

**Obstetric and Gynecological Health Disparities between Black and White Cis Women in
the United States**

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On my honor as a University Student, I have neither given nor received unauthorized aid on this
assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Imagine the house you live in. Imagine the neighborhood you grew up in, the places you played at and the schools you attend. Consider how you decide where to live, what factors you use to make that decision. Now, what if I told you that 60% of your health outcomes were solely dependent on your zipcode (Orminski, 2021)? That knowledge, perhaps implicitly, has likely pervaded this decision-making process as you appraise community investment, safety, friends and family, and proximity to work and other necessary places. It is an unfortunate reality that several of these elements are predetermined by the intersections of a person's identity. Race and sex both heavily influence the availability of choice and quality of life.

Racial disparities in healthcare are vast and perpetuated by a history of systemic misrepresentation of, and a society that devalues, non-white people. Black people in the United States, due to systemic issues leading to limited access to healthcare resources and poor quality of care when received, are far more likely to have negative health outcomes than their white counterparts. More young Black people die of diseases typically occurring in more elderly white people, such as heart disease, stroke, and diabetes ("African-American Death," 2017), and are six times more likely to die of HIV ("HIV/AIDS," n.d.). Particularly in the fields of obstetrics and gynecology (OB/GYN), there is a severe lack of research in general, and the existing research is almost exclusively applicable to white women.

Black women are uniquely positioned to feel these inadequacies. They are significantly less likely to be diagnosed with endometriosis than white women, who themselves struggle towards diagnosis (Bougie et al., 2022). The infant mortality rate per 1,000 live births amongst non-Hispanic Black people was 10.6 in 2019 while that of non-Hispanic white people was less than half that at 4.5 ("Infant Mortality," 2023). The rate of preterm births was also higher in

Black women than white women at 14.39% and 9.26% respectively (“Births in,” 2020).

Decades-long information about racial-ethnic disparities in reproductive healthcare suggests that the problem consists of systemic social and structural inequities rather than individual-level risk (Sutton et al., 2021). In this paper, I conduct a historical analysis to understand how the dynamic interplay between politics, race, and sex have led to the health disparities currently seen in obstetrics and gynecology.

Methods

Data collection and investigation is primarily via documentary research and discourse analysis. A scholar’s perspective on historical accounts and ideologies is vital to painting a broad-strokes picture of the racial and sexual climates, as well as to quantify metrics by which health disparities are often determined. However, for this topic of research, rife with gaslighting and misinformation by and from scholars, more non-traditional media is essential to understand how real people are directly affected, filling in swaths of the story often left untold. Evidence found through documentary research provides a scholarly foundation that non-traditional sources further contextualize.

Background

When Serena Williams, world-renowned tennis professional, widely regarded as the greatest of all time, almost died after childbirth because her medical team would not listen to her, what chance does the average black woman stand? Williams wrote about her experience with pregnancy and childbirth, describing the joys she felt being pregnant, how marvelous it was to watch her body take on yet another challenge. She relished in the physical act of labor, but when mother and baby’s heart rate began to plummet with every contraction, Williams underwent a successful emergency C-section. She awoke later with numb legs and excruciating pain, coming

in and out of consciousness, vaguely wondering if they had restarted her blood thinners, which she had been taking for seven years since the discovery of life-threatening blood clots in her lungs (Williams, 2022) It is common practice for patients on blood thinners to stop taking them in preparation for a surgery, or in post-surgical recovery, to prevent excessive bleeding. Any bleeding is supposed to be meticulously monitored, and depending on the severity of one's condition, a different method of anticoagulation is supposed to be provided to counteract the risk (Corliss, 2017). When Williams asked, she was told that they “don't really know if that's what you need right now.” And when she began coughing violently, she was told not to because it would rip her C-section stitches. And then, when she asked to be checked for clots, she was told that “all this medicine is making you talk crazy.”

