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# Sociodemographic Factors Associated With Abortion Rates Among Black Women in the United States

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Abstract

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Dissertation Submitted In Partial Fulfillment

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Abstract

Abortion has been a public health issue since the procedure became legal 47 years ago and, clinicians have performed 60,069,971 abortions from 1973 to 2017 in the United States. In 2014, a significant decline in abortion rates has been recorded in almost every state, as well as across different subpopulations when segregated by age, race/ethnicity, education, income, or geographic locations. However, abortion rates were still significantly higher among Black women relative to the U.S. average, prompting the need to examine the causes of this disparity. The main purpose of this quantitative study was to investigate and determine the sociodemographic causing factors of the relatively high rates of abortions among Black women recorded in 2014 in the United States. This study was grounded on the decision theory (the theory of choice), put forth in 1670 by Blaise, which encompasses the reasoning that underlies an individual's choice. Secondary data from the abortion rates of 15 to 19-year-old Black women in 2014 were collected for this quantitative study from the Alan Guttmacher Institute (AGI) database. I then condensed the number of abortions in every 1,000 women to every 100 women, which resulted in a sample size of 3,200 Black women, who have had at least 1 abortion in 2014. The data analytic procedures included a frequency analysis, a cross-tabulation, a Chi-square test, an independent samples *t*-test, and a simple Logistic regression to determine the causing factors of abortion among black women in the United States. The results showed that abortion rates were high in high school women, single women, urban residing women, and nonreligious women. The findings of this research study can create awareness, so I recommend it to public health leaders who can now educate young women in our communities about abortion long before they become pregnant; hence, abortion rates can decrease which can result in economic growth, socio-economic development, promotion of public health, and positive social change.

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## Dedication

I dedicate this dissertation to my wife Kettly Washington and my son Jonathan Washington who are always praying with me and for me at least twice a day and who have never ceased to support me while pursuing my Ph.D. at Walden University. I am most grateful to my wife because she has served as an Alarm clock to remind me every day about my priorities. She brought me tea, smoothies, snacks, water, vitamins, and two or three meals every day in my office. I want her to know that her love and support mean a lot to me, and I surely would not have been able to complete this dissertation if she was not by my side.

Above all, I am grateful to my eleven brothers and sisters specifically to those who believe in me and have taken extra steps to make this milestone possible

If I speak in the tongues of men or angels but do not have love, I am only a resounding gong or a clanging cymbal. If I have the gift of prophecy and can fathom all mysteries and all knowledge, and if I have a faith that can move mountains, but does not have love, I am nothing. If I give all I possess to the poor and give over my body to hardship that I may boast, but do not have love, I gain nothing.

Love never fails. Love is patient. Love is kind. It does not envy, and it does not boast, it is not proud. It does not dishonor others, it is not self-seeking, it is not easily angered, and it keeps no record of wrongs. Love does not delight in evil but rejoices with the truth. It always protects, always trusts still hopes, and always perseveres. 1 Corinthians 13:1-7

To God be the glory

Acknowledgments

First, I give thanks to the highest, my Creator, and my Redeemer, who gave me strength and perseverance to walk this rocky road, and who, at the appointed time, decided to grant me victory over my procrastinating nature. Therefore, my heart is glad, and my soul rejoices; my body also dwells secure because the Almighty is with me and will not abandon me in Sheol.

I am most grateful to my chair Dr. Chinaro M. Kennedy, and my committee member Dr. Earla J. White, who has accepted the call from God to be my guide. I consider myself very fortunate to have Dr. White and Dr. Kennedy as my lighthouses because, without them, I would never have made it this far. Dr. White was my professor, evidently a perfect one; thus, I always chose her as my academic advisor in every colloquium. A few years ago, I did not have a specific topic for my dissertation. Therefore, in an academic advising session, I proposed a few hypotheses that I would like to use to Dr. White; she said that it was not ethically permissible for her to choose a topic for me. Instead, she gave me a lecture so profound; I had to open my book and learn the full meaning of the word '*b*ias.' We concluded the session that I was going to research Alzheimer's. I spent about 6 months looking for data, articles, journals, and dissertations on Alzheimer's; unfortunately, I could not find anything written on Alzheimer's even with the support of the library. I am grateful to Dr. White, who has been helping me academically from the beginning of the program until the end.

I will be forever thankful to my committee chair Dr. Chinaro M. Kennedy, who has used her leadership and expertise to motivate me repeatedly when I felt tired with the process and decided to quit. I am also indebted to Dr. Kennedy for her knowledge, suggestions, dozens of reviews, much informative feedback, and, more importantly, because she is a chair of ethics and morals. She placed particular emphasis on my academic integrity and, as a result, I now feel

very confident to go out in the world as a public health researcher. I am also grateful for the invaluable support I received from all the faculty members who all have contributed their time and knowledge on my behalf while pursuing my Ph.D. at Walden University.

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# Chapter 1: Introduction to the Study

According to the Alan Guttmacher Institute (AGI; 2018), clinicians performed 60,069,971 abortions from 1973 to 2017 in the United States. Although the abortion rates have dropped to the lowest since 1973 across nearly all age, races, ethnic groups, education, and income, rates among Black women remain two and a half times as high (76 per 1000 women) as the rates among White women (30 per 1000; Wind, 2018). In addition, based on a study by Finer and Zolna (2017), low income Black women had more than five times as many abortions as higher-income women. These 44 years of legal abortion have had a massive effect on the U.S. population, morally, socially, and economically (Jones & Jerman, 2014; AGI, 2017). By using national data and previous studies available, through this analysis, I have determined the contributing factors of the relatively high rates of abortions among Black women in the United States.

According to the Center for Disease Control and Prevention (CDC; 2016), physicians have carried out an estimated 926,240 abortions in the United States in 2014, and they performed 36% of these abortions on Black women. The Black population in the United States in 2010 was about 39 million people. According to AGI (2017), they performed roughly 24% of all U.S. abortions on Black women during the 1970s. In the 1980s, that percentage rose to 30%, in the 1990's it rose to 34%, and in the 2000s it rose to 36%. That means; since 1973, about 31% of all abortions performed in the United States were performed on Black women. Based on a CDC (2018) report, approximately 17 to 19 million of the 60,069,971 abortions performed in the United States since 1973, were performed on Black women. By revealing the causing factors of abortions among Black women in the United States, the findings can equip the public health authorities to ensure that all women receive patient centered reproductive health care. Furthermore, health care providers may be able to

improve substantially the ability of women from all sociodemographic backgrounds to make informed decisions about their fertility.

## Background

Nunez-Eddy, and Steward, (2018), said that 1973 will remain forever the year in which all states were ordered by the Supreme Court of the United States to legalize abortion. However, the government has granted authority to all jurisdictions to impose certain restrictions in the second and third trimesters of pregnancy. Each state independently had the power to determine abortion's legality before the decision of the Supreme Court of the United States in 1973, to legalize abortion nationwide through all 9 months of pregnancy (Nunez-Eddy, & Seward, 2018). Soon after the nationwide legalization of abortion by the Supreme Court, the United States saw a significant increase in abortion rates. According to the CDC (2018), in 1972, 586,760 legal abortions were performed, and, in 1973, physicians performed 615,831 legal abortions. Seventeen years after the legalization of abortion, the number of abortions reached the highest point ever in the history of the United States. According to the CDC (2016), in 1990, clinicians performed 1,429,577 legal abortions.

Even though in 2014, the number and the rate of legal abortions (14.6 per 1,000 women) dropped to the lowest since 1973 (16.3 per 1000 women) across nearly all races, age, ethnic groups, education, and income, rates, they remained relatively high among Black women. According to Finer and Zolna (2017), poor women had more than five times as many abortions as higher-income women, and Black women were roughly twice as likely to carry out an abortion as White women were. According to AGI (2018), clinicians performed 60,069,971 abortions from 1973 to 2017 in the United States. These 44 years of legal abortion had a massive effect on the U.S. population, socially, and economically (Wind, 2018). By using

previously collected national data, in this quantitative study, I determined the contributing factors of the relatively high rates of abortion among Black women and how much these have affected the Black population and, thereby, the U.S. workforce. Via the effect on the Black population, one may establish the negative impact that abortions have inflicted on the Black race because of its legalization (Wind, 2018).

According to the AGI (2018), there were approximately 1.2 million to 1.5 million abortions per year in the United States before 2014. Based on some previous studies by Singh, (2015), these numbers are uncertain, mainly because the United States does not have adequate standards and reporting requirements for abortion. As there are no standards and no policy for recording and reporting the number of abortions performed each year by each state, I had to go by the numbers deduced by statisticians. In 2015, however, the AGI published that abortion rates had dropped to the lowest since 1973 across nearly all age, ethnic groups, education, income, and race, while numbers remained relatively high among Black women when compared to women from other ethnic groups.

Barber, Yarger, and Gatny (2015) concluded that between 1973 and 2014, Black women always had higher rates and ratios of abortion than White women and women of other races. However, according to Barber et al., (2015), the new evidence behind the abortion decline goes a long way toward settling a nationwide debate over why the U.S. abortion incidence declined between 2008 and 2014. Many studies were conducted in the United States to monitor trends in abortion over time. Still, researchers did not carry out these studies to pinpoint the reasons behind any changes nor the sociodemographic factors associated with the abortion rates among Black women. However, Dreweke (2016) speculated about many factors that might have contributed to the decline that they have observed. Some say the abortion rates decline is the

result of a change in sexual behavior (Dreweke 2016). However, many authors do not believe modification in sexual behavior has played any significant role because sexual activity does not tend to change frequency among adults (Barber et al., 2015; Dreweke, 2016). Hence, comprehensive data for adult sexual activity did not exist. The debate continued, and Jones and Jerman (2017) claimed that the abortion rates decline is the result of a demographic shift. The contrary happened between 2008 and 2011 when the groups with historically higher abortion rates, such as poor Black women, increased (Jones and Jerman 2017). In short, the decline has occurred despite, not because of the changes in this population (Wind, 2017).

Dreweke (2016) asserted that the decline in abortion rates is the result of women's greater desire for pregnancy caused possibly by the improvement of the United States economy after the 2007 to 2009 recession. However, if there is an increase in the intended pregnancy, it only makes an insignificant contribution to the abortion decline. The debate continued, and pro-life advocates claimed that the decrease in abortion rates was due to better contraceptive use (Dreweke, 2016). All these can be a plausible explanation for the decline, but it does not matter because statistics show that abortion rates have dropped to the lowest since 1973. The reduction is seen across nearly all ages, ethnic groups, education levels, incomes, and races, while rates are still relatively high among Black women when compared to women from other ethnic groups (Finer & Zolna 2017).

According to Dehlendorf, Harris, and Weitz (2016), abortion rates are still relatively high among Black women. However, the abortion rates are at the lowest in decades across nearly all ages, as well as ethnic, education, income, and race groups in the United States. Dreweke (2017) similarly observed that, in 2017, U.S. abortion rates were at the lowest level since the procedure became legal in 1973. Jones and Jerman (2017) not only provided information on abortion

incidence in the United States but emphasized that having accurate planned and unintended pregnancy rates, as well as abortion rates, is necessary for the development of the required measures that would assist all women in planning parenthood. Donovan (2017) examined the effect of the federal restrictions on abortion coverage and the devastating impact those restrictions have on specific groups of women. Black women, in particular, are the ones withstanding the worst of the Hyde Amendment's harmful effect, which is a legislative provision, restricting to pay for abortion with federal funds (Donovan 2017). The Hyde Amendment only covers if the pregnancy arises from rape, incest, or to save the life of the woman. Nearly half (49%) of poor Black Americans, half of all Black children, and almost two-thirds (64%) of low-income Black children have Medicaid (Garfield, & Zur, 2017). Similarly, owing to sociodemographic and economic inequalities linked to discrimination and racism, Black women are disproportionately more likely to be uninsured or insured by Medicaid. Consequently, many black women face significant financial barriers that often force them to sacrifice their basic needs to finance abortion and subsequent medical care (Garfield, & Zur, 2017).

According to Lawrence and Zolna (2016), there are still disparities in abortion rates across the United States as, despite an overall decline, poor Black women continue to have much higher rates of abortions than any other sociodemographic group. While these disparities persist, extant literature tends to focus on the causes behind the decline in abortion rates, without examining the sociodemographic factors that have resulted in the relatively high rates of abortion among Black women in the United States (Lawrence & Zolna 2016). Hence, the purpose of this research study was to determine the sociodemographic factors associated with the relatively high rates of abortions among Black women in the United States recorded

in 2014. According to the AGI, (2018), since 1973, about 31% of all U.S. abortions have been performed on Black women. Based on a CDC (2017) report, health care providers have performed approximately 17 to 19 million of the 60,069,971 abortions recorded in the United States since 1973 on Black women. Revealing the factors that contribute to the high incidence of abortions among Black women in the United States is sufficient to equip the public health authorities to ensure patient-centered reproductive health care to all women. Furthermore, the information yielded by this study can assist health care providers in substantially improving the ability of women from all sociodemographic backgrounds to make informed decisions about their fertility.

## Statement of the Problem

According to the AGI (2018), 60,069,971 babies have been aborted in the United States between 1973 and 2018. Steinberg and Rubin (2014) estimated that approximately 51% of those abortions resulted from unintended pregnancies. From that 51% they performed 68% of abortion on Black women, 40% of whom reported that their pregnancies were unwanted (Steinberg & Rubin 2014). Given that a considerable 60% of Black women with unintended pregnancies carried their babies to term, it is likely that they either lacked access to an abortion clinic or could not afford termination (AGI, 2018). In 2011, clinicians performed an estimated 239,400 medication-induced abortions on Black women in the United States before 9 weeks of gestation (AGI, 2017), and these abortions accounted for 23% of all abortions performed nationwide that year. According to the findings reported by the (AGI, 2017), there was a noticeable reduction in abortion rates in the United States from 2008 to 2018. However, statistics showed a relatively high percentage of abortions (36.6%) among Black women in 2017 (AGI, 2017). Available evidence also indicated that, in the 2008 to 2011 period, clinicians performed about 14,840

abortions on Black women after 20 weeks of gestation, with the assumption that the fetuses were not yet viable (Jones, Finer, & Singh, 2015). However, infants have survived outside the womb at a younger gestational age (Jones et al., 2015).

Though the abortion rates in the United States have declined to the lowest since 1973 across nearly all ages, ethnic groups, education levels, incomes, and races, it is worth noting that the abortion rates are still relatively high among Black women when compared to women from other ethnic groups. This phenomenon has prompted the need to examine the causes of this disparity (Finer & Zolna, 2017). As no researcher has sufficiently explored the factors associated with the relatively high abortion rates among Black women, I aimed to do so in the present investigation. In this study, the sociodemographic factors likely to contribute to the high abortion rates among Black women were examined, focusing specifically on marital status, income, education, religious affiliation, and geographic location (urban, suburban, and rural).

These factors were worth researching as, according to a report from Pregnancy Risk Assessment Monitoring System (PRAMS 2017), when unintended pregnancies are carried to term and result in a live birth, babies are more likely to have poor outcomes due to unhealthy behaviors of the mothers (Wood, 2017). Indeed, women who had unintended pregnancies tend to report greater caffeine use, smoking, and alcohol consumption, as well as non-adherence to the use of folic acid and vitamins, all of which can compromise the health of the newborn baby (Wood, 2017). Furthermore, women with unwanted pregnancies are less likely to seek prenatal care or practice a healthy lifestyle, according to Singh, Remez, Sedgh, Kwokand, and Onda (2017). The nationwide public investment in family planning services, according to Frost, Frohwirth, and Zolna (2014), had reported in 2010, a net savings of $13.6 billion in helping women avoid unwanted pregnancies, abortions, and many other adverse reproductive health outcomes. Although an extensive body of literature on unintended pregnancies and abortions

exists, researchers have rarely explored the factors influencing women to have an abortion (AGI 2016; Simmonds, Taylor, & Levi, 2016;). The findings yielded by this research can assist with designing public health strategies to reduce the rate of abortion in populations with a specific vulnerability. However, more research should be conducted to determine why the sociodemographic factors identified in this study have affected pregnancy and abortion intentions of vulnerable Black women.

## Purpose of the Study

Abortion is a significant public health burden because of its adverse health, physical, psychological, social, and economic consequences. The purpose of this quantitative study was to determine the sociodemographic factors associated with the relatively high rates of abortions among Black women in the United States in 2014. According to Simmonds et al. (2016), abortions do not receive the level of attention in public health development initiatives, and academic research on preventive care and clinical strategies as other health threats of similar importance receive. The findings of this research study can help public health officials understand the responsibilities of parenthood and family life, as well as determine the characteristics of women in need of more education to prevent abortion. It can also allow them to identify the specific demographic groups of women who require more extensive primary care interventions to prevent abortion. When these goals are met, it is expected that the incidence of unintended pregnancies, and thus abortions, will decline across all sociodemographic groups (Frost et al., 2016). In particular, because unwanted pregnancy usually precedes almost all cases of abortion, public health officials should focus on helping men and women avoid unintended pregnancies to reduce the incidence of abortion (Jatlaoui et al., 2017). To contribute to this beneficial initiative, as a part

of this study, and to compare the demographic characteristics of the Black women who had an abortion in 2014, I first tabulated the percentage distributions of abortions related to specific demographic factors (marital status, education, income, religiosity and geographic locations). The available data on abortion rates among Black women in the United States was the focus of this analysis, which involved first frequency analysis of all the variables, then the cross-tabulation of all the variables with abortion. I continued the investigation with a Chi-square test, an independent samples *t*-test, and then a simple logistic regression.

## Research Questions and Hypotheses

This study comprised five research questions, and those research questions were influenced by research objectives, which were aimed to address the socio-demographic factors of the high rates of abortion among Black women in the United States.

**Research Questions and Hypotheses**

RQ1– Is there an association between marital status and abortion among Black women in the United States?

*Ho1*- There is no association between marital status and abortion among Black women in the United States.

*Ha1*- There is an association between marital status and abortion among Black women in the United States.

RQ2 - Is there an association between religiosity and abortion rates among Black women in the United States?

*Ho2*- There is no association between religiosity and abortion rates among Black women in the United States.

*Ha2*- There is an association between religiosity and abortion rates among Black women in the United States.

RQ3 - Is there an association between education level and abortion rates among Black women in the United States.

*Ho3*- There is no association between education level and abortion rates among Black women in the United States.

*Ha3*- There is an association between education level and abortion rates among Black women in the United States.

RQ4- Is there an association between income level and abortion rates among Black women in the United States?

*Ho4*- There is no association between income level and abortion rates among Black women in the United States.

*Ha4*- There is an association between income level and abortion rates among Black women in the United States.

RQ5 - Is there an association between geographic locations—urban, rural, or suburban areas— with the abortion rates among Black women in the United States?

*Ho5*- There is no association between geographic locations—urban, rural, or suburban areas— with the abortion rates among Black women in the United States

*Ha5*- There are associations between geographic locations —urban, rural or suburban areas—with the abortion rates among Black women in the United States

## Theoretical Constructs

The conceptual framework that has guided this study was the decision theory that was first developed in the 17th century by Blaise in his famous wager published in 1670 (see Marshall, 2014). According to Marshall (2014), decision theory (or the theory of choice) aims to elucidate the reasoning that underlies an individual's choice. Since the first conceptualization, the decision theory has undergone several revisions, whereby three main types are in use today: (a) Normative decision theory, based on which the person accepts advice about his/her situation on how to make the best decision; (b) the descriptive decision theory, which is usually applied in the analysis of how rational individuals make decisions; and (c) the prescriptive decision theory, which provides some guidelines on how to proceed to make sound decisions. (Marshall, 2014). Human beings are making decisions all the time, even subconscious decisions. Therefore, theorizing about social activities is almost identical to speculating about choices. However, the decision theory is not quite as all-embracing as that, as it primarily focuses on how individuals use their freedom. Humans are regularly faced with options, and they have always made their choices in a non-random way because decisions are goal-directed. Therefore, according to Marshall, when facing numerous options, decision theory is concerned with goal-directed behavior. The link between decision theory and abortion is clear, as a sexually active woman has to decide whether she wants to get pregnant or not. If she has an unintended pregnancy, she has to decide whether to abort, carry the baby to term, keep the baby, or give the baby for adoption. It is, however, essential to note that most decisions about abortion are not momentary (Marshall, 2014). They take time, and it is, therefore, natural to divide them into phases or stages. Decision theory also elucidates how a woman may coordinate her decisions over time, as well as how several women may coordinate their choices in social decision procedures (Marshall, 2014).

## Conceptual Framework

The fertility control model emphasizes the decision theory as, when a woman has an unintended pregnancy, she compares the costs and benefits associated with carrying the baby to term with those related to having an abortion (Robab, Talat, & Masoud, 2014). For a woman with an unwanted pregnancy, depending on her sociodemographic status, the costs of giving birth may be higher than the benefits. They may include physical, psychological, and monetary fees of giving birth and raising a child, as well as the loss of other opportunities. These opportunities could include educational possibilities, marital prospects, obligations to relocate, lost earnings, and detachment from church responsibilities (Marshall, 2014; Robab, 2014;). Thus, when faced with an unintended pregnancy, a woman will decide to abort if the costs of having a baby outweigh the benefits. In summary, this choice-theoretic framework serves to predict how a woman with an unwanted pregnancy, according to her sociodemographic status, may respond to different abortion policies. In the analyses, the total cost of obtaining an abortion includes the out-of-pocket monetary value for the procedure and travel expenses, as well as lost earnings, time costs, and emotional costs (e.g., guilt, regret, humiliation, and shame; Marshall, 2014).

Findings yielded by previous studies in this field have confirmed a positive association between unintended pregnancy and abortion (Coleman, Boswell, Etzkorn, & Turnwald, 2017). Moreover, numerous scholars over the past several decades have documented concomitant decreases in the prevalence of both unintended pregnancy and abortion rates across the United States (Fernandez, Mejova, Mayer, Hasvold, & Joshi, 2016). However, the relationship between different factors (e.g., religious beliefs, marital status, educational level, geographic location, and

income) and the rate of abortion among Black women in the United States remains insufficiently studied (Coleman et al., 2017).

## Nature of the Study

As the research questions guided this study can be answered quantitatively, I decided to use a quantitative method based on the objective of this study. According to Creswell (2009), in a quantitative method purpose statement, the researcher uses words that connect the variables, dependent, and independent to demonstrate that they do have a relationship between them. As previously noted, the overall intent of the study was to determine the sociodemographic factors associated with the relatively high abortion rates among Black women in the United States. The findings yielded by this study can provide Black women of the United States the resources and knowledge needed to make informed decisions about their fertility. I certainly hope that the outcome of this research will create a positive social change. Abortion is a challenging public health issue that adversely affects not only the women but the entire society. Ample information presently exists on annual abortion rates; yet, little is known about the sociodemographic characteristics of these women and the education they received (if any) on the consequences of abortion. Whether safe or unsafe, legal or illegal, induced or spontaneous, abortions always have adverse outcomes.

This was a quantitative method study, and the primary purpose was to determine the socio-demographic factors associated with the relatively high rates of abortions among Black women in the United States in 2014. The sample size was based on reliable abortion numbers found in secondary data. I collected secondary data from the AGI, and the data were analyzed using SPSS Version 25. I conducted the data analysis to find facts that are meaningful and helpful to the specific purposes of my research. The available data on abortions rates among

Black women in the United States were incorporated to conduct my analysis. The available information on abortion rates among Black women in the United States was the focus of this analysis, which involved first a frequency analysis of all the variables, then the cross-tabulation of all the variables with abortion. I continued the investigation with a Chi-square test, an independent samples *t*-test, and then a simple logistic regression. This method is deemed appropriate for examining the longitudinal bivariate associations between predictor variables and, in turn, the likelihood that a Black woman has had an abortion between the ages of 15 and 19. I performed the same simple logistic regression for all research questions to determine the association (if any) between abortion rates and a Black woman education, income, marital status, religion, and geographic locations. According to the findings yielded by existing studies in this field, abortion is significantly linked to increased risk of alcohol abuse, violent behavior, car accidents, lost earnings, and divorce or separation (Coleman et al., 2017). Hence, for a positive social change, women with unintended pregnancies who could consequently have an abortion should be granted access to compassionate counseling and reliable information to prevent abortion.

## Assumptions

One cannot assume that all abortions are the same. In this study, I did not focus on issues of morality, as my primary aim was to determine the sociodemographic factors associated with abortion rates among Black women in the United States.

While this was a rigorous academic study, it was inevitably assumptive, as the analyses performed were based on secondary data, which maybe were not accurate, and in some cases, may not have been available. It is worth noting that, according to the CDC (2015), 61% of women who underwent an abortion in 2014 were already mothers, and in 50% of cases, these

women had a previous abortion. According to the same report, 15% of all the abortions were performed on teenagers, while 57% of the women who were analyzed as a part of this investigation were aged 15 to 19, 24% belonged to the 20 to 39 age group, and 3% were aged 40 or older (CDC 2015). These reports and other available reports were scrutinized as a part of this quantitative study. As only secondary data were used for the analyses, I assumed that this study was reliable and valid. The purpose of the study was not to provide the exact number of abortions that occurred in the United States in 2014 but rather to identify the sociodemographic factors associated with the relatively high abortion rates among Black women in the United States.

## Scope and Delimitations

The focus of this quantitative study was on the abortions recorded in the United States in 2014. While these statistics were scrutinized, with the sole purpose of identifying the number of abortions relating to Black women, I aimed to identify the sociodemographic factors behind relatively high abortion rates among Black women in the United States. Thus, the study was only about the Black women living in the United States who were of reproductive age, that is, those aged 15 to 19 years at the time of the study, and who had an abortion. According to AGI (2016), about 50% of all pregnancies in the United States are unintended, and family physicians are usually responsible for providing counseling, support, and resources for women with unwanted pregnancies. Thus, the fact that these women have the right to make their own decisions and consider all available options, such as carrying the pregnancy to term and raising the child, carrying the pregnancy to term and choosing adoption, or having an induced abortion is often ignored. Family physicians should be equipped to guide women through this decision process and assist those who wish to raise the infant by providing them with the appropriate care

and resources. Even though there are multiple resources for women interested in adoption, most U.S. women do not choose this option (AGI 2016). If the public health authorities decide to empower women to make their own choice, our society can be positively changed.

## Limitations

Conducting this quantitative study using secondary data was undoubtedly the first limitation arising from potential study design and methodological weaknesses related to the sources used in data analyses. Hence, it was essential to select only reliable and pertinent literature sources, in which research on identical units of measurement was reported. In sum, I took extra steps to ensure that the secondary data met the requirements of the research problem under investigation. The data needed to be sufficient and accurate, and the sources needed to be dependable. It is also worth noting that certain biases could have easily influenced the study outcomes. Specifically, my personal and professional background, as well as the fact that I am a Black man, could have easily affected the results of my study.

Similarly, my views, attitudes, and beliefs as a Christian man could also have influenced the results and their interpretations. Thus, I did not impose my views on any aspect of this investigation. I am also aware that the secondary data used in the analyses may not be accurate because of the nature of the topic. I took reasonable measures to address all these limitations and biases.

## Significance and Positive Social Change

In this quantitative study, I aimed to investigate the factors contributing to the high abortion rates among Black women in the United States. I also have explored the social changes in abortions. First, it is essential to recognize that the legalization of abortion has profoundly changed people's sexual behaviors outside of marriage (Cohen 2018). Owing to the consequent

sexual revolution, the number of individuals having children outside marriage has increased, as did the prevalence of single-parent households and the rate of venereal diseases (Cohen 2018).

Given that each year approximately 3,853,472 babies are delivered in the United States, changes can have a dramatic effect (Hamilton, Martin, Osterman, Driscoll, & Rossen, 2018). The additional disease transmission vector comes with a cost of around $300 million annually, which is paid collectively by taxpayers and independent individuals. Thus, this study was guided by the premise that unintended pregnancy and consequent abortion do not benefit the society, but instead, exert a significant negative impact on not only the affected individuals but also the entire communities and the country as a whole. It should also be noted that, despite the overall decline in the abortion rates in the United States, they are still relatively high among Black women, prompting the need to determine the sociodemographic factors behind this discrepancy. In this study, I focused on the social and financial costs of abortion, plus the long-term consequences out of this practice. When examining the effects of abortion-related complications, the psychological and social implications involved are rarely taken into accounts, such as fear of sterility, marital problems, feelings of guilt and shame, and rejection by the family (Hamilton et al., 2018). One of the primary purposes of this study was thus to bring positive social changes to our nation.

Abortions are not only related to poor maternal and child health outcomes, which undoubtedly contribute to a negative social change, but also include high costs to the health care system and thus place an economic burden on the entire nation (Kost, 2015). According to Forthofer, Lee, and Hernandez (2014), the government spent $21.0 billion on the miscarriages, abortions, and births resulting from unintended pregnancies in 2010, whereby $6.4 billion was provided by the states and $14.6 billion funded through federal initiatives. The total was equal to

51% of the $40.8 billion spent by the government on all publicly funded pregnancies that year (Sonfield & Kost, 2015). Therefore, public health authorities, health care providers, and researchers should make an effort to understand the sociodemographic factors associated with abortions determined by this study, as this can assist in developing appropriate interventions aimed at reducing or eliminating them (Kost, 2015).

