

**Public Perceptions of Recommended Contraception for Women of Different Races and
Socioeconomic Statuses: An Experimental Vignette Study**

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ABSTRACT

Public health officials have labeled long-acting reversible contraceptives (LARCs) as the first-line option for populations “at risk” of experiencing an unintended pregnancy. However, Reproductive Justice advocates criticize the prioritization of LARCs as contributing to negative stereotypes about marginalized women’s sexual activities. In response, this study questions the U.S. general public’s beliefs about likely contraceptive recommendations for women of different races and socioeconomic statuses (SESs). Though studies have examined such biases from the perspective of physicians, few, if any, investigate these in the general public. Using theory grounded in historical contraceptive policies, cultural narratives, and neoliberal ideologies, this study employs an experimental vignette survey to assess cultural perceptions and contraceptive recommendations for women across race and SES (n=695). The results reveal that a woman’s SES significantly predicts the contraceptive recommendation she receives, where low-SES women are more likely to receive recommendations for the IUD and high-SES women are more likely to receive recommendations for the oral contraceptive pill (OCP). This study advances research on which groups are granted the most (and least) reproductive autonomy. Additionally, it highlights the extent that stereotypical ideas of reproduction exist outside of health care institutions and considers how these ideas influence public health policies.

Keywords: experimental design, intersectionality, reproductive justice, contraception, neoliberalism, cultural narratives, public health, long-acting reversible contraceptives (LARCs)

INTRODUCTION

Gynecologists, obstetricians, and pediatricians have labeled long-acting reversible contraceptives (LARCs) as the first-line option for populations “at-risk” of experiencing an unintended pregnancy (Gubrium et al. 2016; Higgins 2014; Mann and Grzanka 2018; Sundstrom and Delay 2020; Winters and McLaughlin 2020). At-risk refers to racially and economically marginalized women, including young, low-income White, Black and/or Latina women (Barcelos and Gubrium 2014; Ricketts, Klingler, and Schwalberg 2014).¹ Although LARCs are safe and effective, their usage is not widespread in at-risk populations. Scholars, activists, and potential LARC users attribute this lack of popularity in part to the history of reproductive coercion in the United States, a history that has contributed to stereotypical ideas about marginalized women’s sexualities (Gubrium et al. 2016; Higgins 2014; Meier et al. 2019). Stereotypes include the belief that marginalized women are not responsible enough to take a daily contraceptive pill (Kluchin 2009), are sexually promiscuous, and are overly reliant on welfare as a result of their promiscuity (Thomas 1997). Historical opinion has been that these women should be made to use restrictive contraception because of their apparent irresponsibility and promiscuity (Roberts 1997). Physician heralding of LARCs for at-risk women shows the continued influence these narratives have on contraceptive recommendations (Downing, LaVeist, and Bullock 2007; Gomez and Wapman 2017; Higgins, Kramer, and Ryder 2016).

In response to biased contraceptive practices, my study aimed to understand how the general public perceives recommended contraceptive use for marginalized women. I employed an experimental vignette study through which respondents provided contraceptive

¹ I use “marginalized” and “at-risk” interchangeably to refer to young, low-income/low-SES White, Black, and/or Latina women.

recommendations to characters that varied across race and socioeconomic status (SES). I hypothesized that the general public would be more likely to believe most people would recommend longer-acting and permanent contraceptives to a) low-SES women b) Black women, and c) Latina women in comparison to high-SES and/or White women. Understanding public perceptions of contraception revealed how widespread stereotypical ideas of marginalized women's sexualities are throughout the U.S. My study also granted insight into the (re)production of normative ideas of sexuality and how these ideas constrain the reproductive autonomy of marginalized women. Highlighting how the public perceives ideal contraceptive use better enables scholars to promote Reproductive Justice by tackling stereotypical narratives, thus expanding reproductive health liberty for marginalized women. It increases understanding of the influence narratives and beliefs have on public health recommendations, and vice versa. Finally, my study adds to the literature examining health inequality by investigating the different ways marginalized women's healthcare is recommended to be treated.

This paper begins with a review of the literature, including an examination of the history of contraception in the U.S., arguments for and against LARCs today, the factors that influence contraceptive decision making, and narratives around marginalized women's sexualities. The paper continues by explaining the theoretical foundations of the study, the methods used to develop the experimental survey, and the main findings. The paper concludes with a discussion of the significant findings and suggestions for future research.

LITERATURE REVIEW

Historical Background

Contraception in the United States was developed within the context of eugenicist practices, including targeted sterilization laws (Roberts 1997; Thomas 1998). These laws argued

that undesirable traits such as poverty were hereditary, so to circumvent their spread, “un-fit” women—i.e., immigrant, low-income, disabled, and minority women—ought to be sterilized (Gordon 2002; Kluchin 2009; Roberts 1997; Thomas 1998). Sterilization of these women responded to fears of increasing immigration and the decreasing birth rate of native-born, middle class White women (Gordon 2002; Kluchin 2009). Eugenacists accused White women of “race-suicide” by limiting their fertility and allowing the decimation of the White populace. In contrast to the treatment of women targeted for sterilization, eugenacists encouraged middle class White women to reproduce for the benefit of the nation (Gordon 2002; Kluchin 2009; Roberts 1997).

The 1950s and 1960s saw the development of highly effective forms of contraception, including the oral contraceptive pill (OCP) and the reintroduction of intrauterine devices (IUDs) (Watkins 2010). This development brought changes to U.S. eugenicist practices. Though U.S. eugenic ideology formally declined during World War II and the development of Nazi eugenics (Gordon 2002), the fear of a growing minority population in the United States enabled eugenicist beliefs to continue (Craig, Rucker, and Richeson 2018). Racial threat theory posits that adherence to modern eugenicist beliefs results in arguments for institutional sanctions, such as targeting sterilization and other contraceptives toward minority women, to curb the threat these women place on White American people (Eitle, D’Alessio, and Stolzenberg 2002). Consistent with residual eugenicist undercurrents, the OCP and the IUD were targeted toward different audiences. Women of all races and classes preferred the OCP. However, physicians and policymakers deemed middle- and upper-class White women as more responsible for their reproductive lives and more capable of taking daily contraception, so these women were the focus of the OCP’s promotion (Kluchin 2009; Watkins 2010). Low-income women and women of color were targets for the IUD given doubts about these women’s ability to remember to take

daily contraception. IUDs also gave physicians the power to insert and remove the device regardless of the women's desires (Kluchin 2009; Watkins 2010). Policymakers argued for expanding IUD use among immigrant, low-income, and women of color populations as a method of population control and to reduce welfare expenditures (Kluchin 2009; Thomas 1998; Watkins 2010). In targeting the OCP for middle-class White women and targeting IUDs for marginalized women, eugenicists and policymakers prioritized physician control over women's reproduction rather than women's ability to make their own reproductive decisions (Kluchin 2009).

Arguments for sterilization and IUD use among low-income women and women of color came to a head toward the end of the twentieth century. In 1990, the FDA approved Norplant, a long-acting, reversible contraceptive implant that lasted up to 5 years (Kluchin 2009; Thomas 1997, 1998; Watkins 2010). Local and national policymakers attempted to pass legislation that conditioned receipt of welfare on Norplant usage (Kluchin 2009; Thomas 1997, 1998; Watkins 2010). These proposals reinforced eugenicist ideas that marginalized women, specifically low-income Black women, were not able to control their fertility, that their poverty was a consequence of their fertility—which would cause further welfare dependency—and therefore the government had the right to control their reproduction (Collins 1990; Kluchin 2009; Thomas 1997). These controlling images (Collins 1990) enabled policymakers to frame infertility as a moral imperative for low-income women and women of color, with contraception and sterilization as the only way to reduce generational poverty in these communities.

While policymakers engaged in coercive contraceptive practices, middle-class White women fought for access to sterilization (Kluchin 2009). Many methods approved by the FDA during the mid-twentieth century had a range of side effects. The side effects of the pill included a heightened risk of blood clots, and for the IUD, side effects included death, miscarriages, and

pelvic infections (Gordon 2002; Kluchin 2009; Watkins 2010). Concerns surrounding the safety of temporary contraceptives and the effectiveness of methods such as condoms caused middle-class White women who no longer wanted to bear children to desire sterilization (Kluchin 2009). This culminated in the fight for contraceptive access in the 1970s in partnership with women's health movements (Gordon 2002). Though these movements were largely White and middle-class through the 1980s—and as such were concerned with contraceptive access and adverse health effects—women of color organizations arose and argued not only for access but also against coercive contraceptive practices (Gordon 2002; Roberts 1997).

The history of reproductive liberty in the U.S. is significant for contextualizing LARC promotion today and explains the expansion of individualistic concepts of poverty prevention, the regulation of women's sexuality, and the underuse of LARCs. It reveals the racialized and classed expectations around fertility, poverty, and contraception use that many health officials hold. Resistance against governmental reproductive encroachment exemplifies women's desires to control their fertility on their own terms and the necessity of ensuring that control.

Long-acting Reversible Contraceptives (LARCs) Today

Though use of long-acting reversible contraceptives decreased after the 1990s (Watkins 2010), their popularity with public health officials has risen. The prioritization of LARCs by physicians and policymakers is due to their over 99% efficacy rate, cost efficiency over time, and near impossibility for user error (Higgins 2014; Sundstrom and Delay 2020). Current LARCs include IUDs and the subdermal implant, both of which are reversible and can last up to 5 (subdermal implant) or 12 (IUD) years (Sundstrom and Delay 2020: 111-2). Given LARCs' ability to reduce unintended pregnancy, policymakers have promoted them as a way to improve the educational attainment and socioeconomic status (SES) of young, low-income women and

women of color, those deemed the most at-risk for unintended pregnancy (Barcelos and Gubrium 2014; Ricketts et al. 2014).