It is important to note how in tune Williams is with her body, its baseline state, and its upkeep. She held her first tennis racket at age three, she says, and has worked through dozens of health issues in the decades since. It is important to note how much money Williams has, and how much respect. Despite it all, she had to fight tooth and nail for them to perform the right tests. She was rolled into three emergency surgeries — to restitch her C-section incision, for an embolism, a hematoma, and blood clots near her lungs — before someone listened to her requests for a CAT scan. She was rushed into a fourth surgery to break up a blood clot in her lungs and one traveling to her heart. All within seven days of her C-section (Williams, 2022). A black woman's experience with the medical world, particularly in OB/GYN, is corrupted by both scientific and social systems that dismiss their pain and misconstrues their ailments.

STS Framework

Langdon Winner is a political theorist with a primary interest in how technology feeds into political and social issues. He is most well known for his essay, “Do Artifacts Have

Politics?” detailing his theory of political technology, which explores how certain technologies inherently embody political values and shape power dynamics within society. Winner defines technology as “the invention, design, or arrangement of a specific technical device or system,” (Winner, 1980). The primary example often found in academic discourse is the Long Island Expressway overpass bridges. Robert Moses, the urban designer responsible for the project, intentionally designed these bridges with a clearance too low for city buses. The consequence of this political infrastructure is that those whose primary mode of transportation is buses, namely lower-income people which included a majority of the Black population, could not access parts of the city like the pristine, elite beaches. Winner emphasizes that technological choices are not neutral; they reflect the values and interests of those who design and implement them.

However, many critique Winner’s idea that artifacts have political agency. Bernard Joerges, a professor of sociology who studies urban and architectural design, wrote a passionate counter to Winner’s essay, called “Do Politics Have Artefacts?” He describes several other criticisms of Winner’s work first. Bruno Latour, for example, appears to mock Winner by describing automatic door closers which “*discriminate* against” old people, small people, and those who move furniture or packages, “which usually means, in our late capitalist society, working or lower-middle class employees” (Johnson, 1988). Joerges does not seem to agree with this take — he goes on to discuss Steve Wooglar, who determines that Winner does not consider possible variations of the Moses example, which Joerges presents as an “entirely different argument from Latour’s” (Joerges, 1999) and with which he agrees. Joerges goes on to argue that while Winner’s essay assumes the Expressway to be the only route to access Jones Beach, there were actually many alternative routes that Black people could have used. “Even today, when many more blacks drive cars, and when no politician tries to exclude them from the beaches, not

many poor blacks seem to gather on Jones Beach,” he says, and pushes the point that Moses was indeed a racist but “never pursued explicitly racist schemes” (Jeorges, 1999). He concludes that the bridges were probably built low due to the extra cost of making them higher, that the true reason Moses is “an undemocratic scoundrel” is that he upset functional neighborhoods to make them automobile-friendly, and that unlike Winner suggests, artefacts reflect political values but do not determine political outcomes on their own.

Joerges’s opinion takes a very “guns don’t kill people, people kill people” approach to this discussion. His disregard of consequence in favor of intention excuses people in power of accountability. Discussion of Moses’s or anyone’s own political ideology, while interesting for context, does not actually pertain to the outcome. It is true that technology reflects politics, but technology is inherently a tool that people use in their lives, and the design of it determines who can and will use it, and when. As such, technological designs have significant political implications, influencing how power is distributed and exercised, just as Winner suggests.

It becomes increasingly important to examine political history through a lens that understands racial bias exists implicitly and pervasively, especially because explicit historical records, a technology in itself, are designed by the white man for the white man. I will thus be using Winner’s framework to discuss how the arrangement of Black populations has led to disparities in the obstetric and gynecological outcomes of Black and white women.