## Definitions of Key Terms

*Abortion:* An abortion is a procedure a pregnant lady went through to end a pregnancy. It uses medicine or surgery to remove the embryo or fetus and placenta from the virus. This procedure should be performed by a licensed health care professional. In other words: Abortion is the ending of a pregnancy by removal or expulsion of an embryo or fetus before it can survive outside the uterus. When an abortion occurs without the intervention of any healthcare provider, it is called a miscarriage or spontaneous abortion (Crossman, A. 2020).

*Abortion rates:* Abortion rate, represents the number of induced abortions that occurred in a specified reference period, for example, one year, per 1,000 women of reproductive age 15 to 44 or 15 to 49. The abortion rate may the number of induced abortions per 1,000 women in the specified age or race (Dang, Gallins, Pace, Guo, Stonebraker, and Corvol, 2016).

*Birth rate:* The rate at which children are born is measured by a demographic measure. The crude birth rate is the most known and it is the number of births that occur each year per 1,000 people in the population. It is called “crude” because it does not take into account the possible effects of age structure (Crossman, A., 2020).

*Fetal loss rate:* Fetal loss rate is defined as intrauterine demise or miscarriage before 24 weeks of gestation. The number of fetal losses per 1,000 women in a particular population group (Martins, A. T., Francisco, C., Hildeberto, C., and Cohen, Á. 2020).

*Intended pregnancies:* Intended pregnancy are those pregnancies that happen when wanted (AGI, 2017).

*Pregnancy rate:* This is the total of intended and unintended pregnancy per 1,000 women aged 15 to 44 in each subregion estimated using the United Nations estimates. Estimates presented here are based on empirical evidence and are not derived from statistical models. Another definition: The number of pregnancies (including births, induced abortions, and fetal losses) per 1,000 women in a specific population group (Sedgh, Singh, & Hussain, 2018).

*Sociodemographic:* The term "sociodemographic" refers to a group defined by its sociological and demographic characteristics. It refers to: of, relating to, or involving a combination of social and demographic factors. Sociodemographic groups are used for analyses in the social sciences. Or for marketing and medical studies. Relating to or involving a combination of social and demographic factors such as marital status, education, income, age, and geographic location (Koukouli, Vlachonikolis, & Philalithis, 2017).

*Unintended pregnancy*: This is a pregnancy the woman did not plan, did not want or a pregnancy she was not expecting at the time she became pregnant. In other words: unintended pregnancies are pregnancies that are reported as occurring too soon, mistimed, or occurring when unwanted, and those pregnancies most often are terminated by abortion (AGI, 2017).

*Unintended pregnancy rate:* The number of pregnancies, mistimed, unwanted, and unplanned per 1,000 women in a specific population (Bearak, Popinchalk, Alkema, and Sedgh, 2018).

## Summary

According to the CDC (2016), physicians performed 586,760 abortions in the United States in 1972. However, once the Supreme Court legalized this procedure in 1973, the number of abortions started to increase rapidly. In 1990, only 17 years after the legalization of abortion, almost one-half (49%) of the approximately 6 million pregnancies per year in the United States were unwanted, with roughly a little more than one third (31%) resulting in an estimated 1.22 million births. In the same year, clinicians performed 1,429,577 legal abortions CDC 2016). In the first chapter of this study, I provided an overview of relevant literature published on the issues of abortion in the United States, I described the research problem, and I explained why it was significantly crucial for the public health authorities to be aware of it. The purpose of the study, which was to determine the sociodemographic factors associated with abortion rates among Black women in the United States, was identified, and an appropriate theoretical foundation was stated. I further summarized the research questions, before describing the overall research design, the method that was used to collect the data, and the procedures by which the data were analyzed. In addition, I described the conceptual framework for this quantitative study.

Furthermore, a concise rationale for the design was provided, some actual aspects of the study that could not be demonstrated were clarified, and a few assumptions that are critical to the meaningfulness of the study were delineated. Moreover, I provided the descriptions of specific terms used in the research problem stated in the study, including the reasons why they were selected. I also noted methodological weaknesses and some limitations of the study related to the design, along with possible biases that could influence the outcome of the study. Finally, I identified potential contributions of the study, indicating that its findings can increase knowledge

on the factors contributing to high abortion rates among Black women in the United States. I then close the chapter by delineating the likely implications of the study for positive social change.

# Chapter 2: Literature Review

## Introduction

In 1990, 17 years after the legalization of abortion in the United States, 1.6 million abortions were performed in women of childbearing age (15 to 44 years), declining to 1.06 million in 2011 (Jones & Jerman, 2015), which corresponded to nearly a 34% reduction. Moreover, in 2014, the United States registered 3,988,076 births, signifying about a 1% increase from 2013. However, despite these trends, 1.5 to 2 million pregnancies end in abortion each year, and approximately 1 to 1.5 million women are hospitalized annually in the United States for abortion-related complications (Jones & Jerman, 2017). According to the report issued by the CDC (2016), in 1972 and 1973, 586,760 and 615,831 legal abortions were performed, respectively, increasing to a record 1,429,577 legal abortions in 1990. Although the statutory abortion rate (14.6 per 1,000 women) registered for 2014 was the lowest since 1973 (16.3 per 1,000 women) across nearly all ages, education levels, ethnicities, incomes, and race groups, the rates reported for Black women have remained relatively high at 36% (Jones & Jerman, 2017). These disparities have motivated me to determine the sociodemographic factors associated with the high rates of abortions among Black women in the United States reported for 2014. According to Simmonds et al. (2016), the significant gap in the pertinent literature points to the lack of interest in this social issue, even though high abortion rates among Black women in the United States have widespread social implications.

In this chapter, I present a review of the existing literature to situate the study and confirm the relevance of the research problem that was investigated. It also serves to clarify the relationship between the theoretical framework, the problem statement, and the conceptual framework. Relevant literature sources on the following topics are included in this review; the approximate number of abortions in the United States, the abortion rates among Black women in the United States, and sociodemographic factors associated with the abortion rates among Black women in the United States. Marital status, religiosity, geographic location (urban, suburban, and rural areas) education level, income, and decision theory/theory of choice are also included. As these sociodemographic factors were examined in the study for their influence on the abortion rates among Black women in the United States, current findings related to these relationships are also discussed.

## Literature Search Strategy and Hypotheses

The scholarly databases that I used in my literature review comprised of the Walden University library database, ProQuest, the Alan Guttmacher Institute database, ERIC, JSTOR, PUBMED, CDC database, SAGE publications, Psyc. INFO, Soc. Data.gov, INDEX, EBSCOHOST, and Google Scholar. I used the following keywords and terms to conduct the search: *unintended pregnancy and abortion rates among Black women in the United States, sociodemographic factors associated with the relatively high rates of abortion among Black women in the United States, and decision theory/theory of choice.* I have also restricted the search to books, dissertations located in Walden databases, and academic articles published between 2008 and 2018. Only sources from the United States were subjected to further analysis unless articles from other countries had direct relevance to the study.

Many factors are undoubtedly responsible for the abortion rates decline in the United States; however, little is known about the sociodemographic factors associated with abortion rates among Black women in the United States. Hence; it is imperative to ascertain which factors motivate abortions, as this is a public health challenge that must be addressed to mitigate the adverse effects on women and society as a whole. The fact that the conspicuous socioeconomic and racial/ethnic disparities in the abortion rates exist points to the need to accurately study the vulnerable groups and mitigate the factors that result in this growing social issue. According to Lawrence and Zolna, (2016), empirical evidence has indicated that these disparities have contributed to the cycle of disadvantages that specific demographic groups are experiencing. It seems that minority women, more precisely Black women, do not have the opportunity to control their fertility as desired. According to Cohen (2018), the abortion rate for Black women in the United States is about five times that of White women. Hence, these women should be educated about abortion and its consequences long before they become pregnant. Black women in the lower-income and education attainment strata of the U.S. society cannot often decide on whether and when to bear a child, a decision considered a fundamental aspect of reproductive health (Lawrence and Zolna, 2016).

For every 100 pregnancies in the United States, according to the CDC's (2015) findings, approximately 18 abortions are performed. In 2008, 51% of all pregnancies in the United States were unintended (AGI, 2016). These statistics further revealed that Black women comprise 68% of this 51% (AGI, 2016). Given that in 40% of these reported unintended pregnancies abortion was performed, the remaining pregnancies were carried to term, most likely due to inadequate access to abortion clinics (AGI, 2016). Thus, it is reasonable to assume that if Black women

were adequately educated about their fertility and abortion, they would think and act differently, and these statistics would decline.

## Theoretical Foundation

The theoretical framework that guided this quantitative study is the decision theory that was first developed in the 17th century by Blaise in his famous wager published in 1670 (see Marshall, 2014). According to Marshall (2014), decision theory (or the theory of choice) aims to elucidate the reasoning that underlies an individual's choice. Since the conceptualization of the decision theory, it has undergone several revisions, whereby three main types are in use today; (a) normative decision theory, based on which the person accepts advice about his/her situation on how to make the best decision; (b) the descriptive decision theory, which is usually applied in the analysis of how rational individuals make decisions, and (c) prescriptive decision theory, which provides some guidelines on how to proceed to make sound decisions (Marshall, 2014).

The theoretical framework that was adopted in this quantitative study is grounded in theories that can help elucidate the sociodemographic factors associated with the relatively high abortion rate among Black women in the United States. While limited information is presently available on these factors, low income, marital status, religiosity, education level, and geographic factors have been suggested by other authors as relevant to a woman's attitude toward family planning and abortion (Dobkin, Perrucci, & Dehlendorf, 2014, pg. 607-629.).

. This conceptual framework thus constituted various theories that encompassed all the crucial information that a woman should know about her fertility. In addition, this framework was intended to open the eyes of public health authorities, health care providers, and women of reproductive age on the consequences of abortion. To produce a convincing, informative, and understandable research study, different but affiliated theories have been used, namely, need to

know theory, right of privacy theory, fetal right theory, and pro-choice theory. The latter purports that, "every woman has the right to terminate her pregnancy if she chooses to do so; because the fetus does not meet the requirements of a human being" (Dobkin et al., pg 607, 2014)

Conversely, according to the pro-life theory, the unborn fetus becomes a human being from the moment of conception and thus has all the rights that members of a society have (Dobkin et al., 2014). Theory of being, or "ontology," is useful, as it prompts humans to ponder on questions, such as "What sort of being in the fetus?" As the focus of this study is a link between race/ethnicity and abortion, the Beach and Mitchell's (2014), decision-making framework was used to explain the process of adolescent decision making about terminating a pregnancy or carrying the baby to term (Dobkin et al., 2014)

To the best of my knowledge, no one has conducted a study to date on the sociodemographic factors associated with the relatively high abortion rates that have been reported recently among Black women in the United States. However, the growing problems, and the physical, psychological, and physiological issues when carrying an unwanted pregnancy can undermine the woman's physical and mental capacity (Dobkin et al., 2014). Moreover, a woman's lifestyle has a significant impact on her self-care and her ability to care for a baby that has resulted from unwanted pregnancy. The current debate between pro-life and pro-choice advocates highlights the role of women in American society (Dobkin et al., 2014). However, even the pro-choice advocates often lack the knowledge that having a choice, in theory, is not the same as being able to exercise that choice. As in many cases, sociodemographic, psychological, and socioeconomic difficulties make it difficult for a woman to plan pregnancy and undergo abortion (Dobkin et al., 2014). Given the issues, as mentioned earlier, and the absence of a

comprehensive and cohesive educational model focusing specifically on Black women, my goal was to determine the sociodemographic factors associated with abortion rates in the United States.

The conceptual framework presented in this dissertation captured the micro-level contexts and macro-environmental processes involved in a marginalized woman's decision to abort her baby or seek abortion-related care (see Dobkin et al., 2014). Based on its safety spectra and its relevance across a wide range of legal contexts, this framework has global applicability, as well as pertinence to all marital statuses and all points in the reproductive lifespan (Rocca, Kimport, Roberts, Gould, Neuhaus, & Foster, 2015). This framework thus brings to light the most salient aspects of abortion decision-making across populations. Policy and program planners, as well as social scientists, can use the structure to highlight the core aspects of the micro/macro-environment that facilitate or hinder abortion (Dobkin et al., 2014). All theories, as mentioned above, were used in this study to identify the sociodemographic factors associated with the relatively high rate of abortion among Black women in the United States, as well as help these women in their decision-making process when faced with unintended pregnancy and abortion.

## Conceptual Framework

The decision theory is rarely used to determine sociodemographic factors associated with abortion; therefore, in this chapter, I provide a review of all literature about the study. I aimed to identify the sociodemographic factors associated with the relatively high abortion rates among Black women in the United States. In most extant studies, authors have used this theoretical framework to investigate women’s views about the decision to become pregnant or to terminate a pregnancy (Dobkin et al., 2014). The theory of choice was also used extensively to compare the

emotions of women having first-trimester abortions with those of women who had an abortion near the fetal gestational age limit, to elucidate whether emotions involved in abortion differ depending on the timing of termination (Rocca, 2015). However, this is the first attempt to accurately determine the sociodemographic factors associated with the high abortion rates among Black women in the United States. In this chapter, before proceeding with the review of related literature, the methodologies used in data collection and analysis are discussed.

A faith-based organization called 'The Issues4Life Foundation' targeted and worked together with some leaders from the African American community to achieve the goal of "Zero Black life lost to abortion (Boonstra, 2016)." This highlights the fact that there is an evident disparity between the abortion rates among Black and white women. However, those leaders have ignored the sociodemographic factors behind these disparities, most of which can be related to racial and ethnic inequality in an array of health indicators. The truth is that 95% of all the abortions in the United States resulted from unintended pregnancies, suggesting that the same disparities apply to unwanted pregnancies as well (Boonstra, 2016). Women of all reproductive ages, irrespective of their marital status, and socioeconomic, racial, and ethnic group, have abortions. Still, available data confirmed that they performed a significantly higher number of abortions on Black women relative to the national average.

Previous studies confirmed that women seek abortions for multiple reasons, one of which is the adverse impact that an unintended birth may have on a woman and her family (Boonstra, 2016). Indeed, an unexpected delivery can cause emotional and financial hardships, but the lack of social support from family members or a partner may also be very devastating for a mother. In cases of very young women, the decision to terminate a pregnancy is usually driven by the recognition that they are too young to take on the responsibility of parenting, as having a

baby would undoubtedly delay or undermine the projected educational attainment and employment opportunities. An important deciding factor may also be the health of the mother and the fetus. Finally, abortion may be considered the best option in cases of incest or rape. However, this study was not to examine or argue whether a woman has the right to make decisions about if and when she will have children. Instead, the goal of this study is to identify the sociodemographic factors associated with the relatively high abortion rates among Black women in America (Firoza, O'Connor, Govender, & Reddy, 2018).

The theoretical framework that guided this quantitative study was the decision theory which was first developed in the 17th century by Blaise in his famous wager published in 1670 (Marshall, 2014). According to Marshall (2014), decision theory (or the theory of choice) aims to elucidate the reasoning that underlies an individual's choice. Since the conceptualization of the decision theory, it has undergone several revisions, whereby three main types are in use today. (1) The normative decision theory, based on which the person accepts advice about his/her situation on how to make the best decision. (2) The descriptive decision theory, which is applied in the analysis of how rational individuals make decisions. (3) The prescriptive decision theory, which provides some guidelines on how we should proceed to make sound decisions (Marshall, 2014).

The theoretical framework that was adopted in this quantitative study was grounded in theories that would help elucidate the sociodemographic factors associated with the relatively high abortion rates among Black women in the United States. While limited information is presently available on these factors, low income, marital status, religiosity, education level, and geographic factors have been suggested by other authors as relevant to a woman's attitude toward family planning and abortion. This conceptual framework comprises various theories

that encompass all the crucial information that a woman should know about her fertility. Besides, this framework can open the eyes of public health authorities, health care providers, and women of reproductive age on the consequences of abortion. To produce a very convincing, informative, and understandable research study, different but affiliated theories was be used, namely, need to know theory, right of privacy theory, fetal right theory, and pro-choice theory. The latter purports that, "Every woman has the right to terminate her pregnancy if she chooses to do so; because the fetus does not meet the requirements of a human being" (Dobkin et al., 2014, p. 621-629).

Conversely, according to pro-life theory, the unborn fetus becomes a human being from the moment of conception and thus has all the rights that members of a society do (Dobkin et al., 2014). Theory of being, or "ontology," is useful, as it prompts us to ponder on questions, such as "What sort of being in the fetus?" As the focus of this study was a link between race/ethnicity and abortion, the Beach and Mitchell's decision-making framework is also used to explain the process of adolescent decision making to terminate a pregnancy or carrying the baby to term (Dobkin et al., 2014). This framework is applicable globally, across all legal contexts and safety spectra; thus, researchers may use it at any time during the reproductive lifespan and across all marital statuses. This framework is applied to identify the most salient aspects of abortion decision-making across populations. Program planners, policymakers, as well as social scientists, can use this framework to highlight elements of the macro/micro-environment that facilitate or hinder women's ability to terminate an unwanted pregnancy safely and promptly. All the theories mentioned earlier were used in this study to explain different problems to help women in their decision-making process when faced with an unwanted pregnancy and abortion (Breakwell, Hammon, Fife-Schaw, & Smith, 2017). However, the purpose of the study

remained the same, determining the sociodemographic factors associated with the relatively high abortion rates among Black women in the United States.

The amendment passed by the U.S. Congress in 1976, the Hyde Amendment according to Collins, (2018), was a legislative provision restricting the use of federal funds to pay for abortion except an abortion resulting from rape, incest or to save the life of a woman in a high risk (ectopic) pregnancy. The Hyde Amendment, named after the late Republican in Illinois, was the first restriction on abortion in the U.S. (Collins, 2018). In 1977 the Hyde Amendment was adopted into law, and, in 1980, it was upheld by the U.S. Supreme Court. Evidently, from that day forward, women insured by Medicaid have been affected by the Hyde Amendment, which has severely restricted their abortion coverage (Collins,2018). On the other hand, for those who can afford it, the Hyde Amendment has made the real reproductive choice a privilege rather than a fundamental right (Collins,2018).

Nevertheless, substantial progress has been made over the last several decades in the United States toward enabling women and their male partners to control their childbearing (Collins,2018). Besides, in 2011, the United States has seen an overall abortion rate declined to 17 per 1,000 women aged 15 to 44, the lowest since 1973. Many would attribute this decline to fewer unintended pregnancies, as an improved contraceptive use has helped women to plan their fertility better (Dreweke, 2016). However, it must be emphasized that not all women benefited equally from this progress, as significant disparities remain. Indeed, although between 2008 and 2011, the abortion rates declined among Black women, the abortion rates are still five times higher for these Black women who are struggling financially (Boonstra, 2016).

Available evidence certainly indicates that, over the last few decades, an increase in abortion rates has been noted among Black American women. According to Jones, Finer, and

Singh, (2016), approximately 49% of the abortion patients seen in the U.S. clinics in 2014 were either black or had a family income below the federal poverty level, while further 26% had an income at 100–199% of the poverty threshold. These statistics indicate that the physicians performed 75% of abortions on low-income Black women (Jones et al.,2016). This is contrasted with a variety of other reasons that women give for choosing abortions, indicating that many of them do not fully appreciate the economic impact that unplanned childbearing would inflict on them and their families. The answers most of the women give for having an abortion, according to Jones, and Jerman (2017). "I cannot afford to raise a / another child," or "If I have a / another baby, this will interfere with my work and my school." Some women also cite concern for or responsibility to their partners or other members of their family as a factor in their decision to have an abortion (Finer and Zolna 2014). According to Boonstra (2016), 60% of women who decide to have an abortion are already mothers, suggesting that finances and family life are the primary concern in these cases. When interpreting these findings, it was necessary to note that, following the decline in the abortion rates that were registered in 2014, most studies in this field were conducted to determine the factors behind these declines (Jones et al., 2016). Hence, no effort was made to identify the sociodemographic factors associated with the relatively high abortion rates among Black women.

Dreweke (2016), wrote that greater contraceptive use was the reason for the decline in the abortion rates in the U.S… However, the results reported by the AGI (2016) suggested that both the Hyde Amendment abortion restrictions and fewer unwanted pregnancies contributed to the decline. Although these restrictions inflicted heavy emotional and financial toll on Black and poor women, in many cases, they resulted in delays in obtaining an abortion or potentially increased the number of unintended births. Dreweke (2016) explained that those Black women

would pay for abortion by diverting money meant for utilities, groceries, or rent. Still, anti-abortion activists would argue that the abortion decline is the result of abortion restrictions that started in 2011. This statement is false, as, despite 205 abortion restrictions that have been enacted by the U.S. senate between 2011 and 2013, the abortion incidence among Black and poor women did not decline (Mccammon, 2107). Most of the aforementioned new restrictions, according to the AGI (2016) and Dreweke (2016), were predated by the abortion decline, which occurred between 2008 and 2011.

The abortion opponents also affirmed that, aside from abortion restrictions, the abortion decline registered for the 2008 to 2011 period was a result of the growing "culture of life" movement, as younger women are more likely to choose to carry their unintended pregnancy to term (Donovan, 2017). Once again, the most recent evidence, as the abortion rates among teenagers aged 15 to 19 remained virtually the same between 2008 and 2011 (37–38%) has contradicted this claim (Donovan, 2017). It is also noteworthy that the rates for other age groups remained almost the same as well. In short, between 2008 and 2011, the proportion of unintended pregnancies ending in abortion did not decrease; however, in the same period, the unplanned birth rate had declined (Donovan, 2017). Still, it must be emphasized that the study as mentioned earlier and most research published on this topic after 2014, focused on the reasons behind the decline, rather than aiming to establish the causes for the relatively high abortion rates among Black women in the United States (Donovan, 2017).

Lawrence and Zolna (2016) examined the U.S. abortion rates and concur that it has reached its lowest level in at least three decades and has declined by 18% between 2008 (51%) and 2011 (45%). Similarly, abortion rates declined by 13% in the same period. This surprising phenomenon has gone a long way toward settling a debate over why the U.S. abortion incidence

declined between 2008 and 2011 (Lawrence and Zolna 2016). This prompted many researchers to look for other factors that might be associated with the observed decline, such as changes to sexual behavior. Lawrence and Zolna (2016), did not accept the theoretical framework based on the theory of choice, which is the reasoning underlying women's option to modify her sexual behavior. The authors instead opined that modifications in sexual practices, such as adjustments of the frequency of sexual activity and the number of partners, does not tend to change much among adults and could thus not significantly affect the abortion rates (Donovan, 2017). Antiabortion activists, on the other hand, ascribed these declining trends to a demographic shift toward groups such as married couples that are at a lower risk of performing in abortion (Lawrence and Zolna 2016).

Yet, despite the declines registered during the 2008 to 2011 period, according to Boonstra (2016), a significant increase in the abortion rates has been noted among poor and black women, for whom these rates have been historically higher than the national average. This prompted the pro-life campaigners to propose that a slightly stronger desire for pregnancy among women of reproductive age might be the factor behind the reported trends, probably because of the improvement in the U.S. economy after the recession of 2007−2009 **(**Boonstra, 2016). However, given the fact that the increase in intended pregnancy was minimal compared with the decline in the unintended pregnancy rate, this explanation does not seem plausible **(**Boonstra, 2016).

Based on the purpose of this quantitative study, the theoretical framework is the decision theory that was first developed in the 17th century by Blaise in his famous wager published in 1670 (Marshall, 2014). According to Marshall (2014), decision theory (or the theory of choice) aimed to elucidate the reasoning that underlies an individual's choice. Since the conceptualization of the decision theory, it has undergone several revisions, whereby three main

types are in use today. (1) The normative decision theory, based on which the person accepts advice about his/her situation on how to make the best decision. (2) The descriptive decision theory, which is usually applied in the analysis of how rational individuals make decisions, and (3) the prescriptive decision theory, which provides some guidelines on how we should proceed to make sound decisions (Marshall, 2014).

The theoretical framework adopted in this quantitative study is grounded in theories that would help elucidate the sociodemographic factors associated with the relatively high abortion rate among Black women in the United States. While limited information is presently available on these factors, low income, marital status, religiosity, education level, and geographic factors have been suggested by other authors as relevant to a woman's attitude toward family planning and abortion. This conceptual framework thus constituted of various theories that encompassed all the crucial information that a woman should know about her fertility. Furthermore, this framework was intended to open the eyes of public health authorities, health care providers, and women of reproductive age on the consequences of abortion. To produce a convincing, informative, and understandable research study, different but affiliated theories were used, namely, need to know theory, right of privacy theory, fetal right theory, and pro-choice theory. The latter purports that, "Every woman has the right to terminate her pregnancy if she chooses to do so; because the fetus does not meet the requirements of a human being" (Dobkin & Gould 2014, p. 607-629).

Conversely, according to pro-life theory, the unborn fetus becomes a human being from the moment of conception and thus has all the rights that members of a society have. Philosophy of being, or "ontology," is useful, as it prompts us to ponder on questions, such as "What sort of being in the fetus?" The Beach and Mitchell's decision-making framework was also used to

explain the process of adolescent decision-making to terminate a pregnancy or carrying the baby to term (Dobkin & Gould 2014, p. 607-629).

This dissertation presents a conceptual framework that can capture the sociodemographic contexts and processes of a marginalized woman's pathway in seeking abortion-related care after terminating her unintended pregnancy (Dobkin & Gould 2014). All these theories were used to determine the socio-demographic factors contributing to the decrease in the abortion rate in the United States and to help women in their decision-making process when faced with an unintended pregnancy. However, the primary purpose of the study remained the same, determining the sociodemographic factors associated with the relatively high abortion rates among Black women in the United States.

## Review of the Literature

Findings yielded by extant studies on abortion support the fact that this phenomenon was associated with the economic, social, and demographic characteristics of women (William, Jones, and Abma, 2015. Finer, and Zolna, 2014: Kost, Maddow-Zimet, and Arpaia, 2017). In particular, given that unintended pregnancy is a result of contraceptive failure or non-use, it can be linked to family planning programmatic failures. In the pertinent literature, the problem of unwanted pregnancy and abortion is usually discussed either concerning the sociodemographic characteristics of the women or lack of contraceptive use and other family planning programmatic factors. Authors of many studies that were conducted during the last three decades have examined both unwanted and mistimed pregnancies (William, Jones, and Abma, 2015. Finer, and Zolna, 2014: Kost, Maddow-Zimet, and Arpaia, 2017). Many studies on abortion-related to unintended pregnancies have also been conducted in the same period (Firoza, O'Connor & Reddy, 2017: Medoff, 2014: Grady, Dehlendorf & Cohen, 2015). Yet, studies on

sociodemographic factors associated with abortion among Black women in the United States are scarce.

The following variables were considered in many studies as potential determinants of abortions: socioeconomic status quintile, previous episodes of depression, woman's education, intimate partner violence (Hall et al.,2016). Partner's knowledge, woman's age, partner's age, number of live children, marital status, first birth, living arrangements, time since last birth, geographical area (urban or rural), distance to a health facility, religion, gestation (in months), and income, all these variables are also considered in many studies as potential determinants of abortions (Hall et al.,2016). In the United States, the high prevalence of abortion from adolescent pregnancies among poor and minority women have played an essential role in the natural aptitude of a woman to select her life paths and to benefit equal opportunity in our society (Hall et al.,2016). While the reasons for these disparities are part of a complex cultural and historical framework, policymakers and public health providers have the opportunity to make changes that could dramatically affect these populations and their reproductive health (Dehlendorf et al., 2015).

In a study conducted by Kavanaugh and Jerman (2018), based on data from National Family Health Survey, age was found to be a fundamental demographic characteristic that can influence the likelihood that a woman would have an abortion. The authors also noted that age is also a factor in the prevalence of mistimed and unwanted births. Moreover, they concluded that the older a woman becomes, the lower is the mistimed birth rate, and the higher the rate of unintended births Kavanaugh and Jerman (2018). According to the CDC (2017), the age at which women get married is another demographic factor that has been found to influence family planning. Specifically, women that marry relatively young would usually wish to postpone

having children, making it more likely that they would abort an unintended pregnancy. Another study, conducted by the AGI (2015) revealed that the risk of unwanted pregnancy is particularly high among younger women.

Moreover, due to contraception and lower access to health care, abortion rates tend to be higher (49 per 1,000 in 2001) among Black women in the U.S. CDC (2017). When interpreting these findings, it should be noted that all women of reproductive age were included in these statistics, even women that were not pregnant. In short, the rate at which women of reproductive age have an abortion each year in the U.S. is reflected in these abortion rates.

