Objective
This study aimed to perform a systematic review to determine whether maternal morbidity and mortality in African American women, in the United States, is primarily due to preventable or non-preventable causes.

Background
Maternal healthcare is essential to achieve acceptable intrapartum, peripartum, and postpartum maternal health outcomes. White maternal mortality and morbidity rates in other developed countries have decreased by 30%, we continue to see an increase in the United States [1, 2]. The risk of developing complications and dying from pregnancy decreased dramatically in the United States during the 20th century due to medical and technological advances [3]; however, recent data has shown an increase in the maternal morbidity and mortality rate. During 2011–2016, the pregnancy-related mortality ratio was 42.4, 30.4, 14.1, 11.0, and 11.3 per 100,000 live births for non-Hispanic black, non-Hispanic American Indian/Alaskan Native, non-Hispanic Pacific Islander, non-Hispanic white, and Hispanic women, respectively (CDC). For the past 50 years, African American women have continuously been at 3-4 times greater risk of pregnancy-related complications, with the possibility of leading to death, compared to their white counterparts. To better understand the reasons for higher pregnancy-related complications and death rate amongst African American women, we investigated the causes if the morbidity and mortality could have been prevented. Many obstetricians are aware of the risk factors contributing to maternal death, however crucial steps are not always being implemented to improve fetal conditions such as cardiomyopathy, hemorrhage, pregnancy induced hypertension, and infection [4]. Overall, African Americans are less likely to be offered and to receive many types of medical services and interventions [5]. With this in mind, we hypothesized that racial disparities amongst African American women contribute to the higher incidence of preventable pregnancy-related morbidity and mortality, compared to non-preventable causes.

Methods
This systematic review of the literature consists of data that was extracted from existing published research reports. The search used for the review was identified through PubMed, Google Scholar and ProQuest Public Health search engines. Searches were conducted using terms such as “maternal mortality”, “maternal morbidity”, “African American women”, “pregnancy-related mortality”, and “preventable causes”. Articles with abstracts or full text were provided by articles which met the choice of the inclusion criteria or exclusion criteria stated by the author did not meet the criteria in regards to all articles in question. A fourth reviewer was available to resolve any disagreements that could not be resolved by the first 3 reviewers. However, all disagreements were resolved without the need for the fourth reviewer. We first identified articles by examining titles and abstracts for relevance and retrieved the full text of the relevant articles for further assessment. We defined pregnancy-related deaths as deaths that occurred during pregnancy or within 1 year after delivery and that are caused by complications of pregnancy, the... AII = American Indian/Alaskan Native, AA = African American, HI = Hawaiian Islander, NH = Non-Hispanic, AI = Alaska Native, P = Pulmonary Embolism, HTN = Hypertension, eclampsia, abruptio placenta, preeclampsia and peripartum hemorrhage, and attempted to determine how each contributed to morbidity and mortality in African American women [4]. This review chose these 5 conditions due to the fact that they make up 28% of all pregnancy-related deaths. The case-fatality rates were statistically significant in African American women showing a 3.3 Black/White-fatal ratio in peripartum hemorrhage. The mortality and morbidity appeared to be very similar amongst all of the studies that we evaluated, with African American women being affected more often. However, the studies failed to identify the root cause of these conditions, which remains unclear, as if the mortality/morbidity was preventable or non-preventable. The fact that in many of the studies the comorbidities were taken into consideration, but were not fully evaluated in terms of how they affected the death rate of the African American women. The incidence of hemorrhagic, peripartum infection, or pregnancy-related hypertension, cardiovascular disease, and the comorbidities mentioned included chronic essential hypertension, severe and morbid obesity, pregestational diabetes, and gestational diabetes. Although some of these comorbidities were more prevalent among African American women, we did not get an answer as to whether they made a large impact on developing pregnancy-related complications. Additionally, we did find that in some cases tobacco, methamphetamine, and cocaine use was higher amongst African American women, but this was not the case in all of the studies that we evaluated. Once again, even though drug use was found, we did not find that these substances are harmful, it does not explain the higher mortality/morbidity within the African American population.

The systematic review demonstrated that African American maternal mortality and morbidity is greatly caused by preventable causes. Even though there are a small number of studies that identify the causes of pregnancy-related complications and death amongst African American women, most studies fail to identify what is leading African American women to be affected the most. However, we can conclude that there are disparities although we don’t know the root cause. This has important policy implications, particularly for the United States healthcare system and the quality of care provided by healthcare professionals. Accessibility and utilization of obstetrical care is essential, to solve the problem, however these factors do not directly affect all African American women of the childbearing years. There is a need for future research to identify preventable causes and the pathways to make more people aware of strategies in order to prevent pregnancy-related complications and death. To conclude, more research needs to be done to reduce mortality and morbidity in African American women are the most likely to be affected, especially considering the fact that these conditions are largely preventable.

Discussion & Conclusions
This study has several limitations. First and foremost, information analyzing maternal mortality and morbidity in African American women is scarce. Many studies considered preventable risk factors such as smoking or drug use as the explanation for increased pregnancy-related maternal mortality and morbidity within African American women. However, these risk factors appear prevalent in various demographic increasing the incidence of complications and possible death. In many cases other than African American. Moreover, even if the prevalence of complications and drug use was higher in African American women, not one of the studies that we came across evaluated the direct effect that it could have on pregnancy morbidity and mortality. Secondly, in the history of the United States, when it comes to medical research, racism has yet to be taken into full consideration to the effects of pregnancy or a chronic condition related to the pregnancy [4]. In the causes of death pregnancy-related death is among the top possible conditions in order to prevent pregnancy-related complications and death. To conclude, more research needs to be done to reduce mortality and morbidity in African American women are the most likely to be affected, especially considering the fact that these conditions are largely preventable.

Limitations & Future Studies
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References