Many cite the Contraceptive CHOICE Project and the Colorado Family Planning Initiative (CFPI) as representing the success of LARCs (see Gomez, Fuentes, and Allina 2014; Ricketts et al. 2014; Sundstrom and Delay 2020). CHOICE (launched in 2007) was developed in response to the underuse of LARCs and to decrease unintended pregnancies in the St. Louis area. The program provided women with information about and access to contraceptive options of their choice at no cost, and it discovered that women would choose LARCs when cost and knowledge were no longer a factor (Secura et al. 2010). The CFPI (launched in 2009) sought to reduce barriers to LARCs for 15-24-year-old, low-income women (Ricketts et al. 2014). Not only did the initiative fulfill its goals of expanding LARC usage and decreasing fertility rates of these populations, but it also observed that high school graduation increased as a result (Ricketts et al. 2014). Both programs support the hypotheses that access to LARCs increases reproductive autonomy and decreases social inequality.

Arguments for LARCs exist on economic grounds as well. The indirect costs of unintended pregnancies in the U.S. are estimated at around \$9.6-12.6 billion per year (Trussell et al. 2013). Researchers have found that if just 10% of women aged 20-29 who are currently using a contraceptive method other than a LARC were to use a LARC, these costs would be reduced by \$436 million (Trussell et al. 2013). This finding lends additional support to LARC usage.

However, Reproductive Justice advocates have criticized arguments for prioritizing LARCs. Women of color activists developed the Reproductive Justice movement in response to the coercive policies and practices that reduced the reproductive autonomy of low-income women and women of color. The movement also developed in response to the way the Pro-Life

versus Pro-Choice movements that dominated the reproductive rights sphere ignored the experiences of these populations during the 1980s and 90s and, in many ways, continue to do so today (Luna and Luker 2013; Ross 2018). Loretta Ross (2018), one of the co-founders of the Reproductive Justice movement, outlines its core tenets as “(1) the right to have a child under the conditions of one’s choosing; (2) the right *not* [emphasis added] to have a child using birth control, abortion, or abstinence; and (3) the right to parent children in safe and healthy environments free from violence by individuals or the state” (290). Many have argued that prioritizing LARCs, especially during contraceptive counseling, works against these tenets by imparting onto women normative ideas of sexuality and reproductive control (Barcelos and Gubrium 2014; Bay-Cheng 2015; Gomez et al. 2014; Ray 2018).

Normative framing of sexuality emphasizes women’s personal responsibility and individual agency over their sexual and reproductive lives (Bay-Cheng 2015). It argues that women are socially obligated to take measures such as using contraception to prevent unintended pregnancy and its “negative” consequences, rather than considering the structural inequalities that cause such consequences (Bay-Cheng 2015; Littlejohn 2021). For example, unintended pregnancy has been associated with poor parental mental health and childhood outcomes, among other issues (Logan et al. 2007). Yet, these challenges also result from discrimination and inequitable opportunities that low-income women and women of color face in the United States (Conradt, Carter, and Crowell 2020). Normative framing prioritizes the individual actions that these women could take to relieve such challenges (such as using contraception to reduce their risk of unintended pregnancy) rather than advocating for changes to the structures that marginalize these women in the first place. By taking an individualistic approach and ignoring structural constraints, normative ideas incite “sexual blaming and shaming, particularly of girls

already marginalized by racial and socioeconomic injustices,” and render the societal contexts in which these women and girls exist relatively blameless (Bay-Cheng 2015: 280). Normative framing also prioritizes particular (middle-class, European American) ideas of sexuality: that women should delay childbearing until they are older, financially stable, and in a serious (presumably) heterosexual relationship (Geronimus 2003; Mann 2022).

A study analyzing the multiple domains through which LARCs are promoted provides supplemental support to the idea that LARCs are used to advance a normative, neoliberal sexual identity. The study revealed how LARCs’ promotion creates a dichotomy of women: those who use LARCs and are sexually responsible versus those who don’t use LARCs and are at risk because of their sexually risky behavior (Mann and Grzanka 2018). This dichotomy propagates cultural narratives of certain women’s irresponsibility while subversively denoting LARCs as the only way to combat negative narratives (Mann and Grzanka 2018).

Criticism of these ideals comes in conjunction with many people’s belief that the undifferentiated promotion of LARCs does not consider the history of reproductive coercion in the U.S., a history that makes many potential LARC users wary of a contraceptive method that relies on implantation and removal by a physician (Barcelos 2018; Gomez and Wapman 2017; Winters and McLaughlin 2020). During the early popularization of IUDs, physicians wielded their power to insert IUDs—often against a patient’s will—as a means of population control, subverting the sexual autonomy of marginalized women (Kluchin 2009). Disparaging women who do not use LARCs ignores this history and reduces their autonomy.

Promotion of LARCs frames unintended pregnancy as the cause of social inequality in the U.S. rather than its consequence (Barcelos and Gubrium 2014; Gomez et al. 2014; Watkins 2010; Winters and McLaughlin 2020). This is evident in how the CFPI sought to increase LARC

usage to improve the socioeconomic statuses of young, low-income women (Ricketts et al. 2014) and in how policymakers frame LARCs as a solution to large expenditures of tax-payer dollars on unintended pregnancies (Mann and Grzanka 2018; Trussell et al. 2013). The second view has faced criticism for its prioritization of economic concerns over the contraceptive autonomy and sexual health of women, given that LARCs—though effective at preventing pregnancy—do not guard against sexually transmitted infections (STIs) (Mann and Grzanka 2018). Rather than denoting LARCs as the best method for every woman, Reproductive Justice advocates believe that providers should advertise all contraceptives regardless of a patient’s demographics so women have more control over their reproduction (Gomez et al. 2014; Gubrium et al. 2016; Higgins 2014; Mann 2022; Meier et al. 2019)

Contraceptive Decision Making

Scholars have found that contraceptive preferences vary by racial and ethnic group and influence women’s comfort with using LARCs (Jackson et al. 2016). Compared to White women, when considering birth control methods, Black and Latina women emphasize not having to go to the doctor, only using the method when they are going to have sex, desiring protection against STIs, and preserving control over when to start and stop the method (Jackson et al. 2016). Their preferences are closely aligned with methods such as condoms and the pill, not with LARCs, and may be due to these women’s awareness of historical reproductive coercion (Jackson et al. 2016). These findings highlight the battle between what is promoted as the best contraceptive by physicians versus what potential users actually want.

Young women of color still face pressure to use LARCs despite contraceptive preferences varying by race. Scholars found that young women in general are more likely to receive biased contraceptive counseling from their providers (Downing et al. 2007; Gomez et al.

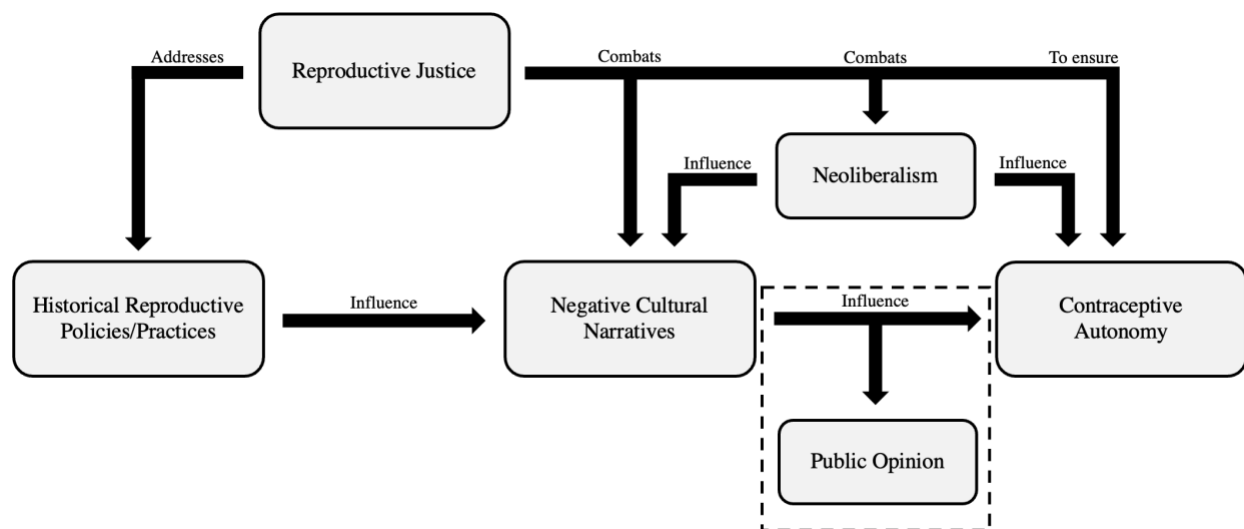
2020; Higgins et al. 2016). Latina and Black women have described their experiences of provider pressure to use certain contraceptives and limit their childbearing, even when they expressed desires to use others or no contraception (Downing et al. 2007; Gomez et al. 2020; Gomez and Wapman 2017). Researchers replicated these findings in an experimental study, where they showed physicians videos of actors depicting women of various races (Black, White, or Latina), socioeconomic statuses (low- or upper-middle-class), and gynecologic histories (Dehlendorf et al. 2010). After reviewing the videos, the physicians gave their contraceptive recommendations to the women. Physicians were more likely to recommend IUDs to Black women regardless of SES, and low-income Black and Latina women were more likely to be recommended IUDs than low-income White women (Dehlendorf et al. 2010). These recommendations could be attributed to physician bias rooted in stereotypes of raced and classed fertility (Dehlendorf et al. 2010).

Popular narratives concerning the sexualities of low-income women and women of color influence the contraceptive recommendations they receive from their providers. Researchers have noted that these biases are indicative not only of the power imbalances between patients and providers but also between U.S. policymakers and marginalized women (Gomez and Wapman 2017; Mann 2022). Negative experiences with providers influence low-income, Latina, and Black women's comfort with physicians in future interactions, which only widens the gap between policymakers' desire to reduce unintended pregnancy and actual LARC usage by populations at-risk of experiencing unintended pregnancy (Gomez et al. 2020).

THEORETICAL FRAMEWORK

The chart below represents the theoretical framework underlying my analysis. My study aims to highlight the influence that negative cultural narratives about marginalized women's sexualities have on public opinion about these women and the degree of contraceptive autonomy

they deserve. I ground my analysis in historical reproductive practices targeted toward marginalized women and consider how that history influences cultural narratives about them today. I go on by examining how negative narratives impact public opinion about these women’s sexualities and the contraceptive autonomy afforded to them as a result of biased narratives. Neoliberalist ideology serves as a direct influence on both cultural narratives and contraceptive autonomy. Reproductive Justice addresses historical injustices, combats cultural narratives and neoliberalism, and promotes contraceptive freedom. Each theory is further explained below.