Even though Black women are three times more likely to have an abortion in the U.S., White women still obtain 60% of all abortions CDC, 2017. In New York City, they have reported 31,328 abortions in 2012, which outnumbered live births 24,758 for Black children in the same year. According to a report issued by the Office of Vital Statistics, New York City Department of Health and Mental Hygiene, (2016), in 2012, the number of abortions performed on Black and Hispanic women combined (54,245) accounted for 73% of all abortions registered by the clinics in the city. Kavanaugh & Jerman (2018) examined the U.S. abortion rates for 2004 by ethnicity, reporting 11, 28, and 50 abortions per 1,000 White, Hispanic, and Black women, respectively. Black women at risk of unintended pregnancy have been shown to use fewer contraceptive methods relative to women of other races. Only 83% of black women of reproductive age, according to AGI (2018) are using some form of contraception, compared with respectively 90%, 91%, and 91% of their Asian, Hispanic, and White counterparts. On the other hand, female sterilization is most common among Hispanic and Black women aged 30 and older, women living below 150% of the federal poverty level, those with two or more children, living

outside of a metropolitan area, ever-married women, those with public or no health insurance, and women with less than a college education (Kavanaugh & Jerman, 2018).

In their article, Parks and Peipert (2016) provided evidence supporting the existence of public health disparities related to teen and unintended pregnancy in the United States. The authors noted that marginalized populations, such as Black women of lower socioeconomic status and educational attainment, are at a higher risk of unintended pregnancy and, thus, abortion (CDC 2017). They further highlighted that mistimed, unwanted, and unintended pregnancies can widen income disparities by reducing a woman's educational and career opportunities, resulting in socioeconomic deprivation (Parks & Peipert, 2016). Abortion, despite the recent decline, continue to be an alarming public health challenge in the United States. Abortion is listed as a priority of Healthy People 2020, which is the result of a multiyear process that reflects input from a diverse group of individuals and organizations aiming to promote National Health, prevent diseases and improve health (Healthy people 2014).

According to Fox (2018). Many studies have clearly shown that 50% of all pregnancies in the United States are unintended, and about half of those unwanted pregnancies end in abortion, resulting in approximately 1.2 million abortions per year. In the U.S., the risk of experiencing an unintended pregnancy before the age of 20 continues to be high relative to other developed countries, though it has declined from 4 in 10 in the 1990s to the current rate of 3 in 10 (Fox, 2018). However, there is still a significant disparity in the abortion rates by race/ethnicity, religion, education, and income level (Parks & Peipert, 2016). According to Dehlendorf, Park, & Emeremni (2014), in the United States, disparities in abortion rates are partially attributed to the fact that Black women are less likely to use effective contraceptive methods, which consequently resulted in unintended pregnancies and then abortion. Yet, this

same group is more likely to use female sterilization, suggesting a possible variability across a woman's life course in contraceptive use (Dehlendorf et al., 2014). Grady (2015), has examined racial and ethnic differences in contraceptives use among women who desired no future children. Then he has concluded that his findings corroborate results reported in previous literature, which indicates that Black women are less likely to use contraception than are White women. In their study, the authors analyzed findings reported in extant literature focusing on a specific group of women who do not want any (more) children, along with women who may be at risk for possible adverse consequences associated with an unwanted pregnancy (Dehlendorf et al., 2014). Besides, researchers have examined the risk of unintended pregnancy resulted in abortions among women aged 15 to 19, reporting that women who do not use any contraceptive methods were three times more likely to be Black (Grady, 2015).

Again, according to Grady (2015), their results are consistent with those reported for all women at risk for unwanted pregnancy, based on racial and ethnic disparities in contraceptive use. In a more recent study, Kemet, Lisbet, Lundsberg, and Gariepy (2017) aimed to establish whether race and ethnicity are associated with abortion, and failed to reveal significant associations between pregnancy intention, planning, timing, or desirability and either race or ethnicity. Toprani (2015) examined data about the abortions performed in New York City in 2010 to determine factors associated with the number of past abortions. The obtained findings indicate that approximately 95% of unintended pregnancies in the United States ended in abortions, and about 50% of abortion patients have had one or more prior abortions. Repeated abortions, according to Toprani (2015) can be viewed as a proxy for repeat unintended pregnancies and may further indicate a persistent challenge when using contraception consistently and correctly, or difficulty in accessing services and health information. Thus, the

author highlighted the need to elucidate the characteristics of women who are repeatedly having unintended pregnancies that end in abortion, as this may allow identifying groups of women that have more significant or unique needs for post-abortion contraception services (Toprani, 2015).

In their study, Reeves & Venator (2015), attempted to explain class gaps in abortion rates in the United States, and have concluded that the differences in rates of abortion between American women on different rungs of the income ladder are widening. It is more than five times as likely for a poor woman to have an abortion relative to an affluent woman. Given the empirical evidence confirming that unintended childbearing has a strong association with low family stability, worse outcomes for children, and higher rates of poverty, these gaps further entrench inequality (Dehlendorf et al., 2014). It is, therefore, essential to close the gaps in unintended pregnancy to reduce abortion rates. However, according to Reeves & Venator (2015), we must first understand the factors underlying those gaps. Conceivably, for a couple to have a child, they would have to have sexual intercourse without contraception or use contraception unsuccessfully.

Moreover, they have to make a choice not to abort the baby but to proceed with the pregnancy. Therefore, gaps in contraceptive efficacy, rates of abortion, and sexual activity are reflected in income gaps and unintended childbearing (Dehlendorf et al., 2014). Once the public health authorities gain a better appreciation of the crucial importance of these income gaps, they may formulate policies aimed at the reduction of abortion specifically among low-income groups (Reeves & Venator, 2015). It should also be noted that less frequent use of contraceptives and less successful outcomes are typically found in lower-income populations relative to those with higher incomes. It must also be emphasized that, when facing an unintended pregnancy, less affluent women are also less likely to get an abortion (Reeves & Venator, 2015). In the United

States, half of all pregnancies are unintended, and certain demographic groups, including racial/ethnic minorities and those of lower socioeconomic status, are at particularly high risk (Daugherty, 2016).

## Strengths and Weaknesses of Previous Research

The scope of existing literature on abortion among Black women in the United States is minimal and narrow. It is particularly noteworthy that, rather than attempting to identify the sociodemographic factors associated with relatively high abortion rates among Black women in the U.S., most authors focused on only one factor. This literature review was thus conducted to identify the full range of potential sociodemographic factors that may be associated with abortion rates among Black women in the United States. Many qualitative and quantitative studies have been conducted to date. Still, in most cases, the aim was to determine the socioeconomic factors that contribute to abortion and attitude toward contraceptive use. However, Black women still have to overcome various barriers to use effective contraception, and they still encounter many difficulties when attempting to access health services. There is also a wide range of cultural, personal, or structural factors that impede their ability to grasp the significance of sexual health. Hence, further research studies need to be conducted to assess the Black women's perspectives and experiences with abortion and to investigate further and expose what pregnancy planning means to the Black community.

The main shortcoming that was revealed by the literature review was; none of the previous studies were focused on a specific race. This disparity creates a significant gap in existing knowledge, especially that related to the sociodemographic and cultural factors affecting attitudes toward fertility and contraception among these specific communities. Appropriate studies should also be conducted to measure the beliefs, values, and opinions regarding the

health behaviors of each culture. Such studies may advance our knowledge on the role of culture in the sociodemographic factors affecting abortion rates among Black women in the United States. Besides, most of the studies reviewed were not based on specific behavioral theories or models. Instead, their authors have used the notion of unintended pregnancy as a practical tool in abortion prevention. A more structured and comprehensive perspective is needed to examine abortion issues in the United States. Possibly, the view may be broadened by utilizing a conceptual framework and a multi-method design for in-depth exploration.

## Black Population in the United States

Since 1980, the Black population in the U.S. has increased fivefold, according to Anderson & Lopez (2018). While immigrants from all over the world constitute a significant proportion of the overall U.S. population, the number of Black immigrants is growing twice as fast. In 1980, there were 816,000 Black immigrants in the U.S., and, according to a Pew Research Center analysis of census data (Anderson & Lopez, 2018), this number increased to 4.2 million in 2016. Anderson & Lopez (2018) recently reported that the number of Black immigrants in the United States has risen by 71% since 2000 alone.

The African migration has fueled the recent growth in the Black immigrant population, which contributed by 24% and 39% to the growth of the Black community in 2000 and 2016, respectively. Yet, in 2016, 49% of all foreign-born Blacks living in the United States were from the Caribbean (Anderson & Lopez, 2018). When interpreting these figures, it should be noted that, for every dollar held by White households, Black households have only 10 cents in wealth. In 2016, the average annual income of Black households was $17,100, ten times less than the median wealth of non-Hispanic White households ($171,000), which represents a more significant gap than that registered in 2007 during the most recent financial crisis. A substantial

decline in wealth for the U.S. families was triggered by the Great Recession of 2007−2009 while expanding the wealth gap between Black and White households. Anderson & Lopez, (2018), for example, reported that from 2007 to 2016, the wealth gap had increased between middle-income Black and White families, while decreasing between lower-income Black and White families. A sharp decrease in wealth among Whites was responsible for much of the reduction in the wealth gap among lower income families (Bialik, 2018).

## Historical Context of Blacks in the United States

African Americans, Black Americans, or Afro-Americans, according to William and Darity (2018), are the names used to identify any individual, citizen, or resident of the United States who presumably originated from any of the Black populations of Africa. These terms are generally used for people with at least partial Sub-Saharan African ancestry in the United States. In general, African Americans came from the Caribbean, Central American, and South American nations (William & Darity, 2018). Some are immigrants from the African continent or are the direct descendants of captive Africans who survived the slavery era within the boundaries of the present United States. The term African-American is usually used as an adjective. An African American man, Barack Obama was elected as the 44$^{th}$ President of the United States despite the indentured servitude and the American colonies of the African American history started in the 17th century. There were other issues and events between those landmarks that were faced by African Americans, both resolved and ongoing (William & Darity, 2018).

## Overview of Abortion

Abortion is a significant public health problem despite often being treated as an issue affecting only women of reproductive age, Finer and Zolna (2016). This problem affects all segments of our society, not just unmarried and socially disadvantaged women, teenagers, and

racial and ethnic minorities. Even though some unwanted pregnancies eventually come to be desired, many are not wanted and result in abortions. Alternatively, some women carry pregnancies to term, but then lack resources to provide for the child, thus introducing even more significant problems. According to Finer and Zolna (2016), about 49% of all pregnancies in the United States are reported as unintended. Such a high unexpected pregnancy rate has resulted in a high abortion rate, which has remained constant since 1981, and this abortion rate is among the highest across Western industrialized nations (Schwartz et al., 2016).

Empirical evidence confirms that abortions are associated with many adverse social, health (mental, physical, emotional, and psychological), and economic consequences (Herd, Higgins, Sicinski, and Merkurieva, 2016). These adverse consequences include alcohol and substance abuse, delayed prenatal care, depression, and other mental health issues. Women that carry the unintended pregnancy to term are also less likely to breastfeed and are at an increased risk for partner abuse (Herd et al., 2016). Children born from unintended pregnancies are more likely to have health conditions that are present at birth, such as low birth weight and congenital disabilities (Herd et al., 2016). Furthermore, as they develop, these children are more likely to exhibit poor physical and mental health, conduct disorder in their teen years, and have lower levels of education. Finer and Zolna (2015) further stated that 43% of unintended pregnancies end in abortion. The high abortion rates also pose a financial burden to the American society. According to Finer and Zolna (2015), births incur public costs exceeding $11 billion per year, a significant portion of which is directly associated with unintended pregnancies and abortion. These costs include prenatal care, pre- and post-partum care, and one year of infant care, according to the authors. The Brookings Institute also reported that about $12 billion a year are spent by taxpayers on publicly financed medical care for women who experience unintended

pregnancies and, consequently, abortions or unwanted births (Thomas & Monea, 2015). Despite many studies conducted on abortion and its adverse outcomes on our population, little is known about the socio-demographic factors associated with the high abortion rates among Black women in the United States.

## Characteristics of Women Obtaining Abortions

According to Jerman, Jones, and Onda (2018), 60% of the abortion patients in 2014 were in their teens, while 25% were in their 20 and 30s. Among the adolescents that underwent an abortion, 12% were aged 18 to 20 years old, while 4% were younger than 15 years old. Between 2008 and 2014, the adolescent abortions rate declined by a remarkable 32% (Jerman et al., 2018). In particular, over that same period, the abortion among 18 and 19-year-olds and 15 to 17-year-olds declined by 25% and 44%, respectively. On the other hand, the abortion rates among women aged 20 to 24 increased by almost two-fold, accounting for the highest abortion rate among all the age groups examined (Jerman et al., 2018). After that, the U.S. abortion rates declined with increasing age. In 2014, both older and younger adolescents had slightly lower abortion incidence than in 2008, while the number of abortions remained relatively stable for women aged 20 or older. In 2011, according to the Centers for Disease Control (Pazol, Creanga, Burley, Hayes, and Jamieson, 2014), 64.5% of abortions were performed before the 8th week of gestation, 13 weeks' gestation completed 91.4 %, 7.3% were performed between 14 to 20 weeks' gestation, while abortions at 21 weeks' gestation or after accounted for 1.4%. It should also be noted that the percentage of all abortions performed at eight weeks' gestation or less increased by 6% from 2002 to 2011 (Pazol et al., 2014).

## Background Characteristics of Women

A woman's age is the most important demographic characteristic affecting the likelihood of abortion, as well as that of unwanted and mistimed birth. Firoza, Quoctrung, & Miller, (2018), examined data collected as a part of the National Family Health Survey-1 (NFHS, 1992-93), concluding that the risk of unwanted birth increases with women's age, while that of mistimed birth declines. In their study of abortion, Firoza & Miller, (2018), also found that the younger the married women are, the longer they would wait to start a family; thus, the likelihood that their first pregnancy would be aborted is lower. Hall, Richards, & Harris, (2017), interviewed 1,483 recent mothers and examined official data on abortions and maternities for 2015, concluding that risks of abortion were particularly high among younger Black women. Women that become sexually active before the age of 15 will, on average, have at least one abortion before reaching their 25$^{th}$ birthday. Younger women were found by the National Survey of Family Growth (NSFG) of the United States to be more likely to have mistimed or unwanted pregnancies or births (Kost & Forrest, 2015). According to a study by Jatlaoui, Shah, Mandel, Krashin, Suchdev, Jamieson, & Pazol (2017), between 1973 and 2008, the abortion rate had increased consistently with age among unmarried women, while mistimed birth incidence decreased with age. Jatlaoui et al., (2017), conducted a study on abortion patients, 82% of whom had unintended pregnancies, reporting that women that have had induced abortions were younger than those who had spontaneous abortions, and the mean age of those who have had induced abortions was 22.6 years.

Pregnancies that are not intended by one or both parents are typically referred to as unintended pregnancies, while unexpected pregnancies were denoted as mistimed (AGI 2016). This distinction is essential, as it is likely to affect the outcome. Several investigations support

the fact that unintended pregnancies are the causes of abortion and are associated with a lack of family planning, religious beliefs, education level, marital status, and income level. Unwanted pregnancies are also associated with inadequate access to contraceptives, insufficient understanding of contraception and reproductive health education, lack of inter-partner communication, and sexual violence (Firoza, H., O'Connor, Govender, Reddy, Sibiya, Ghuman, Ngxongo, &. Borg, 2018). The prevalence of abortion can certainly be reduced by better communication between partners concerning family planning and more responsible use of contraceptives. Firoza et al. (2014) suggested that single status is a risk factor for abortion. Firoza et al. (2014) further reported that women living in disadvantaged socioeconomic environments, as well as single women, are more likely to have an abortion because socioeconomic inequalities may affect their ability to plan pregnancy. Moreover, drug and alcohol abuse may lead to abortions. Other risky and unhealthy behaviors can predispose both the mother and the developing fetus to adverse outcomes Firoza et al. (2014).

According to AGI (2018), 99% of women in the United States are sexually active, and each one of them has used a form of contraceptive at some point. AGI (2018) further noted that 62% of all women of reproductive age are currently using some form of contraception. Even though contraception use is inconsistent, only 11% of women at risk of unintended pregnancy are not using a contraceptive. It must still be emphasized that 49% of all pregnancies are unexpected in the United States, and, according to Kirk, Ryan, Douglas, Victor, John, Erwin, and LeBlanc, (2014), 95% of these unintended pregnancies are caused by the inconsistency in the use of contraceptives despite their full availability. In these circumstances, the problem is not whether the contraception is valid or not, but rather stems from its inconsistent use. Kirk et al. (2014) further noted that unintended pregnancies are the direct cause of approximately 95% of

elective abortions performed in the U.S., and research supports the fact that 50% of abortion patients have had at least one previous abortion. Repeated abortions, according to Toprani (2015), can be viewed as a proxy for repeated unintended pregnancies and may further indicate a persistent challenge when using contraception consistently and correctly or accessing services and health information.

## Abortion Trends

In U.S. politics and culture, abortion has always been a very controversial issue (Henshaw, 2015). In the 1900s, long before the U.S. Supreme Court decision in the Roe v. Wade case to decriminalize abortion nationwide in 1973, various anti-abortion laws were in force in each state, while abortion was already legal in several U.S. states (Henshaw, 2015). However, the Supreme Court wanted to impose a uniform decision framework for state legislation on the subject. The Supreme Court had established a specific gestational period during which abortion was legal while reducing the number of restrictions that women must obey during their pregnancy (Henshaw, 2015). Modified in Planned Parenthood v. Casey (1992), that basic framework, despite the adequate availability of abortion and its significant variation from state to state, remains nominally in place. However, various counties do not have an abortion provider (Henshaw, 2015).

Based on Planned Parenthood v. Casey, a law cannot place legal restrictions to impose an undue burden on a woman seeking an abortion of a nonviable fetus. The pro-choice and pro-life are thus usually the main actors in the abortion debate in the United States, even though divergence of opinion exists, as most Americans are neither pro-choice nor pro-life (Henshaw, 2015). According to a survey conducted by Jeffrey in 2018, to determine the legality of abortion, 48% of the surveyed individuals were pro-choice, while an equal percentage was pro-

life. That same survey, however, revealed that a more significant proportion of Americans consider abortion to be morally wrong (48%) than morally acceptable (43%) (Jeffrey, 2018). Based on the results of this poll, it is clear that Americans have long harbored diverse and shifting perspectives concerning the legal status of abortion. According to the findings of this same survey, 29% of the respondents were of the view that abortion should be legal in all circumstances. In comparison, 50% concurred with the statement that abortion should be legal under certain circumstances, and 34% of the respondents were satisfied with the abortion laws in the United States (Jeffrey, 2018).

Abortion remains an important research topic due to its economic and sociological implications. Moreover, while abortion legislation has become more cumbersome, the number of reported abortions has noticeably decreased. According to Henshaw (2015), abortion rates (abortions per 1,000 women aged 15 to 44 per year) gradually increased from 16.3 in 1973 to 29.3 in 1981 and then steadily declined to almost 23 by 1996. Changes in abortion ratios (abortions per 100 pregnancies per year ending in abortion or live birth) were similar, ranging from 19.3 in 1973, up to approximately 30 in the early 1980s, and down to 26.1 in 1996 (Henshaw, 2015). This pattern in abortion trends, from increasing once Roe V. Wade was decided to eventually decreasing has led economists to study factors contributing to the decision to have an abortion. Have federal and state regulations affected the number of abortions? Do these trends reflect a woman's increasing participation in the workforce? Economists interested in these questions have conducted abortion demand analyses, allowing them to estimate the impact of various economic and sociological factors on abortion rates (Henshaw, 2015).

**Total Number of Abortions in the United States Since 1973**

| | | |
|---|---|---|
| ‘’1973 - 2015 | 1987 1,559,110 1,353,671 | 2002 1,269,000 854,122* |
| 1973 744,610 615,831 | 1988 1,590,750 1,371,285 | 2003 1,250,000 848,163* |
| 1974 898,570 763,476 | 1989 1,566,900 1,396,658 | 2004 1,222,100 839,226* |
| 1975 1,034,170 854,853 | 1990 1,608,600 1,429,247 | 2005 1,206,200 820,151* |
| 1976 1,179,300 988,267 | 1991 1,556,510 1,388,937 | 2006 1,242,200 846,181* |
| 1977 1,316,700 1,079,430 | 1992 1,528,930 1,359,146 | 2007 1,209,640 827,609* |
| 1978 1,409,600 1,157,776 | 1993 1,495,000 1,330,414 | 2008 1,212,350 825,564* |
| 1979 1,497,670 1,251,921 | 1994 1,423,000 1,267,415 | 2009 1,151,600 789,116* |
| 1980 1,553,890 1,297,606 | 1995 1,359,400 1,210,883 | 2010 1,102,670 765,651* |
| 1981 1,577,340 1,300,760 | 1996 1,360,160 1,225,937 | 2011 1,058,490 730,322* |
| 1982 1,573,920 1,303,980 | 1997 1,335,000 1,186,039 | 2012 1,011,000 699,202* |
| 1983 1,575,000 1,268,987 | 1998 1,319,000 884,273* | 2013 958,700 664,435* |
| 1984 1,577,180 1,333,521 | 1999 1,314,800 861,789* | 2014 926,190 652,639* |
| 1985 1,588,550 1,328,570 | 2000 1,312,990 857,475* | 2015-17 926,190 |
| 1986 1,574,000 1,328,112 | 2001 1,291,000 853,485* | |

**Total abortions since 1973**

60,069,971 abortions: the Consequences of *Roe v. Wade* (CDC, 2018).

The AGI, (2016) and the CDC (2018), had reported the number of abortions performed in the United States from 1973 to 2014, with the projection of 926,190 abortions or less per year for 2015 to 2017. For the United States, there are two available primary sources for nationwide abortion statistics the AGI as a private institution, and the Centers for Disease Control (CDC). However, the CDC numbers are incomplete because Maryland, New Hampshire, and California have not publicly released their abortion totals since 1973. As a part of this literature review, I examined different sources to provide a reliable overview of the demography and frequency of abortion. I collected secondary statistics from the National Abortion Federation's (NAF) 2009 teaching text on abortion, Comprehensive Abortion Care, Management of Unintended, and Abnormal Pregnancy (2009). According to the available state-level data (AGI, 2016), in 2014, 926,240 abortions took place in the United States. Down from 1.06 million abortions in 2011, 1.21 million abortions in 2008, 1.2 million in 2005, 1.29 million in 2002, 1.31 million in 2000, and 1.36 million in 1996. While it is impossible to provide the exact number of abortions performed in the United States, based on the available information, the CDC concluded that, between 1973 and 2011, approximately 53 million legal abortions were performed in the United States. Additionally, an estimated 908,000 abortions took place in 2015 (Jatlaoui, Shah, Mandel, Krashin, Suchdev, Jamieson, and Pazol, 2017).

According to the findings reported by the AGI (2017), after excluding spontaneous miscarriages, 18.9% of U.S. pregnancies ended in abortion in 2014. Based on a report provided by the United Nations in 2013, the U.S. abortion rate was very high, and only nine countries have reported a higher abortion rate than the United States, namely Romania,

Cuba, Georgia, Bulgaria, Estonia, and Kazakhstan. In 2014, the highest number of abortions was performed in California (157,350), followed by New York (119,940), and Florida (75,990); the lowest abortion rate was registered for Wyoming (120), followed by South Dakota (550) and North Dakota (1,260) (AGI, 2017). In 2014, after excluding spontaneous miscarriages, approximately 36.5% of all pregnancies (including those that were unintended, unwanted, and mistimed) in New York City ended in abortion (CDC, 2017). Between 1973, the year in which the Supreme Court legalized abortion, and 1979, the annual number of legal induced abortions in the United States doubled. It peaked in the 1990s, while from 2000 to 2009, the overall number of annual abortions decreased by 6% with a temporary sharp increase in 2002 and 2006 (CDC, 2016). In the subsequent CDC (2017) report, it was noted that the abortion incidence in the U.S. decreased by 5% from 2012 to 2013. Moreover, 85.5% of all abortions were performed on unmarried women in 2014, and the highest abortion rates were reported for women in their 20s. CDC (2017) further highlighted that only .03% of all abortions performed in 2014 pertained to those under 15 years, while adolescents aged 15 to 19 years accounted for a much higher percentage.

## Abortion Rates in the United States

The AGI and the CDC are the two primary sources of abortion incidence data in the United States. The AGI sources the pertinent data directly from the abortion clinics, but it does not conduct surveys in each year (AGI 2017). Nonetheless, as the AGI data are obtained from all fifty U.S. states and are provided by the abortion clinics directly, researchers believe that the reported information is reliable. Nonetheless, the AGI estimates suggest that its most recent figures should be increased by about 5%. The CDC (2017), on the other hand, relies on voluntary reports from state health departments, New York City and Washington, D.C., but

publishes its data yearly. Still, it is essential to note that, since 1998, New Hampshire, California, and New York, have ceased to report to the CDC. These restrictions notwithstanding, all statistical analyses from both the CDC and the AGI have shown significant recent declines in abortion rates, with marked decreased over the last 25 years (AGI 2017). From 1998 to 2014, the CDC findings have shown a total decline in abortions by 26.2%, and from 1990 to 2014, the AGI has demonstrated a reduction of 42.4% in the abortion rates. According to the AGI (2016), in 2013, the abortion incidence across the entire country declined below 1 million for the first time in 38 years, when 958,700 abortions were reported. In 2014, the number further fell to 926,190, corresponding to 14.6 abortions for 1,000 women of reproductive age (15 to 44 years). As this marked about a 50% decrease from 1981 (29.3), this was the lowest rate recorded since abortion was legalized in the United States in 1973. The AGI (2017) has reported that there were 18.8 abortions for every 100 pregnancies ending in live birth or abortion in 2014, suggesting that the abortion ratio was lower than in any other year since 1972. They attributed the decline in abortions to the reduction in the number of abortion providers from a high of 2,918 in 1982 to 1,671 in 2014. The decrease noticed in abortions between 2008 and 2011, thus related to those facilities performing a thousand or more abortions a year. The overall decline of 132,300 abortions seen from 2011 to 2014 was, according to the AGI, caused by a loss of 65 or more of such facilities (AGI 2017).

This data is crucial, as it helps in determining accurate pregnancy rates and unintended pregnancy prevalence. According to AGI (2018), approximately 1.06 million abortions were performed in the United Staes in 2011, and 21% of pregnancies were terminated. Based on these figures, it was clear that abortion is a ubiquitous procedure in the United States due to several reasons. Still, it should be recognized that, between 1990 and 2008, the abortion rate declined by

an average of 2% per year, dropping further by 13% between 2008 and 2011 (AGI 2018). This phenomenon can be explained by the fact that fewer women had unintended pregnancies in 2008 than in 2011. Indeed, during this period, the unwanted pregnancy proportion declined from 51% to 45%, and the rate declined by 18%, from 54 to 45 per 1,000 women (AGI, 2018).

Extant studies suggest that being single and being a student increases the likelihood that a woman would have an abortion (AGI, 2017). Women aged 25 to 34 years most often decide to stop childbearing and may thus resort to abortion once the desired number of children has been achieved. Several investigations support the fact that older women chose abortion, especially when the relationship with the partner is unstable or when childbearing does not fit their work situation (AGI, 2018). Among young women, the likelihood of abortion increases among better-educated couples (AGI, 2017). The relationship factors associated with the decision to have an abortion and the socioeconomic impact are not the same at different stages in a woman's life, but they are referred to the social representations and perceptions of the benefits and excellent conditions for being a mother (AGI, 2018). Yet, despite these disparities, abortion has permeated all the layers of American society, and no group has been as affected by abortion as the Black population (Potter, 2016). Since 1973, when the Supreme Court legalized abortion in the U.S., a minimum of 13.8 million Black babies have been aborted in the U.S. Because these figures do not include abortions performed after 2000, this number is likely much higher. The loss to the Black community is much more significant than that reflected in population reduction (Potter, 2016). Abortion contributes to the loss of Black political leaders, scientists, teachers, athletes, artists, engineers, and businesspersons. Black-owned businesses were one of the fastest-growing segments of the U.S. economy in 1997 (Potter, 2016). Those businesses have generated more than $495 billion in in-person revenue and employed more than 4 million

workers (Potter, 2016). Hence, it is plausible to assume that, if fewer pregnancies are terminated, the United States workforce would have more Black entrepreneurs, and this could easily translate into more minority-owned businesses, more jobs, and higher tax revenue (Potter, 2016). Abortion has severely affected the labor pool, as well as the Black entrepreneurship. In American's history, they blamed Blacks and the poor for all kinds of social ills, and they treat them as outcasts. Today, America's leading abortion providers and promoters have identified its core patients as the young, poor, and low-income Black women (Barot, 2014).

## Possible Sociodemographic Implications of Abortion

### Marital Status

Abortion, according to Jerman, et al., (2016), Sherman and Jerome (2018), are associated with prenatal behaviors that may increase the possibility of unfavorable pregnancy consequences. Marital status can facilitate wanted pregnancy, reduce abortion rates, prevent harmful maternal practices, and improve pregnancy outcomes in the United States (Sherman and Jerome 2018). Couples can be exposed to sexual activity by a stimulant such as relationship status, and that same relationship status can influence the childbearing goals of individuals and couples. In other words, relationship status can cause a variation in the distribution of abortion patients and abortion indices (Sherman and Jerome 2018). Available statistics for (2016) indicate that 14% of abortion patients were married, and 31% of abortion patients were cohabiting when they became pregnant, while 9% of these patients had been previously married. A slight majority of those that became pregnant were not living with a partner, and 46% had never married (Jerman et al., 2016).

