Age, Race, Parity, and Access to Same-Day IUD Insertion at Obstetrician-Gynecology
Practices in Ohio: A Mystery Client Study

Thesis

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Abstract

This study investigated the availability of same-day intra-uterine device (IUD) insertion and whether women in Ohio face age, race or parity-based bias in attempts to schedule an IUD insertion appointment. We used a mystery client approach to test scheduling bias and same-day insertion availability at obstetrician-gynecology practices in Ohio, a method that, to our knowledge, has never been used in the U.S. to investigate barriers to IUD access. We called a random sample of 396 obstetrician-gynecology practices while posing as a potential client seeking an appointment to receive an IUD. Using one of eight standardized scripts, we determined the availability of same-day IUD insertion, and whether willingness of office staff to schedule IUD insertion appointments varied by patient's age, parity, or race. Practices were randomized to follow a balanced 3x2 factorial design, whereby practices were assigned to one of two conditions: (1) age (18 vs. 30 years of age); (2) parity (nulliparous vs. primiparity); and (3) race (white vs. Black). The overwhelming majority (92.35%) of practices required multiple appointments for IUD insertion (as opposed to same-day insertion). We found a statistically-significant positive association between parity and same-day insertion; however, the wide confidence interval indicates that the estimate was imprecise (OR=3.55, 95% CI=1.19-10.53). We found no statistically significant associations between age or race and access to same-day IUD insertion.

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Introduction

IUD Access: What's at Stake?

"Reproductive freedom is critical to a whole range of issues. If we can't take charge of this most personal aspect of our lives, we can't take care of anything. It should not be seen as a privilege or as a benefit, but a fundamental human right."

—Faye Wattleton, first Black woman and youngest president of Planned Parenthood Federation of America, 1978-1982. Co-Founder of African-American Women for Reproductive Freedom, 1990.

In the United States, the ability to exercise the fundamental right of control over one's own reproduction has always been elusive. Over the course of the twentieth century, we sterilized countless women without their consent. Contraception was not uniformly legal across the US until *Eisenstein v. Baird* was decided in 1972. Yet still today, despite the legality of contraception, many women face great difficulty in accessing needed services.

When attempting to access contraception, US women must navigate a complex medical and insurance system, one which may pose confusing barriers to patients. This study used mystery caller methodology to simulate the patient experience of attempting to obtain an intrauterine device (IUD) from a private obstetrician-gynecology practice in the state of Ohio. In a few instances, patients were able to schedule a single appointment for a joint IUD consult and insertion—the fastest and most straightforward option. In the most convoluted instance, the practice called did not insert IUDs, but recommended that the caller see a physician there and get a referral to another physician who does insert

IUDs, at which point the patient would need a separate consult with that physician before scheduling another, separate insertion appointment. What is at stake for the woman who is seeking birth control and is directed to a three-step process involving two physicians?

Access to contraception is a fundamental component of reproductive liberty, and a core facilitator of public health. The American Public Health Association supports universal access to contraception, and the Centers for Disease Control and Prevention (CDC) counts family planning as one of the 10 great public health achievements of the twentieth century (American Public Health Association, 2015; Centers for Disease Control and Prevention, 1999). However, access to contraception is conditioned on factors such as insurance coverage, institutional practices, physician preferences, and a person's social context (e.g., age, race, geographic location, socioeconomic status). We investigated how differently-situated women might experience the process of attempting to access IUD care in Ohio. Recognizing that women inhabiting different positions such as race, class, or ability, might experience the care-seeking process differently, the project is grounded in an analysis of ideals and stereotypes of womanhood and motherhood.

Constructions of Womanhood and Motherhood

Contemporary and historical idealized motherhood in the United States is largely dependent on separate spheres ideology and the cult of domesticity, which both emerged during the industrial revolution. Separate spheres ideology prescribed separate spheres to men and women. To men, the public sphere: politics, labor markets, education, etc. To women, the private sphere: homemaking and childbearing (and rearing). The cult of

domesticity held up women's sphere with a reverence that nevertheless conceded no power. These ideologies only ever really applied to white, middle-class women, as other families could not survive on only one income. However, the lack of accessibility of the ideal vision of womanhood does not necessarily weaken its power or prevalence: as Josephson notes, the hegemonic ideal is never universal, it is always "a fantasy, but it is hegemonic because it is the standard to which we all must respond," (Josephson, 2016, p. 2).

Despite the fact that these separate, idealized spheres were never a universal reality, they shaped public policy and public perceptions of womanhood. In her examination of the race and gender politics of the development of US welfare policy, Gwendolyn Mink notes that early social welfare policies were aimed at the "citizen-mother" and designed to counter the political effects of racial diversity. Race, poverty and the presumed dependency of immigrants gave rise to a fear-driven political effort to tie citizenship back to "old-stock" white men (Mink, 2012, p. 96). As men's citizenship began to incorporate strong ideologies of individualism and self-reliance, "woman's citizenship required social protection because of woman's special responsibility for the future of the republic," of course "the republic" toward which citizen women were responsible was one built on whiteness and white supremacy. (Mink, 2012, p. 99). Whole public insurance programs were built around the assumption that a white male breadwinner earned a wage that supported a household with a white dependent wife; programs such as widow's pensions were originally restricted to only white women

through a variety of practices employed by caseworkers to disqualify Black applicants (Mink, 2012; Sapiro, 2012).

Dependency is thus an integral part of idealized motherhood. Nancy Fraser and Linda Gordon argue that dependency is an ideological term with four registers: economic, sociolegal, political, and moral/psychological (Fraser & Gordon, 1994). In their history of the term dependency, Fraser and Gordon contend that before the industrial revolution, all women and most men who worked for wages were considered dependent. During industrialization, however, dependency became feminized and racialized, as women's economic dependence on men became more widespread. By the end of the 1800s, the housewife had become an "icon of dependency," part of a positively-valenced group of dependents (wives and children), in opposition to the negatively-valenced dependency of charity, which was highly racialized (Fraser & Gordon, 1994, p. 318). Indeed, Fraser and Gordon note that dependency was viewed differently for women of color: in the 1960s and 1970s, racialized discourse around poverty and welfare painted Black women Aid to Families with Dependent Children (AFDC) recipients as "pathologically independent with respect to men and pathologically dependent with respect to government" (Fraser & Gordon, 1994, p. 327). Virginia Sapiro argues in her essay "The Gender Basis of American Social Policy" that US social policy has constructed women as dependents *because* others depend on women's dependency—the so-called dependent wife provides unpaid labor necessary for the continued functioning of the home and the greater economy. In particular, social welfare policy has worked to enforce women's dependence through policies that stress individualism and self-reliance

for men, but dependence and paternalism for women. Together, these threads point to the idealization of a dependent, subservient wife with a duty to reproduce; an ideology that devalues the motherhood of women of color and working-class women of any race.

In opposition to ideal motherhood, the “wrong” type of reproducers have often been framed as deviant. Jyl Josephson offers a synthesis of the sexual citizenship literature which examines the “hierarchy of sexual citizenship,” and offers three major insights which reveal how hegemony and deviancy are constructed. First, that citizenship is heterocentrist—the normal/neutral citizen is assumed to be heterosexual, and citizenship policies often explicitly benefit heterosexuals (such as recent bans on gay marriage). Second, that the heterosexualization of citizenship is normative. The “good” citizen is not only heterosexual, but also married, gender-normative, and white. Josephson calls this “the hegemonic ideal of heteronormative citizenship” (Josephson, 2016, p. 19). Third, this heteronormative sexual citizenship plays a key part in the production of racial hierarchies. Mostly, this is done through the writing of sexual deviance onto the bodies of people of color, and/or using their purported sexual deviance to justify regulatory policies and to provide a foil for the hegemonic ideal. Dorothy Roberts’s overview of racist myths about Black women is particularly instructive here, as she offers a synopsis of some of the most dominant narratives of sexual deviancy that have been ascribed to Black women.

As Roberts says, “myths are more than made-up stories... they can become more credible than reality, holding fast even in the face of airtight statistics and rational argument to the contrary,” (Roberts, 1999, p. 8). First, Roberts identifies the importance

of scientific racism to regulating reproduction: “because race was defined as an inheritable trait, preserving racial distinctions required policing reproduction,” (9). This insight clarifies much about motherhood assumptions in the US—women of color’s reproduction is inherently deviant and in need of regulation, while white women are required to reproduce white babies with white men. In fact, Roberts notes that the Mammy stereotype figured the ideal Black woman as one who supported the reproduction of white children, at the expense of reproducing or caring for her own children. The Jezebel stereotype positions Black women as sexually lascivious, “diametrically opposed to the prevailing vision of the True Woman, who was chaste, pure, and white,” (11). Roberts also reviews the Matriarch and the Black Unwed Mother, a stereotype portraying Black woman head of household as pathological (Moynihan, 1965). Identifying independent single motherhood as a problem implies a non-problematic ideal of motherhood as not only married but also dependent—the patriarch should be the head of the family, not the matriarch. The stereotype of the Welfare Queen and the Devious Black Mother adds another dimension to the other myths, constructing Black mothers as creating their deviant families at the public’s expense. Therefore, the ideal mother also does not create a burden for the state. As Josephson notes, the ideal sexual citizen is private—their sexuality, particularly if non-normative—is out of sight and requires no public support or recognition (Josephson, 2016). Josephson further describes the “hegemonic ideal of heteronormative citizenship” as a citizen who is not only heterosexual but also expresses their heterosexuality in a normative way, meaning that they marry, are gender normative, and are white (Josephson, 2016, p. 19). We can

see these ideals reflected back in Robert's summation of the characteristics attributed to Black mothers: unmarried, too powerful and independent, hypersexual and refusing to keep their sexuality (and children) private.