Cultural Narratives

Depictions of low-income, Black, and Latina women’s “risky” sexualities rely on the construction of cultural narratives. Narratives are used to aggregate individual actions into an understandable whole (Polkinghorne 1988). They work by transmitting shared values and beliefs in the development of cultural cohesion (Polkinghorne 1988) and “socially acceptable selves” (Polletta et al. 2011: 117). The prevailing cultural narrative about early parenthood is that it is a problem (Ray 2018). Negative depictions of early parenthood are spread through risk narratives, where young, low-income, Black and/or Latina women are characterized as non-agentic, impoverished, and at risk of being economic burdens on the state through their welfare

dependency (Barcelos 2018; Ray 2018). Ideas of young motherhood are rooted in the racialized and classed history of reproduction and influence how LARCs are differentially promoted to women today (Barcelos 2018; Barcelos and Gubrium 2014; Gomez and Wapman 2017).

Neoliberalism

Normative ideas about sexuality and ideal contraceptive use stem from neoliberalism. Neoliberalism is based on the premise of a limited government and the idea that governmental intervention, especially in welfare and for the poor, makes society worse (Bockman 2013). Neoliberalism argues that economic growth and social welfare can only be advanced through privatization and “unhindered markets” (Bockman 2013: 14). It has expanded from a political conception to one encompassing cultural and social phenomena, exemplifying the encroachment of capitalism on everyday life (Bockman 2013). This includes a neoliberal conception of sexuality, which promotes false ideas of reproductive control. It does so by arguing for sexual agency in decision making so long as individuals take full responsibility for the consequences of their sexuality, where responsibility means individuals do not rely on social welfare (Mann and Grzanka 2018). Sexuality is framed as a distraction from material success. For marginalized women whose access to success is already constrained, neoliberalism can cause them to forgo sexual encounters altogether to increase their ability to materially achieve and combat racial and classed narratives about their sexuality (Bay-Cheng 2015). Neoliberal framing characterizes LARCs as the only responsible form of contraception and promotes capitalistic endeavors by encouraging its users to focus on working rather than mothering (Mann and Grzanka 2018).

Intersectionality and Reproductive Justice

Reproductive Justice examines power relations and their generation through cultural narratives and neoliberalism (Luna and Luker 2013; Ross 2018). It is based on intersectionality,

which explains how the inequalities experienced by different identities (race, gender, class, etc.) compound to produce specific types of oppression (Crenshaw 1991; Luna and Luker 2013; Ross 2018). Black feminist scholars developed intersectionality in response to how feminist and antiracist practices “expound identity as woman or person of color as an either/or proposition,” rather than accounting for the intersection of these identities in women of color (Crenshaw 1991: 1242). For low-SES White, Black, and Latina women, sexism, classism, and racism intersect to create stereotypical depictions of their sexuality. Reproductive Justice incorporates reproductive health and rights advocacy with intersectionality to confront how “white supremacy, misogyny, and neoliberalism” collaborate to limit the autonomy of marginalized women (Ross 2018: 290). Scholars use Reproductive Justice to criticize the political framing of young parenthood and how this framing aims to conform marginalized women to normative ideas of sexuality (Ray 2018). Reproductive Justice challenges the reduction of reproductive autonomy by current LARC promotion (Barcelos and Gubrium 2014; Bay-Cheng 2015; Gomez et al. 2014; Ray 2018).

RESEARCH QUESTION AND HYPOTHESES

This study examined the general public’s perceptions of ideal contraceptive use for women of different races and socioeconomic statuses (SEs) to understand how narratives about Black, Latina, and/or low-SES women’s sexuality proliferate through the public imagination. Though studies have examined such biases from the perspective of physicians (Dehlendorf et al. 2010), few, if any, address how these biases may be reflected among the general public. Tackling this question advances research on which groups are granted the most (and least) reproductive autonomy. It also reveals how pervasive neoliberal ideas of sexuality are within the public and to what extent racist and classist ideas of reproduction exist outside of health care institutions. Marginalized women have cited public beliefs about their sexuality as one of the reasons they are

reluctant to take physician advice on contraceptive methods (Higgins et al. 2016). Understanding the public's conception of contraception use works to reduce bias about women's sexualities and expand their comfort and access to reproductive health care services. Given the role that public opinion plays in policy implementation (Burstein 2003), understanding public contraceptive opinions is a step toward tackling discriminatory contraceptive policies.

Based on prior research and theoretical expectations, I hypothesized that the general public would be more likely to believe most people would recommend restrictive contraception (i.e., IUD or tubal ligation) to **H1)** low-SES women compared to high-SES women; **H2)** Black and Latina women compared to White women; and **H3)** low-SES Black and low-SES Latina women compared to low-SES White women.

DATA AND METHODS

Study Description

I used Qualtrics—a survey development platform—to design an experimental vignette survey to test my hypotheses. Although an experimental survey does present limitations, it was the best fit for my research question. Experimental surveys provide a high degree of both internal and external validity, given their combination of researcher control provided by the experiment (internal validity) and the ability to have a representative sample of survey respondents (external validity) (Atzmüller and Steiner 2010; Berry 2000; Jackson and Cox 2013; Sniderman and Grob 1996). Experiments enable researchers to establish causation between variables (Berry 2000; Mutz 2011). I wanted to isolate the effect that SES, race, and the intersection of SES and race have on contraceptive recommendations, thus this type of study was the best fit for my question. The sample size afforded by a survey gave me the statistical power to determine the effect of control variables on recommendations (Jackson and Cox 2013). Using an experimental survey

also enabled me to reduce social desirability bias since respondents may have been unlikely to give their honest opinions on this topic in an interview setting.

I used most people projective questioning (MPPQ) to formulate the survey questions. For example, rather than asking respondents, “Which contraception would you recommend,” my survey asked, “Which contraception would most people recommend?” MPPQ allows researchers to examine third-order beliefs, which concern what “most people think most people believe” (Correll et al. 2017: 301). Third-order beliefs prompt the respondent to consider cultural characteristics and shared sentiments to develop their responses (Doyle 2021). Assessing third-order beliefs through MPPQ provided the best avenue for understanding how cultural narratives about marginalized women influence contraceptive recommendations. Using MPPQ allowed me to further reduce social desirability bias given that respondents answered on behalf of what most people in the U.S. believe rather than their own personal beliefs (Fisher 1993; Fiske et al. 2002).² MPPQ does present interpretive challenges, which I discuss in the limitations section.

Data Collection

I collected responses for my survey through Prolific, a program that allows researchers to push their survey out to a sample of respondents (Palan and Schitter 2018). I sampled for English-speaking adults in the United States; having U.S.-only respondents allowed me to control for other ideas of race, SES, and/or contraceptive usage in communities outside of the States. Given that there were no available translations, I limited eligibility to respondents who spoke English. I originally aimed to get a U.S.-representative sample, but preliminary data analyses prompted me to over-sample Black and Latinx respondents to clarify the effect of respondents sharing the same race as the vignette character they examined.

² A link to the full survey can be found in the appendix.

The standard for experimental data collection is to acquire at least 30 respondents per condition for measuring between group differences and at least 50 respondents per condition for measuring relationships, such as through regression (Wilson, Voorhis, and Morgan 2007). Since I was interested in regression analyses, I aimed for 100 respondents per vignette condition, for a total of 600 respondents over my six conditions. After oversampling Black and Latinx respondents, I ended with 116-122 respondents per condition and 708 total respondents.

Independent Measures: Socioeconomic Status (SES) and Race/Ethnicity

Respondents were randomly assigned to one of six vignettes that varied across three races (Black, White, and Latina) and two socioeconomic statuses (low-SES and high-SES). I based the characteristics of my vignettes on Dehlendorf et al.'s (2010) experimental study. The researchers had the low-SES character represented as a house cleaner studying for her GED, and the high-SES character was portrayed as a bank manager who recently graduated from business school.

Table 1 highlights variations in their vignette characteristics.

Table 1. Vignette Characteristics in Dehlendorf et al.'s (2010) Experimental Study

Race/Ethnicity	Socioeconomic Status	
	low-SES	high-SES
Black	studying for GED; house cleaner	business school graduate; bank manager
Latina	studying for GED; house cleaner	business school graduate; bank manager
White	studying for GED; house cleaner	business school graduate; bank manager

Dehlendorf. Recommendation for intrauterine contraception, American Journal of Obstetrics & Gynecology

All of Dehlendorf et al.'s characters were 27 years old. Given that being a young woman is one factor that labels someone as at risk of experiencing an unintended pregnancy (Barcelos and Gubrium 2014; Ricketts et al. 2014), I lowered the age of the characters in my vignettes to

22. This change required an adjustment to the high-SES character's occupation. I described her as working at a bank rather than being a bank manager since few bank managers would be 22. To reflect the socioeconomic status of the low-SES character, Dehlendorf et al. mentioned that the character was studying for her GED. I was concerned that mentioning this fact would influence my respondents' perceptions of the competence of the low-SES character, so to reflect her socioeconomic status in my vignettes, I said no one in her family had graduated college.³

Dependent Measure

My dependent measure was perceived contraceptive recommendation. Respondents were asked to recommend contraception to the vignette character based on what they believed most people in the United States would recommend. Among the potential recommendations were three options: IUD, oral contraceptive pill (OCP), or tubal ligation. I chose these methods for various reasons. These contraceptives—along with the subdermal implant—were the most contentious during the struggle for reproductive rights, as examined in the opening historical overview. I did not include the subdermal implant as an option since the difference in duration between the implant and the IUD (up to 5 years versus up to 12 years, respectively) is negligible in comparison to the difference in duration between the IUD and tubal ligation (up to 12 years versus permanent), the IUD and the OCP (up to 12 years versus indefinite/daily), and the OCP and tubal ligation (indefinite/daily versus permanent). I did not include condoms because I was concerned respondents would choose them over other methods given their ability to prevent STIs and pregnancy. I wanted to ensure the methods included were the most distinct so respondents would have to make a more intentional decision focused explicitly on pregnancy prevention. I stipulated that all the contraceptive methods would cost the same for the character to ensure

³ A copy of the vignettes can be found in the appendix.

respondents did not make their choice based on perceived cost. Dehlendorf et al.'s (2010) study provided similar information, informing the physicians in their study that the fictional patient's insurance would cover all contraceptive costs. After providing their recommendation, respondents in my study were prompted to explain their choice in an open-ended response.