Results and Discussion

OB/GYN medicine in the past has been rooted in community-based experiential knowledge. Various cultures practiced a wide range of rituals for menstrual care, pregnancy, birthing and more using knowledge and traditions of previous generations. For example, women of an Indigenous American tribe would come together to give advice and provide support to

those who were first menstruating, pregnant, or in labor. With the rapid development of the industrial West, and the consequent rise of Western medicine, there came an emphasis on discrediting community practices, a double-edged sword meant to compel people towards corporate hospitals and to control who has access to such care.

The Body as Physical Technology

Commonly lauded as the “father of modern gynecology” in America, Dr. James Marion Sims is known for the ways he transformed the medical approach to female reproductive health. He built a reputation in Montgomery, Alabama amongst the rich and white by treating their enslaved workers so they could continue to labor (Holland, 2018). At the time of Sims’s career in the late 1800s, medically treating women for diseases related to their genitals or reproductive organs was rare and considered distasteful (Holland, 2018), but enslaved women’s bodies were a precious commodity after the importation of enslaved people became illegal earlier in the 19th century — “breeding” was the only way to maintain and grow the enslaved population (“The Slave Trade,” 2016).

Though Sims had no gynecological training, he was asked to treat an enslaved woman suffering from pelvic pain after falling off a horse (Holland, 2018). In trying to examine her more thoroughly, he ordered her completely naked and made her kneel and lean forward onto her elbows, before inserting his fingers into her vagina to look inside. She is said to have experienced relief, and an idea was born to Sims (Sartin, 2004). On another enslaved woman named Betsy, as detailed in his personal medical records, he used a bent spoon as the first iteration of a speculum and discovered a vesicovaginal fistula (Holland, 2018; Sartin, 2004), which is an abnormal opening between the vagina and bladder that causes extreme pain and discomfort (Stamatakos et al., 2014). Thus proceeded a series of fistula-related surgical

experimentation over the course of five years upon at least the three enslaved women including Betsy, and two others named Lucy and Anarcha, who are mentioned in his medical records (Owens, 2017). These women were leased to him, effectively his property, and Sims reflects in his autobiography, *The Story of My Life*, how convenient it was that “there was never a time that I could not, at any day, have had a subject for operation” (Sims, 1884).

Lucy, an 18 year old girl who had recently given birth, was his first surgical subject. Sims wrote about her first surgery, saying her “agony was extreme,” and that “it took Lucy two or three months to recover entirely from the effects of the operation” (Da Ponte & White, 2022). She spent the hour-long process screaming in pain as dozens of doctors watched Sims attempt different things on her. Anarcha was a 17 year old child, and she endured a documented *thirty* surgeries after an already traumatic pregnancy and delivery before Sims “perfected” his treatment for fistula (Holland, 2018; Sims, 1884; Zellars, 2018). He justifies the ordeals he put the women through, alleging that the women “clamored” for the procedures to alleviate their discomfort (Sims, 1884). However, considering the dynamic of man and property, they had no option but to submit to his whims. They were likely completely uninformed about what was being done to them and would not have been allowed to say no regardless, as Sims himself admits.

It is important to note that general anesthesia had been introduced into the medical world by this time (“History of Anesthesia,” n.d.), and though some doctors initially refused to use it due to distrust in the practice, Sims’s refusal appears to be based in racist beliefs — when he began conducting surgery on white women, he also began to utilize anesthetics. He claimed that Black people were insensitive to pain because they had thicker skin and less intellectual processing capabilities (Sims, 1884), despite his own observations of Lucy’s torment. It was a

common notion at a time when Black people were considered subhuman, their skin likened to hide and their skulls to that of an ape. The notion pervades medical practice even today, as studies from the last decade observe a large percentage of medical students and professionals endorsing such beliefs (Sabin, 2020; Schoenthaler & Williams, 2022).

Sims's legacy in gynecology lives on in many other ways, as well. The Sims speculum has not been significantly innovated since he refined the spoon into the duck-bill contraption we know it as today (Ellis, 2006; Schoenthaler & Williams, 2022). There are several examination positions named after Sims, including the one described previously and another in which a person lays on their left side with their right leg bent at the hip and knee ("James Marion," 2024; "Sims Position," n.d.). He took the knowledge he reaped from Betsy, Lucy, and Anarcha's bodies and opened one of the first women's hospitals in the US, where he treated white women primarily suffering from vesicovaginal fistula ("James Marion," 2024).