In 1965, the infamous Moynihan Report was published, providing racist policymakers and laypeople across the country with ammunition to make arguments about the supposed pathology of Black families and communities. The report, titled "The Negro Family: The Case for National Action," laid out the pathology supposedly plaguing Black inner-city communities: domineering, unwed matriarchs heading their families were emasculating Black men and tearing apart "normal" family structures, in the process relegating entire communities to poverty and criminality. The report framed the errant reproduction of Black women as the root of social problems in Black communities, and thus the nation. Dorothy Roberts eloquently picks apart this argument throughout *Killing the Black Body*, repeatedly returning to the myriad of ways in which Black women's reproduction has been framed as a social problem in need of control. Cathy Cohen brought a thread of this hierarchy of parenthood into conversation with the organization and strategy of queer political movements in her formative essay "Punks, Bulldaggers and Welfare Queens: The Radical Potential of Queer Politics?" Cohen contends that some heterosexual sexual formations may indeed be queer, and identifies the (heterosexual) reproduction of "Welfare Queens" as outside of heteronormativity, figured as deviant, despite being heterosexual. The crucial part of Cohen's argument concerns the difference between heterosexuality and heteronormativity, the latter of which denotes a specific ideal, similar to the one described by Josephson. Cohen also

tells us that heteronormativity in the US is racialized: one must not only be straight, but also white and willing/able to bear children at the proper time (married, not too young, not too old) with a monogamous partner (Cohen, 1997).

Another example of heterosexual yet deviant reproduction is teen childbearing, which has often been figured as a public health and morality crisis. The literature on the socioeconomic consequences of teen childbearing is not conclusive, despite frequent public discourse to the contrary (Geronimus, 1991; Roberts, 1999). Still, education targeting teens, particularly in low-income and/or non-white neighborhoods, often presents teen parenthood as an apocalyptic event, specifically framing teen parenting as socially deviant. For example, an infamous 2013 subway advertisement campaign in New York City featured posters of babies with captions such as “Honestly Mom... chances are he won’t stay with you. What happens to me?” or, “I’m twice as likely not to graduate high school because you had me as a teen.” Campaigns such as these send the message that not only is teen parenthood a deviant lifestyle, it is one that ought to be prevented by more responsible conduct on the part of the teenager. Rather than targeting the structural conditions that cause teen pregnancy and its associated poor socioeconomic outcomes (many have argued that the causality in fact runs in the direction from poverty to pregnancy rather than the other way around), these campaigns target individual teenagers for blame and shame, casting them out of the moral citizenry which has made the proper sexual and parenting choices.

Introduction to LARC

Long-acting reversible contraception (LARC) includes multiple methods of contraception that are inserted into the body and provide continuous protection against pregnancy as long as they remain in place, or until they expire or are removed. These methods are considered long-acting in that they require a single “use” (insertion) to provide contraception for extended periods of time, ranging from 3-10 years depending on the method.

There are two broad divisions in LARC methods: implants and IUDs. The implant is a matchstick-sized plastic device that is inserted under the skin of the upper arm by a health care provider (see Table 1 for information about commonly-available contraceptive implants). IUDs are inserted into the uterus by a health care provider, and are further subdivided into two types: copper and hormonal (see Table 2 for information about IUDs available in the US).

LARC methods have garnered increasing attention recently for their unparalleled (among reversible methods) efficacy at preventing pregnancy. One-year perfect-use failure rates of the male condom (2%), oral contraceptive pill (0.3%), contraceptive patch (0.3%), vaginal ring (0.3%), and hormonal injection (0.2%) are quite low, and comparable to the perfect-use failure rates of hormonal implants (0.05%), hormonal IUDs (0.2%), and copper IUDs (0.6%) (Trussell, 2011). However, because LARC methods are inserted by a medical provider and remain in place, constantly providing highly-effective protection until their removal or expiration, they require no action on the part of the patient—a “set it and forget it” system that eliminates the potential for user error.

Therefore, perfect-use failure rates of LARC methods are identical to their typical-use failure rates, with the exception of the copper IUD (0.8%) (Trussell, 2011). In contrast, the typical-use failure rates for the condom (18%), pill (9%), patch (9%), ring (9%), and hormonal injection (6%) show a clear disparity. The Contraceptive CHOICE project, which provided reversible contraception to a large cohort of women free of charge, found a one-year failure rate of 4.8% for users of the pill, patch or ring, compared with 0.3% for a LARC method and, interestingly, 0.1% for the injectable contraceptive (Winner et al., 2012).

Table 1. Approved lifespan of contraceptive implants available in the US and globally

	<u>Implanon</u>	<u>Nexplanon</u>	<u>Jadelle</u>	<u>Sino-implant (II)</u>
Years approved for use	3	3	5	3
Available in US or globally (non-US)	US	US	Global (non-US)	Global (non-US)
Single or double rod	Single	Single	Double	Double

("FDA-Approved Patient Labeling: IMPLANON® (etonogestrel implant)," 2017; "FDA-Approved Patient Labeling: NEXPLANON® (etonogestrel implant)," 2017; "Jadelle® - What is Jadelle®?," 2017; "Sino-Implant (II)/Levoplant Overview," 10/17)

Table 2. Approved lifespan of copper and hormonal IUDs available in the US

	<u>Paraguard</u>	<u>Mirena</u>	<u>Kyleena</u>	<u>Liletta</u>	<u>Skyla</u>
Years approved for use	10	5	5	4	3
Copper or Hormonal	Copper	Hormonal	Hormonal	Hormonal	Hormonal

("Highlights of Prescribing Information: Kyleena," 2016; "Highlights of Prescribing Information: Liletta," 2017; "Highlights of Prescribing Information: Mirena," 2017; "Highlights of Prescribing Information: Skyla," 2017; "Paraguard Intrauterine Copper Contraceptive Prescribing Information," 2018)

Brief History of Birth Control

A central tenet of the feminist movement has been that the ability to control one's reproduction is fundamental to women's freedom and liberation. However, visions for reproductive liberation have been taken up differently by different groups. Reproductive freedom encompasses both freedom from and freedom to: freedom from state interference with access to contraception and abortion, or freedom to act with reproductive autonomy—the latter connotes a commitment to ensuring access to contraception, abortion, and other tools supporting reproductive autonomy, such as health insurance, prenatal care or a social safety net. Women of color-led activist movements, primarily the Reproductive Justice movement, have advocated a vision of reproductive freedom and liberation that seeks not only to liberalize policies restricting access to contraceptive/abortive technologies, but also to change the social structures which constrain individual's choices and opportunities to begin with. Reproductive Justice advocates have pointed out the ways in which an analysis of freedom that centers theoretical legal access to abortion is incomplete; in the US context, it ignores the centrality of racism and other systems of oppression. In the same text in which Angela Davis describes birth control as “a fundamental prerequisite to the emancipation of women,” she describes the many ways in which contraception has been used to control much more than simply reproduction—birth control has a long history of racism and classism in the United States (Davis, 1981, p. 202).

The first calls for the right to control reproduction came under the slogan “voluntary motherhood,” which feminists and suffragists were widely advocating for by the 1870s, primarily through asserting a wife’s right to abstain from sex in marriage (Davis, 1981). Angela Davis notes how this nascent birth control movement elevated the concerns of privileged white women from the start: because suffragists recognized the hindrance that uncontrolled reproduction posed to achieving political equality, they spearheaded the movement for voluntary motherhood. Then, because the exercise of the voluntary motherhood-dependent rights they were seeking was premised on a certain amount of racial and class privilege, they did not construct a movement that addressed the concerns of women whose primary problem was a not lack of suffrage: women of color and poor women. Therefore, the movement for birth control was exclusionary from the beginning, with white suffragettes failing to take their message of voluntary motherhood in a more radical direction, expanding the demand for voluntary motherhood to all women (a demand which would have required attention to racial and economic justice).

Dorothy Roberts takes up the next phase of the birth control movement in detail in her book *Killing the Black Body: Race, Reproduction and the Meaning of Liberty*, in which she examines the political movement to legalize contraception in the US in the early 1900s. Most states had passed laws outlawing contraceptives (and even the distribution of information about them) in the late 1800s (Roberts, 1999). In the early 1900s, Margaret Sanger spearheaded the movement to repeal these laws and make contraceptives available to the public. Although Margaret Sanger’s original vision was

rooted in a more broadly justice-oriented commitment to “free women from the burdens of compulsory and endless childbearing” (Roberts, 1999, p. 58), the birth control movement soon began to ally with eugenicists who used political support for “racial uplift” policies to legitimize and promote birth control. The alliance between the birth control movement and eugenicists persisted for decades, continuing through the development of hormonal contraceptives and IUD, and mutating under the guise of population control in the latter half of the twentieth century (Davis, 1981; Hartmann, 1995; Roberts, 1999).

Population Control

The latter half of the twentieth century witnessed the rise of neo-Malthusianism and rhetoric around population control. Much of this concern with the quickly-growing world population centered around the reproduction of women in so-called Third World nations. Of course, the women reproducing in these nations were not white—the threat of overpopulation loomed larger when black and brown reproducers threatened to overtake whites. Although world population was increasing faster at this time than ever before, it was not the first time overpopulation had been framed as a racialized problem. In *Reproducing Empire: Race, Sex Science and US Imperialism in Puerto Rico*, Laura Briggs presents a variety of sources demonstrating the various framings of overpopulation as a problem throughout the twentieth century, from eugenics to Cold War development policy to Puerto Rican migration to New York in the 1960s. Academic articles, popular press reports, personal communications between politicians, books and Broadway plays all demonstrate the prominence of fears of overpopulation. Briggs

focuses on the role of “overpopulation” in poverty and the development of modern nation-states: chiefly the idea that rapid population growth would impede economic development and modernization. Importantly, Briggs repeatedly debunks these claims, providing evidence that overpopulation could not have been the cause of poverty because they were “not even correlate(d),” that there was no temporal relationship between the two, and in fact per capita income and standards of living tended to rise with population growth throughout the world (2002, pp. 85, 117).

Despite the lack of evidence, the problem of overpopulation was popular, and advancements in contraceptive technology made it possible to target reproduction as a solution. Locating the reproduction of black and brown bodies as the site for intervention reveals the racist roots of overpopulation rhetoric. In her history of birth control in the United States, Linda Gordon notes how many prominent eugenicists re-made themselves as population control advocates after the second World War, with some of them heading up organizations still influential today, such as the Population Council and the international arm of Planned Parenthood (Gordon, 1990, p. 393). Population control became institutionalized in the 1960s, as the US government required most countries receiving nonmilitary foreign aid to accept population control programs as well (Gordon, 1990). These programs were widespread throughout the Global South, and are well-known to have been coercive. For example, incentives for sterilization included transistor radios and blankets, while cash incentives could reach as high as three times the average monthly wage (Gordon, 1990).