Controls

Given that various factors influence the cultural narratives and resultant contraceptive recommendation of women based on their SES, race, and the intersection of the two characteristics,⁴ I included multiple controls in my analyses. Controls included respondent demographics: age (18-75), childhood financial stability (on a scale of 1 to 10, 1=least stable), race, gender, education, and perceived commonality of the IUD and the OCP (on a scale of 1-10, 1=least common). I also included controls based on the perceptions of the vignette character. Two such controls were competence and warmth (both on a scale of 1-10, 1=least competent/warm) of the character, which were assessed using the stereotype content model scale developed by Fiske et al. (2002). To measure competence, respondents rated on a 10-point scale how competent, capable, efficient, intelligent, and skillful the character was. These six variables were then averaged to form a single measure of competence (Cronbach's $\alpha = 0.96$). To measure warmth, respondents rated how friendly, well-intentioned, trustworthy, warm, good-natured, and sincere the character was, with these variables being averaged to form a single measure of warmth (Cronbach's $\alpha = 0.95$). Additional perceptions of the character included in the controls were her perceived quality of life (1 to 10, 1=lowest quality), sexual promiscuity⁵ (1 to 10,

⁴ For simplicity and moving forward, when discussing the intersecting socioeconomic and racial characteristics of the vignette, the six categories (e.g., low-SES White, etc.) will be referred to as the vignette's "group."

⁵ Although "promiscuous" is value-laden in the U.S. context, many scholars use it when discussing perceptions of low-income, Black, Latina, or otherwise marginalized populations and negative associations with their sexual identities (Barcelos and Gubrium 2014; Bay-Cheng 2015; Crenshaw 1991; Froyum 2010; Ray 2018; Ross 2018;

1=least promiscuous), likelihood of experiencing an unintended pregnancy (1 to 10, 1=least likely), likelihood of using welfare after an unintended pregnancy (1 to 10, 1=least likely), and responsibility of the state for the character's unintended pregnancy (1 to 10, 1=least responsible).

Analysis Plan

I examined descriptive statistics for my dependent measure and vignette perceptions across the characteristics of the vignette: SES, race, and group. I used Chi-square tests to determine differences in contraceptive recommendations by vignette, t-tests for differences in vignette perceptions based on SES alone, and analysis of variance (ANOVA) for all other differences. I then developed binary logistic regression (BLR) models to further examine contraceptive recommendations based on vignette characteristics without and with control variables. Although the most appropriate regression method for my type of dependent measure would have been multinomial logistic regression (MNL)—which is a regression model used when the dependent variable has more than two categories (Long and Freese 2014; Morgan and Teachman 1988)—I did not have the statistical power in each cell to use this method. Although I originally had three contraceptive options for respondents to recommend (IUD, the OCP, or tubal ligation), only 13 respondents chose tubal ligation. This quantity was not enough to ensure the statistical power of MNL, so I instead dropped those 13 respondents from my quantitative analyses and used binary logistic regression based on respondent recommendations for the IUD or the OCP as my dependent variable. All analyses were conducted using STATA 16.1.

Although I was not able to quantitatively analyze data from respondents who chose tubal ligation, their open-ended responses provided illuminating information on their perceptions of

Thomas 1998; Winters and McLaughlin 2020). Since I was interested in studying cultural values, using “promiscuous” was the best method for uncovering those judgments.

the character and the context for their recommendation. I instead qualitatively analyzed the reasoning those respondents gave for their selection using an inductive thematic approach (Emerson, Fretz, and Shaw 2011). To highlight the distinctiveness of respondent explanations for tubal ligation, I collected a random sample of open-ended responses from those who chose the OCP and IUD and contrasted these explanations with those who chose tubal ligation.

RESULTS

Respondent Demographics

Table 2 shows demographics for respondents included in my quantitative analyses after dropping the 13 who chose tubal ligation. One respondent did not include their age, which I rectified by mean imputing that value.⁶ I made various changes to how gender, race/ethnicity, and education were categorized. Respondent gender originally included four categories (woman; man; non-binary; other gender), respondent race included six categories (American Indian/Alaskan Native; Asian; Black or African American; Native Hawaiian or Pacific Islander; White; Other), a binary variable indicated if respondents identified as Hispanic or Latinx (1=Hispanic/Latinx), and respondent education included six categories (less than High School; High School/GED; Some College; 2-year Degree; 4-year Degree; Master's, Doctorate, or Professional degree). Many of the categories within these variables did not have sufficient responses to grant statistical power to my analyses, so I combined them into broader groups. For gender, I combined non-binary and other gender into one category. For race/ethnicity, I condensed the variable to include Hispanic⁷ (including those of any racial group), non-Hispanic

⁶ Mean imputation involves taking the mean value of a variable (in my case, respondent age) and replacing missing data within that variable with the mean value (Huisman 2000).

⁷ I use "Hispanic" for respondent racial classifications to be consistent with other studies that make comparisons between White, Black, and Latinx respondents (see Dehlendorf et al., for example). Similarly, the Latina vignette

Black, non-Hispanic White, and non-Hispanic Other (which includes non-Hispanic, multiracial individuals). For education, I combined respondents who had less than a high school degree with those who had only a high school diploma or equivalent.

Table 2. Respondent Demographics (n=695)

	Mean/Per.	SD	Range
Age (years)	33.28	12.77	18-75
Respondent Childhood Financial Stability	6.04	2.46	1-10
<i>Gender</i>			
Woman	48.6%		
Man	48.3%		
Nonbinary or Other Gender	3.0%		
<i>Race/Ethnicity</i>			
Non-Hispanic Black	22.0%		
Hispanic	21.4%		
Non-Hispanic White	49.6%		
Non-Hispanic Other	6.9%		
<i>Education</i>			
High School Diploma/GED or Less	11.8%		
Some College	25.8%		
2-Year Degree	12.1%		
4-Year Degree	39.3%		
Master's, Doctorate, or Professional Degree	11.1%		
<i>Perceived Contraceptive Commonality</i>			
Intrauterine Device (IUD)	5.78	2.29	1-10
Oral Contraceptive Pill (OCP)	8.91	1.32	1-10

Respondent age ranged from 18 to 75, with a mean of approximately 33 years old (SD=12.77). The mean childhood financial stability was 6.04 out of 10 (SD=2.46). 48.6% of respondents were women and 3.0% were non-binary or other gender identity. Roughly half

character was described as “Hispanic” to correspond with the most commonly used signifier (Noe-Bustamente, Mora, and Lopez 2020).

(49.6%) were non-Hispanic White, with 21.4% Hispanic, 22.0% non-Hispanic Black, and 6.9% non-Hispanic other. Most respondents had a 4-year degree (39.3%), followed by those with some college (25.8%), those with a 2-year degree (12.1%), those with a high school diploma or less (11.8%), and those with a master's degree or equivalent/above (11.1%). In assessing the commonality of the IUD and OCP, the IUD had a mean commonality of 5.78 out of 10 (SD=2.29), and the OCP had a mean of 8.91 (SD=1.32).

Descriptive Statistics

Vignette Socioeconomic Status (SES)

Table 3 includes descriptive statistics for the dependent measure and vignette perceptions across the character's SES. Every characteristic except sexual promiscuity significantly differed between the low- and high-SES characters. The low-SES characters were significantly less likely to be recommended the OCP (0.59) than the high-SES characters (0.70). The low-SES characters were perceived as less competent (5.41, SD=1.81) and less warm (6.25, SD=1.62) than the high-SES characters (respectively 7.50, SD=1.55; 7.09, SD=1.55). The low-SES characters were also perceived as having a lower quality of life (4.14 versus 7.26 respectively, SD=1.62 and 1.45), more likely to experience an unintended pregnancy (5.91 versus 5.01 respectively, SD=2.05 and 2.13), and more likely to use welfare services following an unintended pregnancy (7.68 versus 5.09 respectively, SD=1.78 and 2.44). Respondents perceived the state as having greater responsibility for the result of the low-SES characters' unintended pregnancy in comparison to the high-SES characters (4.66 versus 3.35 respectively, SD=2.51 and 2.27).

Table 3. Descriptive Statistics of OCP Recommendation and Vignette Perceptions by SES (n=695)

	low-SES (n=347) Mean/Prop.	high-SES (n=348) Mean/Prop.	Sig.
Dependent Measure			
Recommendation for Oral Contraceptive Pill (OCP)	.59	.70	a
Scales (1-10)			
Competence	5.41 (1.81)	7.50 (1.55)	a
Warmth	6.25 (1.62)	7.09 (1.55)	a
Controls (1-10)			
Quality of life	4.14 (1.62)	7.26 (1.45)	a
Sexual Promiscuity	5.43 (2.29)	5.14 (2.22)	
Likelihood of Unintended Pregnancy^	5.91 (2.05)	5.01 (2.13)	a
Likelihood of Using Welfare after UP	7.68 (1.78)	5.09 (2.44)	a
State Responsibility for Result of UP	4.66 (2.51)	3.35 (2.27)	a

Standard deviations in parentheses

Significance determined at $p < 0.05$

a = low-SES significantly differs from high-SES

^ abbreviated as UP

Vignette Race

To be consistent with my second hypothesis, I compared the dependent measure and vignette perceptions by race to the White characters. [Table 4](#) includes these descriptive statistics. There was no significant difference in contraceptive recommendation, perceived competence, sexual promiscuity, or state responsibility for the unintended pregnancy of the Black or Latina characters in comparison to the White characters. However, in comparison to the White (7.01,

SD=1.45) characters, both the Black (6.39, SD=1.74) and the Latina (6.61, SD=1.45) characters were perceived as less warm. The Black (5.84, SD=2.04) and Latina (5.51, SD=2.25) characters were also perceived as having a higher likelihood of experiencing an unintended pregnancy in comparison to the White characters (5.03, SD=2.04). The Black characters had a lower perceived quality of life than the White characters (5.44 versus 6.03 respectively, SD=2.17 and 2.19), and the Latina characters were seen as more likely than the White characters to use welfare services after an unintended pregnancy (6.66 versus 6.00 respectively, SD=2.29 and 2.78).