Here lies the great contradiction of OB/GYN health care in the United States. Black girls were used as a technology to advance scientific understanding because of the political landscape that allowed for their dehumanization and objectification. The torture they were put through provided white doctors with foundational knowledge and paved the path for invention in the previously untouched field of women's health. Despite common eugenic claims that the Black body is different from the white body, which justified such malpractice, white doctors deemed them effective test subjects for medical treatments intended to be used on white people. And still, because they are only technology and not subject, Black women do not benefit from the advances they perpetuated, subjugated by white women profiting from receiving care optimized at the expense of Black women.

The Body as a Social Technology

Before Sims founded Western gynecology in the United states, there existed the globally common practice of midwifery. In the early 19th century, it was the most customary option for pregnancy and childbirth-related care, and women from any background could practice midwifery, but a majority were enslaved Black women (“A Brief History,” n.d.). It offered a holistic perspective on what care encompassed, including physical, emotional, mental, and spiritual needs. The traditions and teachings were passed down by older, experienced midwives to new midwives, and they were trained via shadowing and apprenticeship (“A Brief History,” n.d.). Especially for enslaved Black women, this community-based approach that leaned on generational knowledge and accounted for shared trauma was extremely important in maintaining cultural practices and individual identity (“The Historical Significance,” n.d.).

However, when Sims opened the doors for white male physicians into the gynecology space in America, obstetrics flooded soon after. As previously explored, a Black woman’s body was a precious commodity to sustain the enslaved labor force, so physicians were far more interested in a patient’s physical health, particularly their continued capability to reproduce. Because male physicians had no training in obstetrics, and it was previously reviled for a man to be involved in the birthing process, they used a colonization tactic to usurp the status quo: discreditation. By the early 20th century, they had gained a significant foothold, attending approximately half of all births despite a continued lack of formal obstetrics training (“A Brief History,” n.d.). Male physicians rejected the practical training and experiences of midwives, opting instead to promote “proper science,” theoretical anatomical knowledge, and Western medicine (Leavitt, 1983). They resorted to racist propaganda, backed by prominent obstetricians at the time and even the State Boards of Health, claiming that Black midwives were savages, incompetent, and unclean. There were proclamations that women who gave birth in naturally and

traditionally adopted birthing positions were uncivilized, implying two things: only hospital births, where doctors ordered women to be supine, were civilized; and Black women, who often could not access hospital care, were uncivilized.

In addition to such insidious methods of overhaul came more formal efforts throughout the 20th century to institute Western obstetrics in place of midwifery. In 1910, the Flexner Report, an investigation of medical education in the United States, was published, providing actionable suggestions for improvement (“The Flexner Report,” n.d.), including the abolition of midwifery (“A Brief History,” n.d.). To put into perspective the influential reaches of this report, it is widely accepted that most aspects of the American medical profession as we know it today came from it, despite more recent criticism about its discriminatory approach to “improvement.” In 1921, the Sheppard-Tower Infancy and Protection Act was passed into federal law, which allowed and encouraged states to pass their own laws about maternal and fetal healthcare. Alabama was first to require licensing of all midwives — almost overnight, about 150 Black midwives were no longer able to practice (McCoy, 2024). As states across the country adopted similar legislation, Black women embraced the opportunity for more formal training to benefit their communities, but of course, the rampant racism of that era posed institutional obstacles (“The Historical Significance,” n.d.). For example, Mary Breckenridge was a public health nurse who founded Frontier Nursing Service to provide women midwifery certification, but she did not believe Black women capable or worthy of such education. Even so, in rural areas of the country where doctors refused to travel or hospital access was particularly abysmal, Black midwives attended up to 75% of births until the 1940s, when the combination of smear campaigns, racist legislation, and educational restrictions almost completely dismantled the practice (McCoy, 2024, “The Historical Significance,” n.d.).