There is a definite possibility that marital status is a sociodemographic factor associated with abortion rates in the United States (Sherman & Jerome, 2018). According to Sherman &

Jerome (2018), 47% of the approximately 3.04 million unintended pregnancies in the U.S. end in abortion each year. The abortion rate in the U.S. is twice higher than in other Western democracies and, by age 45, 43% of American women will have at least one abortion Alan Guttmacher Institute (2016): CDC, (2013). Black women aged 18−24, unmarried or separated women, those with an annual income below $15,000, or Medicaid users are most likely to have an abortion. Compared to other races and ethnic groups, Black women are twice as likely to have an abortion (Cohen, 2008). Evidence provided by AGI supports the fact that Black women are twice as likely to have an abortion as White women are. There has been an increase in abortion incidence among women aged 20 and older due to unintended pregnancy. Because teenagers are more likely than older women to carry an unwanted pregnancy to term, the abortion rates in this age group have decreased in 2013 (Hamilton et al., 2018). According to FOX NEWS (2015), only .01% of abortions are performed after 24 weeks, while 50% are performed in the first eight weeks of pregnancy, and 90% of women have abortions in the first trimester.

According to a study conducted by Firoza et al. (2017), marital status is one of the most critical sociodemographic factors associated with the high abortion rates among Black women. In their study, 89.9% of the participants were single, 70.8% were unemployed with an annual income below the federal poverty threshold, and two-thirds of the women that participated in their study (64.33%) had unintended pregnancies (Firoza et al. 2017). The relationship between marital status and abortion was very apparent, and, as compared with those who were divorced or single, women who were living with their partners or were married were more likely to have planned their pregnancies (Firoza et al., 2017). Extant research also indicates that unemployed women are more likely to have had an abortion, as many more sociodemographic factors are

linked to abortion (Firoza et al., 2017). In their recent study, O'Connor, Govender, and Reddy (2018) found that abortion was linked to single status as well as unemployment, and the prevalence of abortion is particularly high among Black women with low education levels and low income.

**Religiosity**

According to Jerman et al. (2016), records show that religious affiliation is as follow; 24% of patients are Roman Catholic, 17% declared as mainline Protestant, 13% as evangelical Protestant, and 8% said they were part of other religions, while 38% of the respondents were atheists. When the data about abortion incidence was analyzed by religiosity, a 24% decline in abortion was found among mainline protestants, whereas 38% increase was noted in the group with no religious affiliation (Firoza et al. 2017). Though this change was only marginally significant from an earlier rate, the rate for the Roman Catholic women decreased by 15%. Based on the abortion index for Catholic women, their abortion rate was nearly the same as that for all women. The evangelical protestants' abortion rate was 50% below the national average, while those among the mainline Protestants were very low (0.8) (Jerman et al. 2016). Women with no religious affiliation had a relative abortion rate of 1.8 but were overrepresented among abortion patients. In sum, the abortion index increased slightly for those with no religious affiliation and declined somewhat for mainline Protestants. Among religious women, abortion still seems to be very common. Based on a recent Alan Guttmacher Institute (2017) review, 70−80% of women who obtained an abortion have a religious affiliation, whereby 25% of the analyzed sample stated that they attended religious services at least once per month. In addition, 37% of these women were Protestant, 28% were Catholic, and 7% identified as members of some other religion. According to Jerman et al. (2016), the abortion rate among Catholics and

Protestants is 22 and 15 per 1,000 women, respectively. Often, anti-choice leaders portray the Black community as anti-abortion; however, available evidence indicates that they overwhelmingly support access to abortion care (Daniels, Davis, Anunkor, and Parker, 2015). In fact, over 80% of the Black community believes that abortion should be legal, regardless of how they feel about this issue (Daniels et al., 2015). This figure includes 74% of self-identified conservatives and 84% of weekly churchgoers (Daniels et al., 2015). One of the few sociocultural variables associated with pregnancy resolution is religious affiliation (Daniels et al., 2015).

**Educational Level**

Women obtaining an abortion often cite educational goals as one of the reasons to delay childbearing, as many individuals want to position themselves better economically and wish to complete their schooling before having children (Jerman et al., 2016). In 2014, 91% of women obtaining an abortion had graduated from high school; however, only 20% completed a college degree. Moreover, those who had less than a high school diploma that were aged 20 or older accounted for 9% of abortion patients (Jerman et al. (2016). The percentage of abortion patients aged 20 or older who did not have a high school diploma declined significantly from 12% to 9% over the six years. Moreover, in 2014, 72% of minors, 53% of 18–19-year-olds, and 24% of all abortion patients were attending school (Jerman et al., 2016). Most abortion patients who were students in 2014 were pursuing postsecondary degrees; however, only 14% of those currently in school did not have a high school diploma, and 66% had some college education or a college degree (Jerman et al., 2016).

According to Guzzo & Hayford (2014), women with higher educational levels in the United States, are more likely to have educational advantages. Those advantages produce

opportunities for them to develop their human capital during youth and early adulthood, which is the time women are most likely to conceive if no proactive measures are taking to avoid pregnancy. Yet, these opportunities require the devotion of significant amounts of time and energy that conflict with childbearing and family commitments (Guzzo & Hayford 2014). Thus, women with educational advantage are more likely to have a strong desire to avoid pregnancy and birth during the time in which they invested more in developing their human capital, and therefore find pregnancy planning and anticipation salient. Often this desire is interpreted as stronger values, motivation, or skill sets, consistency, and organization (Guzzo & Hayford 2014). Nonetheless, such a conceptualization is problematic in that it assumes that advantaged individuals possess the characteristics that disadvantaged individuals lack, disregarding constraints that affect fertility behaviors and outcomes (Guzzo & Hayford 2014).

**Income Level**

Abortion has become increasingly concentrated among poor Black women over the last few decades. (Jerman et al., 2016). It is also important to note that in 2014, approximately half of the abortion patients in the United States were living on incomes less than 100% of the federal poverty level, and 42% of these patients were already in this group in 2008.

Furthermore, 26% of these patients had incomes that were 100–199% of the poverty threshold in 2014 (AGI, 2018). Patients in the lowest and middle categories were classified by the authors as poor and low-income, respectively. According to Jerman et al., (2014), a decrease from 31% to 25% over six years from 2008 to 2014 in the percentage of abortion patients in the highest income group was countered by a staggering 200% increase among those living under the federal poverty level, which was responsible for the rise in the abortion rate among poor patients (Jerman et al. 2016). Black women were significantly overrepresented among abortion

patients in this same period, and, among all subgroups examined, Black women still had the highest abortion index in the latter year (Jerman et al. 2016). While abortion patients in the highest income group were under-represented compared with the general abortion patient population (0.4), findings reported by Jerman et al. (2016) indicate that the Black women in the low income category had a relatively higher abortion rate.

Restrictions that prompt women to postpone abortion care, according to the AGI (2017) findings, have a disproportionate impact on young Black and low-income women. This fact is not surprising, given that these women have to struggle to overcome logistical, financial, and legal obstacles to obtain an abortion (AGI, 2017). This often results in abortions during the second trimester, while many of these women have no other choice but to carry the baby to term. The longer a pregnancy lasts, the higher is the cost of abortion, while it becomes more difficult to find a provider who offers abortion services. According to a recent AGI (2017) report, the likelihood of obtaining a second-trimester abortion is increased by both the need for financial assistance to pay for the abortion and the distance between woman's residence and the abortion facility. Hence, most of the women affected by D&E bans are already going through deplorable circumstances, pregnancy complications, and barriers to earlier abortion care. Consequently, banning D&E could be particularly harmful to these women (Megan & Donovan, 2017).

According to Megan and Donovan (2017), Black women occupy a unique position of disadvantage in the social strata in the United States. This is why they have been chosen as the focal demographic group of this study, the aim of which is to identify the sociodemographic factors associated with high abortion rates among Black women in the United States (AGI, 2017). Abortion is disproportionately concentrated among disadvantaged women in the United States, and the most current national data provide evidence that this trend continues to increase

(Finer & Henshaw, 2014; Finer & Zolna, 2015). The highest abortion rates are noted for women who are African-American, live on a meager income, and have low educational attainment. As repeatedly noted, the abortion rates have increased among these groups in recent years, while decreasing among higher-advantaged women, generating an increasing disparity (Finer & Henshaw, 2016). The correlation between disadvantaged status and abortion is consistently confirmed in other studies (Finer & Henshaw, 2016). Finer and Henshaw analyzed 2016 NSFG data to find that the abortion rates declined among college graduates, adolescents, and the wealthiest women, while those among Black, less educated, and poor women increased. Finer and Zolna (2018) subsequently repeated this work, adding the 2016-2017 NSFG data and 2018 national survey of abortion patients, as well as data on births from the National Center for Health Statistics.

According to their latest findings, the abortion rate increased from 50 to 52 per 1,000 women between 2001 and 2006 (Finer & Henshaw, 2016). However, in the same period, Black women had an abortion rate of 67%. Abortion rates are closely linked to poverty status and education. In sum, national data provide evidence that abortion incidence has increased among disadvantaged women within the past decade (Finer & Henshaw, 2016). Additionally, the public health concern over the growing disparity in the unintended rates is also motivated by the adverse outcomes arising from abortions and births resulting from unwanted pregnancy. The following discussion will thus focus on this evidence, aiming to elucidate whether the assertion that unintended pregnancy is causal is warranted.

A review of the literature on pregnancy intention was conducted to gauge how well empirical evidence supports the current conceptualization of abortion and unintended pregnancy as public health problems and causal factors in adverse infant, maternal, and child development

outcomes. The review provides background for the study by familiarizing the reader with the state of the literature on abortion. Studies were included in this review if their authors assessed the social patterning of abortion, or the relationship between abortion and health outcomes, or insightfully discussed the available evidence on abortion (Finer & Henshaw, 2016). The following research questions guided the literature review: Is the evidence to support the idea that abortion causes adverse outcomes based on research designs that control for unobserved heterogeneity? What are the factors that contribute to the concentration of abortion among women deemed disadvantaged? In light of these factors, is the prevalent conceptualization of "abortion" valid for these particular populations? The review includes a brief description of current pregnancy intention definitions and measurements, and a critical analysis of empirical evidence on abortion and outcomes (Finer & Henshaw, 2016). The existing evidence on whether unintended pregnancy causes adverse outcomes in the United States seems to suggest that social background and environmental factors are associated with pregnancy intention status and abortion outcomes, maternal behaviors, and infant health (Finer & Henshaw, 2016). All these factors raise a concern about the current conceptualization and measurement of pregnancy intention. Even though the social patterning of abortion cannot be disputed, traditionally studied sociodemographic variables cannot fully explain why abortion, as currently defined and measured, occur disproportionately among specific subgroups of women (Finer & Henshaw, 2016).

A study conducted by Foster, Biggs, Ralph, Gerdt, Roberts, and Glymour (2018), shows that the rate of abortions among poor women with incomes below the federal poverty level was 112 per 1,000 in 2011, more than five times the rate among women with incomes of at least 200% of the national poverty level, which was 20 per 1,000. In 2011, the abortion rate for Black

women was at 79 per 1,000, which was more than double the abortion rate for White women at 33 per 1,000 (Foster et al., 2018). Since 1973, the year in which abortion was legalized nationwide, this is the first time abortion rate is so low (Boonstra, 2016). Though the U.S. abortion rate has reached record low across nearly all ethnic groups, ages, and races, it remains relatively high among low income Black women. Medicaid, the nation's leading public health insurance program for low income Americans, was federally banned by the Hyde Amendment, in effect since 1977, preventing federal dollars from being used for abortion coverage (Boonstra, 2016).

Consequently, Black and low income women lacking insurance coverage most often struggle to raise enough money to pay for the abortion procedure (Boonstra, 2016). Therefore, many of the women experience long delays in obtaining an abortion or are forced to have a second-trimester abortion or even carry their unintended pregnancy to term. For a very long time, those in favor of abortion have coalesced behind several state initiatives to end the Hyde Amendment, so that greater access to safe and legal abortion care might be available to the nation's poorest women (Boonstra, 2016).

**Urban/Suburban and Rural Locations**

The abortion rates are also affected by the woman's place of residence and educational attainment. According to Weller, Moholy, Bossard & Levin (2015), rural women report fewer unwanted births than urban women in the United States. As a part of this study, a bivariate analysis was conducted on the data about abortion rates in the U.S. to illustrate how the residence in a major metropolitan area can significantly influence the likelihood of abortion. According to Weller, Moholy, Bossard & Levin (2015), in the U.S, women who live in an urban area have a higher possibility of having an unwanted or mistimed pregnancy, as well as birth failure. Many

studies have confirmed that urban residence is associated with an increase in unintended childbearing and abortion in the country (Weller et al., 2015). However, (Bossard & Levin 2015) found that urban women are less likely to have an unintended birth compared to rural women.

While the demand for abortions remains stable, there are fewer and fewer physicians, including elective abortion in reproductive services they provide (AGI 2018). The shortage of abortion providers has reached a crisis point and has received national attention (Henshaw, 2015; Grimes, 2014; AGI 2018). From a high of 2,908 in 1982, the number of abortion providers declined to 2,380 by 1992 (AGI, 1994). By 1992, 84% of all American counties, both urban and rural, had no abortion providers at all. These counties are home to 30% of all women of reproductive age (AGI, 2015). The sharp decline in the number of abortion providers, however, occurred mostly among physicians in hospitals and providers in suburban and rural communities (Henshaw & Van Vort, 2015). In 1988, 64% of abortions were performed in clinics rather than hospitals due mostly to hospitals moving away from minor surgery in general, and cheaper services being available at clinics (Henshaw & Van Vort, 2015). In 1988, 90% of all abortion providers were located in urban areas, and only 10% were operating in rural areas. In 1991, 94% of all rural communities had no abortion providers at all, necessitating that rural women travel long distances to obtain abortions (Henshaw & VanVort, 2014). This significantly increased the financial burden for rural women, who not only had to pay travel costs, but also take more time off from work due to abortion (Henshaw, 2016). It is also worth noting that the increased difficulty of finding a provider often lengthens the pregnancy. At the same time, women are looking for clinics and ways to surmount the travel and financial obstacles (Westhoff, 2014). After conducting an informal survey of women at family planning clinics in New York City,

Westhoff (2014) reported that 34% of the 214 women surveyed had visited other facilities before finding the provider who would terminate their pregnancy. Besides, 25% of women who had second-trimester abortions had been trying to obtain abortions elsewhere during their first trimester (Westhoff, 2014). Many of those second-trimester, and thus higher-risk abortions, could have been avoided had there been more local providers.

According to Weisman, Nathason, Teitelbaumand & Chase, (2016), male physicians practicing in rural areas had more negative attitudes toward abortion compared to their colleagues in urban areas. However, this relationship was not significant for women or the total sample used in the study. Weisman et al. (2016) performed multiple regression analyses using various sociodemographic variables (age, gender, race, religion, religious intensity, and practice location) to predict physicians' first-trimester abortion attitudes. They found that all of the sociodemographic variables accounted for 28% of the variance in abortion attitudes, and religion and religious intensity emerged as the most reliable predictors (Weisman et al. 2016). Specifically, Catholic physicians or those who reported that religion was "vital" to them had more ethical reservations about performing abortions (lower abortion attitudes) than those who were not Catholics and to whom faith was not necessary (Weisman et al. 2016).

## Health Implications of Abortion

As many as 1.5 to 2 million pregnancies in the United States end in abortion each year, and it is estimated that 1 to 1.5 million women are hospitalized annually across the country for abortion-related complications (David, 2016). It is also worth reiterating that there were about 1.6 million abortions in 1990, declining to 1.06 in 2011. However, there is a significant gap in research on strategies that could be employed to prevent disparities in the abortion rates in the U.S., given that Black women still tend to have unplanned pregnancies and abortions more

frequently than women of other ethnicities (David, 2016). Thus, Black women should receive the information needed to think critically about the consequences of these abortions. There are numerous potential-post abortion adverse effects that women should know before deciding to undergo this procedure (David, 2016).

The post abortion adverse effects include relationship issues, a sense of isolation or loneliness, nightmares or insomnia, unwanted feelings, and suicidal thoughts that increase the risk of death. The women further experience a loss of self-confidence, post-traumatic stress disorder (PTSD), shame, eating disorders, anger, depression, anxiety, regret, and guilt (Abbasi, Chuang, Dagher, Zhu, & Kjerulff, 2015). Further, abortion can lead to a wide array of physical complications such as repeat abortion, substance abuse, increased smoking, divorce, chronic relationship problems, increased risk of cervical, ovarian, and liver cancer, infertility, post-abortion syndrome. Moreover, abortion may cause child neglect or abuse, sexual dysfunction, psychological disorders, uterine perforation, uterine adhesion, Asherman's syndrome. They are followed by cervical lacerations, and placenta previa, which may increase the risk of perinatal death and fetal malformations and possibly excessive bleeding during labor (Abbasi et al., 2015). Moreover, the women may face different labor complications and subsequent pre-term deliveries, dimorphism, ectopic pregnancies, pelvic inflammatory disease (PID), and endometriosis (Steinberg, McCulloch, & Adler, 2015).

The existing evidence on whether abortion causes adverse outcomes in the United States seems to suggest that social background and environmental factors are associated with pregnancy intention status and abortions, maternal behaviors, and infant health (David, 2016). This raises concerns about the current conceptualization and measurement of pregnancy intention. Even though we are aware of the social patterning of abortion, traditional sociodemographic variables

are still not able to explain why abortion, as currently defined and measured, occurs disproportionately among specific subgroups of women (David, 2016).

An abortion can be a challenge in a woman's life (Steinberg, McCulloch, & Adler, 2015). Thus, she may decide to seek assistance from the public health authorities or her health care provider while evaluating her options of becoming a mother, terminating the pregnancy, or carrying the pregnancy to term and then placing the baby for adoption or raising the child herself (Steinberg et Al., 2015). Facing this situation, the clinician must first examine his/her values and biases to facilitate the decision-making process for women facing these choices. Furthermore, the health care providers must be aware of abortion and adoption, as well as be cognizant of the concrete approaches and values clarification exercises, to provide non-judgmental and nondirective counseling, aimed at helping women examine their beliefs (Steinberg et. Al., 2015). It is further imperative for the counselor to have current and accurate information about adoption, abortion, and parenting before he/she may able to assist women in their decision making. Between 2008 and 2011, 24 U.S. states enacted 106 abortion restrictions (CDC, 2016). However, no study has proven that these restrictions were associated with the decline in abortion rates. It is nonetheless, noteworthy that, during this period, 95% of abortions were performed at clinics, while some physician's offices and hospitals provided the remaining 5%. Between 2008 and 2011, the abortion incidence decreased in almost all states, regardless of the restrictions imposed. This research study is conducted to create awareness so the health care providers and public health leaders may be equipped to educate young women in our communities about the consequences of abortion long before they become pregnant. The purpose of this study was to determine the sociodemographic factors associated with abortion rates among Black women in the United States and to create a positive social change for all (CDC 2016). In the United States,

no one is exempt from the consequences of abortion, given that more than a million women every year may suffer from all types of complications, affecting those around them either financially, mentally, psychologically, physically (Steinberg, et. Al., 2015). Our society cannot continue functioning in that negative social environment; something must be done. If women are not educated about sexual behaviors and abortion long before they become pregnant, the rate of abortion will continue to increase, and the risk for poor maternal and infant outcomes will be higher. Admittedly, we cannot ignore the potential financial burden the rate of abortion in this country has inflicted on taxpayers. According to the CDC (2016), the direct medical costs related to abortion in the United States in 2010 alone was $21 billion.

Though the United States abortion rate has reached a record low across nearly all ethnic groups, ages, and races, there is still an increasing rate among low-income Black women (Boonstra, 2016). The Hyde Amendment, which is in effect since 1977, has federally banned Medicaid, the nation's leading public health insurance program for low income Americans, to spend federal dollars on abortion coverage (Boonstra, 2016). Consequently, Black and low income women lacking insurance coverage are likely to struggle to raise enough money to pay for the abortion procedure. It follows that these women often experience long delays in obtaining an abortion, and may be forced to have a second-trimester abortion or carry their unintended pregnancy to term (Boonstra, 2016). For a long time now, those in favor of abortion have coalesced behind several state initiatives to end the Hyde Amendment, so that greater access to safe and legal abortion care might be available to the nation's poorest women (Boonstra, 2016).

## Abortions and Disadvantaged Status

There is a disproportionate concentration of abortion among disadvantaged women in the United States, and the most current national data provide evidence that this trend continues to increase (Finer & Henshaw, 2016; Finer & Zolna, 2015). Abortion rates are the highest among women who are African-American, Latino, live on a low income, and have low educational attainment. The abortion rates have increased among these groups in recent years, while decreasing among higher-advantaged women, generating an increasing disparity (Finer & Henshaw, 2006). The correlation between disadvantaged status and abortion is consistently confirmed in other studies (Finer, 2015; Besculides & Laraque, 2004).

Finer and Henshaw (2016) analyzed 2002 NSFG data to find that the abortion rate has declined among the wealthiest women, adolescents, and college graduates, while the abortion rate has increased among poor and less educated women. Finer and Zolna (2015) later repeated this work adding the 2006-2008 NSFG data and 2008 national survey of abortion patients and data on births from the National Center for Health Statistics. According to this data, the rate of abortion increased from 50 per 1,000 women to 52 per 1,000 women. Black women had an abortion rate of 67% in 2001 and 2006, while the percentage of abortion increased from 80% to 82% from 2001 to 2006 for Hispanic women Finer and Zolna (2015) Rates of abortion are closely linked to poverty status and education as well. In 2001, the rate of abortion for women whose income was <100% of the poverty level was about four times that of women whose income was >200% of the poverty line. By 2006, the rate increased among women who lived below the poverty line while it decreased for those who had more significant financial means (132 per 1,000 women compared to 24 per 1,000 women) (Finer and Zolna 2015). Women with college degrees had the lowest percentages of abortion (24% in 2001 and 26% in 2006), while

other education groups' rates centered on 50%. In sum, national data provide evidence that abortion has increased among disadvantaged subgroups of women within the past decade (Finer and Zolna 2015). Additionally, the evidence confirming that it causes adverse outcomes also motivates the public health concern over the growing disparity of abortion rates. The following discussion will thus focus on this evidence, aiming to establish whether the implication that abortion is causal is warranted (Finer and Zolna 2015).

## Abortion and Its Adverse Outcomes

Some of the initial quantitative studies on abortion were conducted in Europe among the children of women who were denied abortions in Sweden and the Czech Republic (David, 2016). Authors of both studies followed children from infancy to adulthood, and over time observed that the study groups had poorer educational, psychiatric, and behavioral outcomes in comparison to the controls, thus concluding that pregnancy intention caused these adverse outcomes (David, 2016). Unfortunately, authors of these studies did not control for factors by which the two groups differed, e.g., women applying for abortions were much more likely to be of lower socioeconomic status and have received psychiatric assistance (AGI, 2016). In a more recent study, matched children by sex, hospital, and approximate birthday, even though the women applying for abortions were much more likely to be of lower socioeconomic status and have received psychiatric assistance (AGI, 2016). It is thus plausible that the outcomes did not result from unintended pregnancy status per se, but from a selection bias that resulted in a more disadvantaged group of women applying for abortion and having children with more adverse outcomes later on.

The limitations that plagued earlier studies on abortion still appear in many contemporary studies, despite the use of national data sets and multivariate statistical techniques (Gipson, &

Upchurch, 2018). A random control trial is considered the "gold standard" in establishing causation in research designs. However, pregnancy intentions cannot be randomly assigned, and research designs must be able to account for unobserved heterogeneity to ensure that the observed effect of abortion is not biased (Gipson, & Upchurch, 2018). Gipson & Upchurch (2018), conducted an extensive review of literature on abortion and its assumed effects and summarized studies based on several outcomes, including maternal behaviors during her next wanted pregnancy, birth outcomes, maternal postpartum behavior, and infant and child health. Overall, the review revealed that the evidence from the United States on abortion and specific outcomes, for instance, maternal death, was limited or weak. The most rigorous studies suggest the absence of a relationship between abortion and adverse outcomes (Mgawadere, Nynke, & Broek (2017).

According to Bustan & Coker (2014), the evidence on the relationship between pregnancy intention and other frequently mentioned outcomes such as infant health, child development, and child abuse suggests the need for a more rigorous investigation. A longitudinal prospective cohort study conducted in San Francisco revealed that women whose pregnancies were classified as unintended had an increased relative risk of neonatal death (Bustan & Coker, 2014). However, a limited number of controls were included in this study, and participants' health status was not measured; therefore, conclusions based on the reported data should be interpreted cautiously. In contrast, Keeton & Hayward (2017) have suggested that the effect of pregnancy intention status varies by race and age.

Available evidence on the relationship between pregnancy intention and child development suggests that pregnancy intention does affect child development outcomes (Hummer, Hack, & Raley, 2014). Hummer et al., (2014) analyzed data on children and their

mothers from the NLSY79 to investigate whether pregnancy intention status was related to child development resources and outcomes, such as vocabulary skills, and social and motor development (Hummer et al., 2014). Findings yielded by bivariate analyses indicated that unwanted and mistimed children were at a disadvantage, but these effects were mostly reduced after controlling for family and environmental characteristics. The only exception was that children from mistimed pregnancies were more likely to have parents who utilized authoritarian parenting styles than children from wanted pregnancies (Hummer, Hack, & Raley, 2014).

The existing evidence on whether abortion causes adverse outcomes in the United States seems to suggest that social background and environmental factors are associated with pregnancy intention status and observed issues like maternal behaviors and infant health (Hummer et al., 2014). This raises concerns about the current conceptualization and measurement of pregnancy intention. Even though we are aware of the social patterning of abortion, traditional sociodemographic variables are still not able to explain why abortion, as currently defined and measured, occur disproportionately among specific subgroups of women (Hummer et al., 2014). Unintended pregnancy can be a challenge in a woman's life, prompting her to have an abortion, or to seek assistance, while she is evaluating her options of becoming a mother or carrying the pregnancy to term and then placing the baby for adoption or raising the child (Hummer et al., 2014). When faced with such a patient, the clinician must first examine his/her values and biases to facilitate the decision-making process for women facing these choices. Furthermore, the health care providers must be aware of abortion and adoption, as well as be cognizant of the concrete approaches and values clarification exercises, to provide non-judgmental and nondirective counseling, aimed at helping women examine their beliefs (Steinberg et. Al., 2015). It is further imperative for the counselor to have current and accurate information about abortion,

adoption, and parenting before he/she may be able to assist women in their decision-making (Hummer et al., 2014).

This research study is conducted to create awareness among the health care providers and public health leaders, thus ensuring that they are better equipped to educate young women in our communities about the consequences of abortion long before they become pregnant. The purpose of this study is to determine the sociodemographic factors associated with unintended pregnancy and abortion rates among Black women in the United States and to create a positive social change for all. In the United States, no one is exempt from the consequences of abortion. Our society cannot continue functioning in that negative social environment; something must be done. If women are not educated about sexual behaviors and abortion long before they become pregnant, the rate of unintended pregnancies will continue to increase, and the risk for poor maternal and infant outcomes will be higher. Consequently, we cannot ignore the potential financial burden the rate of abortion in this country has inflicted on taxpayers. Indeed, in 2010, the direct medical costs related to abortion in the United States were $21 billion (CDC, 2012).

## Presumed Reasons Behind the Declines in Abortion Rates

The number of U.S. abortions declined from 1,058,000 in 2011 to 926,000 in 2014, equivalent to 14.6 abortions for every 1,000 women of reproductive age (15 to 44 years), and a 14% decline from 2011 (Dreweke, 2017). However, no critical data are available to explain these declines or the trends in unintended pregnancy and contraceptive use for that period. Still, based on some handy information, it seems that both the reduction in unwanted pregnancies and new abortion restrictions have contributed to the decline (Dreweke, 2017). In 2014, the U.S. abortion rate reached a record low, falling below its level in 1973, the year abortion became legal nationwide. The goal of the federal government under President Trump's administration is to

pursue the implementation of policies that will adversely affect the reproductive health and rights of the U.S. women. These changes will be layered on top of the state-level onslaught against family planning services and abortion access that has been ongoing since 2011 in many women's daily lives (Dreweke, 2017).