Table 4. Descriptive Statistics of OCP Recommendation and Vignette Perceptions by Race (n= 695)

	Black (n=232) Mean/Prop.	Latina (n=231) Mean/Prop.	White (n=232) Mean/Prop.	Sig.
Dependent Measure				
Recommendation for Oral Contraceptive Pill (OCP)	.64	.67	.62	
Scales (1-10)				
Competence	6.41 (2.04)	6.31 (1.90)	6.64 (2.00)	
Warmth	6.39 (1.74)	6.61 (1.66)	7.01 (1.45)	ab
Controls (1-10)				
Quality of life	5.44 (2.17)	5.63 (2.18)	6.03 (2.19)	a
Sexual Promiscuity	5.55 (2.36)	5.20 (2.30)	5.09 (2.11)	
Likelihood of Unintended Pregnancy [^]	5.84 (2.04)	5.51 (2.25)	5.03 (2.04)	ab
Likelihood of Using Welfare after UP	6.50 (2.34)	6.66 (2.29)	6.00 (2.78)	b
State Responsibility for Result of UP	4.12 (2.45)	4.19 (2.39)	3.71 (2.57)	

Standard deviations in parentheses

Significance determined at $p < 0.05$

a = Black significantly differs from White
b = Hispanic significantly differs from White
^ abbreviated as UP

Vignette SES and Race

Similar to comparisons based on race, to be consistent with my third hypothesis, I used the low-SES White character to compare differences in contraceptive recommendation and vignette perceptions by the intersection of socioeconomic status and race. [Table 5](#) displays such descriptive statistics. Again, there were no significant differences in perceptions of sexual promiscuity for the character based on their group in comparison to the low-SES White character. Yet for the dependent measure, there is a significant difference between the low-SES White and the high-SES Latina character, where the low-SES White character was significantly less likely to be recommended the OCP (0.53) than the high-SES Latina character (0.74).

The high-SES Black (7.34, SD=1.63), high-SES Latina (7.29, SD=1.44), and high-SES White (7.87, SD=1.51) characters were all perceived as significantly more competent than the low-SES White character (5.42, SD=1.64); the three characters were also all seen as having a greater quality of life than the low-SES White character (HB:⁸ 6.93, SD=1.56; HL: 7.12, SD=1.43; HW: 7.72, SD=1.25; LW: 4.34, SD=1.52) and significantly less likely than the low-SES White character to use welfare services following an unintended pregnancy (HB: 5.43, SD=2.40; HL: 5.55, SD=2.20; HW: 4.30, SD=2.51; LW: 7.70, SD=1.83). Respondents perceived the state as having a lower responsibility for the result of the high-SES Black (3.68, SD=2.36), high-SES Latina (3.58, SD=2.28), and high-SES White (2.80, SD=2.09) characters' unintended pregnancies in comparison to the low-SES White character's unintended pregnancy (4.62,

⁸ HB: high-SES Black; HL: high-SES Latina; HW: high-SES White; LW: low-SES White

SD=2.70). Only the high-SES White character was seen as warmer than the low-SES White character (7.51 versus 6.52 respectively, SD=1.23 and 1.48). The low-SES Black character (6.22, SD=1.99) was perceived as being significantly more likely to experience an unintended pregnancy in comparison to the low-SES White character (5.41, SD=1.97).

Table 5. Descriptive Statistics of OCP Recommendation and Vignette Perceptions by SES and Race (n=695)

	Black, low-SES (n=116) Mean/Prop.	Latina, low-SES (n=115) Mean/Prop.	White, low-SES (n=116) Mean/Prop.	Black, high-SES (n=116) Mean/Prop.	Latina, high-SES (n=116) Mean/Prop.	White, high-SES (n=116) Mean/Prop.	Sig.
Dependent Measure							
Recommendation for Oral Contraceptive Pill (OCP)	.63	.59	.53	.65	.74	.71	d
Scales (1-10)							
Competence	5.48 (1.99)	5.31 (1.78)	5.42 (1.64)	7.34 (1.63)	7.29 (1.44)	7.87 (1.51)	cde
Warmth	6.10 (1.77)	6.12 (1.59)	6.52 (1.48)	6.68 (1.66)	7.09 (1.60)	7.51 (1.23)	e
Controls (1-10)							
Quality of Life	3.96 (1.61)	4.13 (1.72)	4.34 (1.52)	6.93 (1.56)	7.12 (1.43)	7.72 (1.25)	cde
Sexual Promiscuity	5.67 (2.37)	5.29 (2.38)	5.33 (2.11)	5.43 (2.35)	5.11 (2.22)	4.86 (2.08)	
Likelihood of Unintended Pregnancy [^]	6.22 (1.99)	6.10 (2.10)	5.41 (1.97)	5.47 (2.03)	4.91 (2.24)	4.66 (2.05)	a
Likelihood of Using Welfare after UP	7.56 (1.73)	7.77 (1.78)	7.70 (1.83)	5.43 (2.40)	5.55 (2.20)	4.30 (2.51)	cde
State Responsibility for Result of UP	4.55 (2.48)	4.82 (2.34)	4.62 (2.70)	3.68 (2.36)	3.58 (2.28)	2.80 (2.09)	cde

Standard deviations in parentheses

Significance determined at $p < 0.05$

a = Black, low-SES significantly differs from White, low-SES

b = Latina, low-SES significantly differs from White, low-SES

c = Black, high-SES significantly differs from White, low-SES

d = Latina, high-SES significantly differs from White, low-SES

e = White, high-SES significantly differs from White, low-SES

[^] *abbreviated as UP*

Descriptive analyses granted interesting insights into the perceptions of the characters based on their various characteristics. I used BLR analyses to further assess how characters' race and SES were associated with contraceptive recommendations, controlling for other factors.

Regression Analyses

Hypothesis 1: Socioeconomic Status

Table 6 represents the results from the BLR analyses based on socioeconomic status alone. In Model 1, the character's SES is included without controls. My first hypothesis predicted that the low-SES characters would be significantly more likely to receive a recommendation for the IUD than the high-SES characters. Model 1 confirmed that hypothesis (odds ratio [OR] = 0.609, $p < 0.01$). Model 2 included controls based on respondent demographics and revealed that, when controlling for respondent age, childhood financial stability, race, gender, education, and perception of contraceptive commonality, respondents were even more likely to recommend the IUD to the low-SES characters in comparison to the high-SES characters (OR = 0.546, $p < 0.001$). This model revealed that an increase in respondent reported childhood financial stability corresponded with an increased likelihood that the low-SES characters received a recommendation for the OCP (OR = 1.137, $p < 0.001$). The more common respondents perceived the IUD, the more likely they believed it would be recommended to the low-SES character (OR = 0.628, $p < 0.001$); the same relationship was seen in regard to the perceived commonality of the OCP (OR = 1.183, $p < 0.05$).

Model 3 included controls based on character perceptions. This model did not maintain the relationship between SES and contraceptive recommendation; instead, perceived competence and quality of life of the character had a greater effect on contraceptive recommendation than SES alone. Surprisingly, higher levels of competency were associated with lower odds of

receiving a recommendation for the OCP (OR = 0.843, $p < 0.05$). The greater the characters' perceived quality of life, the more likely they were recommended the OCP (OR = 1.155, $p < 0.05$). The more responsible the state was perceived as being for the result of the characters' unintended pregnancies, the less likely they were recommended the OCP (OR = 0.928, $p < 0.05$).

In the full model (4), both respondent demographics and vignette perceptions were included as controls. This model also did not indicate a relationship between vignette SES and contraceptive recommendation alone. Respondent childhood financial stability, perceived commonality of the IUD and the OCP, and perceived quality of life of the character significantly influenced contraceptive recommendation.

Table 6. Odds Ratios from Binary Logistic Regression Model Predicting Oral Contraceptive Pill (OCP) Recommendation by SES (n=695)

	Model 1	Model 2	Model 3	Model 4
Vignette Low-SES+	.609** (.097)	.549*** (.098)	0.805 (.194)	0.926 (.252)
Respondent Demographics				
Age (18-75)		0.997 (.008)		1.000 (.008)
Childhood Financial Stability (1-10)		1.137*** (.044)		1.124** (.044)
<i>Race+</i>				
Non-Hispanic Black		1.244 (.296)		1.321 (.322)
Hispanic		1.088 (.249)		1.192 (.284)
Non-Hispanic Other		1.514 (.578)		1.492 (.578)
<i>Gender+</i>				
Man		1.100 (.217)		1.039 (.211)
Other Gender Identity		1.858 (1.079)		1.708 (1.028)
<i>Education+</i>				

Some College	0.795 (.260)	0.771 (.259)
2-year Degree	0.588 (.221)	0.559 (.213)
4-year Degree	0.569 (.178)	0.539 (.172)
Master's, Doctorate, or Professional Degree	0.509 (.198)	0.520 (.208)
<i>Perceived Contraceptive Commonality (1-10)</i>		
IUD	.628*** (.031)	.615*** (.031)
OCP	1.183* (.085)	1.173* (.086)
Vignette Perceptions		
<i>Scales (1-10)</i>		
Competence	.843* (.059)	0.898 (.071)
Warmth	1.067 (.073)	1.064 (.082)
<i>Controls (1-10)</i>		
Quality of Life	1.155* (.073)	1.249** (.092)
Sexual Promiscuity	1.048 (.040)	1.009 (.044)
Likelihood of Unintended Pregnancy^	0.942 (.041)	1.005 (.050)
Likelihood of Using Welfare after UP	0.998 (.044)	1.022 (.052)
State Responsibility for Result of UP	.928* (.033)	0.937 (.039)

Exponentiated coefficients; Standard errors in parentheses

Source: Public Contraceptive Recommendation Experiment, 2022

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

+Reference category for vignette SES, and respondent race, gender, and education is high-SES, non-Hispanic White, Woman, and High School or Less respectively

^ abbreviated as UP

Hypothesis 2: Race

BLR results based on the vignette's race are shown in [Table 7](#). Contrary to my second hypothesis—which predicted that respondents would be more likely to recommend the IUD to the Black and Latina characters in comparison to the White characters—Model 1 indicated no relationship between vignette race and contraceptive recommendation alone. Similar to the models based on SES, Model 2 revealed a significant effect of respondent childhood financial stability and perceived commonality of the IUD/OCP on recommendations. Model 3 indicated a comparably significant relationship in regard to the perceived competence, quality of life, and state responsibility for the result of the characters' unintended pregnancies. Model 4 showed that respondent childhood financial stability, perceived commonality of the IUD and the OCP, and perceived quality of life were all significantly associated with contraceptive recommendation.