Through the 1980s, both Gordon and Briggs note how the efforts to curb population growth were touted as necessary for economic development: overpopulation was a driver of poverty, and proper population control was an integral part of nation-state modernization and economic development and stability. “Overpopulation” of nonwhite countries was also a threat to white supremacy and hegemony worldwide. Crucially, these development priorities were also rooted in Cold War fears of hunger and poverty fomenting revolution among the ever-growing masses. After the end of the Cold War, however, population control lived on. Betsy Hartmann notes how, beginning in the 1990s, population control rhetoric began to co-opt environmentalist and feminist concerns, presenting the population growth of the global South as a threat to the climate (Hartmann, 1995). Today, organizations such as Population Connection present “women’s empowerment” as a key tool to fighting climate change.

History of LARC: Racism & Coercion

LARC methods are plagued by a checkered history of racist unethical testing and coercive insertion around the globe, with the Norplant implant standing out as a particularly notorious offender in the United States. At the same time, the high efficacy and low user burden of LARCs offer the potential for reproductive freedom and bodily autonomy. The design of the device, in which a health care provider inserts a contraceptive which continues to act without any requirement on the person using it, provides both an opportunity for forced/coerced insertion of contraception that women do not want, and an opportunity for highly reliable contraception with no effort on the part of the user. As Chikako Takeshita notes in her book *The Global Biopolitics of the IUD*,

“the IUD embodies the paradox of the simultaneous possibility of giving women control over their bodies and taking it away from them,” (Takeshita, 2011, p. 5).

While the earliest iterations of the IUD emerged in the early 1900s, the method did not gain traction for a few decades, and earlier models were re-hauled in the latter half of the twentieth century. The modern IUD was developed around the same time that neo-Malthusian calls for population control were gaining traction worldwide, often incorporating former eugenicists into their ranks—it should not be seen as a coincidence that eugenicists would pivot toward the veiled rhetoric of population control once the naked racism of eugenics was no longer publicly acceptable (Takeshita, 2011). Around the same time, the Population Council began research into the development of subdermal implants (Population Council also funded research on the development and dissemination of IUDs), the first of which, Norplant, was released internationally in the early 1980s and to the US in 1990 (Association of Reproductive Health Professionals, 2008). Soon after its emergence, the modern IUD was seized upon by population control advocates and disseminated widely in the Global South; today it remains the second-most popular method of contraception in the Global South, after tubal ligation (the IUD is the fourth-most popular method in the global north) (Takeshita, 2011). Debates have since ensued over whether IUDs and implants are inherently coercive and anti-feminist, or whether they are liberatory.

Implants

The 6-capsule Norplant implant was released in the United States in 1990, and was soon followed by an infamous *Philadelphia Inquirer* editorial which advocated

imposing Norplant on welfare recipients as a condition of benefit continuation (Kimelman, 1990). The idea was fiercely debated by policymakers, pundits and other journalists across the country. Although no proposed policies were explicitly racially discriminatory, these debates were culturally understood to have racial undertones. The public focus on young single mothers, particularly teenagers and women reliant on safety-net programs, was automatically racialized in a context in which welfare recipients were/are frequently stereotyped as Black single mothers (Hancock, 2004; Roberts, 1999). Ronald Reagan popularized the term “Welfare Queen” in his 1976 and 1980 presidential campaigns, and the term continued to resonate through the 1990s into Bill Clinton’s promise to “end welfare as we know it” (Clinton, 1992). Indeed, in 1996 the Aid to Families with Dependent Children (AFDC) program was transformed into Temporary Assistance for Needy Families (TANF), turning an entitlement program into block grant with time limits and work requirements. The impetus to address “dependency” in welfare recipients, particularly through marriage promotion, was a public response to the changing face of welfare, and the attendant refusal of white America to provide a social safety net for people of color, expressed as concerns about Black women’s reproduction and parenting (Fraser & Gordon, 1994). As Ange-Marie Hancock explains in her book *The Politics of Disgust: The Public Identity of the Welfare Queen*, the idea of the “welfare queen,” a stereotype associated primarily with hyperfertility and laziness, has been remarkably persistent in the US public consciousness over the course of the twentieth century, despite its complete lack of factual grounding. However, this public identity still forms the uncontested background of discussions of welfare and welfare

reform, resulting in a “politics of disgust,” in which insufficient political attention is paid to an issue affecting the population in question (in this case, actual welfare recipients), the political attention paid serves only to reinforce existing stereotypes, citizens resort to correspondence bias, and persons outside the target population lack solidarity with the targeted population (Hancock, 2004).

The public identity of welfare mothers provided the unquestioned context in which Norplant was hailed as a cure for poverty and social deviancy. Medicaid soon covered Norplant, and some states also set aside budgets to provide Norplant at publicly-funded clinics which served uninsured patients. Mississippi and South Carolina introduced legislation mandating that welfare recipients be inserted with Norplant, and the Governor of Maryland proposed it in his 1993 State of the State speech (Roberts, 1999). Legislators in Arizona, Colorado, Florida, Louisiana, Ohio, Tennessee and Washington proposed bills that provided cash incentives for Norplant insertion among welfare recipients (Roberts, 1999). Fortunately, none of these proposals passed, but their existence in the imagination of lawmakers and constituents is telling. Returning to Hancock’s politics of disgust, the racist stereotypes about Black women undergirding the “welfare queen” image are clearly circulating in discussions about limiting the fertility of welfare recipients.

Dorothy Roberts outlines the various ways in which Norplant was coercively imposed on poor Black women in the 1990s: Medicaid coverage, Medicaid reimbursement laws that pay for Norplant insertion but not removal, programs in schools and publicly-funded clinics to promote Norplant uptake, and provider refusal to remove

the device, despite the protestations and clear health concerns of patients, (Roberts, 1999). Even when providers did agree to remove Norplant, poor training and the design of the device made the removal process difficult and painful (Roberts, 1999).

These egregious examples of racist coercion must be understood alongside the history of Norplant's development—the device was tested on women globally without informed consent, without care toward the health of participants, and without follow-up for removal. And the coercive deployment of Norplant did not stop at welfare recipients: it was also imposed by judges as a condition of probation for women convicted of drug use or child abuse. As Catherine Albiston notes, although face-neutral, the Norplant condition was applied unevenly, because poor women of color were more likely than middle-class and/or white women to come into contact with the state and thus be prosecuted for their drug use or child abuse to begin with (Albiston, 2008). Judges imposed the Norplant condition during a time of public hysteria around crack-cocaine and “crack babies,” a highly-racialized stereotype. A key argument in Albiston's article mirrors a key thesis of Roberts' book: the coercive policies and practices around Norplant exist as a means of controlling Black women's fertility, operating within a racialized logic of “good” vs. “bad” parents, and viewing the reproduction of poor Black women as a societal problem to be solved. As Albiston explains: “The social meaning of preventing the pregnancy of poor women of color is that they and their children are inferior and expendable, and that poor women of color are inadequate to be mothers,” (Albiston, 2008, p. 281). Neither Roberts nor Albiston compares Norplant to the IUD, but their framework for understanding the deployment of long-acting contraception applies.

Roberts and Albiston are articulating the societal impulse to regulate and inhibit the childbearing of women who do not fit into the prevailing stereotype of white womanhood: “nonparticipation in the workforce, a primary role as mother and nurturer, and an identity derived from biological reproductive abilities,” (Albiston, 2008, p. 280).

While Norplant was almost immediately controversial in the United States and was removed from US markets in 2002 due to negative health effects and lack of provider training in insertion and removal, it remained available globally until 2008 (Ahmed et al., 2012; Association of Reproductive Health Professionals, 2008). The failures and scandals of Norplant led to the eventual development of Implanon and its second (radio-opaque) iteration, Nexplanon, both of which are marketed in the United States and globally today. While Nexplanon has avoided coercive deployment on the scale of Norplant, it has not been without controversy. In 2017, media outlets reported that a judge in Tennessee was offering reduced sentences to women who agreed to get Nexplanon (and to men getting vasectomies) (Dancyger, 2017; Dwyer, 2017).

Nexplanon is not the only contraceptive method to be recruited by the criminal justice system for coercive purposes. In February of 2018, an Oklahoma judge issued a court order stating that the defendant on trial, a woman named Summer Creel, could present evidence that she had been “rendered incapable of procreation” at her sentencing, and that the court would consider that information in choosing “an appropriate sentence” (Friot, 2017; Jackman, 2018). Creel was on trial for using counterfeit checks, although the judge referenced her history of drug use and seven children born “out of wedlock” in his order suggesting sterilization (Friot, 2017; Jackman, 2018). Creel’s sentencing

guidelines called for a 10 to 16-month term, and prosecutors argued for a 12-month term. After receiving evidence that she had been sterilized, Friot sentenced Creel to a 12-month term (Jackman, 2018). In another contemporary example of sterilization abuse in the criminal justice system, the state of California recently came under fire after investigations revealed that Dr. James Heinrich had sterilized over 140 inmates in state prisons without the approval of an oversight committee, without witnesses to consent, and without documenting education on the procedure; 39 of the women were sterilized without the physician either documenting consent, or complying with the waiting period requirement (Chappell, 2013; Johnson, 2013; Townes, 2014; Willon, 2014).

IUDs

The “first generation” of IUDs, entering the market in the late 1960s, included the infamous Dalkon Shield, which became available in 1971. The Dalkon Shield differed from previous IUDs in a few notable ways, including a multifilament (rather than monofilament) string, and a horseshoe-shaped, spiked (rather than T-shaped) design. Soon, reports of pelvic inflammatory disease (PID), high rates of pregnancy and pregnancy complications, and infertility emerged; some users even died (Strasser, Borkowski, Couillard, Allina, & Wood, 2016). These reports culminated in a congressional investigation into the Dalkon Shield and the eventual removal of the product from the US market in 1974, although it continued to be sold internationally until the weight of numerous lawsuits forced the company to file for bankruptcy in 1985 (Strasser et al., 2016). The legacy of the Dalkon Shield resulted in a large drop in the popularity of IUDs in the United States. Globally, about 9-24% of contraceptive-using

women¹ have IUDs, compared to 1% in the US in 2002, although 10% of women in the US used IUDs before the Dalkon Shield fiasco (Hubacher, 2002).

An early investigation into IUD provision found evidence of provider bias toward insertion for poor women of color. Alexandra Dundas Todd's 1989 essay "Delusions in Discourse" describes her research in clinics, observing encounters and interviewing patients. She found that poor women of color were often labeled "inept contraceptors" and encouraged to use the IUD, even while the same providers usually discouraged IUD use in favor of the pill (Todd, 2008).

