to be 25% while the percentage in the findings showed a significantly higher proportion of 46%. However, this was not to mean that there was error in calculations (Jaques et al., 2014). The difference could be attributed to the size of population on which the study was conducted.

The spread of drug abuse can also be categorized in form of age. The majority of respondents who were tested positive for illicit drug are in the youthful childbearing age of twenty to thirty-five years. The majority of the women who tested positive were single women either living with their boyfriend or with family members. The drug abuse during pregnancy menace is most common among the youthful generation of mothers.

### **Implications/Findings**

Findings suggest that in order to address the problem of illicit drug use during pregnancy, different states have passed different laws and policies to manage this drug addiction in expectant mothers. Some of these states require expectant mother to be tested for drug use while seeking prenatal care. In some states, medical practitioners are required to make reports to the authorities concerning cases of expectant mothers testing positive for illicit drugs.

Other studies suggest the removal of parental rights. Most states have passed laws stating that when a toxicological test on a newborn turns positive to a drug, this is a sign of child abuse and/or neglect. This evidence forms the ground for removing the parental rights of the mother. South Carolina law states that the only way to protect a child is by removing the child from the mother (Nelson, 2013).

### **Recommendations**

There are many barriers preventing addicted mothers from seeking treatment, such as fear of losing their infant, lack of transportations, and cost. Therefore, programs should be established in order to provide these women with treatment options to keep families intact and prevent neonatal abstinence syndrome. Some of these programs would focus on preventing the problem. These include, but are not limited to, educational

programs on the danger of prenatal drug exposure. Currently most states have adopted non-punitive measures to women by offering them programs to assist both the mothers and the babies. Twenty-five states have adopted treatment programs for pregnant women (Bauer et al., 2017).

Treatment programs should include thorough assessment, it should be family based program that include partners as well as siblings. Expectation of relapse should be included as part of the treatment models and procedure to help reduce relapse such as a program for transitioning back into the community. Extensive follow up should be seen as part of the treatment program. Providing drug treatment programs for women of childbearing age could help eliminate drug use during pregnancy. For prevention to be effective, these women need to feel safe and supported by the healthcare professionals. Healthcare professionals can be better trained to detect substance abuse during pregnancy and to respond to comply with reporting requirements and in arranging services for the patient. The different interventions approaches conducted by various parties, such as nursing interventions aimed at alleviating the situation on substance abuse among the pregnant women since substance abuse were exposing the mother and the unborn child to danger such as premature birth, heart defects and withdrawal symptoms (D'Angelo, Bryan, & Kurz, 2016). The interventions would mainly be directed to ensure that fewer cases of substance abuse are reported especially among the expectant mothers. Some of the suggestions can be minimal use of the drugs and also regular checkups by expectant mothers to ensure that the fetus is not in danger. The main implication of the intervention would aim at a reduced prevalence of drug use among the expectant mothers as this practice exposed them to great danger (Hamilton, 2014).

## Conclusion

The problem of drug abuse by expectant mothers has existed for centuries. The number of children born to women addicted to drugs rose steadily during the baby boom period and has been on the rise ever since. The battle against drug abuse is mainly left to the state governments to protect their children. Removal of parental rights has been one of the commonly used weapons against addicted mothers. The majority of the states have exercised this action by stripping the addicted mothers of their parental obligations and having the children brought up in protective facilities such as foster homes.

Drug manufactures and the state are also to blame for the increased cases of drug abuse during pregnancy. Drug manufactures continue to use addictive chemical ingredients such as opiates, cannabinoids, amphetamines, and benzodiazepines in their drugs. Sedative drugs contain the bulk of these ingredients, and considering that they are some of the most consumed drugs, they put many mothers at risk of addiction to opiates. While the same cannot be said of crack cocaine, the government should take the blame for the failure to control spread and use of cocaine. Since most of the cocaine consumed in the United States is produced elsewhere, the governments should ensure that cocaine does not find its way into the American streets.

Mothers currently on drugs are highly advised to pursue medical assistance to get rid of the drugs. This can be done by taking advantage of the various government sponsored rehabilitation programs. This effort will convince the authorities that the mother is keen on offering the child healthy and drug free life, and hence the state will not consider termination of parental right as the only viable option.

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APPENDIX A

Institutional Review Board Approval Letter

**ABILENE CHRISTIAN UNIVERSITY**

*Educating Students for Christian Service and Leadership Throughout the World*

**Office of Research and Sponsored Programs**

320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103  
325-674-2885

April 2, 2018

Eduwem Turner

Department of Social Work

ACU Box 27866



Dear Eduwem,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled  
The impact of maternal drug addiction on infants

(IRB# 18-010 )is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

*Megan Roth*

Megan Roth, Ph.D.  
Director of Research and Sponsored Programs