Here we see the Black woman controlled, her access to spaces and community cut off to influence a political landscape. By devaluing birth as a ceremony and emphasizing health of the body as a machine, a pregnant woman loses both their connection to those around them and their connection to themselves as a person. White physicians used pre-existing notions of anti-Blackness, a technology in itself, to organize an obstetric space that excluded Black women. That organization further isolates women, Black women in particular. What once was a community endeavor, reaching upon the support and wisdom of all one's friends and family and women before became an isolating experience in a system that already does not account for or care about their existence. It discredits the generational understanding of a practice traditionally dominated by Black women, and it disconnects Black women from their communities, of which midwives were an integral binding agent.

Conclusion

Black women are a cornerstone of American gynecology and obstetrics. Unforgivably, they were used as preclinical animal models to jumpstart the field of gynecology, and their expertise in holistic obstetrics care was unfairly dismantled and replaced by white men. The commodification of Black women, the use of their body as a science experiment and the control of their body as a social determinant, demonstrates why the health disparity is so prevalent. This discussion illustrates the complexities of racialization in the history of scientific discovery. More awareness of underrepresented historical context is imperative to deliver equitable OB/GYN care in the United States. Future researchers must acknowledge the ethical issues behind OB/GYN care and educate themselves to prevent intrinsic bias from perpetuating more harm. Knowledge is power and perspective is key in understanding that the foundations of OB/GYN were built by power hungry white men with the bones of Black women who did not have a choice.

References

A Brief History of Midwifery in America | OHSU. (n.d.). Retrieved May 6, 2024, from

<https://www.ohsu.edu/womens-health/brief-history-midwifery-america>

African-American Death Rate Drops 25 Percent | CDC Archive. (2017, May 2).

<https://archive.cdc.gov/#/details?url=https://www.cdc.gov/media/releases/2017/p0502-a-a-health.html>

Alexandria Da Ponte, A. W. (2022, July 2). Listening and Learning: Systemic Racism, Racial and Sexual Disparities in Women's Health. *Medium*.

<https://dukegwht.medium.com/listening-and-learning-systemic-racism-racial-and-sexual-disparities-in-womens-health-d25c733f961f>

Bernward Joerges. (1999). Do Politics Have Artefacts? *Social Studies of Science*, 29(3),

411–431. <https://doi.org/10.1177/030631299029003004>

Births in the United State, 2019. (2020, October 8).

<https://www.cdc.gov/nchs/products/databriefs/db387.htm>

Bougie, O., Nwosu, I., & Warshafsky, C. (2022). Revisiting the impact of race/ethnicity in endometriosis. *Reproduction & Fertility*, 3(2), R34–R41.

<https://doi.org/10.1530/RAF-21-0106>

Brynn Holland. (2018, December 4). *The 'Father of Modern Gynecology' Performed Shocking Experiments on Enslaved Women*. HISTORY.

<https://www.history.com/news/the-father-of-modern-gynecology-performed-shocking-experiments-on-slaves>

Corliss, J. (2017, November 1). Taking an anticlotting drug? If you need a procedure, be prepared. *Harvard Health*.

<https://www.health.harvard.edu/blog/anticoagulation-drug-procedure-safety-201711011265>

9

Deirdre Cooper Owens. (2017). *Medical Bondage*. The University of Georgia Press.

<https://ugapress.org/book/9780820354750/medical-bondage>

Harold Ellis. (2006). The Name Behind the Instrument: The Sims Speculum. *Journal of Perioperative Practice* Volume, 16(5), 259.