Primarily because of the Dalkon Shield's specific issues—PID and subsequent or unrelated infertility—when the IUD began to rise in popularity in the US in the late 1990s/early 2000s (The first hormonal IUD entered the US market in 2002, while the copper-T IUD had been available since 1988), misleading contraindications persisted around age and parity.² PID was a concern with early IUDs other than the Dalkon Shield, due mostly to the introduction of bacteria in the uterus during insertion; more recent insertion practices have corrected this problem (Hubacher, 2002). PID occurs when bacteria in the uterus cause infection/inflammation, and most often results from untreated chlamydia or gonorrhea. PID produces a range of complications, the most extreme being

¹ I use "contracepting women" or "reproductive-age women" when discussing demographic/statistical studies of IUD uptake and prevalence because those are the terms used in the academic literature, and they have specific definitions (most commonly, women aged 15-44 using any method of contraception, and women aged 15-44, respectively, although some extend the age range up to 49 and/or down to 12 years). These definitions (and presumably the studies using them) do not include transgender men, or intersex or non-binary individuals.

² In demographic and reproductive health literature, the term "parity" refers to the number of live births a person has experienced. So, a parous person has given birth before, whereas a nulliparous person has not. A parity of 2 indicates 2 live births, etc.

infertility, emergency hysterectomy, and death. In addition to the existing increased risk of PID in early IUDs, the Dalkon Shield's multifilament strings easily conducted bacteria up into the uterus, resulting in frequent cases of PID. Much of the infertility attributed to the Dalkon Shield arose from PID caused or exacerbated by the device. Additionally, the Dalkon Shield caused non-PID-related infertility, as a result of complications such as uterine perforation and pregnancy occurring while using the Dalkon Shield, which led to complications such as spontaneous septic abortion.

This combination, elevated risk of infertility and elevated risk of PID (possibly leading to infertility), led providers to move to protect two classes of potential IUD recipients: adolescents and the nulliparous. Physicians did not insert IUDs in nulliparous patients primarily due to the fear that they would become infertile before having the opportunity to bear children. Insertion in adolescents was discouraged due to the higher incidence rates of sexually transmitted infections (STI) in adolescent populations—approximately half of all new STI cases per year in the US occur among people aged 15-24 years. Chlamydia and gonorrhea are the two most frequently reported bacterial STIs in the US; chlamydia is the more common, and is most prevalent among people under 25 (Satterwhite et al., 2013; Smith & Angarone, 2015). The link between IUD use and PID has been debated in the medical literature, and research remains inconclusive (Hubacher, 2014; Jatlaoui, Simmons, & Curtis, 2016). However, the Centers for Disease Control and Prevention (CDC) Medical Eligibility Guidelines for contraception explicitly state that IUDs are safe for adolescents and nulliparous women, advising only that IUDs not be inserted in women with active PID, cervicitis, chlamydial or gonococcal infection,

although they can remain in place if a patient develops one of these conditions (Curtis et al., 2016). A systematic review of the literature on various adverse health outcomes among young women (defined as under 25 years) using IUDs concluded that IUDs are safe for young women to use (Jatlaoui, Riley, & Curtis, 2017). It should be added that a likely contributor to provider reluctance to insert IUDs in adolescents is the view of teenagers as future reproducers: even if the risk of PID was not present, might providers be willing to risk the future fertility of their patients?

Increasing LARC Uptake in the US

Despite the checkered pasts of the Dalkon Shield and Norplant, or more likely, because those pasts are now far enough in the past to remain mostly unknown by a new generation of contraceptors, LARC methods have been gaining prominence in recent years. Data from the National Survey of Family Growth shows that usage of LARCs has been increasing over the past 14 years, and in 2012, 11.6% of contracepting females used a LARC method (Finer, Jerman, & Kavanaugh, 2012; Kavanaugh, Jerman, & Finer, 2015).

The increases in LARC uptake have been driven/accompanied by an increasing profile for LARCs in academic and scientific research, and public policy. Recent examples include research projects such as the Contraceptive CHOICE project at Washington University in St. Louis, and Colorado's 2009-2015 foray into free LARC provision for teens.

The incredibly low failure rates of LARC methods have been credited with decreasing rates of unintended pregnancies when populations increase LARC usage: The

Colorado Family Planning Initiative (CFPI), a program that succeeded in substantially increasing uptake of LARC methods among young and low-income women, observed fertility rates among 15-19 year olds and 20-24 year olds that were 29% and 14% lower than expected rates, respectively (Ricketts, Klingler, & Schwalberg, 2014). One study found that declines in abortion rates in Iowa were associated with large increases in LARC usage, despite a liberalization of abortion regulations (M. A. Biggs, Rocca, Brindis, Hirsch, & Grossman, 2015), while another intervention found a significant effect on pregnancy rates after training clinic practitioners in counseling on and insertion of IUDs (Harper et al., 2015). Researchers have hypothesized that nationwide declines in unintended pregnancy are at least partially related to increased uptake of LARCs (Finer & Zolna, 2016) (Guttmacher Institute, 2014) (Guttmacher Institute, 2011).

Governmental agencies and professional bodies now strongly recommend LARC methods for use among the general reproductive population and specifically among adolescents; recommendations for LARC also emphasize that adolescents and nulliparous women are candidates for IUD insertion (Committee On Adolescence, 2014; Committee on Adolescent Health Care & Long-Acting Reversible Contraception Working Group, 2012; Committee On Gynecologic Practice & Long-Acting Reversible Contraception Working Group, 2015; Conti & Shaw, 2015; Curtis, 2016a, 2016b). The American College of Obstetricians and Gynecologists (ACOG) declared LARC methods the preferred “front-line” methods of contraception for adolescents in 2012 (Committee on Adolescent Health Care & Long-Acting Reversible Contraception Working Group,

2012). The American Academy of Pediatrics (AAP) followed suit in 2014 (Committee On Adolescence, 2014).

At the same time, advocates have cautioned against an uncritical embrace of LARC methods. The histories of reproductive coercion reviewed above display how LARCs, as provider-controlled methods, are susceptible to biased or targeted deployment. In a recent scholarly opinion piece, researchers emphasized the importance of recognizing that clinical encounters do not take place in a vacuum, but are instead informed by context and power relations (Gomez, Fuentes, & Allina, 2014). In order to navigate the tension between advocating access to a highly-effective contraceptive method while remaining vigilant against possible abuses, organizations such as SisterSong and the National Women's Health Network have created a guiding statement of principles for LARC usage, signed onto by organizations, practitioners, activists and academics (Christopherson, 2016; SisterSong & National Women's Health Network, 2017).

Barriers to LARC Uptake in the US

IUDs have faced a unique set of obstacles that have constrained their adoption generally, and among young and nulliparous women specifically. In the past, cost to the user has been a barrier to IUD access, as the up-front cost of the device plus insertion can be \$800-1,000. However, the Affordable Care Act's contraceptive coverage mandate was expected to greatly increase the availability of IUDs (Bearak, Finer, Jerman, & Kavanaugh, 2016; Politi, Sonfield, & Madden, 2016). When cost is a barrier to access, the women most likely to be impacted are those with access to fewer financial resources:

primarily poor women, women of color, and minors. A study conducted prior to the passage of the Affordable Care Act found that, out of a sample of 95 women requesting an IUD, those whose private insurance required a co-pay of \$50 or less were significantly more likely to ultimately obtain an IUD than women whose co-pay was more than \$50 (Garipey, Simon, Patel, Creinin, & Schwarz, 2011).

Another significant barrier is the persistence among health care providers of outdated beliefs concerning who is eligible for IUD insertion. Providers frequently report the outdated belief that IUDs are contraindicated for nulliparous women, adolescents, women with a history of STIs or PID, or women who have multiple sex partners (the latter two categories are often cited as reasons to avoid IUD insertion among adolescents) (M. Antonia Biggs, Harper, Malvin, & Brindis, 2014; Harper et al., 2013; Madden, Allsworth, Hladky, Secura, & Peipert, 2010; Rubin, Davis, & McKee, 2013; Rubin, Fletcher, Stein, Segall-Gutierrez, & Gold, 2011; Stubbs & Schamp, 2008; Tyler et al., 2012; Vaaler, Kalanges, Fonseca, & Castrucci, 2012). One study found that among the 77% of surveyed practitioners who correctly reported that IUD insertion was safe for adolescents, 18% of those same practitioners still reported that they would be unlikely to insert an IUD on a patient under the age of 20 years; likewise, of the 86% of practitioners who knew that IUDs could be used by nulliparous women, 25% reported that they would be unlikely to insert an IUD on a patient who had never been pregnant (Kohn, Hacker, Rousselle, & Gold, 2012). The disparity between knowledge and practice here hints at the persistence of the norms propagated in the aftermath of the Dalkon shield. In a survey of pediatrician's attitudes toward LARC in adolescents, physicians reported unfavorable

attitudes toward IUD insertion in adolescents; their concerns included not only nulliparity, STI and PID, but also ideas about the appropriateness and acceptability of IUDs for adolescents (Berlan, Pritt, & Norris, 2017). For example, pediatricians voiced concern around expulsion, pain and bleeding, in addition to the belief that adolescents were not mature enough to use IUDs (Berlan et al., 2017). Other barriers to IUD insertion reported by pediatricians include lack of training and experience with insertion and removal, and concerns about parental approval (Wilson, Strohsnitter, & Baecher-Lind, 2013). Providers denying one form of birth control to certain classes of patients for reasons not supported by the current medical evidence is a clear failure of the health system to provide equitable access to the full range of contraceptive options.

Finally, a barrier to care might arise in the form of multiple required appointments. “Same-day insertion” for IUDs refers to the insertion protocol in which patients are able to request and receive their IUD in the same appointment. Same-day insertion includes both situations in which patients present for contraceptive counseling and choose (and receive) an IUD at that appointment, or situations in which patients schedule a consultation specifically for IUD insertion, and then are able to have the IUD inserted at that same appointment. Patients who have an STI at time of IUD insertion are at a slightly higher risk of developing PID, although the risk is low overall (Mohllajee, Curtis, & Peterson, 2006). Not all providers offer point-of-care testing (STI test with results available immediately in the clinic), and must send the test sample out to a lab for results. Perhaps for this reason, some providers require a pre-insertion appointment with an STI test, rather than testing at time of insertion. However, medical guidelines do not

recommend separate screening appointments. Up to Date, a medical encyclopedia for physicians, notes that routine screening for chlamydia and gonorrhea has not proven to be necessary or cost-effective, although providers should check for signs of STIs and test if potential signs are present. Up to Date recommends that some providers may routinely test based on the aggregate risk of their patient population (for instance, routinely testing all patients under age 25 years) (Carusi & Goldberg, 2016). CDC recommendations for IUD insertion specify that most patients do not need additional STI testing at time of insertion if STI screening guidelines have been followed, but for those who do qualify for additional testing, it should be performed at time of insertion, rather than delaying insertion while waiting for test results (Curtis, 2016a, 2016b).