According to the Alan Guttmacher Institute (2016), women seek abortion for many reasons classified under a few broad themes; including focus on other children (29%) partner-related reasons (31%), timing (36%), financial reasons (40%), and the need to most women reported multiple reasons for seeking an abortion crossing over several themes (64%). The AGI researchers have used mixed-effects multivariate logistic regression analyses, to identify the social and demographic predictors of the predominant themes women gave for seeking an abortion (AGI, 2016). Thus, they concluded that the reasons women seek abortion are interrelated and complex, concurring with the authors of previous studies on this topic (AGI, 2016). Some women have stated that only one factor has contributed to their desire to terminate their pregnancies; however, others pointed to a myriad of factors that, cumulatively, resulted in their decision to undergo abortion (AGI, 2016). As indicated by the differences among women's reasons by individual characteristics, women seek abortion for purposes related to their circumstances, including their sociodemographic status, marital status, age, parity, and health (Chae, Desai, Crowell, Sedgh, & Singh 2017). It is thus crucial for health care providers, policymakers, and public health authorities to consider women's reasons for choosing abortion. As a woman's choice to adhere to or object, such legislation could have significant effects on socioeconomic outcomes, the health, and life trajectories of women facing unwanted pregnancies (Chae et al., 2017).

**The Reasons behind the numbers**

The abortion rates have been declining since 1981, when they peaked at 29.3 per 1,000 women aged 15 to 44, to a historic low (post-*Roe v. Wade*) of 14.6 in 2017 (AGI, 2018). The overall number of abortions has decreased from 1.2 million in 2005 to 926,000 in 2017. Currently, fewer abortions are recorded in the U.S. for the Native Americans, Pacific Islanders, Asians, and women of mixed race, followed by white women who obtained about one-third of all abortions (Williamson & Taylor 2016). Add to this, the Latinas (who comprise a smaller proportion of the women who have abortions), and finally black women (who obtained 37% of all abortions performed in the United States in 2014. (Williamson & Taylor 2016). Though over the last three decades, the abortion rates recorded for women in minority communities have followed the overall downward trend, Black women have consistently had the highest abortion rates, followed by Hispanic women, even after controlling for income (AGI, 2018). Extant research supports the fact that Black women have higher abortion rates than Whites or Hispanics, at every income level, except for those women living below the poverty line, where poor Hispanic women have a slightly higher abortion rate than Black women (Wind, 2017; AGI, 2017). These patterns in abortion rates mirror the levels of unintended pregnancy seen across these same groups. The poorest Hispanic women, for example, are more likely to experience an unwanted pregnancy, and they are twice as likely to have an abortion when compared to white women. However, compared to white women, Black women are three times more likely to experience an unintended pregnancy.

Moreover, because Black women are still experiencing significantly more unwanted pregnancies than any other group, they are also more likely to seek out and obtain abortion services (AGI 2016). Besides, Black women in general always have more unintended

pregnancies than White women while they desire the same number of children as do White women. However, they are more likely than White women to terminate an unintended pregnancy by abortion to avoid an unwanted birth (AGI, 2016).

## Cost of Abortion

In 2010, 1.5 million unplanned births occurred in the United States, and two-thirds (68%) of these births were paid for by public insurance programs, primarily Medicaid, while these same programs paid 38 % of planned births. In 2010, about 50% of the two million publicly funded births were unplanned (AGI, 2016). Moreover, 38% (1.5 million) of 4.0 million total births nationwide were unplanned (AGI, 2016). According to the CDC (2017), at least 75% of the unplanned births in the District of Columbia and eight other states were paid for by public insurance programs or Medicaid. The rates of unplanned births were the highest in the District of Columbia (85%) and Mississippi (82%) (AGI, 2016). It is noteworthy that seven of these nine jurisdictions are in the South, a region with high levels of poverty. In 2010, the total public expenditure on abortion was estimated to be $21.0 billion, which is a significant amount considering the U.S. $6.4 billion in state expenditures and $14.6 billion in federal spending (AGI, 2015). The public expenditures related to unintended pregnancies in 2010 exceeded $400 million in 19 states (AGI, 2015). The following four states spent more on unplanned births because they are also the nation's four states most populous: Florida ($1.3 billion), New York ($1.5 billion), California ($1.8 billion), and Texas ($2.9 billion) (AGI, 2015).

## Preventing Abortion

Two-thirds (68%) of U.S. women of reproductive age (15 to 44 years) who are at risk for unwanted pregnancy and decide to use contraceptives throughout any given year correctly and consistently account for only 5% of all unintended pregnancies (Cahn, 2018; AGI, 2016). On the

other hand, 18% of women at risk who use contraceptives incorrectly or inconsistently account for 41% of all unwanted pregnancies (Cahn, 2018; AGI, 2016). In 2014, publicly funded family planning services helped women avoid two million unintended pregnancies. These services thus likely prevented nearly 700,000 abortions and 900,000 unplanned births (AGI, 2016).

## Disparities in Abortion

According to Cohen (2014), the variations in access to and effective use of contraceptives are mainly the roots of similar disparities in unintended pregnancy and abortion rates. In 2002, 15% of fertile and sexually active Black women were at risk of unwanted pregnancy and, although they did not want to be pregnant, they were not practicing contraception, compared with 12% Hispanic and 9% white counterparts, respectively (AGI, 2016). Nationally, 50% of all unintended pregnancies could be attributed to lack of or misuse of contraception, and 95% of all abortions could be attributed to unwanted pregnancies; hence, these figures and the disparities among them are very significant (Cohen, 2014). Available evidence indicates that, when some women are unable to access abortion services because of the restrictive laws they are facing, they are turning to self-induced abortion (Cohen, 2014). According to the AGI (2017), more than 100,000 women aged 18 to 49 living in Texas have never attempted to end a pregnancy by themselves. Besides, a media analysis (AGI, 2017) has revealed that women's interest in self-induced abortion was higher in states where they have restrictive abortion laws than in states where there no restrictive abortion laws, as measured via Google searches. Undoubtedly, the estimated incidence of abortions occurring in clinical settings would be too low if significant numbers of women were able to have abortions outside of a health care setting (AGI, 2017).

Studies suggest that a woman will decide to abort mainly based on her single status or because she is still completing her education (Quoctrung, & Miller, 2018). Besides, a woman

will decide to stop childbearing when the number of children she desired is achieved. According to Quoctrung & Miller (2018), this is the best explanation of the decision-making by 25 to 34 year old women who decide to have an abortion. Women older than 34 will choose abortion, especially when childbearing does not fit their work situation, or when they are in an unstable relationship Singh, Remez, Sedgh, & Onda, (2018). Findings reported by AGI (2018) indicate that, when both partners are highly educated, the likelihood of abortion increases, especially among young women. The impact of relationship and sociodemographic factors on a woman's decision to have an abortion was, however, not the same at different stages in life, as it was influenced by the social representations and perceptions of what right conditions are for being a mother (Wind, 2017; AGI, 2017).

While the specter of abortion has permeated all levels of American society, perhaps no group has been as devastated by abortion as Black women (AGI, 2017). Since 1973, when the Supreme Court decided to make abortion legal, a minimum of 13.8 million Black babies have been aborted in the U.S. and, because these figures do not include abortions performed after 2000, this number is undoubtedly much higher (AGI, 2017). The loss to the Black community is far more significant and cannot be measured through just numbers alone. Abortion resulted in a loss of Black political leaders, scientists, teachers, athletes, artists, engineers, businesswomen, and businessmen. In 1997, one of the fastest-growing segments of the United States economy was Black-owned businesses. Those businesses have generated more than $495 billion in revenue and employed more than 4 million workers (AGI, 2017). Admittedly, from those aborted, the United States workforce would have more Black entrepreneurs, and this could easily translate into more minority-owned businesses, more jobs, and higher tax revenue. Abortion has severely affected the labor pool, as well as the Black entrepreneurship (AGI, 2016). Throughout

the history of America, the Blacks and the poor are blamed for all kinds of social ills and are treated as outcasts Today, America's leading abortion providers and promoters have identified the young, poor, and low-income Black women as their core patients (Bonstra, 2016).

## Theoretical Foundation

The theoretical framework which was guided this study was the decision theory that was first developed in the 17th century by Blaise in his famous wager published in 1670 (Marshall, 2014). According to Marshall (2014), decision theory (or the theory of choice) aimed to elucidate the reasoning that underlies an individual's choice. Since the conceptualization of the decision theory, it has undergone several revisions, whereby three main types are in use today. (1) The normative decision theory, based on which the person accepts advice about his/her situation on how to make the best decision. (2) The descriptive decision theory, which was applied in the analysis of how rational individuals make decisions, and (3) The prescriptive decision theory, which provided some guidelines on how we should proceed to make sound decisions (Marshall, 2014).

The theoretical framework that was adopted in this study was grounded in theories that would help elucidate the sociodemographic factors associated with the relatively high abortion rate among Black women in the United States (Marshall, 2014). While limited information was available on these factors, low income, marital status, religiosity, education level, and geographic factors have been suggested by other authors as relevant to a woman's attitude toward family planning and abortion (AGI, 2018). This conceptual framework was thus constituted various theories that encompassed all the crucial information that a woman should know about her fertility (Marshall, 2014). Besides, this framework was intended to open the eyes of public health authorities, health care providers, and women of reproductive age on abortion. To

produce a convincing, informative, and understandable research study, different but affiliated theories was be used, namely, need to know the theory, right of privacy theory, fetal right theory, and pro-choice theory (AGI, 2018). The latter purports that, "Every woman has the right to terminate her pregnancy if she chooses to do so; because the fetus does not meet the requirements of a human being" (Dobkin, Gould, et al., 2014, p. 607-629).

Conversely, according to pro-life theory, the unborn fetus becomes a human being from the moment of conception and thus has all the rights that members of a society do. Philosophy of being, or "ontology," is useful, as it prompts us to ponder on questions, such as "What sort of being in the fetus?" (Dobkin, Gould, et al., 2014). As the focus of this study was a link between race/ethnicity and abortion, the Beach and Mitchell's decision-making framework will also be utilized to explain the process of adolescent decision making about terminating a pregnancy or carrying the baby to term (Marshall, 2014).

This dissertation presents a conceptual framework that captures the macro-environmental and micro-level processes and contexts of a marginalized woman's pathway toward the decision to seek abortion-related care to terminate her pregnancy (Marshall (2014). This framework is applicable globally and can be applied at any time during the reproductive life, irrespective of the woman's marital status. This framework's aim was identifying and specifying the most salient aspects of abortion decision-making across the fertile populations (Marshall (2014). Public health authorities, policymakers, social scientists, as well as program planners can use this framework to highlight aspects of the environment that facilitate or hinder unwanted pregnancies (Marshall 2014). All the theories, as mentioned earlier, were used in the study to determine the sociodemographic factors associated with the abortion rates among Black women in the United States, and to help women considering abortion in their decision-making process (Breakwell et

al., 2017). However, the primary purpose of the study remains the same, determining the sociodemographic factors associated with the high abortion rates among Black women in the United States.

## Literature Review Related to Key Variables and Concepts

The following variables are considered in many studies as potential determinants of abortions: socioeconomic status quintile, previous episodes of depression, woman's education, intimate partner violence, partner's education, woman's age, partner's age, number of live children, marital status, first birth. Further potential determinants of abortions are; living arrangements, time since last birth, geographical area (urban or rural), distance to a health facility, religion, gestation (months), and income as determinants of abortion (Marshall 2014). The concentration of abortion among poor and Black women in the United States can hinder the ability of these women to decide their life paths and to have equal opportunity in our society (Marshall 2014). Even though these disparities are embedded in a complex cultural and historical framework etiologically, policymakers and health care providers have more than one opportunity to make changes that could drastically influence the reproductive health of these populations (Dehlendorf et al., 2015)

## Summary

Many studies that have been conducted in the last few years have documented the historically low rates of abortion in the United States (AGI, 2017; CDC, 2018). These researchers have also highlighted a number of social consequences that women may experience after an abortion (Hall, Dalton, Zochowski, Johnson, & Harris, 2017; Ted & Wilcox 2016). Most concur that unintended pregnancy typically results in abortion, absenteeism, limited access to health care, low socioeconomic status, disrupted family dynamics, lack of education, and

intimate partner issues, like violence (Hall et al., 2017). Many studies have been conducted on abortion associated with health-related problems, such as physical and mental conditions accompanied by a chronic disease, stress, and depression, as well as contraceptive and sexual behaviors, rather than the health outcomes that follow abortion (Hall et al., 2014).

Pertinent literature also provides some demographic predictors of abortion attitudes, and partially shows consistency because, it is evident there are some intriguing changes in the relationships between some variables and abortion attitudes (Pacheco & Kreitzer, 2015). However, the decline in the correlation between support for education and abortion was the most confounding variables (Pacheco & Kreitzer, 2015). According to Macsi (2018), education was among the strongest demographic predictors of support for legal abortion throughout the 1970s and 1980s. However, there has been a steady decline in the correlation between education and abortion through the 1990s. For example, the correlation declined from .31 in 1972, to .14 in 2000 (Macsi, 2016). Religious practice and affiliation have been shown to mediate the effects of education. Considerable attention has been placed on racial differences in support for abortion, and most of those studies have indicated that differences in practice and religious doctrine accounted for the lower support among African Americans for legal abortion (Macsi, 2016).

The race gap narrowed during the late 1980s and early 1990s. Indeed, in three of the four General Social surveys conducted between 1989 and 1993, even before controlling for religiosity, whites were less supportive of legal abortion than Blacks (Macsi, 2016). This change in the level of support for legal abortion in the late 1980s and early 1990s compared to the changes between 1989 to 1993, matches perfectly with a generational replacement. However, the race gap of the latter portion of the 1990s had reemerged, as indicated by the 2000 GSS survey, and this renewed race gap seems inconsistent with previous accounts (Macsi, 2016).

Religion was generally considered to be the strongest of all the social predictors of abortion attitudes (AGI 2017). As repeatedly indicated by empirical studies, religious membership, practices, and beliefs are at the root of all independent contributions of attitudes toward legal abortion and, since several religious groups have taken strong positions against legal abortion, this was not surprising ((Macsi, 2016).

The Catholic Church is very well known for its pro-life position (Jermen & Jones, 2016), and it is also known for its strong and growing opposition of evangelical Protestants. Of course, the religious leaders have made an important issue of abortion and a potent source of mobilization for some committed evangelical Protestants (AGI, 2017). Research findings reported by AGI (2016) support the fact that Protestants are generally more pro-choice than are their evangelical counterparts.

## Conclusions

Public Health authorities must gain a better understanding of the characteristics of women that have experienced abortion to address the structural inequalities that exist within the United States health care system. Hence, the characteristics of abortion patients presented in this research study may reveal the groups of women that are better and less able to access reproductive health information and services. Determining the sociodemographic factors associated with abortion rates among Black women in the U.S. was the main aim of this study, and the results can be used to implement public health policies aimed at eliminating these disparities. Indeed, many abortion restrictions that have been put in place between 2009 and 2014 are more likely to affect disproportionately young, poor, and low income Black women, as these populations are overrepresented among abortion patients (Jerman & Jones 2016).

# Chapter 3: Research Method

## Introduction

Abortion is a significant public health burden, as it is linked with adverse health, economic, psychological, social, and physical consequences (Simmonds et al., 2016). The purpose of this quantitative study was to determine the sociodemographic factors associated with the relatively high rates of abortions among Black women in the United States that were registered in 2014. According to Simmonds et al. (2016), abortions do not receive enough attention in development and research of preventive care and clinical strategies, despite their high importance. Understanding the sociodemographic factors that may be associated with the current relatively high rates of abortions among Black women in the United States can help public health officials understand their responsibilities of parenthood and family life. The public health authorities will further be able to determine the characteristics of women in need for more education to prevent unwanted pregnancies and abortions and define what demographic groups of women require specific primary care interventions to avoid unwanted pregnancies (Simmonds et al., 2016).

Unintended pregnancies constitute nearly half (49%) of all pregnancies in the United States; at the same time, 95% of these unwanted pregnancies are terminated by abortion (CDC. 2015). The concept of unintended pregnancy is considered essential to demographers, public health practitioners, and scholars, as well as other groups concerned with promoting women's ability to prevent abortion by using contraception (Wise, Geronimus & Smock 2017). Researchers are promoting contraceptive methods to reduce abortion rates, especially among disadvantaged groups (AGI, 2018; Black, Gupta, Rassi, & Kubba, 2016). Meanwhile, the conceptualization and standard measures for unintended pregnancy have recently been subjected

to critique, calling into question their rigor as an essential indicator of reproductive and maternal health (Hall et al., 2017).

According to standard pregnancy intention measures, unintended pregnancies are pregnancies that are reported as occurring too soon, mistimed, or occurring when unwanted, and those pregnancies most often are terminated by abortion (AGI, 2017). In contrast, intended pregnancies are those that happen when wanted. Many surveys include intention items that probe into women's use of contraception (AGI, 2017). Expert scholars have analyzed these measures and argued against the assumption that pregnancy is a conscious decision, and those other factors, beyond contraceptive behavior, constitute pregnancy intention, for example, sexual self-efficacy, perception of pregnancy costs, and social norms (Hall et al., 2017). Quantitative researchers have suggested that critical differences in the experience of relationships, sexuality, and fertility among various groups of men and women in the United States produce disparities in how women of varying socioeconomic backgrounds value pregnancy planning (Wise et al., 2017). Thus, labeling pregnancies as "unintended" ignores the complex and interwoven cultural, economic, and social circumstances that affect "pregnancy intention" (Hall et al., 2017). However, there is limited empirical research on the processes through which socioeconomic status produces the social patterning of pregnancy intention among demographically defined subgroups (AGI, 2017).

In this quantitative study, I investigated whether the demographic factors identified through a comprehensive literature review (educational advantage, marital status, family income level, religiosity, and geographic residence in early life) affect the likelihood of abortion in adult life (see Wise et al., 2017). While no such research study has been conducted to date, available evidence does suggest that early life disadvantage has a cumulative effect on health, which

contributes to differential health trajectories by race and gender (Ferraro, Schafer, & Wilkinson, 2016). Braveman and Gottlieb (2014) theorized that education is a process by which educational advantage or disadvantage accumulates over time through a chain of events that affect health outcomes over the lifespan and contributes to health differentials by race and ethnicity. I extended this idea to study abortion and proposed that educational disadvantage contributes to pregnancy intention in adulthood (see AGI, 2017). The cumulative advantages that reinforce later educational attainment could potentially influence pregnancy intention through incentivizing fertility behaviors that reduce the likelihood of conceiving a pregnancy reported as "unintended (Wise et al., 2017)." However, without a clearer understanding of these mechanisms, the standard conceptualization and measurement of unintended pregnancy may be misguided (Braveman, & Gottlieb, 2014). Furthermore, policies and recommendations that circumvent the structural and social influences on fertility-related behaviors and decisions may contribute to ill-informed policy decisions, while overlooking more critical health and reproductive issues of marginalized women (Braveman, & Gottlieb, 2014).

## Research Questions and Hypotheses

Five research questions guided this study, and those research questions were guided by research objectives, which addressed the socio-demographic factors of the currently high rates of abortion among Black women in the United States.

RQ1– Is there an association between marital status and abortion among Black women in the United States?

*Ho1*- There is no association between marital status and abortion among Black women in the United States.

*Ha1*- There is an association between marital status and abortion among Black women in the United States.

RQ2 - Is there an association between religiosity and abortion rates among Black women in the United States?

*Ho2*- There is no association between religiosity and abortion rates among Black women in the United States.

*Ha2*- There is an association between religiosity and abortion rates among Black women in the United States.

RQ3 - Is there an association between education level and abortion rates among Black women in the United States.

*Ho3*- There is no association between education level and abortion rates among Black women in the United States.

*Ha3*- There is an association between education level and abortion rates among Black women in the United States.

RQ4- Is there an association between income level and abortion rates among Black women in the United States?

*Ho4*- There is no association between income level and abortion rates among Black women in the United States.

*Ha4*- There is an association between income level and abortion rates among Black women in the United States.

RQ5 - Is there an association between geographic locations—urban, rural, or suburban areas— with the abortion rates among Black women in the United States?

*Ho5*- There is no association between geographic locations—urban, rural, or suburban areas— with the abortion rates among Black women in the United States

*Ha5*- There are associations between geographic locations —urban, rural or suburban areas—with the abortion rates among Black women in the United States

## Research Design and Rationale

### Role of the Researcher

In this quantitative research study, my part as the researcher was restricted to that of the data collection, analysis, and interpretation instrument. I was not responsible for conducting any interviews with participants, as this study was based on secondary data. However, I know that I was responsible for all issues of trustworthiness, and that was why I addressed these issues in the study because I was fully aware of the importance of integrity in the assessment of the findings yielded. According to Korstjens & Moser (2018), a researcher must use the following four criteria, confirmability, transferability, credibility, and dependability to evaluate the trustworthiness of a quantitative study. It was further my responsibility to make sure that my research study is valid and reliable. Thus, I indicated how credibility, validity, reliability, transferability**,** dependability, and objectivity were ensured in the next few paragraphs.

I am an OB/GYN who is partly against abortion; thus, I have made every effort to eliminate any biases that could arise from my personal views and attitudes. In 2004, I delivered more than 200 babies, 16 by C-section, and the rest by natural delivery methods. Based on my medical education and my understanding of the current laws, I believe that a woman may have an abortion if and only if she was raped, or if she became pregnant due to intercourse with a close family member (brother or father). In such cases, the abortion must be performed, and the procedure should be conducted early in the first trimester. I also accept that abortion may be

mandated in certain circumstances if the mother's life in danger, such as in ectopic pregnancy. Owing to these beliefs, I was going to conduct a research study purely against abortion and enumerate all its negative consequences. Fortunately, during my last residency, I set an appointment with an academic advisor who, in her desire to see all her students succeed, taught me about biases. In other words, I conducted this study to the best of my knowledge through transparency and without biases by following her insightful advice. As a secondary data collector, data analyst, and interpreter, I have used openness when faced with unexpected discrepancies or outcomes to manage preferences.

I am well aware that a study about abortion could be very challenging because of ethical issues, which was why I decided to conduct this research using secondary data. I also know that this type of study does not have any potential to harm any individuals or institutions because it was conducted based on a secondary analysis of data from the AGI database. However, I also acknowledged the limitations of this approach, as I was not able to make that determination independently. Ethically, all studies are reviewed, regardless of what the researchers believe. In this case, I did request approval from the Institutional Review Board when it was appropriate to do so (see Rudestam & Newton, 2015). Most importantly, the data and transcripts that I have in my possession are kept in a secure place.

## Methodology

### Participant Selection Strategy

Quantitative research refers to a broad family of methods that rely on data collected from observations, interviews, documents, surveys, and questionnaires. Epistemological foundations are the only significant difference between qualitative and quantitative approaches (Boucherf, 2015). In other words, the differences between these two approaches stem from what constitutes

knowledge, how knowledge is acquired, and how it is used. Data can be collected from appropriate sources immediately after the formulation of a research question (Boucherf, 2015). A variety of data sources can be used in quantitative research, including telephone interviews, focus groups, face-to-face interviews, observations, videos, historical documents, or diaries (Corbin & Strauss 2016). In quantitative program evaluations, interviews are most commonly used (Wise et al., 2017). (Corbin, J., & Strauss, A. 2015; Bamberger, 2016). The results yielded by quantitative studies can be a source of in-depth and rich information that can be used to formulate a new theory. As previously indicated, for this study, I used secondary data, which included records, and possibly some numerical interpretations to emphasize specific patterns in the data (Wise et al., 2017). (Bamber, 2016). Indeed, poignant quotes and most representatives of my research findings were selected for inclusion in this dissertation. According to Boucherf (2015), quotes are treated as "raw data," and they should not be just listed but should be compiled and analyzed.

In line with the purpose of this research study, the intention was to include the data about all Black women of reproductive age (15 to 19 years) living in the United States. As the unintended birth and abortion rates are the highest among women in their teens, this is the reason why women of this age group were selected. Available evidence indicates that women in this age group also have the highest rates of abortions (Finer & Zolna, 2015). It is also noteworthy that adolescents accounted for 12% and 18% of all abortion patients in 2014 and 2008, respectively. Poor, young, Black, and low-income women have traditionally been at an increased risk for unintended pregnancy and, consequently, abortion (Finer & Zolna, 2015). Since the impoverished young Black and low income women are the focus of this investigation, it is necessary to adopt strategies to mitigate the existing disparities in access to reproductive

health care and other types of family planning services. The characteristics of women who have had abortions will be combined with the information on abortion rates to identify the factors that contribute to the relatively high abortion rates among Black women. Abortion rates of 2014 were explicitly examined, segregating the available data by education, religion, income, ethnicity, and other characteristics.

Due to the highly sensitive nature of this research topic, ethical issues, financial issues, and the prohibitively long time required to collect data from all the states, only the secondary data from the most valid and reliable source were consulted, namely the (AGI) database. Using an appropriate set of criteria to select secondary data to be used in a study played a significant role in terms of increasing the levels of research reliability and validity (Creswell, 2009). The aforementioned were; the author's credentials, depth of the analyses, the quality of the discussions, the reliability of the sources, and the extent of the contribution of the text to the development of the research area.

Research supports the fact that Black women have the highest rates of abortion in the U.S. (Jatlaoui, Shah, Mandel, Krashen, Suchdev, Jamieson, & Pazol 2017). Thus, it is necessary to conduct further research on Black women to determine sociodemographic factors that are likely contributing to these high rates of abortion. In this study, secondary data from only one source was used to construct population group abortion rates for 2014, and the analysis was conducted using the SPSS software 25. The data used for the report was generated from the abortion rates of 15 to 19-year-old adolescent Black women of 2014, whereby the number of abortions in every 1,000 women was condensed to the number of abortions in every 100 women. The result came up with 3,200 incidences from 32 states in the USA. The abortion rates form the other 18 states were unknown according to the excel file provided. In previous studies, the

unintended pregnancies and abortions have been attributed to sexual violence, inadequate understanding of contraception and reproductive health education, and insufficient access to contraceptives, religious beliefs, low income family planning, and lack of inter-partner communication (Firoza et al., 2017). Jatlaoui et al. (2017) opined that communication between partners about family planning is related to better contraception use and thus fewer unintended pregnancies and abortion.

Jatlaoui et al. (2017), further suggested that being single is a risk factor for unintended pregnancies and abortions. Firoza et al. (2017) went further to report that women living in disadvantaged socioeconomic and demographic environments are also at risk of having unintended pregnancies and abortions. Therefore, socioeconomic and demographic inequalities may affect a woman's ability to plan her pregnancies, based on the resources within her reach to raise a child (Jatlaoui et al., 2017). Moreover, risky behaviors, such as drug and alcohol abuse, may lead to unintended pregnancies and abortions. Those health-risk behaviors can predispose both the developing fetus and the mother to adverse pregnancy and neonatal outcomes (Firoza et al., 2017).

Many studies have documented the physical, psychological, and social consequences that women may experience following an abortion (Dehlendorf, Rodriguez, Levy, Borrero, & Steinauer, 2016). Limited access to health care, reduced employment, lack of education, disrupted family dynamics, intimate partner issues such as violence, and low socioeconomic status, are only a few adverse outcomes noted among women who have experienced abortion (Dehlendorf et al., 2016). However, not much is known about how women's social context of abortion, particularly adverse social circumstances, relates to their general health and wellbeing

(Steinberg & Rubin, 2014). In the United States, conspicuous racial/ethnic and socioeconomic disparities still exist in the rates of unintended pregnancy, abortion, and unwanted births.

Moreover, when women are not able to control their fertility as desired, these disparities may play a significant part in the series of difficulties experienced by specific demographic groups (Dehlendorf et al., 2017). According to Dehlendorf et al. (2014), health care system factors, patient preferences and behaviors, and provider-related factors are the three main sets of factors contributing to disparities in family planning outcomes. After all, public health authorities, policymakers, and health care providers have the opportunity to substantially improve the ability of women from all racial/ethnic and socioeconomic backgrounds to make informed decisions about their fertility (Dehlendorf et al., 2017). Accordingly, they have to address all types of barriers those women are facing while accessing family planning services, including contraception and abortion. In addition, they have to work to ensure that all women receive patient-centered reproductive health care (Steinberg & Rubin 2014). The purpose of this study was to identify the causing factors of abortion, which is the most common reproductive health problem among Black women in the United States. According to the CDC (2017) and the AGI (2016), Black women have the highest rates of abortion in the United States, making this study particularly pertinent.

## Data

The data used to study the determinants of abortion among Black women in the United States was obtained from a secondary source, the AGI. The data used in the analysis was generated from the abortion rates of 15 to 19-year-old adolescent Black women of 2014, whereby the number of abortions in every 1,000 women was condensed to the number of abortions in every 100 women. The total came up with 3,200 incidences from 32 states in the

USA. The abortion rates form the other 18 states were unknown according to the excel file provided. Each of the independent variables was described, and hypotheses were developed regarding their individual effects on abortion. The developed model has thus explained the factors that cause abortion. Data was collected for the Black women of reproductive age (15 to 19 years) residing in the U.S. who have had a prior abortion. So, their educational level, income level, marital status, religiosity, and location of residence (rural, urban, and suburban) were served as independent variables.