Table 7. Odds Ratios from Binary Logistic Regression Model Predicting Oral Contraceptive Pill (OCP) Recommendation by Race (n=695)

	Model 1	Model 2	Model 3	Model 5
Vignette Race+				
Black	1.077 (.207)	0.932 (.203)	1.290 (.262)	1.078 (.247)
Latina	1.222 (.238)	1.217 (.267)	1.383 (.279)	1.353 (.308)
Respondent Demographics				
Age (18-75)		0.997 (.008)		1.000 (.008)
Childhood Financial Stability (1-10)		1.142*** (.044)		1.127** (.044)
<i>Race+</i>				
Non-Hispanic Black		1.198 (.283)		1.316 (.321)
Hispanic		1.091 (.247)		1.210 (.288)
Non-Hispanic Other		1.559 (.589)		1.489 (.576)

<i>Gender+</i>		
Man	1.106 (.217)	1.051 (.214)
Other Gender Identity	2.020 (1.169)	1.750 (1.062)
<i>Education+</i>		
Some College	0.766 (.249)	0.777 (.262)
2-year Degree	0.568 (.212)	0.558 (.213)
4-year Degree	0.548 (.170)	0.539 (.172)
Master's, Doctorate, or Professional Degree	0.480 (.187)	0.498 (.200)
<i>Perceived Contraceptive Commonality (1-10)</i>		
IUD	.631*** (.031)	.615*** (.031)
OCP	1.186* (.086)	1.185* (.088)
Vignette Perceptions		
<i>Scales (1-10)</i>		
Competence		.841* (.059)
Warmth		0.899 (.071)
		1.073 (.073)
		1.063 (.082)
<i>Controls (1-10)</i>		
Quality of Life		1.195** (.066)
Sexual Promiscuity		1.264*** (.081)
		1.053 (.041)
		1.014 (.044)
Likelihood of Unintended Pregnancy^		0.939 (.042)
		1.004 (.050)
Likelihood of Using Welfare after UP		0.987 (.043)
		1.015 (.050)
State Responsibility for Result of UP		.923* (.033)
		0.935 (.039)

Exponentiated coefficients; Standard errors in parentheses

Source: Public Contraceptive Recommendation Experiment, 2022

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

+Reference category for vignette race, and respondent race, gender, and education is White, non-Hispanic White, Woman, and High School or Less respectively

[^] abbreviated as UP

Hypothesis 3: SES and Race

Table 8 gives the BLR analyses based on the character's group. I hypothesized that, in comparison to the low-SES White character, the low-SES Black and low-SES Latina characters would be more likely to receive a recommendation for the IUD. Based on the unadjusted Model 1, there was no significant difference in contraceptive recommendations between these three groups. However, in comparison to the low-SES White character, the high-SES Latina and the high-SES White characters were more than twice as likely to receive a recommendation for the OCP (OR=2.497 and 2.101 respectively, $p < 0.01$ for both). This relationship is maintained in Model 2; additionally, increasing respondent childhood financial stability led to an increased likelihood of receiving an OCP recommendation (OR = 1.136, $p < 0.01$). Perceived commonality of the IUD (OR = 0.628, $p < 0.001$) and OCP (OR=1.186, $P < 0.05$) also significantly increased the likelihood of an IUD or OCP recommendation respectively. Model 3 showed no significant difference in contraceptive recommendation for the high-SES White character, yet the relationship held for the high-SES Latina character. Increases in perceived competence and state responsibility were associated with lower odds of OCP recommendation, and increases in perceived quality of life were associated with higher odds of OCP recommendation. In the full model (4), there were no relationships between any of the vignette groups and contraceptive recommendations in comparison to the low-SES White character. There remained significant effects of respondent childhood financial stability, perceived commonality of the IUD/OCP, and perceived quality of life of the characters in the same directions as described previously.

Table 8. Odds Ratios from Binary Logistic Regression Model Predicting Oral Contraceptive Pill (OCP) Recommendation by SES and Race (n=695)

	Model 1	Model 2	Model 3	Model 5
Vignette Socioeconomic Status and Race+				
Black, low-SES	1.479 (.396)	1.097 (.331)	1.710 (.475)	1.236 (.385)
Latina, low-SES	1.260 (.335)	1.169 (.352)	1.411 (.385)	1.271 (.392)
Black, high-SES	1.593 (.429)	1.523 (.461)	1.415 (.460)	1.025 (.378)
Latina, high-SES	2.497** (.704)	2.546** (.801)	2.028* (.669)	1.603 (.589)
White, high-SES	2.101** (.580)	2.032* (.625)	1.555 (.545)	1.119 (.443)
Respondent Demographics				
Age (18-75)		0.996 (.008)		0.999 (.008)
Childhood Financial Stability (1-10)		1.136** (.044)		1.125** (.044)
<i>Race+</i>				
Non-Hispanic Black		1.246 (.298)		1.309 (.321)
Hispanic		1.090 (.251)		1.203 (.288)
Non-Hispanic Other		1.505 (.579)		1.469 (.571)
<i>Gender+</i>				
Man		1.109 (.220)		1.056 (.215)
Other Gender Identity		1.823 (1.063)		1.729 (1.047)
<i>Education+</i>				
Some College		0.817 (.268)		0.788 (.266)
2-year Degree		0.610 (.230)		0.576 (.221)
4-year Degree		0.581 (.182)		0.548 (.176)
Master's, Doctorate, or Professional Degree		0.496 (.196)		0.507 (.205)

<i>Perceived Contraceptive Commonality (1-10)</i>		
IUD	.628*** (.031)	.616*** (.031)
OCP	1.186* (.087)	1.183* (.088)
Vignette Perceptions		
<i>Scales (1-10)</i>		
Competence	.834* (.060)	0.899 (.072)
Warmth	1.076 (.075)	1.063 (.084)
<i>Controls (1-10)</i>		
Quality of Life	1.166* (.075)	1.256** (.094)
Sexual Promiscuity	1.049 (.041)	1.012 (.044)
Likelihood of Unintended Pregnancy [^]	0.935 (.042)	1.004 (.051)
Likelihood of Using Welfare after UP	0.999 (.045)	1.019 (.052)
State Responsibility for UP	.928* (.033)	0.938 (.039)

Exponentiated coefficients; Standard errors in parentheses

Source: Public Contraceptive Recommendation Experiment, 2022

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

+Reference category for vignette group, and respondent race, gender, and education is low-SES White, non-Hispanic White, Woman, and High School or Less respectively

[^] abbreviated as UP

Tubal Ligation

Thirteen respondents recommended tubal ligation to the vignette characters. Two respondents described characteristics of the IUD, not tubal ligation, which indicated that they may have accidentally chosen the tubal ligation option. I removed these two from my analysis, resulting in 11 total observations. Though not included in the BLR analyses, [Table 9](#) shows the distribution of tubal ligation recommendations over the SES and race of the characters. I was

unable to accurately assess the statistical significance of tubal ligation recommendations given the small number of recommendations for this method. It was qualitatively interesting to note, however, that 8 of the 11 respondents believed that this method would be recommended to the Black characters, followed by two for the Latina and one for the White characters. The high-SES Black character was the only high-SES character to receive a recommendation for tubal ligation.

Table 9. Recommendation for Tubal Ligation by Vignette
SES and Race (n=11)

Race/Ethnicity	Socioeconomic Status		
	low-SES	high-SES	
Black	5	3	8
Latina	2	0	2
White	1	0	1
	8	3	11

I used an inductive thematic approach to analyze respondent justifications for their recommendations, from which various themes emerged (Emerson et al. 2011). Of the 11 respondents, two indicated that they were unsure why they recommended tubal ligation. Three respondents commented on the permanence of the method; of those three, one respondent further spoke about welfare abuse. Four respondents mentioned unfavorable views of the character's race, and one respondent mentioned unfavorable views of the character's socioeconomic status. These responses collectively speak to concerns of racial threat, and analyzing them more deeply helps illustrate some of the raced and classed themes present in the larger dataset.

The respondent who mentioned welfare abuse as a reason for their recommendation spoke about the perception of Black people as welfare abusers, stating that most people think the high-SES Black character shouldn't have children because many believe "mainly black people use most of the welfare." The respondents who indicated unfavorable views of the characters'

race did so for the Black and Latina characters. For the low-SES Black character, a respondent noted that most people “view unmarried black women [u]nfavorably,” and even for the high-SES Black character, another stated that people “don’t want her to contribute to male black babies.” This response indicated notions of moral panic and racial threat.

Moral panics are defined by periods of mass emotional distress and lead to the demonizing or blaming of a specific group; they can arise in response to changing social dynamics and subsequent narrativizing of those changes (Goode and Ben-Yehuda 1994). The changing racial demographics of the United States—with the prediction that White people will soon be in the minority (Craig et al. 2018)—is an example of one such moral panic, with particularly Latinx individuals being blamed. Similarly, racial threat theory argues that, when their interests are threatened, dominant groups use institutional sanctions on minority groups as means of social control (Abascal 2020; Eitle et al. 2002).

The perception of White Americans’ fear of demographic changes constitutes racial threat, with recommendations for tubal ligation used to permanently control growing minority populations. One respondent directly referenced these theories by noting that most people would not want the low-SES Latina character to have children “for fear o[f] creating a country that has more non-white people than white people.” Even more notable is another respondent’s explanation of the perception of Latinx people in general:

[People in the U.S.] believe Hispanics will replace them and that they are poor, uneducated, a drain on the system. . . I do not want to believe that people think like this but there was a doctor sterilizing immigrant women in detention and a lot of people viewed that a[s] a good thing.