Multiple-appointment requirements might exist for other reasons as well as STI testing protocol; for example, because of the high price of the device, practices who do not insert IUDs frequently may not keep a constant supply. Ordering IUDs in bulk, also known as “buy and bill,” allows providers to insert IUDs on-demand when patients request them. However, many providers use the “specialty pharmacy” method, in which each device is ordered individually upon request, and after confirming with the patient’s insurance. With this method, a patient might have to wait a couple of weeks after their initial appointment for the IUD to arrive. Providers also may require multiple appointments if a patient’s insurance will not reimburse the provider for an IUD provided during a routine visit. In any case, requiring multiple appointments poses an obvious barrier to access: each separate appointment requires expenditure of resources such as travel, time off of work, child care, co-pays, and even just the mental energy of

scheduling and presenting for doctor's appointments. Indeed, at one clinic site employing a two-visit protocol for IUD insertion, almost half of the women requesting an IUD at their first visit did not attend the second appointment for insertion (Bergin, Tristan, Terplan, Gilliam, & Whitaker, 2012). When access is determined by ability to schedule, attend, and afford multiple appointments, clear disparities emerge: marginalized patients will be less able to access IUD care, particularly women of color, poor women, minors, and rural women.

Theoretical Framework: Stratified Reproduction

Thus far, I have reviewed the history of LARCs with a special emphasis on IUDs. Historically and in contemporary medical practice, multiple factors might either coercively encourage uptake of or constrain access to IUD insertion for certain populations in the United States.

The concept of stratified reproduction pulls together the threads of history, technology and myth to articulate a specific outcome: that reproductive bodies exist in a hierarchy. The term was first coined by Shellee Colen in her anthropological work on West Indian childcare workers in New York City in the 1980s. Through this work, Colen developed the term stratified reproduction to describe the hierarchy that ascribed differential value to the physical and social reproduction of women according to their class, race/ethnicity, migration status, and other political and economic factors (Colen, 1986, 1995). Importantly, Colen argues that stratified reproduction “itself reproduces stratification by reflecting, reinforcing, and intensifying the inequalities on which it is based,” (Colen, 1995, p. 78).

In the context of contraception provision in the US, we might understand stratified reproduction as manifesting in terms of “inevitable” and “impossible” motherhood. Which patients are seen as inevitable mothers and which patients are seen as impossible mothers is a heteronormatively racialized and classed assignation, with heterosexual white middle-class status indicating inevitable motherhood, while impoverished and/or non-white existence acts as a marker of maternal impossibility. Therefore, the reproduction of inevitable mothers will be promoted, while the reproduction of impossible mothers will be discouraged.

Although Colen coined the term stratified reproduction, Rayna Rapp and Faye Ginsburg have contributed to its development, positioning it as a central theme of analysis in their edited volume *Conceiving the New World Order: The Global Politics of Reproduction*. They describe stratified reproduction succinctly as “the power relations by which some categories of people are empowered to nurture and reproduce, while others are disempowered,” (Ginsburg & Rapp, 1995, p. 3). Importantly, they draw attention to how some groups are “normatively entitled” to choose or refuse childbearing. Left implied are those who are normatively assumed no right to bear children, but also no right to control their childbearing (the barriers to accessing and affording reproductive healthcare, primarily contraception and abortion, are quite high in the United States, and exacerbated by policies such as the Hyde Amendment, barring federal Medicaid funds from abortion coverage and thus effectively barring many low-income women from accessing abortion). Rapp also notes the wide applicability of the term, which encompasses the many variations of stigmatized, non-normative or otherwise

marginalized forms of reproduction, and its usefulness in illuminating broader patterns of social stratification (Rapp, 2001). Stratified reproduction encapsulates the idea underlying my questions around IUD insertion protocols, namely, whose fertility is valued?

The specific history of the IUD in the US has led to a phenomenon in which, contrary to medical guidelines, health care providers may refuse outright to insert IUDs in patients who are young, adolescent, or have not had children. At the same time, the history of the IUD, and other long-acting contraceptive methods, includes the coercion of poor, disenfranchised, and/or non-white patients into using these methods. In comparing of the provision of different methods of contraception among different populations, a common thread emerges: the denial of bodily autonomy. The denial of bodily autonomy may occur in the direction of denying contraception, revealing a belief in the “inevitable motherhood” of the patient, or imposing it, revealing a belief in the “impossible motherhood” of the patient.

Although my thesis question is very specific, it is rooted in broader questions about the roles and responsibilities of reproductive bodies. In what ways is reproduction simultaneously enforced on some populations and foreclosed for others? What criteria delineate who is an “ideal” reproducer? What is the broader societal function of denying reproductive autonomy to women? These questions have framed my investigation. I am deeply interested in the ways in which ideas about the proper roles of women as mothers are either explicitly leveraged or form the implicit background to discussions about contraception. Medical technology that acts on reproductive bodies does not exist outside

of the context in which we understand reproduction as a society. Therefore, the ideologies that surround women and reproduction act on the ways in which contraception is talked about, distributed, and ultimately used or abused.

Drawing on the theory of stratified reproduction, this project investigates potential bias and barriers to IUD insertion through a mystery client study. The scholarship reviewed above indicates that motherhood is idealized and prioritized for certain types of women, but devalued for others. Within this framework, we might expect that a device like the IUD, which is extremely efficacious at preventing motherhood, might be taken up in divergent ways based on the identity of the potential mother in question. Therefore, this study investigates multiple sources of potential bias and barriers to IUD care.

Specific Project Objectives

- 1) Measure the proportion of gynecological practices in Ohio that deny IUD insertion appointments or refuse to schedule same-day insertion appointments for young or nulliparous women, by race.
- 2) Quantify the availability of same-day IUD insertion across Ohio.
- 3) Describe and analyze the reasons stated for lack of IUD provision or same-day insertion.

Specific Hypotheses

1. Eighteen year-old women will be less likely to “succeed” at scheduling an IUD insertion
2. Nulliparous women will be less likely to “succeed” at scheduling an IUD insertion
3. White women will be less likely to “succeed” at scheduling an IUD insertion
4. The insertion appointment success rates of 18-year old or nulliparous women will vary by race, such that adolescent/nulliparous Black women are more likely to receive appointments than adolescent/nulliparous white women
5. Fewer practices will offer same-day insertion than multiple-visit insertion

Methods

The current study used mystery client methodology, also commonly called mystery shopper, mystery caller, or audit study. Audit studies can be a powerful way to document service providers' practices, rather than relying solely on self-reports of attitudes or behaviors. An analysis of changing sexual and reproductive health guidelines and strategies for improving care identified mystery client studies as an effective way to determine the actual practices of providers (Hardee, Janowitz, Stanback, & Villinski, 1998). Early international studies applied the mystery client method to investigate family planning services provision by sending mystery clients to a family planning clinic, and interviewing them about their experiences afterwards (Huntington, Lettenmaier, & Obeng-Quaidoo, 1990; Schuler, McIntosh, Goldstein, & Pande, 1985). Mystery client methodology has also been employed to test access to emergency contraception and Medicaid coverage of abortion (Bell, Camacho, & Velasquez, 2014; Bennett, Petraitis, D'Anella, & Marcella, 2003; Dennis & Blanchard, 2012). The merits of this method include unobtrusive observation of conditions exactly as they occur, with little risk of reporting bias (Huntington & Schuler, 1993; Rhodes, 2011). This study will use a methodology similar to that used in the studies of Medicaid discrimination, in which practices were called to test for bias in scheduling appointments. To our knowledge, this was the first study to apply this method to IUD provision practices in the United States.

Linguistic profiling is the phenomenon in which listeners infer the race of a speaker based on the way their speech sounds, and consequently shift their perspective of the speaker, potentially engaging in racial bias. Audit studies, also commonly referred to as “mystery client” or “mystery shopper” studies, have been used to detect racial discrimination, often in arenas such as car or home sales, and home insurance (Ayres & Siegelman, 1995; Galster & Godfrey, 2005; Wissoker, Zimmerman, & Galster, 1997; Yinger, 1986). They have also been employed in the arena of health care, testing whether uninsured or publicly insured callers have more difficulty making appointments at clinics or ambulatory care centers than privately-insured callers (Asplin et al., 2005; Bisgaier & Rhodes, 2011; The Medicaid Access Study Group, 1994).

Linguistic profiling can work by activating either the explicit or implicit biases of the person on the telephone. The Kirwan Institute for the Study of Race and Ethnicity at the Ohio State University defines implicit bias as “the attitudes or stereotypes that affect our understanding, actions, and decisions... (which) are activated involuntarily and without an individual’s awareness or intentional control” (“Understanding Implicit Bias,” 2015). While implicit bias has been studied in a wide range of fields, some research has focused on the role of implicit bias specifically in the provision of health care.

Researchers have documented the presence of implicit racial/ethnic biases among health care providers, who tend to show an implicit pro-white, anti-Black and Latinx bias (Blair et al., 2013; Sabin, Nosek, Greenwald, & Rivara, 2009). A systematic review of implicit health care providers’ racial/ethnic biases and their relationship with patients’ health care outcomes found similar levels of racial/ethnic biases among health care professionals as

the general population (low to moderate); specifically, providers associated Black and Latinx patients with noncompliance and risky behavior (Hall et al., 2015). The review found mixed results on the associations between implicit bias and health outcomes, with some studies reporting significant results and others nonsignificant. Overall, associations were strongest in the realm of patient-provider interactions—pro-white bias was associated with negative patient-provider experiences for Black patients (Hall et al., 2015). A recent study with specific relevance to the current study used audit methodology to test bias among counseling professionals—callers used white and Black racially-coded names in voicemails soliciting care with counselors and psychologists. Although there was no significant difference in callback rate between groups, perceived-white callers received significantly more callbacks which encouraged care-seeking (i.e. offering an appointment) as compared to perceived-Black callers (Shin, Smith, Welch, & Ezeofor, 2016). Therefore, we expected the use of audit study methodology to activate office staff's implicit biases. Implicit bias could exist with regards to age and parity as well as race. In this study, we also thought it possible that staff people would express such bias explicitly rather than implicitly. Anecdotal reports of patient experiences at obstetrician-gynecology practices in Ohio suggested that staff people were willing to disclose age and parity-based reasons for patient eligibility, such as “you cannot get an IUD because you have not given birth.” Of course, the audit study methodology still allows the possibility of implicit bias influencing staff willingness to schedule an appointment to adolescent or nulliparous women, particularly as these variables interact with race.