## Instrumentation

Secondary data was collected from the Alan Guttmacher Institute to analyze this quantitative research study. This database is reputable and represents one of the best sources of data on abortion rates in the United States. Though the instrumentation is never developed by this entity, mainly because the researchers have to choose which type of instrument or instruments to use based on the research questions, the database administrators always test the usability, validity, and reliability of all collected data before publishing it. I am thus confident that the data collection instruments chosen for this study were adequate for answering the research questions.

The methods that were used in this analysis are similar to those used in previously published studies. The data collected and used in the report was generated from the abortion rates of 15 to 19 year old adolescent Black women of 2014, whereby the number of abortions in every 1,000 women was condensed to the number of abortions in every 100 women. The total came up with 3,200 incidences from 32 states in the USA. The abortion rates form the other 18 states were unknown according to the excel file provided. The total number of abortions for the year 2014 was obtained from a periodic census by the AGI for both surgical and medication

abortions from all known abortion providers. This census is, without a doubt, the most accurate and reliable source of data on the incidence of abortion in the United States (Lawrence & Zolna, 2016).

The analysis was performed at an aggregate level, as well as individually for each subgroup of the population. Data on abortion were collected from Black women of reproductive age and specific sociodemographic background. These data were further combined to calculate rates. Since most of the uncertainties in rate estimation relate to the percentage of abortion, and since the population denominators and the numbers of pregnancies are based mainly on complete census data, a supplementary analysis was performed to calculate 95% confidence intervals for the percentage of abortion. Moreover, the range of proportions was used to calculate the 95% confidence intervals around the rate estimates. Although these percentages were expected to be less accurate than the ones calculated in an aggregate manner, the 95% confidence intervals around these percentages should serve as an acceptable proxy for the variance around the rate estimates.

**For Published Data Collection Instruments**

As noted previously, Secondary data was collected from the Alan Guttmacher Institute to analyze this quantitative research study. This database is reputable and represents one of the best sources of data on abortion rates in the United States. Though the instrumentation is never developed by this entity, mainly because the researchers have to choose which type of instrument or instruments to use based on the research questions, the database administrators always test the usability, validity, and reliability of all collected data before publishing it. I am thus confident that the data collection instruments chosen for this study were adequate for answering the research questions.

It is noteworthy to know that the Alan Guttmacher Institute is widely recognized for providing reliable and accurate data. This database is regularly updated, and the information stored is obtained via already developed and validated instruments. This database was particularly valuable in getting statistics related to the abortions that are registered annually across the United States. Here, the focus was on women of reproductive age, i.e., those aged 15 to 19 years. As the data obtained from third parties are subjected to usability, validity, and reliability tests before inclusion in this database, it is deemed reliable and was used in the study without much modification. As the study focus is on Black American women of reproductive age, only information pertinent to this subpopulation was retrieved.

Moreover, to ensure the content validity of the study, I have ascertained that I would use the Alan Guttmacher Institute, which has the most credible database that contains data relevant to the research aims, which implicitly established content validity. As I intended to conduct a valid and reliable research study, I had to determine what types of tests the researchers before me have used and made sure that these are not only ethical and cost-effective but have also measured the ideas and construct in question (Javid, 2018). Although it was not possible to calculate reliability (Javid, 2018), I strived to determine if a particular instrument measures consistently what it was intended to measure. As I only used secondary data, I did not have to develop a data collection instrument as a part of this study. However, I am aware that the number of abortions that were used for the analysis was only an estimate.

The study fills a significant research gap in the knowledge of the sociodemographic factors contributing to the high rates of abortion among Black American women. As stated before, secondary data from only one source was used to determine the population group abortion rates for 2014. I relied on data collected from the Alan Guttmacher Institute, and I had

used the SPSS software 25 to analyze the data. Abortion is an essential component of public health and a standard medical procedure. According to Jones & Jerman (2017), 926,190 abortions were performed in the United States in 2014. As the abortion rate for women aged 15 to 19 years was 14.6 abortions per 1,000, 1.5% of women of reproductive had an abortion in 2014 (Jones & Jerman 2017). It is also noteworthy that, according to the current estimates, if the prevailing rate continues, 30% of women aged 15 to 19 years would have an abortion by age 45.

Further highlighting the commonality of abortion in the U.S. On the other hand, as the abortion rates have substantially declined between 2011 and 2014 alone (at 14%), it is likely that the estimate of the lifetime incidence of abortion has also fallen (Jones & Jerman 2017). Thus, it must be acknowledged that, rather than fewer women having abortions, the characteristics of women that have obtained abortion has changed. Indeed, AGI (2016), reported that, in 2014, 49% of abortion patients had family incomes below 100% of the federal poverty level, which was a significant increase from 42% in 2008.

### For Researcher Developed Instruments

As noted previously, no instrument was developed as a part of this study, as only secondary data from the Alan Guttmacher Institute was used. Thus, the usability, validity, and reliability of the collected data have already been established. I, therefore, concluded that the data collection instruments were sufficient to answer the research questions.

### Procedures for Pilot Studies

I have used many methods to determine the feasibility of this study. Specifically, I conducted a pilot study to establish if any flaws or limitations in the data or the analysis approach existed, which I aimed to rectify before the implementation of the leading research. The pilot study included data on hundreds of black women who became pregnant without

intending to have decided to carry their pregnancy to term, or obtained abortions. Thus, the pilot sample was representative of the main study population. The secondary data collection for the pilot study helped in revealing any gaps or omissions in the data provided by the secondary sources, while taking into account highly significant issues, such as research representation, ethics, reliability, and validity.

## Procedure for Recruitment, Participation, and Data Collection

No participants were recruited for the study, as it was solely based on the analysis of secondary data readily available from the Alan Guttmacher Institute. Secondary data collection has many advantages. First, data is readily available, and hence less time is required to gather all the relevant information. Second, it is less expensive than primary data collection. There are also some disadvantages, such as the available data not being specific to the researcher needed or not being completely address the research questions. Furthermore, the authenticity of the research results could be compromised. This research study was conducted to find answers to the following research questions:

RQ1. Is there an association between marital status and abortions among Black women in the United States?

RQ2. Is there an association between religiosity and abortions among Black women in the United States?

RQ3. Is there an association between education level and abortions among Black women in the United States?

RQ4. Is there an association between income level and abortions among Black women in the United States?

RQ5. Is there an association between geographic location (urban, rural, or suburban) and abortions among Black women in the United States?

Due to the highly sensitive nature of this research topic, ethical issues, financial issues, and the time required to collect data from the United States, I decided to collect secondary data from the Alan Guttmacher Institute database. I knew for a fact when using secondary data, it was crucial to ensure that appropriate criteria are adopted to increase the levels of research reliability and validity. The requirements mentioned earlier are the credentials of the authors, depth of analysis, quality of the discussions, reliability of sources, and the extent of the contribution of the text to the development of the research area. Now, I do know the frequency of data collection events, and the time it took me to collect the data. However, all data collected are on a flash drive.

## Data Analysis Plan

Data analysis was thematic and was conducted in response to the five research questions which guided this study. Data collection and analysis were done simultaneously. The investigation was conducted using socio-demographic characteristics of Black women aged 15 to 19 years living in the United States who have had an abortion in 2014. The purpose of this quantitative study was to investigate and determine the sociodemographic factors associated with the relatively high rates of abortions among Black women in the United States that have been recorded in 2014 while the abortion rates were very low among all other races. Data was collected from the Alan Guttmacher Institute (AGI) database, and the sample size was based on reliable numbers found in secondary data. The data was analyzed using SPSS version 25. The available information on abortion rates among Black women in the United States was the focus of this analysis, which involved first a frequency analysis of all the variables, then the cross-tabulation of all the variables with abortion. I continued the examination with a Chi-square test, an independent samples *t*-test, and then a

simple logistic regression. This method was deemed appropriate for examining the longitudinal bivariate associations between predictor variables and, in turn, the likelihood that a Black woman has had an abortion between the ages of 15 to 19. I did perform the same simple logistic regression for all research questions to determine the association (if any) between abortion rates and a Black woman education, income, marital status, religion, and geographic locations. The logistic regression model was used because the dependent variable was binary (Hosmer, Lemeshow & Sturdivant, 2013).

A bivariate analysis was performed to determine the relationship between marital status and abortion, as those who are married or living with their partners are more likely to have planned their pregnancy than are single or divorced women (Guzzo, & Hayford, 2014). The analysis was performed to determine the relationship that income level, educational level, religiosity, and location of residence have with the rates of abortions among black women in the United States (Firoza et al., 2018; Guzzo, & Hayford, 2014). Although a bivariate analysis was performed to determine the relationship between abortion and education, the relationship between abortion and level of income was also investigated, based on the fact that a majority of Black women that were in the focus of this study have a low level of income (Guzzo, & Hayford, 2014). Empirical evidence indicates that a single mother with limited financial resources is likely to experience economic instability, which will undoubtedly make it difficult for her to support her family, increasing the likelihood of abortion. Indeed, findings reported in pertinent literature indicate that women with low income have higher rates of abortions than those from higher-income brackets, possibly due to insufficient use of contraceptives among women living in poverty (Firoza et al., 2018).

After a long period of minimal change, between 2008 and 2014, the abortion rates in the United States declined substantially. In 2014, the abortion rates were at the lowest level seen in at least three decades among all race/ethnicity groups. According to the Alan Guttmacher Institute (2017) and the CDC (2016), the decline occurred in nearly all demographics, race, and ethnicity groups, including those defined by age, education, income, religious affiliation and geographic areas of residence; however, abortion rates remain relatively high among Black women. It was thus expected that the decline observed would corroborate the results of a recent study conducted on abortion at the state level (Finer & Zolna, 2017). The purpose of this study was not to explain the decline in abortion but to identify the causing factors associated with the high rates of abortion among the Black women in the United States in 2014. The analysis focus was on the following sociodemographic factors: marital status, education level, income level, religious affiliation, and residence location. The IBM SPSS software 25 was used for the data analysis, without adopting any specific type of coding. All data collected, including transcripts, are kept in a secured locked file to which only I, as the researcher, have access. Besides, as the data are on my computer, all my files are password-protected, and only I will have access to these records.

## Issues of Trustworthiness

Credibility, transferability**,** reliability, validity, dependability, and objectivity must be ensured in all research studies (Korstjens & Moser, 2018; Nowell, Norris, White, and. Moules, 2017). The credibility of the work of quantitative researchers is judged by its transparency, communicability, and consistency/coherence (Korstjens & Moser, 2018). How the issues of trustworthiness of this research study were addressed are described below. (Nowell, Norris, White, and. Moules, 2017; Lincoln and Guba (1985) postulated that the trustworthiness of a

research study is significantly meaningful in evaluating its worth. Then they provided the following four criteria for assessing the trustworthiness of quantitative inquiries: Dependability, credibility, confirmability, and transferability. Validity refers to the ability of a measurement to evaluate what it is intended to measure (Nowell, Norris, White, and. Moules, 2017). As pregnancy intention is usually adopted as a psychological measure that theoretically measures an abstract construct, current pregnancy intention assessments must adhere to the principles of validity for instruments.

Finally, validity was not a static property of an instrument but a hypothesis about the ability of an assessment to measure a particular construct (Korstjens & Moser, 2018; Nowell, Norris, White, and. Moules, 2017). As additional evidence supporting the hypothesis of inference becomes available, it offers further support for the validity of an instrument for a particular construct (Nowell et al., 2017). As previously stated, predictive testing validity can be used to confirm the construct validity of a precise instrument for a specific construct. The predictive value of current assessments of pregnancy intentions has been challenged by numerous studies indicating the presence of discrepancies between reproductive plans and outcomes of fertility behaviors and births (Nowell et al., 2017). Furthermore, as previously discussed, women sometimes change pregnancy intention status from unintended to intend; thus, true pre-pregnancy intentions may not be predictive of later pregnancy intentions, feelings, and attitudes. Indeed, a comprehensive review of available empirical evidence has revealed that there is very little evidence, besides bivariate statistics, to support the hypothesis that current assessments of pregnancy intentions are actual measurements of the "pre-conception pregnancy intentions" construct (Korstjens & Moser, 2018; Nowell, Norris, White, and. Moules, 2017).

## Credibility

Credibility can refer to confidence in the truth and accuracy of the findings, the training, experience and the presentation of the researcher, or the soundness of the design and methods of a quantitative study ((Korstjens & Moser, 2018). Thus, to establish credibility, researchers must use rigorous methods that produce rich data (Korstjens & Moser, 2018). Moreover, member checking can be used to build credibility. Member checking is defined as the process by which the participants are invited to provide feedback on the research process, research findings, and the researcher's interpretation of the information they provided. Throughout the entire research process, including the pilot study, as well as subsequent data collection and analysis, member checking could be used as a means of validating women's accounts of their abortion experiences. However, none of this applies to my study, as it will solely be based on secondary data (Nowell et al., 2017).

On the other hand, triangulation, member checking, and peer review could ascertain internal validity. Anyhow, I do not deem these strategies necessary, as I did use secondary data to conduct this study. Triangulation refers to the process whereby the researcher uses several data sources to validate the findings of each one (Korstjens & Moser, 2018). It is also essential to provide a transparent chain of evidence, as this allows the readers to track derivation of the data through the development of the research questions, documentation investigation, a conceptual framework, data analysis, and result interpretation, to the eventual study conclusions (Nowell et al., 2017; Korstjens & Moser, 2018).

## Transferability

This study is a quantitative method study that is context-specific. Therefore, it is not possible to make inferences to other populations or settings. Transferability is established by

demonstrating that the research findings have applicability in different contexts (Korstjens & Moser, 2018). External validity, on the other hand, relates to generalizability to other studies. Thus, as I adopted these strategies when needed through the research investigation.

## Dependability

Dependability, just like reliability, requires that the researchers demonstrate that the findings yielded by their investigations are consistent and could be repeated (Korstjens & Moser, 2018). The purpose of establishing dependability was to allow the research process to be replicated to verify the obtained results (Korstjens & Moser, 2018). To achieve dependability, researchers have to document the research process in detail, because dependability involves the maintenance and preservability of all transcripts, audiotapes, and notes associated with the study. Once again, as this study was based on secondary data, those strategies do not apply.

## Confirmability

Confirmability is established when a researcher can link the data collected to its sources (Korstjens & Moser, 2018). Thus, individual participants must be allowed to review all data that pertain to their case to verify that the researcher has conveyed their intended meaning. As this study did not involve any study participants and the issues mentioned earlier, do not apply. I did my best to ensure that the data collection, analysis, and interpretation were not shaped by personal interest, motivation, reflexivity, or by my own bias.

## Ethical Considerations

In conducting this research study, I remained sensitive to the issue of abortion, as this is a very personal and often traumatic experience. I am also aware that the researcher must be able to maintain confidentiality and privacy when conducting any study, especially on abortion, to avoid potential legal and social consequences. Given the fact that confidentiality and perceptions of

privacy can differ cross-culturally, in clinical settings, it was essential to establish procedures for protecting privacy. As this study relied solely on secondary data, the main issue pertains to the protection of data retrieved from the databases.

According to Rudestam and Newton (2016), a written informed consent agreement is not required for all studies. This research lacks the potential to harm any individuals because it was conducted based on a secondary analysis of data from the Alan Guttmacher Institute database. I also know that I am unable to make that determination independently. Ethically, all studies are reviewed, regardless of what one believes. In this case, I requested approval from the Institutional Review Board when it was appropriate to do so (Rudestam & Newton, 2015). Yet again, all data collected, including transcripts, are kept in a secured locked file to which only I, as the researcher, have access. However, once data entered into my computer, all my files are password-protected, and only I will have access to these records.

## Summary

In this chapter, I have elaborated on the problem statement, the purpose of this study, and the possible sociodemographic factors associated with the relatively high rates of and abortion among Black women in the United States. Next, I concisely summarized the major themes discussed in the pertinent literature to establish what is known about the study topic. I further described how the present study will fill the identified gaps in the literature and how the findings yielded will support public health initiatives. Besides, I provided transitional material to make the connection between methods that I have described in this chapter with the gap in the literature. I have restated the research questions and clearly defined my role as a researcher. Subsequently, I have identified my data collection sources. In conclusion, I indicated how I established credibility, validity, reliability, transferability**,** dependability, and in this study.

A quantitative researcher must judge the credibility of his/her work by its transparency, consistency-coherence, and communicability (Javid, 2018). I thus also described how the issues of trustworthiness were addressed in this research study. I know that the content validity was fundamental in conducting my review; however, as I was using secondary data from one of the most credible databases in the United States, I believe that content validity was already established. I desired to conduct a valid and reliable research study. Hence, I endeavored to determine what types of tests the researchers before me have used and made sure that the methods they used were not only ethical and cost-effective but have also measured the ideas and constructs in question (Javid, 2018). Even though secondary data was used in this study, I have delineated all procedures for recruitment, participation, and data collection associated with the pilot study and the main study in this chapter. I have provided details for each, the data collection, and the research question. I have identified the database from which my data was collected, and I further specified how I compiled the data, plus the frequency of the data.

Furthermore, in this chapter, I have summarized how data are recorded and what software was used in the analyses. Finally, I described some appropriate strategies to establish credibility, such as saturation, prolonged contact, triangulation, reflexivity, member checks, and peer review. The method I used to treat the collected data is described in this chapter, including the issues of anonymity or confidentiality, and any concerns related to each one. Protections for confidential data, data dissemination, who will have access to the data, data storage procedures, were also delineated.

# Chapter 4: Results

## Introduction

According to AGI (2018), clinicians performed 60,069,971 abortions from 1973 to 2017 in the United States. Although the abortion rates have dropped to the lowest since 1973 across nearly all ages, races, ethnic groups, education levels, and incomes; rates among Black women remained two and a half times as high (76 per 1,000 women) as the rates among White women (30 per 1,000; Wind, 2018). Therefore, this study was conducted to determine the socio-demographic factors associated with the relatively high rate of abortion among Black women in the United States. In this study, I used data collected from the AGI database. The data were generated from the abortion rates of 15 to 19-year-old Black women in 2014, whereby the number of abortions in every 1,000 women was condensed to the total number of abortions in every 100 women. This resulted in 3,200 incidences from 32 states in the United States. The abortion rates form the other 18 states were unknown according to the data file. Furthermore, the data were summarized using frequency analysis, where the percentage of women who opted for abortion against those who did not were aggregated, such as the marital status, geographical location, education level, income, religiosity, and metropolitan status.

For the analysis of this study, I collected secondary data from the AGI database and used the data to determine the association between the dependent variable abortion and the independent variables, marital status, income, religiosity, education, and geographic location of Black women living in the United States. The analysis was conducted using socio-demographic characteristics of Black women aged 15 to 19 years living in the United States who have had an abortion in 2014. The purpose of this quantitative study was to investigate and determine the sociodemographic factors associated with the relatively high rates of abortions among Black women in the United States that were recorded in 2014 while the abortion rates were meager among all other races. According to Simmonds et al. (2016),

abortions do not receive the level of attention in public health development initiatives and academic research on preventive care and clinical strategies that are typically dedicated to other health threats of similar importance. By knowing the sociodemographic factors associated with the high rates of abortions among Black women in the United States, public health officials can understand their responsibilities of parenthood and family life. They are further equipped to determine the characteristics of women in need of more education to prevent unintended pregnancy, which is responsible for 95% of abortions (see AGI, 2018). It can also allow them to identify the specific demographic groups of women who require more extensive primary care interventions to prevent abortions.

## Data Collection

Due to the highly sensitive nature of this research topic, ethical issues, financial issues, and the time required to collect data from the United States, I decided to collect secondary data from the AGI database. I knew that when using secondary data, it was crucial to ensure that appropriate criteria are adopted to increase the levels of research reliability and validity. I collected reliable and valid secondary data to answer the research questions of this study. I was aware that, when using secondary data, it was essential to ensure that appropriate criteria are adopted to increase the levels of research validity and reliability. At the beginning of the dissertation process, I requested permission from three databases; The AGI, the CDC, and Data.gov. I was granted permission to use data from all three databases, which were already open to the public. The AGI compiles information of women 15 to 44 years old from all races and socio-demographic background who have had an abortion and are living in the United States. However, the analysis of this study was conducted using only 3,200 Black women, 15 to 19 years old from 32 states who have had at least one abortion in 2014.

## Demographics

**Table 1**

*Shows the Variables in the Equation*

| Variables | | *B* | *S.E.* | Wald | *df* | *Sig.* | Exp (B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | Marital_status | .034 | .255 | .018 | 1 | .893 | 1.035 |
| | Education_level | .049 | .166 | .086 | 1 | .769 | 1.050 |
| | Income | .000 | .000 | .077 | 1 | .781 | 1.000 |
| | Metropolitan status | -.015 | .224 | .005 | 1 | .945 | .985 |
| | Religiosity | -.041 | .163 | .064 | 1 | .800 | .960 |
| | Constant | -3.763 | 1.041 | 13.075 | 1 | .000 | .023 |
| Step 2[a] | Marital_status | .034 | .255 | .018 | 1 | .893 | 1.035 |
| | Education_level | .049 | .166 | .086 | 1 | .769 | 1.050 |
| | Income | .000 | .000 | .077 | 1 | .781 | 1.000 |
| | Religiosity | -.040 | .162 | .062 | 1 | .804 | .961 |
| | Constant | -3.787 | .977 | 15.034 | 1 | .000 | .023 |
| Step 3[a] | Education_level | .049 | .166 | .086 | 1 | .769 | 1.050 |
| | Income | .000 | .000 | .078 | 1 | .781 | 1.000 |
| | Religiosity | -.041 | .162 | .065 | 1 | .798 | .959 |
| | Constant | -3.774 | .971 | 15.099 | 1 | .000 | .023 |
| Step 4[a] | Education_level | .049 | .166 | .087 | 1 | .768 | 1.050 |
| | Income | .000 | .000 | .078 | 1 | .780 | 1.000 |
| | Constant | -3.872 | .893 | 18.780 | 1 | .000 | .021 |
| Step 5[a] | Education_level | .049 | .166 | .088 | 1 | .766 | 1.051 |
| | Constant | -4.114 | .218 | 357.442 | 1 | .000 | .016 |
| Step 6[a] | Constant | -4.065 | .137 | 877.209 | 1 | .000 | .017 |

**Descriptive Statistics**

I summarized the data using frequency analysis, and I aggregated the percentage of women who opted for abortion against those who did not. The marital status, geographical location, education level, income, religiosity, and metropolitan status. Table 2 shows the summary Statistics for income.

**Table 2**

*Summary Statistics for Income*

| | *N* | Range | Minimum | Maximum | Mean | Std. Deviation | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Income | 3200 | 3000.0 | 4000.0 | 7000.0 | 5464.030 | 863.5288 | 745682.024 | .062 | .043 | -1.178 | .087 |
| Valid N (listwise) | 3200 | | | | | | | | | | |

Table 2 shows that the average income was $5,464.00 among Black women in the survey; the highest-earning woman received $7,000.00, and the lowest-paid woman earned $4,000.00. Table 3 shows the frequency analysis of abortion.

**Table 3**

*Frequency Analysis of Abortion*

| Aborted | | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | NO | 3146 | 98.3 | 98.3 | 98.3 |
| | YES | 54 | 1.7 | 1.7 | 100.0 |
| | Total | 3200 | 100.0 | 100.0 | |

The results in table 3 show that the number of incidences involving abortion was 3,146 (98.3%) against 54 (1.7%) incidences that did not include abortion. Table 4 shows the frequency analysis of the marital status variable.

**Table 4**

*Frequency Analysis of Marital Status Variable*

| Marital status | | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | Single | 2341 | 73.2 | 73.2 | 73.2 |
| | Married | 745 | 23.3 | 23.3 | 96.4 |
| | divorced | 114 | 3.6 | 3.6 | 100.0 |
| | Total | 3200 | 100.0 | 100.0 | |

The distribution of marital status, as shown in Table 4, included 73.2% single women, 23.3% married women, and only 3.6% divorced women. This indicates that women who opt for abortion are mostly out of wedlock. Table 5 gives the frequency analysis of the educational level variable.

**Table 5**

*Frequency Analysis of Educational Level Variable*

| Education level | | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | Junior high school | 1119 | 35.0 | 35.0 | 35.0 |
| | Senior high school | 1009 | 31.5 | 31.5 | 66.5 |
| | College/university | 1072 | 33.5 | 33.5 | 100.0 |
| | Total | 3200 | 100.0 | 100.0 | |

According to table 5, the analysis shows that most black women do not attend college, and most have a high school education because 35% and 31.5% include women with mainly high school education. Table 6 shows the frequency analysis of the metropolitan status variable.

**Table 6**

*Frequency Analysis of Metropolitan Status Variable*

| Metropolitan status | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Urban | 1919 | 60.0 | 60.0 | 60.0 |
| | Sub-urban | 1067 | 33.3 | 33.3 | 93.3 |
| | Rural | 214 | 6.7 | 6.7 | 100.0 |
| | Total | 3200 | 100.0 | 100.0 | |

Most women resided in the urban metropolitan areas (60%), followed by sub-urban (33.3%), and the least inhabited regions were rural areas (6.7%), as indicated in table 6. Table 7 shows the frequency analysis of the religiosity variable.

**Table 7**

*Frequency Analysis of Religiosity Variable*

| Religiosity | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Christian | 733 | 22.9 | 22.9 | 22.9 |
| | Muslim | 456 | 14.2 | 14.2 | 37.2 |
| | Other | 2011 | 62.8 | 62.8 | 100.0 |
| | Total | 3200 | 100.0 | 100.0 | |

According to table 7, most Black women subscribe to the other faith (62.8%), followed by the Christian faith (22.9%) then very few were Muslim (14.2%

The Alan Guttmacher Institute is reputable, and it represents the best source of data on abortion rates in the United States. Though this entity never developed the instrumentation

because the researchers have to choose which type of instrument or instruments to use based on the research questions, the database administrators always test the usability, validity, and reliability of all collected data before publishing it. I am thus confident that the data collected for this study is adequate, valid, and reliable to answer the research questions. Of course, all the readers of this dissertation need to know that the data collected and the analysis conducted to answer the research questions of this study are based solely on Black women living and the United States; hence the results are only valid for the United States.

## Results

I started this analysis by summarizing the data collected, using frequency analysis where the percentage of women who opted for abortion against those who did not were aggregated. The marital status, education level, income, religiosity, and metropolitan status. The results from the frequency analysis of Abortion show incidences involving abortion were 3146 (98.3%) against 54 (1.7%) incidences that did not affect abortion. Results from the frequency analysis of Marital Status prove that the distribution of marital status included 73.2% single women, 23.3% married women, and only 3.6% divorced women. Based on the analysis, women that opt for abortion are mostly out of wedlock. Results from the frequency analysis of educational level variables show that most Black women do not attend college but have a high school education because 35% and 31.5% include women with mainly high school education. Results for the frequency analysis of metropolitan status variables show that most Black women resided in the urban metropolitan areas (60%), followed by sub-urban (33.3%), and the least lived communities were rural areas (6.7%). Results from the frequency analysis of religiosity variable show most Black women who have had an abortion subscribe to the other faith (62.8%), followed by the Christian faith (22.9%) then very few were Muslim (14.2%).

I also conducted a cross-table analysis of abortion with each of the independent variables. The Cross table analysis of abortion and marital status shows that most Black women who performed abortion were single women (39 women), followed by married women. The study also revealed a small number of divorced women who have performed abortions. The cross-table analysis of abortion and education shows that most women with high school and college education levels performed abortion with 23 and 16, respectively, out of 54 women in total who performed an abortion. The cross-table analysis of abortion and metropolitan status shows that Black women residing in urban areas performed more abortions followed by suburban and then rural women. Table 8 shows the crosstabulation analysis of abortion and marital status.

**Table 8**

*Cross Table Analysis of Abortion and Marital Status*

| Aborted; Count | Marital Status | Marital status | | | Total |
|---|---|---|---|---|---|
| | Cross Tabulation | single | married | Divorced | |
| Aborted | NO | 2302 | 732 | 112 | 3146 |
| | YES | 39 | 13 | 2 | 54 |
| Total | | 2341 | 745 | 114 | 3200 |

Most Black women who performed abortions were single women (39 women), followed by married women. There was a small number of divorced women who performed abortions, as elaborated in Table 8. Table 9 shows the Crosstabulation analysis of abortion and education.

**Table 9**

*Cross Tabulation Analysis of Abortion and Education*

| | Education level | Total |
|---|---|---|

| Education level | | junior high school | senior high school | college/university | |
|---|---|---|---|---|---|
| Aborted Count Cross-tabulation | | | | | |
| Aborted | NO | 1104 | 986 | 1056 | 3146 |
| | YES | 15 | 23 | 16 | 54 |
| Total | | 1119 | 1009 | 1072 | 3200 |

The analysis in Table 7 shows that Black women in high school have performed more abortions (23) than Black women in college (16), respectively, out of 54 women in total who performed an abortion. Table 10 shows the cross table analysis of abortion and metropolitan status.