This response includes ideas of moral panic and racial threat given the participant’s perception that (non-Latinx White) people in the United States are afraid Latinx people will “replace them”.

The response also brings to light previous instances of contraceptive abuse within the United States and cultural narratives about low-SES Latina women that serve to “justify” such abuses.

The one respondent who recommended tubal ligation for the low-SES White character noted that her socioeconomic status would cause most people to believe her “prospects for improving her quality of life don’t seem good at the time,” therefore “she should not be having children because she will probably never be able to give a child any type of ‘quality’ life.” Similar to comments on the race of the Black and Latina characters, this comment brings with it reflections on the narratives told about low-SES White women and how these narratives influence public perceptions of her deserved reproductive autonomy.

Many of the respondents who chose tubal ligation spoke to the effect that the characters’ fertility would have on the United States as a whole, whether that be through excessive welfare use or changing racial demographics. This reasoning reflects arguments for sterilization during the early twentieth century and also contains elements of the justification for strict LARC promotion for low-income Black women during the 1990s (Kluchin 2009; Thomas 1998). The only exception was the tubal ligation recommendation for the White character, where instead her quality of life and her ability to be an adequate mother was under question because of her low socioeconomic status. Yet the fact that her ability to be a mother were affected by her SES still relates to sterilization and LARC justifications given that low-SES women are seen as promoting generational poverty and welfare dependency when they have children (Thomas 1997).

To better exemplify the explanations respondents gave for tubal ligation, I contrasted open-ended responses for tubal ligation with those for the OCP and the IUD. I randomly selected 10 respondents for the two methods and inductively analyzed the themes that emerged within those responses. [Table 10](#) represents the sample distribution of IUD and OCP recommendations.

Table 10. Sample of Recommendations for the IUD and OCP by Vignette SES and Race

Race/Ethnicity	IUD (n=10)			OCP (n=10)		
	Socioeconomic Status			Socioeconomic Status		
	low-SES	high-SES		low-SES	high-SES	
Black	4	1	5	1	2	3
Latina	1	0	1	2	1	3
White	2	2	4	2	2	4
	7	3	10	5	5	10

For the random sample of respondents who chose the IUD, one respondent was unsure why they chose the method, three mentioned its effectiveness, two mentioned its ability to be reversed, two mentioned the character's perceived competence and responsibility, and three mentioned the character's potential to have children in the future. Of the random sample that chose the OCP, two respondents were unsure, seven mentioned that it was a common or popular method of contraception, two mentioned its accessibility, and one respondent mentioned the potential of the character to have children in the future.

In comparison to those respondents who chose tubal ligation, only one respondent of the randomly selected 20 who chose the OCP or the IUD mentioned race. This respondent explained that one of the reasons they chose the IUD for the low-SES Black character was because it would be “nearly impossible for her to get sterilized as a 22 [year-old] black woman.” This respondent also explained that many people believe the character is “not responsible enough to take the birth control pill,” which are views that policymakers have used to limit OCP access for marginalized women (Kluchin 2009; Watkins 2010). Though not the most restrictive contraceptive option, the fact that the respondent chose the IUD over tubal ligation because of the perceived limited ability for women to access sterilization and the character's perceived irresponsibility signals the restricted contraceptive autonomy that the public believes specifically Black women have.

Many respondents ruminated on the potential for the characters to have children in the future, particularly for the IUD. One respondent mentioned that the IUD is temporary, which would allow the low-SES White character to “have kids later in life once she has some money saved up.” For the high-SES White character, a respondent stated that the IUD “is reversible if they decide to have children in the future,” while a third (also for the high-SES White character) stated that the character is “young” and “may want children later.” Given that the sample is so small, it is difficult to draw overarching conclusions about the reasons for respondents choosing the IUD for the White characters. However, it is interesting to note that, in comparison to those explanations for tubal ligation, the explanations for the IUD particularly for the (high-SES) White characters mention that the character could/should have children in the future. In further support of this idea, the one respondent who chose the OCP and mentioned the character’s ability to have children in the future also did so for the high-SES White character. This respondent explained that the high-SES White character’s quality of life means she probably has “support nets in place for most contingencies,” so if she were to have an unintended pregnancy, “the baby would have a good life and people to care for them.” The assumption that an unintended pregnancy could result in a “good life” for the child was not seen in any of the other responses.

Recommendations for the OCP and IUD focused strongly on the contraceptive autonomy of the character, her future trajectory, and the ability of her circumstances to change in the future. Comparing this with the fatalistic beliefs about the childbearing of those characters for whom tubal ligation was recommended reveals the agency afforded to characters recommended the IUD/OCP. Though the latter group of responses still contain problematic elements, respondents ruminated on the ability of the characters’ qualities of lives to change in the future, a flexibility of life outcome not given to those characters recommended tubal ligation. Particularly for the

IUD, this reasoning is related to Mann and Grzanka's (2018) examination of LARCs and the false sense of sexual agency that LARCs afford, such as allowing the women using them to focus on other aspects of their lives. The contrasting explanations for tubal ligation and the IUD/OCP indicate the struggle against negative cultural narratives about marginalized women (tubal ligation), the normative belief that young women should aspire to have children in the future (IUD/OCP), and the perception of the most common or accessible form of contraception (OCP).

DISCUSSION

My study examined the U.S. general public's beliefs about likely contraceptive recommendations for women of different socioeconomic statuses and races. I used historical contraceptive policies, current reproductive healthcare practices, and cultural narratives about marginalized women's sexualities to predict the influence that a women's SES and race would have on the contraceptive recommendation participants expected her to receive. I hypothesized that in comparison to high-SES and/or White women, low-SES, Black, and/or Latina women would be more likely to receive recommendations for the IUD and tubal ligation given a) the perceptions of low-income White, Black, and Latina women's sexualities (and the assumption that these sexualities diverge from what is normative); b) the negative way unintended pregnancy for young, single women is framed in the U.S.; c) the disproportionate rate of unintended pregnancy within marginalized communities; and d) the heavy promotion of LARCs by public health officials. I developed an experimental survey that prompted respondents to assess characteristics of women across SES and race and provide a contraceptive recommendation in light of their assessments. My results revealed that socioeconomic status significantly influenced contraceptive recommendations and that various perceptions—such as perceived welfare

dependency, competence, warmth, and likelihood of unintended pregnancy—varied based on the characteristics of women. I provide more detail on my findings and their implications below.

Vignette SES significantly influenced contraceptive recommendations. Contrary to the study conducted by Dehlendorf et al. (2010)—which found that physicians were less likely to recommend the IUD to low-SES women in comparison to high-SES women—the low-SES characters in my study were more likely to receive a recommendation for the IUD. Though this finding diverges from Dehlendorf et al.’s experimental study, it relates to the contraceptive pressure low-income women face, where they are more likely to be advised to limit their childbearing (Downing et al. 2007). The different contexts between my study and Dehlendorf et al.’s study could partially explain the disparity in our findings. Dehlendorf et al.’s study was published in 2010 before IUDs began to re-emerge as a popular and accessible form of contraception. Additionally, their respondents consisted of physicians rather than the general public; though the researchers told their respondents that all contraceptive methods would be covered by the characters’ insurance, as physicians, the respondents may have also been considering other external costs, such as having to take off from work to have the IUD inserted.

My study asked participants to assess the cultural perceptions of the vignette characters, which could also account for the differing outcome. In their development and testing of the stereotype content model, Fiske et al. (2002) revealed that low-SES people (described in their second study as “poor people, welfare recipients, and homeless people” (891)) are deemed less competent and less warm in comparison to higher status groups. My study supports these findings, as the women in the low-SES vignettes were seen as significantly less competent, less warm, and more likely to use welfare services in comparison to the high-SES characters. This highlights the contemptuous emotions associated with low-SES women, given the beliefs that

their behaviors are “illegitimate,” their circumstances “individually controllable,” and that these women are using up resources to the detriment of others in society (Fiske et al. 2002: 896).

My study implies the influence that neoliberal ideologies have on contraceptive recommendations. Perceived welfare use significantly correlated with contraceptive recommendations, where the more likely the low-SES characters were perceived as using welfare, the more likely they were to receive a recommendation for the IUD. This connects with Mann and Grzanka’s (2018) discussion of sexual agency in which agency is afforded only if women do not rely on social welfare. This could indicate that respondents used an economic argument to inform their perceptions of contraceptive recommendations, i.e., that the best way to reduce unintended pregnancy expenditure is by limiting the childbearing of those women who are most likely to use welfare. The small sample of open-ended responses I qualitatively analyzed showed that perceptions of the low-SES characters’ competence and quality of life influenced her IUD recommendation, though additional analysis of these responses is necessary to definitively establish this and the role of perceived welfare usage.

Race alone did not significantly impact the contraceptive recommendation that the vignette characters received. This finding is inconsistent with Dehlendorf et al.’s (2010) study, in which Black women were significantly more likely to receive an IUD recommendation in comparison to White women. This finding also does not correspond with the numerous studies that examine the contraceptive pressure women of color have experienced from their reproductive health care providers (Downing et al. 2007; Gomez and Wapman 2017; Higgins et al. 2016). Yet given that these studies examine contraceptive pressure from the perspective of those being pressured (i.e., women of color), future research should compare perceived

contraceptive recommendations based on the race of the respondent to better determine if my study is consistent with these findings.

The significant differences in character perceptions by race corroborate the negative cultural narratives about Black and Latina women that other studies have explored (Barcelos 2018; Froyum 2010; Gomez and Wapman 2017; Jackson et al. 2016; Ray 2018). In comparison to the White characters, the Black characters were perceived as having a lower quality of life, a perception which correlated with an increased recommendation for the IUD in the regression models. Both the Black and Latina characters were perceived as having a higher likelihood of experiencing unintended pregnancy in comparison to the White characters. This is supported by Finer and Zolna's (2011) study, which revealed that non-Hispanic Black and Hispanic women were more likely than non-Hispanic White women to have an unintended pregnancy. It is noteworthy that there existed no differences in perceived promiscuity of the characters by race (or SES), though studies have shown that low-SES women and women of color are seen as sexually promiscuous (Downing et al. 2007; Gomez and Wapman 2017; Thomas 1998). This difference could be due to many reasons, such as the political makeup of the respondents in my study, a feature discussed in the limitations section.