Study Setting

Research assistants (RAs) and I conducted data collection by calling obstetrician-gynecology offices across the state of Ohio. RAs placed calls from Columbus, Cleveland, and Cambridge, Ohio, from June-September 2017.

Study Design

We used a mystery client approach to test scheduling bias in IUD insertion appointments at obstetrician-gynecology practices in the state of Ohio. Our team of research assistants (RAs) called a random subset of practices and, following a script, determined both whether same-day IUD insertion was available, and whether office staff willingness to schedule IUD insertion appointments for women varied by the perceived age, parity or race of the caller. Practices were randomly sampled to follow a balanced 3x2 factorial design, whereby practices are assigned to one of two caller conditions: (1) age (18 vs. 30 years of age); (2) parity (nulliparous vs. parity of one); and (3) race (white vs. Black).

Recruiting and Training Research Assistants

I recruited five RAs between May-June 2017 to assist with data collection. Four of the RAs were undergraduate students, and one was a recent graduate of OSU. Two RAs identified as Black; they completed only calls in which the assigned caller race was Black. Three RAs identified as white; they completed only calls in which the assigned caller race was white. One RA was an undergraduate Summer Research Opportunities (SROP) student in residence at Ohio State during June-July 2017 and under the supervision of Dr. Gallo; another was a recent graduate of a Bachelor's program at Ohio State, recruited through Dr. Smooth. Both of these students were trained in late May. The

remaining three RAs were recruited through a posting sent out to the Women's, Gender & Sexuality Studies undergraduate listserv, soliciting volunteer help on a summer research project. These students were trained in late June.

I met with each RA to review the IRB-approved protocol, the call script, and the standard operating procedure. RAs were asked to practice reading through the call script on their own time, and to make practice calls with friends or family. RAs also completed Ohio State's Institutional Review Board requirements: the human subjects research training course offered through the Collaborative Institutional Training Initiative (CITI), and the Conflict of Interest disclosure. We held weekly group meetings to review the call process together; each RA's first call was made in one of these group meetings to allow them to ask questions and receive group feedback.

Study Population

The medical board of Ohio keeps no official record of individual obstetrician-gynecology practices. Instead, they maintain a publicly-available list of board-certified individual physicians with an active medical license in the state of Ohio. We accessed the version of this list most recently updated in March of 2017 (N=48,193). Based on expert consultation with a local physician who provides sexual/reproductive health care, we built a sampling frame based on the assumption that doctors who primarily identified as obstetrician-gynecologists would indicate that as their primary specialty (out of a total list of 48,193 names, 276 did not indicate any specialty, 45 indicated "other" and 258 indicated "unspecified"). Therefore, we first included all names from the list who indicated obstetrics (N=16), gynecology (N=163), or obstetrics & gynecology (N=1497)

as their primary specialty. We then included only physicians with a listed address in the state of Ohio (N=1519) or one of its bordering states (IN (N=13), KY (N=40), MI (N=34), PA (N=35), WV (N=30)). We included bordering states with the rationale that physicians may reside in a bordering state but practice across state lines (for example, physicians living in certain areas of Kentucky or Indiana might reasonably practice in Cincinnati). However, practices outside of Ohio were not eligible for study inclusion (see Sampling Procedures section for more detail on calling procedures). These inclusion criteria resulted in a final sample of 1676 names: board-certified physicians with an active medical license in Ohio and a self-reported address in Ohio or a bordering state, and with a self-reported primary specialty of obstetrics, gynecology, or obstetrics & gynecology (Table 3).

Table 3. Final sampling frame demographics (N=1676)

	No.	(%)
Specialty		
Obstetrics	16	0.95
Gynecology	163	9.73
Obstetrics & Gynecology	1497	89.32
State of Residence		
Ohio	1519	90.63
Indiana	13	0.78
Kentucky	40	2.39
Michigan	34	2.03
Pennsylvania	35	2.09
West Virginia	30	1.79

Data Collection

Developing a call script

Eight scripts were developed, one for each possible combination of the age, race and parity conditions (Table 4). All scripts contained standardized language which varied only in the name used and to express age and parity. The call script needed to clearly convey information on the caller's age, parity, and race. Age and parity were explicitly mentioned (i.e. "I just turned 18 and I really want to get on an effective birth control method. I already have one kid and I don't want to get pregnant again."). Race was indicated both through auditory cues (linguistic profiling) and racially-coded names. Census data on surnames revealed Yoder and Washington to be the most commonly white and Black names, respectively (US Census Bureau, 2016). For reference, 97.8% of census respondents with the surname Yoder identified as white, and 87.5% of respondents with the surname Washington identified as Black. Analysis of a dataset of all children born in the state of California from 1960-2000 determined the "whitest" and "blackest" first names to be Molly and Imani, respectively (Fryer & Levitt, 2003). By hiring Black RAs to make Black calls and white RAs to make white calls, we hoped that linguistic profiling would work in tandem with racially coded names.

The script was developed so that callers would immediately disclose name, age and parity, and probe for information on same-day insertion. We chose to disclose all identity-related information during the caller's first opportunity to speak, in order to ensure that all staffers with whom we interacted would receive the same information. RAs ended the call without initiating scheduling; the script allowed for multiple ways to

do so, depending on the call outcome. Options for ending the call included stating that the caller wanted to try to get an appointment somewhere else sooner, that the caller wanted to try to get an appointment somewhere else where they could receive a same-day insertion, or that the caller needed to check their calendar and call back. The script also included information to respond to potential inquiries about information such as current contraceptive use, gynecological history, insurance information, date of birth, etc. The additional information on the script evolved as we began making calls; each time an RA was asked a question that we did not have a standard response to (i.e. “what is your middle initial?”) their response was recorded in the script as our new standard response to that question, and all team members were updated on the change. When questions were asked that RAs could not easily answer (such as “what is your address?”), we worked together as a team to create a standard response that would then be used by all in the future. We also consulted with Ohio State professors and a local physician during script development.

Table 4. Script Conditions

Scenario	Age	Parity	Race
1	18	0	White
2	18	1	White
3	30	0	White
4	30	1	White
5	18	0	Black
6	18	1	Black
7	30	0	Black
8	30	1	Black

Outcome Coding

Call outcomes were classified into four categories : 1) “successful attempt” (staff initiates scheduling for insertion or same-day consult plus insertion), 2) “unsuccessful attempt” (staff refuses to schedule insertion or consult), 3) “consult required” (staff assumes patient is eligible for insertion, but the practice requires a consult on a separate day), 4) “eligibility unsure/consult recommended” (staff expresses uncertainty about patient eligibility and recommends scheduling a consult to defer to the physician).

An “unsuccessful attempt” included any instance in which the caller was refused an appointment outright (not even offered a consultation). Our outcome of interest in this category was scheduling refusals specifically due to identity characteristics (e.g., a practice does not insert IUDs on nulliparous women.) Therefore, we excluded from the analysis unsuccessful attempts that were due to general circumstances and not specifically relevant to IUD insertion (e.g., if the practice was not accepting new patients).

The difference between “consult required” and “eligibility unsure” is that “consult required” covered any situation in which staff said that a separate-day consult is required for all patients seeking an IUD. This means that the doctor may be willing to insert, but two appointments are necessary. In “eligibility unsure”, staff may say something similar to the following: “I’m not sure whether we insert IUDs in women who haven’t given birth, but I can schedule you a consult with the doctor and they can let you know.” This category included both outcomes in which the staff person was unsure of whether the

caller was eligible for an IUD at all, and in which the staff person was unsure of whether the physician performed same-day insertions.

RAs recorded open-ended, descriptive notes about their interactions with office staff, including justifications offered for scheduling protocols.

Data Storage and Editing

All documents related to data collection were stored in a BuckeyeBox folder, accessibly only to the RAs and me. Buckeyebox is approved for the storage of public, private and internal data; the data stored for this project did not meet the exception criteria disqualifying data from storage in BuckeyeBox.³ All editing of data collection spreadsheets was completed in Microsoft Excel Online, and no versions of a data collection sheet were downloaded to any personal devices.

Sampling Procedures

Because we had a list of individual physicians' names, rather than a list of medical practices, we do not know the total number of practices in Ohio. Therefore, taking a sample of names from the list and calling the practices associated with those names could have yielded a wide range of potential final sample sizes. In order to better control the final sample size, we used systematic sampling to build the final sample throughout the data collection process. Our "Nth" number, 6, was chosen by a random number generator. Each RA started at a different point in the list, and sampled every 6th name. Physicians themselves were sampled from the list, despite the fact that the practice

³ Data types disqualified from BuckeyeBox storage: SSN, driver's license number, credit card number, HIPAA-protected information, International Traffic in Arms Regulations (ITAR), Export Administration Regulations (EAR), and Controlled Unclassified Information (CUI)

was the unit of analysis. Therefore, each name that sampled was investigated, and every practice associated with that name was called.

In order to preserve a relatively equal amount of calls in each scenario, RAs proceeded numerically through the scenarios as they called. Each white caller started with scenario 1 and each Black caller started with scenario 5. If the results for one physician yielded multiple practice locations, each one was to be called with a different scenario (e.g., in the case of a physician with three practices, the first practice could have been assigned scenario 2 with subsequent ones assigned scenario 3 and scenario 4).

When sampling a name from the list, three options existed based on the results of a web search of that name. First, that clear, verifiable results were found online for that doctor, resulting in the associated practices being called, and data collected and entered. Second, that unclear or non-verifiable results were found (e.g., only a home address and telephone number, results indicating that the physician does not practice in Ohio, or results on an information-aggregating site that a doctor practices at a specific location, but they are not listed on the staff page of that location's website). These names were to be entered into a "not called" form. Third, if an RA looked up a physician but was simply unsure about the results, she could enter that physician into an "unsure" form. In practice, the "unsure" form was rarely used; as RAs encountered questions about their results, they brought them to my attention and I helped them resolve uncertainties and properly categorize the entry.