**Table 10**

*Cross Tabulation Analysis of Abortion and Metropolitan Status*

| Metropolitan status | | Metropolitan status | | | Total |
|---|---|---|---|---|---|
| Aborted Count Cross-tabulation | | urban | sub-urban | Rural | |
| Aborted | NO | 1886 | 1050 | 210 | 3146 |
| | YES | 33 | 17 | 4 | 54 |
| Total | | 1919 | 1067 | 214 | 3200 |

Table 10 shows that most urban residing Black women performed an abortion, followed by sub-urban and then rural women.

## Research Question Solutions

All the research questions aim to determine the association existed between the independent variables and the dependent variables, so, I have used hypotheses tests to solve them. I have used the Chi-square test of independence to test the association in most of the

research questions because the variables were both categorical (McHugh, 2013). Except for the trial involving income and abortion, where the association is between a continuous variable and categorical variable, the independent samples *t*-test was used (Sedgwick, 2010).

RQ1- Is there an association between marital status and abortion among Black women in the United States?

*$H_0$1:* There is no association between marital status and abortion among Black women in the United States.

*$H_a$1:* There is an association between marital status and abortion among Black women in the United States. Table 11 shows a Chi-square test for marital status and abortion.

**Table 11**

*Chi-square Test for Marital Status and Abortion*

| Test Statistics | Aborted | Marital Status |
|---|---|---|
| Chi-Square | 2987.645[a] | 2470.283a |
| df | 1 | 2 |
| Asymp. Sig. | .000 | .000 |

b. 0 cells (.0%) have expected frequencies less than 5.

The minimum expected cell frequency is 1066.7.

a. 0 cells (.0%) have expected frequencies less than 5.

The minimum expected cell frequency is 1600.0.

Table 11 shows the results of a chi-square test of association between abortion and marital status. For the chi-square test, the decision to reject or uphold the null hypothesis is made based on the *p*-value (Asymp. Sig) being less than 0.05 (5%). The *p*-value of the test was equated to 0.000; this is less than 0.05, which indicates that the test was significant in determining the association between abortion and marital status. Therefore, the null hypothesis

was rejected, and it was concluded that there was an association between marital status and abortion.

RQ2 - Is there an association between religiosity and abortion rates among Black women in the United States?

$H_02$ There is no association between religiosity and abortion among Black women in the United States.

$H_a2$ There is an association between religiosity and abortion among Black women in the United States. Table 12 shows a Chi-square test for religiosity and abortion

**Table 12**

*Chi-square Test for Religiosity and Abortion*

| Test Statistics | Aborted | Religiosity |
|---|---|---|
| Chi-Square | 2987.645[a] | 1290.012[b] |
| df | 1 | 2 |
| Asymp. Sig. | .000 | .000 |

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1600.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1066.7.

Table 12 shows the results of a chi-square test of association between abortion and religiosity. The *p*-value of the test equals to 0.000; this is less than 0.05, which indicates that the test is significant in determining the association between abortion and religiosity. Therefore, the null hypothesis was rejected, and I concluded that there was an association between religiosity and abortion.

RQ3 - Is there an association between education level and abortion rates among Black women in the United States?

$H_03$ There is no association between education level and abortion among Black women in the United States.

$H_a3$ There is an association between education level and abortion among Black women in the United States. Table 13 shows the Chi-square test of independence between abortion and education level

**Table 13**

*Chi-square Test of Independence Between Abortion and Education Level*

| Test Statistics | Aborted | Education level |
|---|---|---|
| Chi-Square | 2987.645[a] | 5.712[b] |
| df | 1 | 2 |
| Asymp. Sig. | .000 | .058 |

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1600.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1066.7.

Table 13 shows the results of a chi-square test of association between abortion and education level. The *p*-value of the test is equal to 0.058; this is greater than 0.05, which indicates that the test is non-significant in determining the association between abortion and education level. Therefore, the null hypothesis was not rejected, and it was concluded that there was no association between education level and abortion.

RQ4- Is there an association between income level and abortion rates among Black women in the United States.

$H_04$ There is no association between income level and abortion among Black women in the United States.

$H_a4$ There is an association between income level and abortion among Black women in the United States.

The independent sample *t*-test was used to test whether the income of Black women is associated with their abortion rate. The test was selected because the association proved was between one continuous and one categorical variable (a binary variable of YES/NO options that are independent of each other). Table 14 shows the independent samples *t*-test for income and abortion.

**Table 14**

*Independent Samples t-test for Income and Abortion*

| Independent Samples Test | | Levene's Test for Equality of Variances | | *t*-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | F | *Sig.* | *t* | *df* | Sig. (2-tailed) | Mean Difference | *Std. Error* Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Income | Equal variances assumed | .515 | .473 | .282 | 3198 | .778 | 33.4271 | 118.5327 | -198.9806 | 265.8348 |
| | Equal variances not assumed | | | .288 | 54.919 | .774 | 33.4271 | 116.0241 | -199.0981 | 265.9523 |

From the test results in table 14, the p-value equals 0.473, which is higher than 0.05; this shows that the test was not significant in investigating the association between abortion and income.

The main test objective was to determine whether the mean salary for women who aborted was different from those who did not perform an abortion.

RQ5- Is there an association between geographic locations 'rural, urban, or suburban areas' with the abortion rates among Black women in the United States?

$H_05$ There is no association between geographic locations 'rural, urban, or suburban areas' and abortion among Black women in the United States.

$H_a5$ There is an association between geographic locations 'rural, urban, or suburban areas' and abortion among Black women in the United States. Table 15 shows the Chi-square test for the metropolitan area and abortion

**Table 15**

*Chi-square Test for the Metropolitan Area and Abortion*

| Test Statistics | Aborted | Metropolitan status |
|---|---|---|
| Chi-Square | 2987.645[a] | 1362.668[b] |
| df | 1 | 2 |
| Asymp. Sig. | .000 | .000 |

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1600.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1066.7.

From the test in Table 15, the *p*-value represented by the Asymp. Sig. = 0.00; therefore, the test is statistically significant in testing the association between abortion and metropolitan area. This necessitates rejection of the null hypothesis and the conclusion of an association

between abortion and the metro area. The abortion rate changes from urban to suburban and to the rural area.

## Logistic regression

This model was used to test the relationship between all the independent variables (marital status, religiosity, education level, income, geographical location, and metropolitan area) and abortion as the dependent variables. Table 2 shows the Logistic regression model, the significance of predictors

**Table 3**

*Logistic Regression Model, the Significance of Predictors*

| Variables in the Equation | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | state_Geographical_location | | | 21.186 | 31 | .907 | |
| | state_Geographical_location(1) | -.001 | 1.421 | .000 | 1 | .999 | .999 |
| | state_Geographical_location(2) | -.004 | 1.421 | .000 | 1 | .998 | .996 |
| | state_Geographical_location(3) | -.009 | 1.422 | .000 | 1 | .995 | .991 |
| | state_Geographical_location(4) | 1.119 | 1.164 | .924 | 1 | .336 | 3.061 |
| | state_Geographical_location(5) | 1.410 | 1.128 | 1.563 | 1 | .211 | 4.097 |
| | state_Geographical_location(6) | .693 | 1.233 | .316 | 1 | .574 | 1.999 |
| | state_Geographical_location(7) | -.004 | 1.422 | .000 | 1 | .998 | .996 |
| | state_Geographical_location(8) | -.008 | 1.422 | .000 | 1 | .996 | .992 |
| | state_Geographical_location(9) | -.005 | 1.422 | .000 | 1 | .997 | .995 |
| | state_Geographical_location(10) | .002 | 1.421 | .000 | 1 | .999 | 1.002 |
| | state_Geographical_location(11) | -.009 | 1.422 | .000 | 1 | .995 | .991 |
| | state_Geographical_location(12) | -.008 | 1.422 | .000 | 1 | .996 | .992 |
| | state_Geographical_location(13) | .003 | 1.421 | .000 | 1 | .998 | 1.003 |
| | state_Geographical_location(14) | -.013 | 1.422 | .000 | 1 | .993 | .987 |
| | state_Geographical_location(15) | 1.107 | 1.165 | .902 | 1 | .342 | 3.024 |
| | state_Geographical_location(16) | .709 | 1.234 | .330 | 1 | .565 | 2.032 |
| | state_Geographical_location(17) | .701 | 1.233 | .323 | 1 | .570 | 2.015 |
| | state_Geographical_location(18) | 1.643 | 1.106 | 2.207 | 1 | .137 | 5.168 |
| | state_Geographical_location(19) | -.009 | 1.422 | .000 | 1 | .995 | .991 |

| | | | | | | |
|---|---|---|---|---|---|---|
| state_Geographical_location(20) | 1.646 | 1.105 | 2.219 | 1 | .136 | 5.187 |
| state_Geographical_location(21) | .702 | 1.233 | .324 | 1 | .569 | 2.018 |
| state_Geographical_location(22) | -.003 | 1.422 | .000 | 1 | .999 | .997 |
| state_Geographical_location(23) | .700 | 1.233 | .322 | 1 | .570 | 2.014 |
| state_Geographical_location(24) | .002 | 1.421 | .000 | 1 | .999 | 1.002 |
| state_Geographical_location(25) | -.003 | 1.422 | .000 | 1 | .998 | .997 |
| state_Geographical_location(26) | -.005 | 1.422 | .000 | 1 | .997 | .995 |
| state_Geographical_location(27) | .697 | 1.233 | .320 | 1 | .572 | 2.008 |
| state_Geographical_location(28) | -.001 | 1.421 | .000 | 1 | 1.000 | .999 |
| state_Geographical_location(29) | .003 | 1.421 | .000 | 1 | .998 | 1.003 |
| state_Geographical_location(30) | .705 | 1.233 | .326 | 1 | .568 | 2.023 |
| state_Geographical_location(31) | -.007 | 1.422 | .000 | 1 | .996 | .993 |
| Marital_status | .046 | .256 | .032 | 1 | .858 | 1.047 |
| Education_level | .037 | .167 | .048 | 1 | .826 | 1.037 |
| Income | .000 | .000 | .046 | 1 | .831 | 1.000 |
| Metropolitanstatus | -.015 | .225 | .005 | 1 | .946 | .985 |
| Religiosity | -.037 | .164 | .051 | 1 | .822 | .964 |
| Constant | -4.345 | 1.442 | 9.074 | 1 | .003 | .013 |

a. Variable(s) entered on step 1: state Geographical location, Marital status, Education level, Income, Metropolitan status, Religiosity.

A logistic regression model was used to determine the cause-effect relationship between abortion and marital status, education level, income, religiosity, metropolitan area, and geographical location. The logistic regression model was used because the dependent variable was binary (Hosmer, Lemeshow & Sturdivant, 2013).

According to table 16, all the independent variables are non-significant. This is shown by their *p*-values, which are greater than 0.05. The sig represents the *p*-values. column in the table, which are: (marital status: 0.893, education level: 0.769, income: 0.781, metropolitan area: 0.945 and religiosity: 0.800). The logistic regression model was not statistically significant in investigating the relationship between abortion and all or each of the independent variables.

From the Hosmer Lemeshow test, the value of sig. Equals to 0.712, this represents the *p*-value. This shows that the model was not statistically significant for the study in general.

**Backward Stepwise (Likelihood Ratio) Logistic Regression**

The backward approach entails eliminating variables that produce an insignificant deterioration of the logistic model. The model begins with all the variables intact, and then stepwise, the variables reduce until its left with the most significant variables in the model. The following model. Table 4 shows the omnibus tests of model coefficients

**Table 5**

*Omnibus Tests of Model Coefficients*

| Omnibus Tests of Model Coefficients | | Chi-square | Df | Sig. |
|---|---|---|---|---|
| | Step | .254 | 5 | .998 |
| Step 1 | Block | .254 | 5 | .998 |
| | Model | .254 | 5 | .998 |
| | Step | -.005 | 1 | .945 |
| Step 2[a] | Block | .249 | 4 | .993 |
| | Model | .249 | 4 | .993 |
| | Step | -.018 | 1 | .893 |
| Step 3[a] | Block | .231 | 3 | .972 |
| | Model | .231 | 3 | .972 |
| | Step | -.065 | 1 | .799 |
| Step 4[a] | Block | .167 | 2 | .920 |
| | Model | .167 | 2 | .920 |
| | Step | -.078 | 1 | .780 |
| Step 5[a] | Block | .088 | 1 | .766 |
| | Model | .088 | 1 | .766 |
| Step 6[a] | Step | -.088 | 1 | .766 |

a. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.

Explanation: Table 17 shows the adjustment of the chi-square test statistic value as it reduces from steps 1 to 6 until the p-value converges to 0.766, then the model stops and attains the smallest statistic at that *p*-value. Table 6 shows the Model Summary

**Table 7**

*Model Summary*

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 547.677[a] | .000 | .001 |
| 2 | 547.682[a] | .000 | .000 |
| 3 | 547.700[a] | .000 | .000 |
| 4 | 547.765[a] | .000 | .000 |
| 5 | 547.843[b] | .000 | .000 |
| 6 | 547.931[b] | .000 | .000 |

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

b.Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Explanation: Table 18 shows the model significance using the Log-likelihood, and it converges at 547.931 with 0.000 R squared. The model could not continue because the change of parameter estimates was too small. Table 8 shows the Model if Term Removed.

**Table 9**

*Model if Term Removed*

| Variable | | Model Log-Likelihood | Change in -2 Log-Likelihood | df | Sig. of the Change |
|---|---|---|---|---|---|
| Step 1 | Marital_status | -273.848 | .018 | 1 | .894 |
| | Education_level | -273.882 | .086 | 1 | .769 |
| | Income | -273.877 | .077 | 1 | .781 |
| | Metropolitanstatus | -273.841 | .005 | 1 | .945 |
| | Religiosity | -273.870 | .064 | 1 | .801 |
| Step 2 | Marital_status | -273.850 | .018 | 1 | .893 |
| | Education_level | -273.884 | .086 | 1 | .769 |
| | Income | -273.880 | .077 | 1 | .781 |
| | Religiosity | -273.872 | .061 | 1 | .805 |
| Step 3 | Education_level | -273.893 | .087 | 1 | .769 |
| | Income | -273.889 | .078 | 1 | .781 |
| | Religiosity | -273.882 | .065 | 1 | .799 |
| Step 4 | Education_level | -273.926 | .087 | 1 | .768 |
| | Income | -273.921 | .078 | 1 | .780 |
| Step 5 | Education_level | -273.966 | .088 | 1 | .766 |

Explanation: Table 19 shows the model performance as the insignificant variables are removed stepwise. The model converges with Education level as the final best predictor with a *p*-value of 0.766. Table 20 shows the variables in the equation.

**Table 20**

*Variables in the Equation*

| Variables in the Equation | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | Marital_status | .034 | .255 | .018 | 1 | .893 | 1.035 |
| | Education_level | .049 | .166 | .086 | 1 | .769 | 1.050 |
| | Income | .000 | .000 | .077 | 1 | .781 | 1.000 |
| | Metropolitan status | -.015 | .224 | .005 | 1 | .945 | .985 |
| | Religiosity | -.041 | .163 | .064 | 1 | .800 | .960 |
| | Constant | -3.763 | 1.041 | 13.075 | 1 | .000 | .023 |
| Step 2[a] | Marital_status | .034 | .255 | .018 | 1 | .893 | 1.035 |
| | Education_level | .049 | .166 | .086 | 1 | .769 | 1.050 |
| | Income | .000 | .000 | .077 | 1 | .781 | 1.000 |
| | Religiosity | -.040 | .162 | .062 | 1 | .804 | .961 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Step 3[a] | Constant | -3.787 | .977 | 15.034 | 1 | .000 | .023 |
| | Education_level | .049 | .166 | .086 | 1 | .769 | 1.050 |
| | Income | .000 | .000 | .078 | 1 | .781 | 1.000 |
| | Religiosity | -.041 | .162 | .065 | 1 | .798 | .959 |
| Step 4[a] | Constant | -3.774 | .971 | 15.099 | 1 | .000 | .023 |
| | Education_level | .049 | .166 | .087 | 1 | .768 | 1.050 |
| | Income | .000 | .000 | .078 | 1 | .780 | 1.000 |
| Step 5[a] | Constant | -3.872 | .893 | 18.780 | 1 | .000 | .021 |
| | Education_level | .049 | .166 | .088 | 1 | .766 | 1.051 |
| Step 6[a] | Constant | -4.114 | .218 | 357.442 | 1 | .000 | .016 |
| | Constant | -4.065 | .137 | 877.209 | 1 | .000 | .017 |

Variable(s) entered on step 1: Marital status, Education level, Income, Metropolitan status, and Religiosity.

Explanation: Table 20 shows the whole performance of each variable stepwise, the education level predictor recorded a standard error of 0.166 and a log odd of 0.049, which translates to 1.051 odds ratio. This illustrates that as the education level of a Black woman increases from junior high school to college (0-2), the odds of considering abortion are 1.051 times higher.

## Summary

Generally, the data used in the analysis was generated from the abortion rates of 15 to 19-year-old adolescent Black women of 2014, whereby the number of abortions in every 1,000 women was condensed to the number of abortions in every 100 women. This resulted in 3,200 incidences from 32 states in the USA. The abortion rates form the other 18 states were unknown according to the excel file retrieved from the Alan Guttmacher Institute database. The rates were used to generate the dependent binary variable (aborted: YES/NO). The summary statistics showed that abortion rates were high in highly educated women, single women, urban residing women, and non-religious women. Based on the findings, marital status, religiosity, and metropolitan area, were the factors associated with abortion rates among Black women. The

education level and geographical location of women did not determine the abortion rate among Black women. However, the backward stepwise logistic regression converged to one predictor (education level), which was the most significant in predicting the likelihood of abortion rate among Black women in the United States.

# Chapter 5: Discussion, Conclusions, and Recommendations

## Introduction

From 1973 to 2017, according to the AGI (2018), clinicians have performed 60,069,971 abortions in the United States. Although the abortion rates have dropped to the lowest since 1973 across nearly all age, races, ethnic groups, religion, education, and geographic areas of residence and income, rates among Black women remains two and a half times as high (76 per 1,000 women) as the rates among White women (30 per 1,000; Wind, 2018). Therefore, this study was conducted to determine the socio-demographic factors associated with the relatively high rate of abortion among Black women in the United States. In this study, I used data collected from the AGI database; the data were generated from the abortion rates of 15 to 19-year-old Black women in 2014, whereby the number of abortions in every 1,000 women was condensed to the number of abortions in every 100 women. This came up with 3,200 incidences from 32 states in the United States. The abortion rates from the other 18 states were unknown according to the data file. Furthermore, the data were summarized using frequency analysis, where the percentage of women who opted for abortion against those who did not were aggregated. The marital status, geographical location, education level, income, religiosity, and metropolitan status were tracked.

Finer and Zolna (2017) revealed that low-income Black women had more than five times as many abortions as higher-income women. However, Black women were roughly twice as likely

to experience an abortion as White women. These 44 years of legal abortion have a massive effect on the U.S. population: socially, and economically (AGI, 2017; Jones & Jerman 2014). Via the effect on the Black community, one may establish the negative impact that abortions have inflicted on the Black race because of its legalization (Jones & Jerman, 2018). Abortion affects Black society on a massive scale, negatively affecting our community in ways reaching beyond the abortion of fetuses.

Following an abortion, the breakdown of a relationship often has very harmful effects on the woman's future relationships. Biggs, Rowland, and McCulloch, (2018), have linked postabortion women to lower self-esteem, sexual dysfunction, and greater distrust of males. They may become very hostile toward men after an abortion, and they may transfer this hostility toward their sons as they grow older (Biggs et al.,2018). The bond existing between mother in a child can be impeded in subsequent pregnancies, by abortion, and consequently distort their relationship through many years, and this may contribute to problems society is facing (Biggs et al., 2018). For a positive social change, women with unintended pregnancies must be granted access to compassionate counseling and reliable information. According to Biggs et al., abortion is significantly linked to increased risk of alcohol abuse, violent behavior, car accidents, lost earnings, and separation or divorce. However, if abortion is legal in the state where the women live, abortion should be safe. In other words, women should have access to quality services in the process of deciding whether to keep a baby or to have an abortion. Under such circumstances, if she chooses to have an abortion, services such as; education, family planning, and postabortion counseling should be offered promptly (Singh et al., 2018).

## Interpretation of the Findings

The primary purpose of this study was to determine the socio-demographic factors associated with the relatively high abortion rates among Black women living in the United States to create a positive social change. To reach that goal, I formulated five research questions. I analyzed the data collected on the subject to ascertain whether these variables have a significant association with abortion among reproductive ages Black women in the United States. The first question was as follows: Is there an association between marital status and abortion among Black women in the United States? Accordingly, I ran a chi-square test of the association between abortion and education level. For the chi-square test, the decision to reject or uphold the null hypothesis is made based on the p-value (Asymp. Sig) being less than 0.05 (5%). The *p*-value of the test was equated to 0.000; this is less than 0.05, and which indicates that the test was significant in determining the association between abortion and marital status. Therefore, the null hypothesis was rejected, and I concluded that there was an association between marital status and abortion.

The second research question was as follows: Is there an association between religiosity and abortion rates among Black women in the United States? I did a chi-square test of association between abortion and religiosity. The *p*-value of the test equaled to 0.000, which is less than 0.05. This indicates that the test is significant in determining the association between abortion and religiosity. Therefore, the null hypothesis was rejected, and I concluded that there was an association between religiosity and abortion.

The third research question was as follows: Is there an association between education level and abortion rates among Black women in the United States? For this reason, I ran a chi-square test of association between abortion and education level. The *p*-value of the test is equal

to 0.058, which is higher than 0.05, and which indicates that the test is nonsignificant in determining the association between abortion and education level. Therefore, the null hypothesis was not rejected, and I concluded that there was no association between education level and abortion.

The fourth research question was as follows: Is there an association between income level and abortion rates among Black women in the United States? I used an independent sample *t*-test to test whether the income of Black women is associated with their abortion rate. I selected this test because the association tested was between one continuous and one categorical variable (a binary variable of YES/NO options that are independent of each other). The test results show a p-value equals 0.473, which is greater than 0.05; this indicates that the test was not significant in investigating the association between abortion and income. The main test objective was to determine whether the mean salary for women who aborted was different from those who did not perform an abortion.

The fifth research question was as follows: Is there an association between geographic locations 'rural, urban, or suburban areas' with the abortion rates among Black women in the United States? I did a chi-square test and the *p*-value represented by the Asymp. Sig. was = 0.00; therefore, the test is statistically significant in testing the association between abortion and metropolitan area. As a result, I rejected the null hypothesis and concluded that there is an association between abortion and the metropolitan area. The abortion rate changes from urban to sub-urban and to rural locations.

A logistic regression model was used to determine the cause-effect relationship between abortion and marital status, education level, income, religiosity, metropolitan area, and geographical location. I used a logistic regression model in my analysis because the dependent

variable was binary (see Hosmer et al., 2013). It follows that all the independent variables are nonsignificant. This is shown by their *p*-values, which are greater than 0.05. The sig represents the p-values. column in the table, are; marital status: 0.893, education level: 0.769, income: 0.781, metropolitan area: 0.945 and religiosity: 0.800. The logistic regression model was not statistically significant in investigating the relationship between abortion and all or each of the independent variables. From the Hosmer Lemeshow test, the value of sig. equals to 0.712; this represents the *p*-value. This shows that the model was not statistically significant for the study in general.

The summary statistics showed that abortion rates were high in highly educated women, single women, urban residing women, and non-religious women. Marital status, religiosity, and metropolitan area are the factors associated with abortion rates among Black women in the United States. The education level and geographical location of women did not determine the abortion rate among Black women. To ascertain which variable or variables best predict abortion; I ran a backward logistic regression analysis. The backward approach entails eliminating variables that produce an insignificant deterioration of the logistic model. The model begins with all the variables intact, and then stepwise, the variables reduce until most significant variables in the model are left. The adjustment of the chi-square test statistic value as it reduces from steps 1 to 6 until the *p*-value converges to 0.766, then the model stops and attains the smallest statistic at that p-value. I have run a model summary, which shows the significance using the Log-likelihood, and it converges at 547.931 with 0.000 R squared. The model could not continue because the change of parameter estimates was too small. I tried the model when the term is removed, and it shows the model performance as the insignificant variables are removed stepwise. The model converges with Education level as the final best predictor with a

p-value of 0.766. I then plugged the variables in an equation, and it shows the whole performance of each variable stepwise, the education level predictor recorded a standard error of 0.166 and logged odds of 0.049, which translates to 1.051 odds ratio. This illustrates that as the education level of a Black woman increases from junior high school to college (0-2), the odds of considering abortion are 1.051 times greater. However, the backward stepwise logistic regression converged to one predictor (education level), which was the most significant in predicting the likelihood of abortion rate among Black women in the United States.

## Implications of the Findings

This research study was conducted solely on Black women because they always have the highest incidence of abortions in the United States. However, every woman and man living in the United States will benefit from the positive social change that these findings will create. The results of this study can and will contribute in many ways to the public health system. (a) This study promotes positive social change by providing a source of information to local, state, and federal authorities. The public health authorities and health care providers will create programs that will empower women in their decision making when they are facing an unintended pregnancy. (b) The results of this study can serve as a motivation for women to seek counseling when they do not know what to do with an unintended pregnancy. (c) The findings of this research study will add to current literature, the body of knowledge, and to the health care educative system. (d) This study would be a source of health education for not only the Black women population but to White non-Hispanics, Hispanics, and women from every race living in the United States. This study contributed to positive social change by providing meaningful information, helpful to women in their decision-making process, such as when to become pregnant. The findings are also beneficial to healthcare providers, health educators, and public

health authorities. I may conclude that this study's findings are consistent with the theoretical framework, which could be seen throughout the chapters of this dissertation.

## The theoretical implications of this study

The conceptual framework that has guided this study was the decision theory that was first developed in the 17th century by Blaise in his famous wager published in 1670 (Marshall, 2014). The link between decision theory and abortion is clear, as a sexually active woman has to decide whether she wants to get pregnant or not. If she has an unintended pregnancy, she has to decide whether to abort, carry the baby to term, take care of the baby, or give the baby for adoption. It is, however, essential to note that most decisions about abortion are not momentary. They take time, and it is, therefore, natural to divide them into phases or stages. Decision theory also elucidates how a woman can coordinate her decisions over time, as well as how several women can harmonize their choices in social decision procedures.

## Limitations of the Study

This quantitative study was conducted using secondary data only. This is undoubtedly a limitation arising from potential study design and methodological weaknesses related to the sources used in data analyses. Hence, it was essential for me to select only reliable and pertinent literature sources, in which research on identical units of measurement are reported. In sum, care must be taken to ensure that the secondary data meets the requirements of the research problem under investigation. The data must be sufficient and accurate, and the sources must be dependable. This study has various limitations. Because of a lack of data on Black women age 15 to 44, I had to analyze women between 15 and 19 years old. This is a limitation because findings from the population of Black women aged 15 to 19 cannot be applied to the general population. The age range had limited my ability to assess all women from reproductive ages. If

I could increase the age range from 15 to 44, I would have a larger sample size, and then the analysis would include the whole population.

It is also worth noting that certain biases could easily influence the study outcomes. Specifically, my personal and professional background, as well as the fact that I am a Black man, could easily affect the results of my study. Similarly, my views, attitudes, and beliefs as a Christian man could also influence the results and their interpretation. Thus, I did my best not to impose my views on any aspect of this investigation. I am also aware that the secondary data used in the analyses may not be accurate because of the nature of the topic. Hence, reasonable measures were taken to address all these limitations and biases.

## Recommendations for Future Research

Although this study has some limitations, I would recommend it to any researcher whose sole purpose is to create a positive social change. Authors of future research studies should use this study as a foundation to build a more positive attitude towards unintended pregnancy and its outcomes. Abortions do not know any national boundaries; they are widespread, which means research on abortion must, therefore, be global. The public health authorities, health care providers, local, state, and federal authorities should improve their understanding of abortions and their impact on society. They also have the responsibility to share that knowledge countrywide for a positive social change. Future research studies should also be conducted on the socio-demographic factors that are possibly associated with the high-unintended pregnancy rates among Black women in the United States because unintended pregnancy is the reason for 95% of all abortions. Future studies should build on the same theoretical framework, the decision theory (or the theory of choice) that was first developed in the 17th century by Blaise in his famous wager published in 1670 (Marshall, 2014).

According to Marshall (2014), this theory aims to elucidate the reasoning that underlies an Individual's choice. Appropriate studies should also be conducted to measure the beliefs, values, and attitudes regarding the health behaviors of each culture. Such studies may advance our knowledge on the role of culture in the sociodemographic factors affecting abortion rates among black women in the United States.