The findings did not support my third hypothesis, which stated that the low-SES Black and low-SES Latina characters would be more likely to receive IUD or tubal ligation recommendations in comparison to low-SES White character. This is contrary to Dehlendorf et al.'s (2010) finding that low-SES Black and Latina women were more likely to be recommended the IUD than low-SES White women. This could be due to the demographic makeup of the respondents and the perceived use of the IUD, among other factors. Even so, the intersection of race and SES did have significant effects on the perceptions of the vignette character,

particularly that the low-SES Black character was perceived as having a higher likelihood of experiencing an unintended pregnancy in comparison to the low-SES White character. I did not observe other significant differences in perceptions of the three low-SES characters. This is particularly noteworthy for the low-SES White character and indicates that her race did not elevate her status in comparison to the other low-SES characters. This lack of difference could be due to her low-SES status violating typical assumptions of whiteness, with this violation serving as a threat to the overall status and perception of White people (Kunstman, Plant, and Deska 2016; Ridgeway and Kricheli-Katz 2013). Based on Kunstman et al.'s (2016) research, this threat may have caused respondents to distance the low-SES White character from the typical privileges of whiteness and instead associate her more strongly with the low-SES Black and low-SES Latina characters. This is further supported by research on the relationship between class and racial assumptions, where having a lower socioeconomic status causes a person to be associated with Black people regardless of their actual race (Ridgeway and Kricheli-Katz 2013).

Though not of primary concern in this study, there did exist significant findings based on the intersection of race and SES for the high-SES White and Latina characters. These characters were more likely to receive a recommendation for the OCP in comparison to the low-SES White character. That a similar difference was not seen for the high-SES Black character could imply that this character's race—far more than her socioeconomic status or their intersection—influenced respondent perceptions of her. Given classist assumptions about Black people (Ridgeway and Kricheli-Katz 2013), this lack of difference for the high-SES Black woman could also indicate that her classification as a Black woman may have caused respondents to implicitly believe she was of a lower socioeconomic class, despite having qualities that are otherwise

associated with a higher socioeconomic status, Additional research focusing on the high-SES characters is needed to better uncover this association.

My examination of respondent explanations for their choice of contraceptive method provided the most illuminating insight into how cultural narratives and neoliberal ideologies influenced perceived contraceptive recommendations. Of the 11 respondents who selected tubal ligation, eight were for the Black character (73%) and two were for the Latina character (18%). Only one of the characters who received a tubal ligation recommendation was White (9%). This disparity speaks to the salience of race in respondent recommendations, the enduring negative cultural narratives around the sexualities of women of color, and the influence these narratives have on contraceptive autonomy. The explanations across all three methods also included comments on socioeconomic status, particularly for the White characters, and how her status influenced either the restrictions placed on her sexuality (for those respondents who chose tubal ligation/IUD) or enabled respondents to rationalize her future unintended pregnancy (for those respondents who chose the OCP). Either way, these responses indicated notions of normative sexuality and accountability explored by Mann (2022), where women are expected to wait until they are older, financially stable, and in a serious relationship before engaging in childbearing. Further examination of these explanations will provide even greater insight into the effects cultural narratives and neoliberalism have on perceived contraceptive recommendations.

CONCLUSION

Limitations

My study is novel in its quantitative examination of public opinion and contraceptive autonomy. This uniqueness leads to a few limitations, one group of which concerns respondent demographics. Few respondents chose tubal ligation, so I could not quantitatively examine these

findings. Though it would have been interesting to consider how the political affiliation of my respondents influenced their contraceptive recommendations, preliminary analyses showed that the majority of respondents identified as liberal (60.6%), so I could not assess the effect political affiliation had on contraceptive recommendations. Similarly, many respondents indicated that they had no religious affiliation (53.1%), with preliminary analyses showing that respondent religious affiliation did not significantly impact contraceptive recommendations. There were insufficient respondents in each racial category to grant an in-depth analysis of having a racial identity aside from Hispanic/Latinx, non-Hispanic Black, or non-Hispanic White.

There were also limitations in terms of the survey development itself. Vignette race included only three categories; thus, my study was unable to establish the effect that other races would have on contraceptive recommendations. Given that Hispanic is an ethnicity that spans various racial categories, the use of “Hispanic” in my vignettes may have been too ambiguous for respondents to adequately judge. Vignette socioeconomic status was indicated through occupation and educational attainment; though respondents did seem to pick up on SES—indicated by the significant differences in perceptions based on this characteristic—a question confirming respondent categorization of the vignettes as either high or low SES could have been added to further test the validity of the SES measures.

My use of most-people projective questioning also presented unique limitations that influenced how I was able to interpret my results. According to many scholars, indirect questioning styles such as MPPQ are an effective way of testing the influence of cultural beliefs on respondents while also reducing social desirability bias (Correll et al. 2017; Fisher 1993). Yet respondents may have approached the prompt to consider what most people believe differently. In both my qualitative examination of tubal ligation justifications and in a cursory look over the

entire dataset of respondent explanations, I saw instances of respondents distinctly separating what they believe from what they think most people believe. Some of these respondents chose to answer from their own perspective, while others answered from the perspective of most people. Even more, a study by Fisher (1993) showed that, when responding to indirect questions, respondents often project their own beliefs. The differing ways that respondents approached the survey—from answering from the perspective of most people while others, even unknowingly, answered from their own perspective—may have influenced the results of this study.

Future Research

Considering the limitations described above, this study presents many avenues for future research. In past qualitative studies on contraceptive bias, researchers have examined such biases from the perspective of marginalized people themselves (such as Downing et al. 2007; Gomez and Wapman 2017; Higgins et al. 2016). Future research should use the existing data to examine responses based on respondent race and/or socioeconomic status and compare responses across these categories. Respondents provided illuminating explanations as to why they chose their contraceptive option; therefore, future research should further analyze these open-ended responses. Finally, this study uses the White and/or low-SES White characters as the basis for comparison. This base category should be changed to grant greater insight into the comparative effect of race and SES on contraceptive perceptions.

There are various ways that future research could expand upon the existing study. Considering the limitations of respondent demographics, responses from more politically, religiously, and racially diverse respondents are needed. Many respondents based their recommendations on the perceived commonality of the method they chose. A future study should reword the contraceptive recommendation portion of the survey to indicate that respondents

should not rely on this perception. Rather than directly naming specific methods (such as the pill, IUD, or tubal ligation), a future study could provide descriptions of methods without their names and prompt respondents to make their recommendations based on the descriptions alone.

An additional route for future research would be to reword the survey measure from most-people projective questioning, and instead ask respondents about their own opinions. Though this method is more susceptible to social desirability bias, it would be interesting to compare these responses to those using MPPQ to determine the extent to which respondents answered on behalf of most people versus on behalf of themselves in the original dataset and to assess whether this distinction had a significant effect on study outcomes. An alternative method to understanding the effect that MPPQ had on study results would be to take the responses of those in the current dataset who specify in their explanation a difference between their own beliefs and the beliefs of most people, and compare them to respondents who do not make such distinction.

Future research should also include more races, socioeconomic nuance, and ages for the vignette characters. More nuanced SES categories could mean including a character who, for example, graduated from a two-year community college rather than solely having characters with no college degree or a four-year degree. Given that young womanhood is one indicator of being at risk of unintended pregnancy, having characters of different ages (such as characters that are 20, 25, and 30) would be an interesting way to examine the impact age has on appropriate contraceptive recommendations. This would be especially interesting given that many people did not recommend tubal ligation for the characters in this study, for one because the characters were so young. This study granted respondents the ability to recommend either the IUD, OCP, or tubal ligation; future research should increase or alter the potential methods to determine if other methods (such as the implant) are differentially recommended across women's race and SES.

My study grants support for the need to implement an intersectional and Reproductive Justice framework when developing contraceptive counseling practices. It gives insight into how cultural narratives about the sexualities of marginalized women and neoliberal ideas of individual responsibility influence contraceptive attitudes within the general public, branching out from research that studies these same opinions in physicians. Though the general public is not directly responsible for providing contraceptive recommendations, scholars have shown that public opinion significantly influences policy in the United States (Burstein 2003). As has been seen during the COVID-19 pandemic, public beliefs and media narratives impact public health recommendations and adherence. This study is significant in that it questions how this same process can be observed in the realm of reproductive healthcare. This study represents another step toward expanding reproductive autonomy for women marginalized in the United States.

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APPENDIX

Vignettes

Table 11. Vignette Character Descriptions Used in Experimental Study

Race/Ethnicity	Socioeconomic Status	
	low-SES	high-SES
Black	Alexis ⁹ is a 22-year-old Black woman who is currently working as a house cleaner . She has not attended college and neither has anyone in her family. Alexis has started dating a man with whom she is sexually active. She is considering birth control methods because she is not looking to have children right now.	Alexis is a 22-year-old Black woman who is currently working at a bank . She has recently graduated from the same college that her parents attended. Alexis has started dating a man with whom she is sexually active. She is considering birth control methods because she is not looking to have children right now.
Latina	Sara is a 22-year-old Hispanic woman who is currently working as a house cleaner . She has not attended college and neither has anyone in her family. Sara has started dating a man with whom she is sexually active. She is considering birth control methods because she is not looking to have children right now.	Sara is a 22-year-old Hispanic woman who is currently working at a bank . She has recently graduated from the same college that her parents attended. Sara has started dating a man with whom she is sexually active. She is considering birth control methods because she is not looking to have children right now.
White	Emily is a 22-year-old White woman who is currently working as a house cleaner . She has not attended college and neither has anyone in her family. Emily has started dating a man with whom she is sexually active. She is considering birth control methods because she is not looking to have children right now.	Emily is a 22-year-old White woman who is currently working at a bank . She has recently graduated from the same college that her parents attended. Emily has started dating a man with whom she is sexually active. She is considering birth control methods because she is not looking to have children right now.

Survey questions

A copy of the survey can be found at this link: <https://tinyurl.com/y3yd2p47>.

⁹ Names for the vignettes were drawn from the most popular names for girls born in 1999, with modifications for the Latina vignette character (Sara rather than Sarah) (Social Security n.d.). Additionally, vignettes of the same race shared names across SES.