<https://doi.org/10.1177/175045890601600506>

History of Anesthesia. (n.d.). *Wood Library-Museum of Anesthesiology*. Retrieved May 8, 2024, from <https://www.woodlibrarymuseum.org/history-of-anesthesia/>

HIV/AIDS and African Americans | Office of Minority Health. (n.d.). Retrieved April 29, 2024, from <https://minorityhealth.hhs.gov/hiv-aids-and-african-americans>

Infant Mortality | Maternal and Infant Health | Reproductive Health | CDC. (2023, September 13).

<https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>

James M. Sims. (1884). *The Story of My Life*. D. Appleton and Company.

<https://ia601307.us.archive.org/15/items/storyofmylif00sims/storyofmylif00sims.pdf>

James Marion Sims: Father of Modern Gynecology or Abuser? (2024).

<https://cpp-college.netlify.app//programs/education-blog/james-marion-sims-father-modern-gynecology-or-abuser>

Janice A. Sabin. (2020, January 6). *How we fail black patients in pain*. AAMC.

<https://www.aamc.org/news/how-we-fail-black-patients-pain>

Jeffrey Sartin. (2004). J. Marion Sims, the Father of Gynecology: Hero or Villain? *Southern Medical Journal*, 97(5), 500–505.

- Johnson, J. (1988). Mixing Humans and Nonhumans Together: The Sociology of a Door-Closer. *Social Problems*, 35(3), 298–310. <https://doi.org/10.2307/800624>
- Leavitt, J. W. (1983). “Science” Enters the Birthing Room: Obstetrics in America since the Eighteenth Century. *The Journal of American History*, 70(2), 281–304. <https://doi.org/10.2307/1900205>
- Madeline Sutton, Ngozi Anachebe, Regina Lee, & Heather Skanes. (2021). Racial and Ethnic Disparities in Reproductive Health Services and Outcomes, 2020. *Obstetrics & Gynecology*, 137(2), 225–233. <https://doi.org/10.1097/AOG.0000000000004224>
- McCoy, L. (2024, February 27). *Black Midwifery in the US*. Western Center on Law & Poverty. <https://wclp.org/black-midwifery-in-the-us/>
- Orminski, E. (2021, June 30). *Your Zip Code is More Important than Your Genetic Code* » NCRC. <https://ncrc.org/your-zip-code-is-more-important-than-your-genetic-code/>
- Schoenthaler, A., & Williams, N. (2022). Looking Beneath the Surface: Racial Bias in the Treatment and Management of Pain. *JAMA Network Open*, 5(6), e2216281. <https://doi.org/10.1001/jamanetworkopen.2022.16281>
- Sims position*. (n.d.). NCLEX Practice Tests. Retrieved May 9, 2024, from <https://nurse.plus/nclex-terminology/>
- Stamatakis, M., Sargedji, C., Stasinou, T., & Kontzoglou, K. (2014). Vesicovaginal Fistula: Diagnosis and Management. *The Indian Journal of Surgery*, 76(2), 131–136. <https://doi.org/10.1007/s12262-012-0787-y>
- The Flexner Report | Perspectives Of Change*. (n.d.). Retrieved May 8, 2024, from <https://perspectivesofchange.hms.harvard.edu/node/99>

The Historical Significance of Doulas and Midwives. (n.d.). National Museum of African American History and Culture. Retrieved May 8, 2024, from

<https://nmaahc.si.edu/explore/stories/historical-significance-doulas-and-midwives>

The Slave Trade. (2016, August 15). National Archives.

<https://www.archives.gov/education/lessons/slave-trade.html>

Williams, S. (2022, April 5). *How Serena Williams Saved Her Own Life*. ELLE.

<https://www.elle.com/life-love/a39586444/how-serena-williams-saved-her-own-life/>

Winner, L. (1980). Do Artifacts Have Politics? *Daedalus*, 109(1), 121–136.

Zellars, R. (2018, May 31). *Black Subjectivity and the Origins of American Gynecology—AAIHS*.

<https://www.aaihs.org/black-subjectivity-and-the-origins-of-american-gynecology/>