This conceptual framework comprises various theories that encompass all the crucial information that a woman should know about her fertility. Besides, I have used this framework to open the eyes of public health authorities, health care providers, and women of reproductive age on the consequences of abortion. To produce a compelling, informative, and understandable research study, different but affiliated theories were clandestinely used, namely, need to know the theory, right of privacy theory, fetal right theory, and pro-choice theory. The latter purports that, "Every woman has the right to terminate her pregnancy if she chooses to do so; because the fetus does not meet the requirements of a human being" (Dobkin & Gould 2014, p. 607-629). Conversely, according to the pro-life theory, the unborn fetus becomes a human being from the moment of conception and thus has all the rights that members of a society have. Philosophy of being, or "ontology," is useful, as it prompts us to ponder on questions, such as "What sort of being in the fetus?" (Dobkin & Gould 2014). As the focus of this study is a link between race/ethnicity and abortion, the Beach and Mitchell's decision-making framework was also be used to explain the process of adolescent decision making concerning terminating a pregnancy or carrying the baby to term (Rocca, 2015). More research studies should be conducted on family planning programs using these theories to empower women so they may be able to make reasonable decisions on their fertility (Marshall, 2014).

## Significance

This quantitative study aimed to investigate the factors contributing to the high abortion rates among Black women in the United States. In addition, the social changes about abortions were explored. First, it was essential to recognize that the legalization of abortion has profoundly changed people's sexual behaviors outside of marriage (Dobkin & Gould 2014). Owing to the ensuing sexual revolution, the number of individuals having children outside marriage increased, as did the prevalence of single-parent households and the rate of venereal diseases. Given that, each year, approximately 3,853,472 babies are delivered in the U.S., such changes can have a dramatic effect (Martin, Osterman, Driscoll, and Rossen, 2018). The additional disease transmission vector comes with a cost of around $300 million annually, which is paid collectively by taxpayers and independent individuals (Hamilton et al.,).

Thus, this study was guided by the premise that unintended pregnancy and consequent abortion do not benefit the society, but instead exert a significant negative impact on not only the affected individuals but also the entire communities and the country as a whole (Hamilton et al., 2018). It should also be noted that, despite the overall decline in abortion rates in the United States, they are still relatively high among Black women, prompted the need to determine the sociodemographic factors behind this discrepancy. When examining the effects of abortion-related complications, the psychological and social consequences involved are rarely taken into accounts, such as marital problems, fear of sterility, rejection by the family, and feelings of guilt and shame (Hamilton et al., 2018). One of the primary purposes of this study was thus to bring positive social changes to our nation.

According to Sonfield & Kost (2015), abortions are not only related to poor maternal and child health outcomes, which undoubtedly contribute to a negative social change. Abortion also

includes high costs to the health care system and thus places an economic burden on the entire nation. According to Forthofer, Lee, and Hernandez, (2014), $21.0 billion was spent on the miscarriages, abortions, and births resulting from unintended pregnancies in 2010, whereby $6.4 billion was provided by the state and $14.6 billion was funded through federal initiatives. This is equal to 51% of the $40.8 billion spent by the government on all publicly funded pregnancies that year (Sonfield & Kost, 2015). Therefore, public health authorities, health care providers, and researchers should make an effort to understand the sociodemographic factors associated with unintended pregnancies and abortions determined by this study, as this can assist in developing appropriate interventions aimed at reducing or eliminating them (Kost et al., 2015).

## Summary and Conclusions

In conclusion, I hope that the findings of this quantitative research study will raise awareness of the importance of unintended pregnancies. Abortion is still a significant burden for the American public health system. It would be very beneficial to local, state, and federal public health authorities, health care providers, health educators, and policymakers to implement specific educative programs to teach the Black women in the United States about abortion and its consequences. The decision theory (or the theory of choice) used in this study was constructive because this theory aims to elucidate the reasoning that underlies an individual's choice. As the focus of this study is a link between race/ethnicity and abortion, I have also used the Beach and Mitchell's decision-making framework to explain the process of an adolescent woman's decision making concerning terminating a pregnancy or carrying the baby to term. This quantitative study aimed to investigate the factors contributing to the high abortion rates among Black women in the United States. Therefore, this study will contribute to the present literature, open

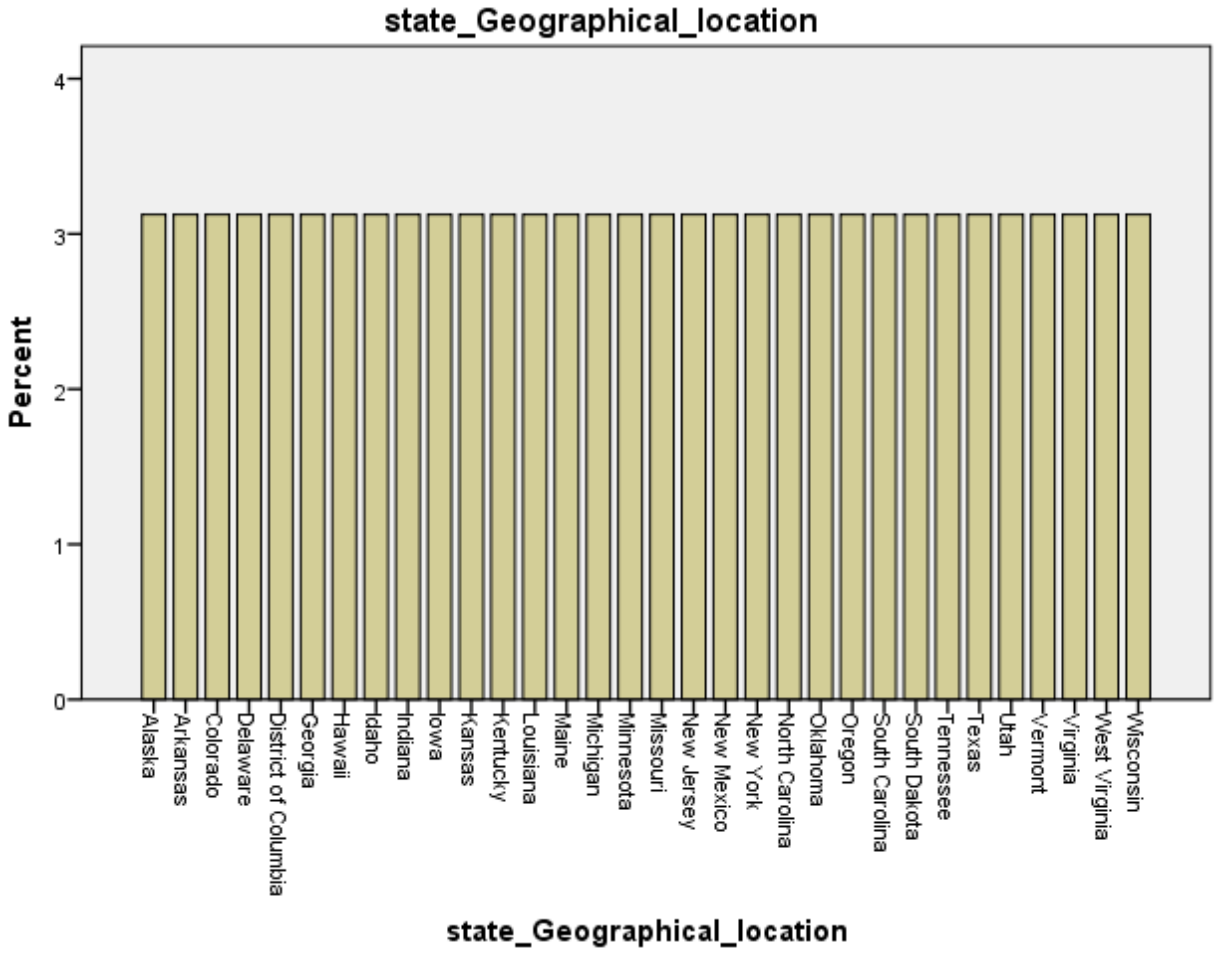
the eyes of researchers on abortion rates among Black women in the United States, and create a positive social change.

To address the structural inequalities that exist within the U.S. health care system, we must gain a better understanding of the characteristics of women that have experienced an abortion. Hence, the characteristics of abortion patients presented in this research study may reveal the groups of women that are better and less able to access reproductive health information and services. Determining the sociodemographic factors associated with abortion rates among Black women in the U.S. was the primary purpose of this study, and the results can be used to implement public health policies aimed at decreasing these disparities. Indeed, many abortion restrictions that have been put in place between 2009 and 2014 are more likely to affect disproportionately young low-income Black women, as these populations are overrepresented among abortion patients (Jerman & Jones 2016). The ability of women carrying an unintended pregnancy to acquire and have a privilege to use health insurance to pay for abortion care depicts a significant means for diminishing systematic inequities that influence disparities in care. In 2014, though fewer abortion patients were uninsured in the united states, the most noticeable change in how patients paid for abortion services was seen in states that provide state Medicaid funds for abortion between 2008 and 2014 (Jerman & Jones 2016). In the United States, Medicaid is known as the primary source of funding for all medical services for poor and low-income women. All states have to participate in the Medicaid expansion program to eliminate barriers to abortion care. Moreover, laws restricting the use of federal funds to pay for abortion services such as the Hyde Amendment must be abolished. Abortion should be covered by health insurance without prejudice because it is an integral part of reproductive health care.

## Comment History

Nunez-Eddy, & Seward, (2018), said; 1973 will remain forever the year in which all states were ordered by the Supreme Court of the United States to legalize abortion, although states were granted the authority to impose certain restrictions in the second and third trimesters of pregnancy. Each state independently had the power to determine abortion's legality before the decision of the Supreme Court of the United States in 1973, to legalize abortion nationwide through all nine months of pregnancy (Nunez-Eddy, & Seward, 2018). Soon after the nationwide legalization of abortion by the Supreme Court, the United States has seen a significant increase in unintended pregnancy and abortion rates. According to the CDC (2018), in 1972, 586,760 legal abortions were performed, and, in 1973, 615,831 legal abortions were performed. Seventeen years after the legalization of abortion, the number of abortions has reached the highest point ever in the history of the United States. CDC (2016), in 1990, the clinicians have performed 1,429,577 legal abortions. Although in 2014, the number of unintended pregnancy (and the rate of legal abortions (14.6 per 1,000 women) have dropped to the lowest since 1973 (16.3 per 1,000 women) across nearly all races, age, ethnic groups, education, and income; rates remain relatively high among Black women. According to Finer and Zolna (2017), poor women had more than five times as many abortions as higher-income women, and Black women were roughly twice as likely to experience an abortion as white women were.

According to AGI (2018), clinicians have performed 60,069,971 abortions from 1973 to 2017 in the United States. These forty-four years of legal abortion have a massive effect on the U.S. population: socially, and economically (Wind, 2018). Via the effect on the Black community, one may establish the negative impact that abortions have inflicted on the Black race because of its legalization.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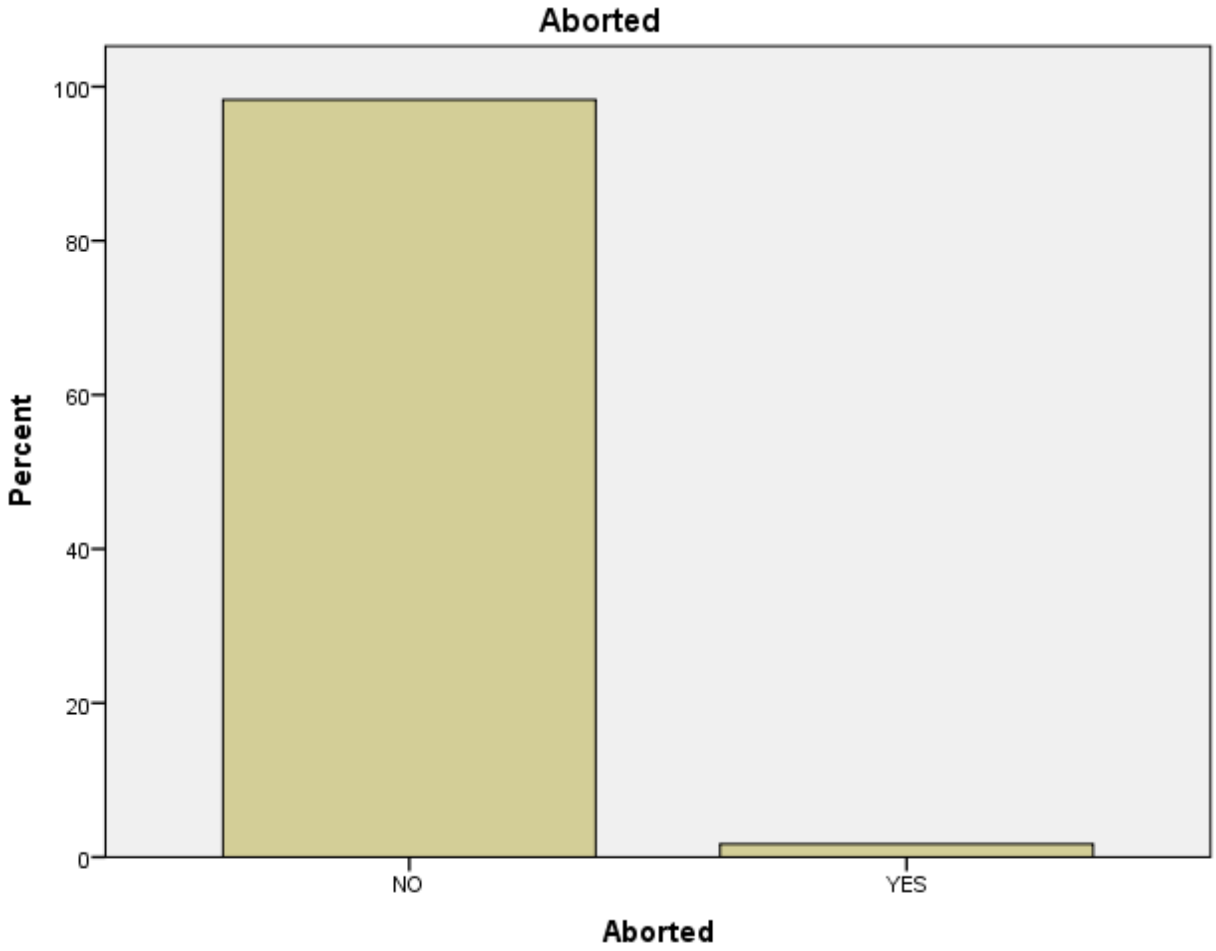
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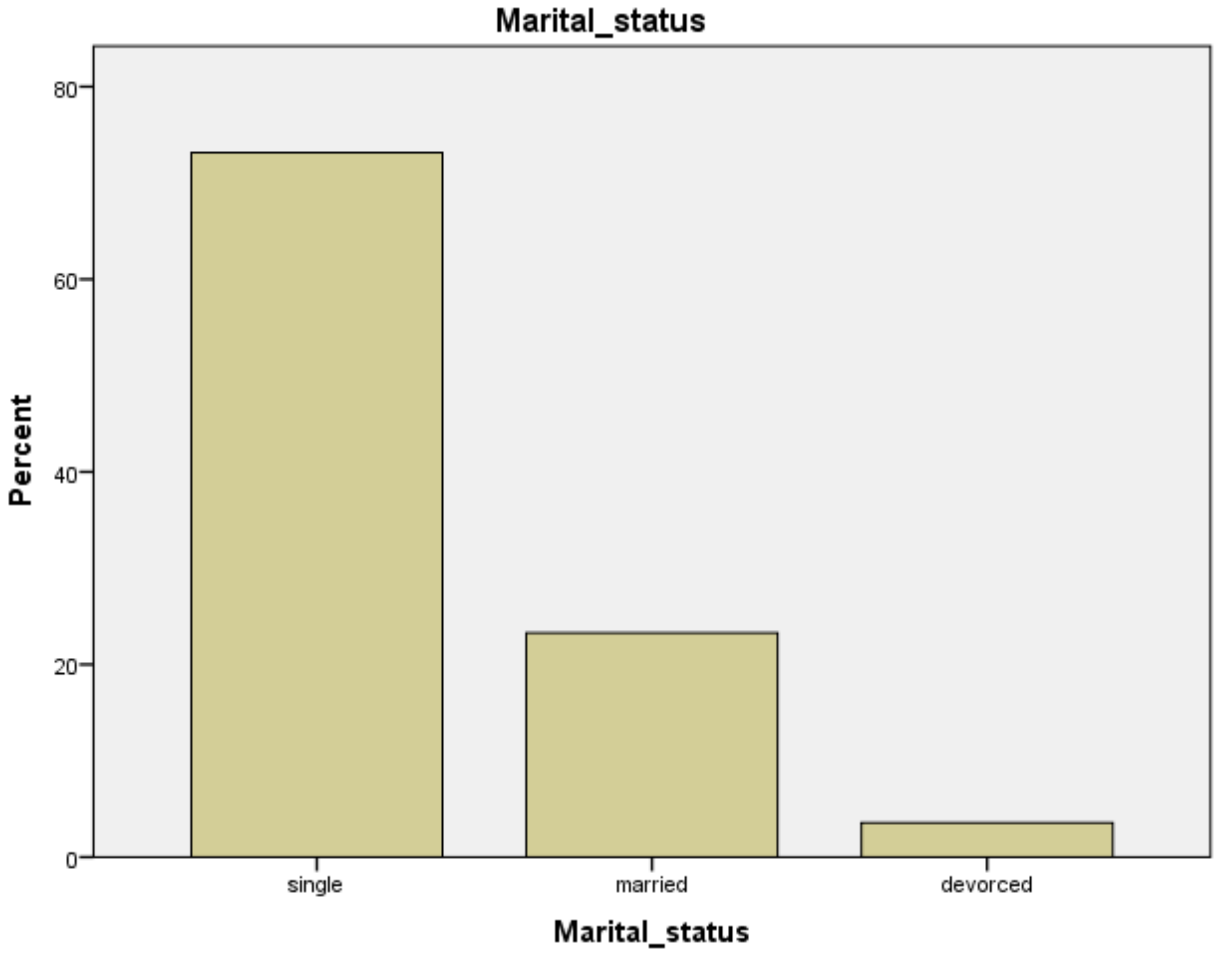
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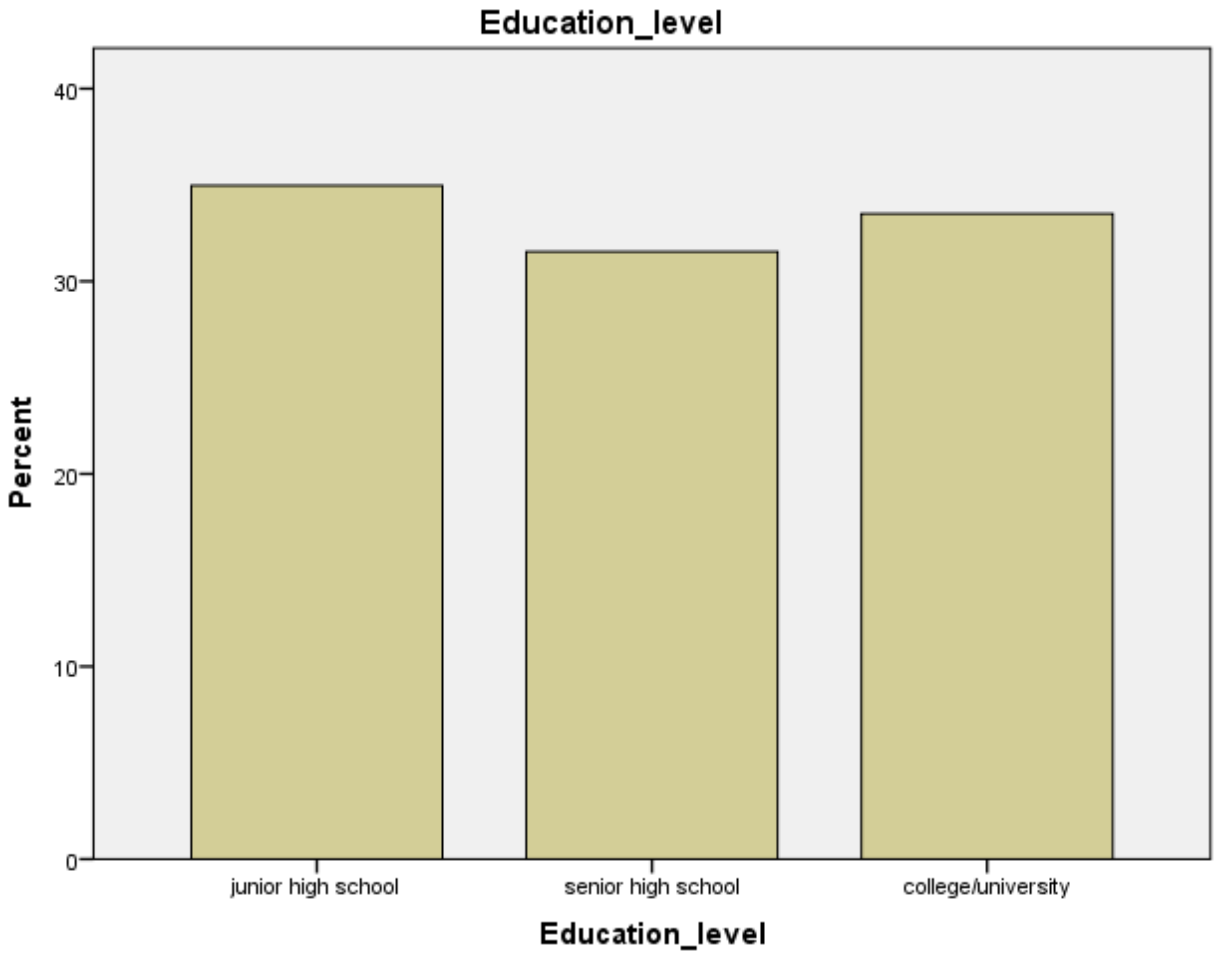
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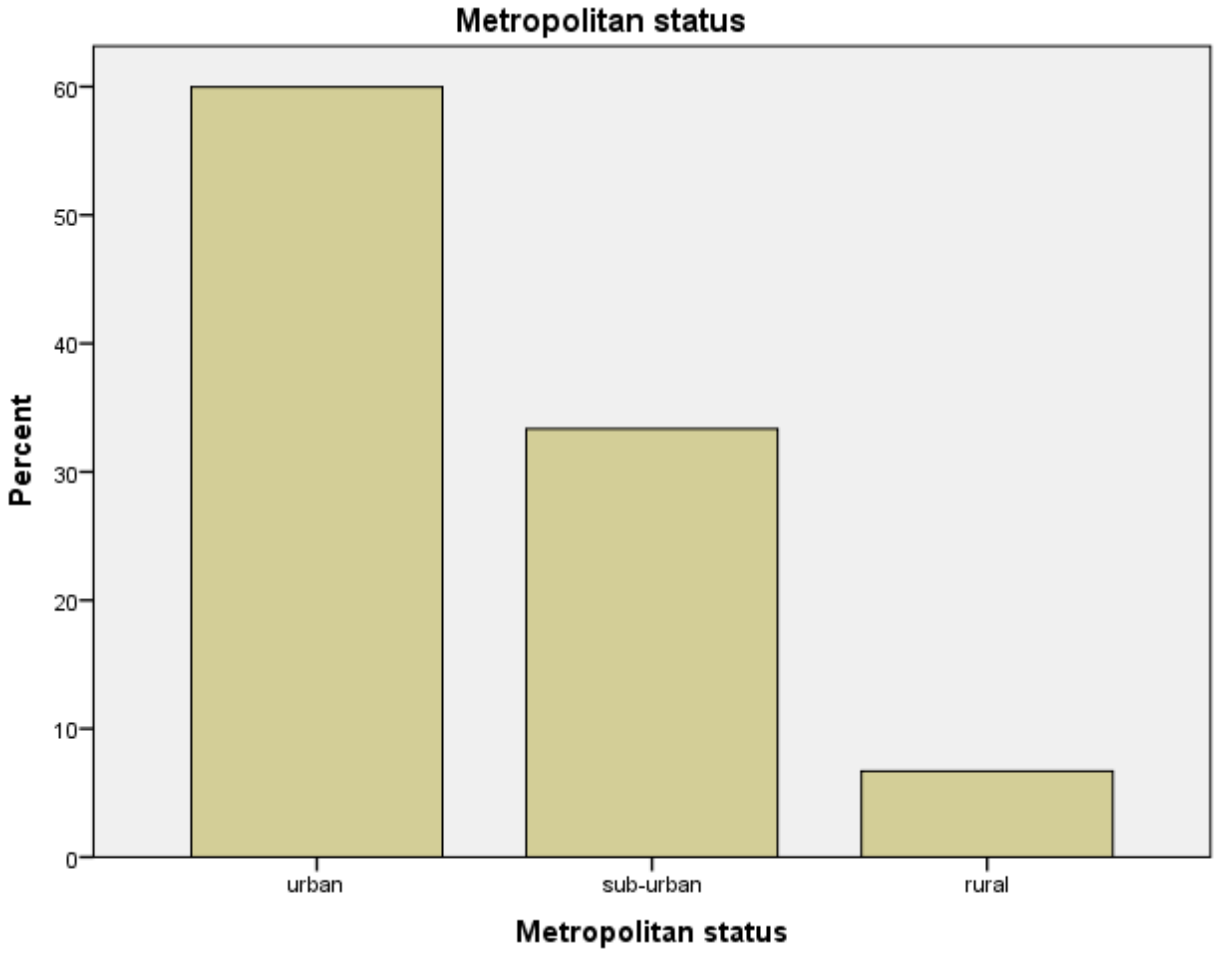
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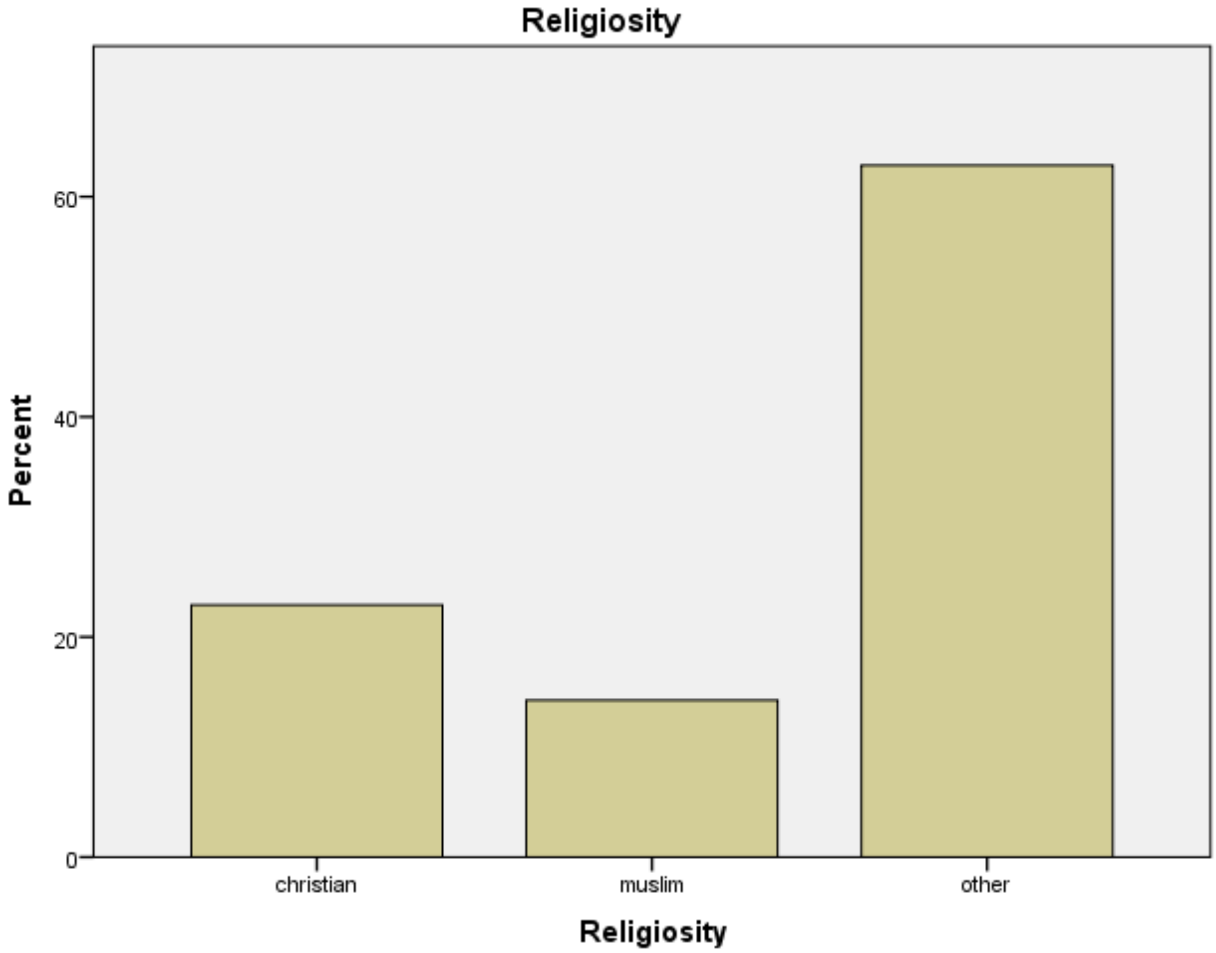
Metropolitan status


Religiosity
Percent
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40
20
0
christian
muslim
other
Religiosity

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