Statistical Analysis

Associations between call outcome and the variables age, race, parity and urban/rural status were evaluated using logistic regression. First, we used multinomial logistic regression to test for associations between any identity variable and any result category.

Next, we dichotomized the outcome variable to evaluate a specific outcome: same-day insertion appointment. Same-day was defined as a result of “successful attempt,” and all other results were considered unsuccessful. We calculated frequencies of both any appointment and same-day appointment offered, stratified by identity category. We used bivariable logistic regression with Firth’s bias correction to account for rare events to separately test associations between age, race, parity, and same-day insertion access.

Results

Sampling Frame & Analysis Population

A total of 883 physician names were randomly drawn from the sampling frame. From the total names sampled, 471 did not fit our eligibility criteria for calling, 16 were classified as unsure eligibility, and 396 calls were completed (Figure 1). Based on our inclusion criteria for analysis, 340 calls were included as the study analysis population (Table 5).

Table 5. Sociodemographic characteristics of callers' assigned identities, and practice locations (N=340)

	No.	%
Age of caller		
18	172	50.59
30	168	49.41
Race of caller		
White	237	69.71
Black	103	30.29
Parity of caller		
0	179	52.65
1	161	47.35
Urban/Rural Status of practice called		
Urban	288	84.71
Rural	52	15.29

Figure 1. Flowchart of total sample, inclusion/exclusion criteria, and final analysis population

Results of Statistical Analyses

Of the 340 calls included in the analysis, almost all (92.35%) resulted in a required consult (Table 6). Multinomial logistic regression models for associations between each caller variable and each outcome variable produced statistically significant results only for parity, which was significantly associated with the probability of a same-day insertion ($p=0.019$) (Table 7). In a multivariable model adjusting for age, race, parity, and rural/urban status, the association between parity and same-day insertion remained significant ($p=0.018$), and no other significant associations were detected (Table 7).

Table 6. Call Outcomes Among Practices Offering IUDs (N=340)

Result	No.	%
Successful attempt	17	5
Unsuccessful attempt	0	0
Consult required	314	92.35
Eligibility unsure/consult recommended	9	2.65
Total	340	100

Table 7. Associations between call characteristics and any scheduling outcome¹

Variables	Successful Attempt		Eligibility Unsure	
	β (95% CI)	Adj. β^2 (95% CI)	β (95% CI)	Adj. β^2 (95% CI)
Age of caller				
18	Ref	Ref	Ref	Ref
30	0.13 (-0.85, 1.11)	0.16 (-0.83, 1.15)	-0.68 (-2.08, 0.72)	-0.73 (-2.15, 0.69)
Race of caller				
White	Ref	Ref	Ref	Ref
Black	0.75 (-2.02, 0.52)	-0.76 (-2.05, 0.52)	0.46 (-2.05, 1.13)	-0.35 (-1.96, 1.25)
Parity of caller				
0	Ref	Ref	Ref	Ref
1	1.37 (0.23, 2.51)	1.37 (0.23, 2.52)	0.88 (-0.52, 2.29)	0.81 (-0.59, 2.23)
Urban/Rural status of practice				
Urban	Ref	Ref	Ref	Ref
Rural	-0.03 (-0.40, 0.34)	-0.09 (-0.47, 0.29)	0.25 (-0.11, 0.61)	0.25 (-0.13, 0.62)

¹required consult outcome used as reference group

²Adjusted for age, race, parity, and urban/rural status

After dichotomizing the outcome variable into same-day and non-same-day appointments, we calculated frequencies of appointment outcomes by age, race, parity and rural/urban status (Table 8). In bivariable logistic regression models testing associations between caller variables and the dichotomized “same-day” outcome variable, parity was significantly associated with higher odds of a same-day insertion appointment (Table 9). However, the wide confidence interval indicates that the estimate was imprecise (OR=3.55, 95% CI=1.19-10.53).

In the original dataset, nine calls were coded as “eligibility unsure.” In a sensitivity analysis, six of the nine were re-coded as either “successful” (n=2) or “consult required” (n=4). For those re-coded as successful RAs had recorded notes which indicated staff uncertainty but hinted at the possibility of same-day insertion. One caller

noted that the staff person was not sure and said that same-day insertion depended on the provider; the other reported that same-day insertion depended on the patient, but that they needed a pap smear first and that it usually took multiple appointments; in this case, a required consult outcome seems more likely, but a same-day insertion outcome is still possible. In the four calls re-coded as consult required, reported notes included a staff person who usually works at another office but thought that multiple appointments were usually required, a staff person who was unclear on whether the IUD was an option and emphasized the importance of a consult, a staff member who said the patient would need to talk to the provider but noted that they usually inserted while patients are menstruating, and a staff person who reported that insurance could be certified and the IUD ordered ahead of time, but the patient would still need to establish care with the physician. The remaining three were unable to be re-coded as the notes either stated only that the staff person was unsure (n=2), or there were no notes (n=1). Re-running the logistic regressions with the newly-categorized variables produced similar results: no significant associations other than parity, which had a stronger association (OR=4.13, p=0.01), but a larger 95% confidence interval for the odds ratio (95% CI=1.41, 12.06). In the fully-adjusted model, parity remained the only variable significantly associated with same-day insertion (OR=4.05, p=0.01, 95% CI=1.38, 11.83).

Table 8. Frequencies of successful same-day appointment

	Unsuccessful Attempt		Successful Attempt		Total	
	N	%	N	%	N	%
Age						
18	164	95.35	8	4.65	172	100
30	159	94.64	9	5.36	168	100
Total	323	95.00	17	5.00	340	100
Race						
White	223	94.09	14	5.91	237	100
Black	100	97.09	3	2.91	103	100
Total	323	95.00	17	5.00	340	100
Parity						
0	175	97.77	4	2.23	179	100
1	148	91.93	13	8.07	161	100
Total	323	95.00	17	5.00	340	100

Table 9. Odds ratios of the association between age, race, parity, urban status, and success at scheduling same-day IUD insertion¹

Variable	OR (95% CI)	Adj. ² OR (95% CI)
Age of caller		
18	Ref	Ref
30	1.15 (0.45, 2.98)	1.46 (0.50, 4.22)
Race of caller		
White	Ref	Ref
Black	0.54 (0.16, 1.77)	0.92 (0.20, 4.16)
Parity of caller		
0	Ref	Ref
1	3.55 (1.19, 10.53)	3.56 (1.20, 10.60)
Urban/Rural Status of practice called		
Urban	Ref	Ref
Rural	1.00 (0.70, 1.40)	0.93 (0.65, 1.33)

¹Boldface indicates statistical significance at p<0.05 level²Adjusted for age, race, age*race interaction, parity, and urban/rural status of practice

Results from Analysis of Field Notes

RA notes provide a sense of the institutional reasoning behind IUD insertion processes. The most frequently reported justification for a multiple-appointment protocol was the need to verify insurance coverage or order the device directly through the patient's insurance company. Even when callers reported that they had already checked with their insurance, office staff responded that they needed to verify the benefits in house. A substantial number of callers also reported a requirement for a "new patient" visit in which they establish care at the practice, before accessing insertion. One staff member noted that the new patient visit was required before a patient could even discuss contraceptive options with the physician. Some staff members cast this visit as a yearly "well-woman" examination including a pap smear, while others emphasized the doctor's preference for general contraceptive counseling before deciding which method is right for the patient. Only a few callers noted a mention of STI testing as a timeline-determinative part of the protocol. Most staff members reported a 2-week interval between initial consultation and insertion appointment, with most timelines falling between 1-4 weeks. One outlying practice reported a 6-8 week interval between consultation and insertion.

RA notes gave the impression that most practices need to order the device after eligibility has been established in a consult. Typically, this occurs in practices that do not insert a high quantity of IUDs; financially it is a risky investment for them to keep IUDs in stock, given that they may not insert them all before expiration. However, one staff member reported that their practice did "a lot of IUDs," yet they still required a separate consultation appointment. Although most callers did not describe calls in which office

staff passed judgement on IUDs, a few reported instances in which staff members responded brusquely or condescendingly to patient requests for IUDs. One caller was told “we can’t just place an IUD inside of you.” Another practice removes IUDs but does not insert them, due to the doctor’s personal beliefs. Among the few reports of physician preference, one was positively-oriented toward IUDs, although without much regard for patient autonomy; the staff person said that the physician “really likes IUDs and pushes for them.”

One practice required a blood pregnancy test on a separate day from insertion. (They did not specify how they would account for the possibility of the patient conceiving during the interval between the blood test and the separate insertion appointment.) Another staff member reported that the physician in question could prescribe an IUD but not insert one, and therefore the patient could take the prescription to another clinic. One practice had a three-visit protocol, with a consultation, a separate STI testing appointment, and then an insertion appointment. Another practice required three appointments, including a check-up both while menstruating and not, and a pap smear. Many staff members stated that the insertion appointment would be made while the patient is menstruating (one specifically required that the appointment be on day 5 of a patient’s menstrual cycle), indicating an awareness that insertion during menstruation may be less painful. However, insertion when a patient is not menstruating is not contraindicated.

Catholic facilities are prohibited from dispensing contraception, including IUDs, and most Catholic facilities we called reported that they did not offer IUDs. However,

one reported that a new patient could establish care at the practice, then order her own IUD from a specialty pharmacy and bring it in to the physician who could then insert it; the entire process would take about two months.

One caller noted being told specifically that the office discourages Mirena in nulliparous patients, although they were still willing to schedule her for a consultation. One caller was told that they could not get a same-day insertion because the physician only inserted IUDs on certain days and needed access to a procedure room to do it.

At the same time, many of the office staff members at practices that either did not offer IUDs or did not offer same-day insertion proactively offered to help callers access IUD insertion. Multiple callers reported receiving referrals to other doctors or practices nearby, at which they were more likely to be able to access IUD care. The willingness of staff members to offer their time and expertise to women who, they must have assumed, would then take their business elsewhere, indicated some professional support for IUD access among these results.

Discussion

Overall, the barriers identified in this study point to potential sites of intervention to increase access to IUDs. This project is grounded in the ideal of universal contraception access, universal meaning not only that everyone has access to contraception, but also that everyone has access to the full universe of methods. Universal contraception access is a feminist public health goal, because it is a vision that includes both huge population health implications and the prioritization of bodily and reproductive autonomy. Same-day IUD insertion (or same-day uptake of any contraceptive method) is a critical part of universal contraception access, in that it ensures that patients will be able to initiate the methods they choose. Furthermore, same-day IUD access eliminates the risk of unintended pregnancy in the interim between a consultation and an insertion appointment.

The primary finding of interest from this study is the near-complete lack of availability of same-day IUD insertion at obstetrician-gynecology practices in Ohio. Only five percent of callers were able to initiate scheduling for a consultation with the possibility of same-day insertion; 92.35 percent of calls were met with a requirement for a separate consultation appointment, while 2.65 percent encountered staff members who were unsure of the scheduling protocol. Our findings echo those in a study of providers participating in a California state family planning program, 93% of which required

multiple visits for IUD insertion (Harper et al., 2012). However, our finding is in stark comparison with a study evaluating LARC access in Colorado and Iowa, in which 36% of providers offered same-day IUD insertion (M. Antonia Biggs, Arons, Turner, & Brindis, 2013). That study surveyed family planning clinics that had received increased funding tied to specific aims, one of which was increasing LARC access. Clinics under those conditions may be more likely to offer same-day insertion than private obstetrician-gynecology practices. Given the formidable barrier posed by multiple appointment protocols, these results should prompt careful examination of the process of providing an IUD insertion.

In our study, qualitative analysis of descriptive notes indicate that a primary reason for multiple appointment requirements was needing to verify that a patient's insurance will cover the IUD or needing to order the device through the insurance company. This insurance barrier is significant because it is endemic to our health system. In a highly-fragmented insurance landscape, with insurance companies offering variable levels of coverage, providers (and patients) are beholden to insurers, whose policies determine access to care. Per the Affordable Care Act, IUDs are required to be covered without cost-sharing by all private insurance plans in the US. Under these rules, requiring a patient appointment to verify that their insurance plan covers IUD services (including education and counseling, the device itself, insertion and removal) seems unnecessary. However, as recently as 2016, research has reported on insurance practices that do not ensure contraception access to the full extent required by the law (National Women's Law Center, 2015; Politi et al., 2016). Therefore, it seems possible that practices are still

verifying patient insurance because insurance companies are not yet fully compliant with the guidelines.

However, even if all insurance companies provided no-cost IUD coverage, many practices would still be ordering the device after the patient is deemed eligible at the consultation. This particular problem would not necessarily be solved with a more streamlined health insurance system. Currently, there are two ways in which insurance can provide coverage for IUDs: as a medical benefit or as a pharmacy benefit (National Health Law Program, National Women's Law Center, National Family Planning and Reproductive Health Association, American College of Obstetricians & Gynecologists, & Bixby Center for Global Reproductive Health, 2015). In the medical benefit model, sometimes referred to as "buy and bill," providers buy IUDs directly from the manufacturer, and bill a patient's insurance at time of insertion (National Health Law Program et al., 2015). In the pharmacy benefit model, a pharmacy or specialty distributor bills the patient's insurance for the device, while the provider bills the insurance separately for related services (insertion, removal) (National Health Law Program et al., 2015).

Obstetrics-gynecology practices that do not insert many IUDs simply may not find it financially viable to stock enough IUDs to have on hand upon patient request. IUDs are expensive, and if providers order them only to have them expire before any patient requests an insertion, their business incurs a loss. This is an access issue which is currently ameliorated by the presence of family-planning focused clinics, which see a higher proportion of LARC-seeking patients and are thus able to stock IUDs in bulk. For

example, two staff members (one practice did not offer IUDs at all, the other required a separate consultation) recommended that the caller seek care at a Planned Parenthood. A potential political issue at stake in this situation is the frequent argument over whether other nearby providers will be able to absorb the patient burden of Planned Parenthood clinics, should they close after government defunding. While politicians and advocates in favor of defunding argue that other providers will be able to serve Planned Parenthood's patient population, our study indicates that obstetrician-gynecology practices in Ohio are not currently equipped to provide IUDs in a timely manner.

Another frequently-cited reason for a separate consult was a the requirement that our callers have a new patient appointment to establish care. Consultation with an expert physician indicated that some potential reasons for the separate new patient requirement. First, providers may not be able to schedule a visit for the length of time required for both a new patient appointment and a procedure appointment (usually 30 minutes each). She also indicated that providers might feel uncomfortable inserting an IUD in a patient they do not know well. This report fits with qualitative findings from the study in Colorado and Iowa, in which providers reported not having enough time to counsel for LARC methods before insertion as a frequent reason for multiple visit protocols (M. Antonia Biggs et al., 2013).

Our finding that few callers noted STI testing as a reason for multiple-visit protocols was surprising, given prior evidence that STI testing is a factor in requiring multiple visits (M. Antonia Biggs et al., 2013). Providers have also reported reluctance to insert LARC methods same-day due to the possibility that patients may not be fully

educated about the method and will subsequently want to have the (expensive) device removed (M. Antonia Biggs et al., 2013). Unsurprisingly, no staff person told our callers that the physician did not want to risk wasting money and resources on them.

Limitations

The small cell sizes in outcomes other than required consult limited the precision/power of our statistical tests. In addition, the small sample sizes of both Black callers compared to white callers and rural calls compared to urban calls decreased the potential power of our estimates of the effect of race and rural/urban status. In our use of audit study methodology to test for racial bias, we relied on racially-coded names and auditory cues to convey that the caller was Black. However, it is possible that these cues were not apparent to or salient for the staff people receiving the call. Finally, the 16 names sampled and classified as “unsure” should have been called, and there is a possibility that these physicians practiced in environments that are systematically different than the ones we did contact.

Directions for future research

Regarding our investigation of identity-based bias, the results were somewhat more promising in terms of IUD access. Our study did find a significant association between parity and same-day insertion “success,” such that parous women were more likely to have access to a same-day insertion appointment. However, due to the wide confidence interval, this finding should be confirmed by future studies.

We also found no statistically significant evidence of age or race-based bias in offering appointments for IUD insertion. However, we caution against taking this finding

as proof that bias does not exist at any point in the clinical encounter. This study only tested the presence of bias at one point, the interaction with a scheduling staff person. The fact that potential patients do not experience the initial intake call differentially based on race or age is not a guarantee that no other part of the care process is affected by these variables. It is possible that bias might still exist at other parts of the clinical process, for example, during the physician-patient encounter. Vignette-based studies have been used to detect physician biases by randomly assigning physicians to read or watch patient vignettes and make evaluations and treatment recommendations, with the vignettes varying on the variables under study, (e.g. race, age, immigration or insurance status). A vignette-based study of racial/ethnic implicit bias found that physicians' levels of pro-white implicit bias were associated with failure to diagnose and treat symptoms of heart disease (Green et al., 2007).

Indeed, the clinical encounter is a situation that is ripe for the influence of implicit bias; physicians may be informed by their implicit biases when weighing what factors make a patient a “good” candidate for a particular contraceptive method. Again, Dundas Todd's findings that doctors labeled poor women of color “inept contraceptors” and recommended they use the IUD is instructive here (Todd, 2008). The evaluation of certain women as “inept contraceptors” mirrors the implicit bias research findings in which doctors are more likely to view Black and Latinx patients as “noncompliant” (Hall et al., 2015). A vignette-based study exposed health care providers to standardized videos of contraception-seeking patients which varied on race/ethnicity (white, Black, Latina), socioeconomic status (low or high), and gynecological history (parity, STI, PID), and

evaluated differences in contraceptive recommendations offered (Dehlendorf et al., 2010). Providers were more likely to recommend IUDs to low-SES Black or Latina women than to low-SES white women, and also more likely to recommend IUDs to high-SES white women than to low-SES white women (Dehlendorf et al., 2010).

A recent qualitative study interviewing 38 Black and Latina women about their experiences with contraceptive counseling found that 71% perceived what the researchers termed “implicit pressure”: counseling that, while not overtly coercive, seemed to push them in the direction of either contraception generally, or a specific method (Gomez & Wapman, 2017). Another study in which women were given a questionnaire about their health care experiences revealed that low-income Black and Latina women had significantly greater odds than white women of being advised to limit their childbearing (Downing, LaVeist, & Bullock, 2007). An analysis of National Survey of Family Growth (NSFG) data found that Black and Hispanic women were more likely than white women to have received contraceptive counseling, although they were not more likely to have received a contraceptive prescription or method (Borrero, Schwarz, Creinin, & Ibrahim, 2009). Black and white women were equally likely to receive sterilization counseling, while Hispanic women were more likely to receive sterilization counseling (Borrero et al., 2009).

Given the wide breadth of evidence that implicit (and explicit) bias manifests in the clinical encounter, we recommend that future studies investigate age, race and parity-based bias in IUD counseling and provision.

Conclusion

Of the 340 calls included for analysis, 92.35% obstetrician-gynecology practices required a separate consultation appointment. Logistic regression indicated a significant positive relationship between parity and access to same-day insertion; however, the wide confidence interval indicates that the risk estimate was imprecise. The widespread lack of same-day insertion availability indicates that contraception-seeking patients in Ohio face incomplete access to care, and that these gaps in access are the most severe for those with the fewest resources, for whom multiple appointments may pose an insurmountable barrier. Insurance practices and new patient protocols appeared as salient factors influencing the availability of same-day insertion. Our results support the need for further research into the reasons for lack of same-day insertion availability, particularly insurance policies and practices which may complicate the process of IUD access. Furthermore, future studies should investigate the presence of bias at other points in the clinical process, particularly the physician-patient encounter.

Access to contraception is a fundamental prerequisite for reproductive autonomy, and IUDs are an important component in the contraceptive method mix. Access to any contraceptive method ought to be determined by patient preference and medical eligibility, rather than financial or ideological priorities. This study provides evidence that women may not be able to determine whether they can access the contraceptive

method they prefer. In order to ameliorate these circumstances, policymakers and government agencies ought to introduce, support and implement policies which facilitate access to contraception on demand; for example, monitoring and enforcing the contraceptive coverage guidelines under the Affordable Care Act, or increasing funding to Title X family planning clinics. Patients and advocates could focus campaigns on institutional factors; for example, pressing physician offices to offer benefit verification over the phone, or for changes in new visit protocols that would better serve the needs of patients. A more just contraceptive landscape would include accessible same-day IUD insertion (alongside same-day uptake of any other method), as a foundational part of prioritizing patient autonomy.

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