RACE, POVERTY AND UNINTENDED PREGNANCY: EXPLORING RESIDENTIAL CONTEXT

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Thesis

Submitted in partial fulfillment of the requirements
for the degree
Master of Arts in Applied Sociology
in the Department of Sociology
University of Indianapolis
December 7, 2021

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INTRODUCTION

Unintended pregnancy continues to be a pressing problem in the United States, which has a relatively high incidence of unintended pregnancy compared to comparable regions. In 2011, the U.S. rate was estimated as 54 unintended pregnancies (per 1,000 pregnancies) compared to a rate of 27 in Western Europe (Sedgh, Singh and Hussain 2014; Finer and Zolna 2016). Rates of unintended pregnancy are highest for women who fall below the federal poverty line, and rates decrease as income level increases (Finer and Zolna 2016). These disparities between income levels have remained large even as rates of unintended pregnancy have decreased, and women above the poverty level have seen the sharpest decreases (Finer and Zolna 2016). Unintended pregnancy can thus be characterized as a social problem because rates are lowest for the groups with the most resources to care for a child, and highest for those with the fewest resources.

Most striking, however, are how these disparities play out by race and ethnicity. Poor Black women have the highest rates of unintended pregnancy (Finer and Zolna 2016). While these rates decrease for Black women with higher incomes, Black women still experience twice as many unintended pregnancies as White women at or equal to 200% of the poverty level (Finer and Zolna 2016). This suggests that poverty alone does not explain racial disparities experienced by Black women.

While it would be inaccurate and unfair to characterize all unintended pregnancies as problematic, since many women report feeling happy about a pregnancy or childbirth that was not "planned" (Borrero et al. 2015), as a social phenomenon they are nonetheless a strain on individual, family, and public resources (Sonfield, Kost, Benson Gold and Finer 2011). Unintended pregnancies and births represent a disproportionate share of publicly-funded births and pregnancy services (Sonfield et al. 2011). This thesis explores the relationship between

poverty, race, and unintended pregnancy, with a focus on how differential life circumstances might explain racial disparities in unintended pregnancy.

This study involves unintended pregnancy experienced primarily by cisgender women partnered with cisgender men. It is worth noting that not only women, and not only heterosexual women, are susceptible to unintended pregnancy. Nonetheless, most studies do not explore how unintended pregnancy is experienced by LGBTQ women, trans men, or other gender-non-conforming individuals who are at risk of unintended pregnancy. That research does, however, indicate that sexual minority women—bisexual women in particular—are at increased risk for unintended pregnancy (Everret, McCabe, and Hughes 2017; Goldberg, Reese, and Halpern 2016). Thus, when discussing pregnancy, this proposal refers to women as they constitute the bulk of the literature as well as the sample of the proposed study. Though they are outside the scope of this study, the pregnancy experiences and risk factors of sexual and gender minorities deserve further attention in future research.

HYPOTHESES

I hypothesize women will be more likely to experience unintended pregnancy if they are Black compared to those who are White, if they rent instead of own their home, if they live in apartments compared to single family homes, and if they have experienced financial difficulties or fallen behind on rent in the last six months compared to those who have not.

THEORETICAL FRAMEWORK

Most of the theoretical offerings surrounding unintended pregnancy are focused on individual behavior, whether that involves the choice to have unprotected sex or the type of contraception chosen. As with pregnancy, unintended pregnancy is typically understood through

a medical context. My goal with this study is to orient a theoretical framework toward the social contexts in which these choices occur.

Rational Choice vs. Random Behavior

The prevailing frameworks for understanding fertility and pregnancy are rational choice and planned behavior, or intentionality (Esacove 2008; Medoff 2014; Paton 2006). This produces the dichotomy of pregnancies that are either intended or unintended. Becker (1960) introduced an economic analytical framework to predict the impacts of income on fertility decisions, where lower incomes constrain choices and should lead to fewer births. Indeed, poorer families have fewer planned births, but more births than higher-income families overall (Becker 1960). Since its introduction, this model of rational choice is often taken for granted in analyses of fertility but is not particularly helpful in explaining unintended pregnancy and, by extension, risky sexual behavior (Paton 2006). Instead, random behavior is more applicable, considering that circumstances in which risky sexual behavior occurs is often spontaneous and most likely detached from reproductive considerations (Esacove 2008; Paton 2006).

Low-income women, especially, do not perceive fertility planning in such clear and absolute ways. Borrero and colleagues (2015) find that pregnancy intentions among low-income women are not only often ambivalent, they sometimes do not exist at all. In addition, pregnancy planning is not seen as accessible among low-income women, in part because the ideal of obtaining financial security or a committed relationship prior to planning a pregnancy is not perceived as feasible (Borrero et al. 2015). Finally, there is not always a clear link between contraceptive use and pregnancy desires (Borrero et al. 2015). Aiken and colleagues (2016) propose a new framework for understanding unintended pregnancy altogether, as concepts currently used by researchers often do not reflect the complexity with which most women think

about pregnancy. Instead of intentions, they propose studying women's "perceptions of pregnancy" in conjunction with the notion of "pregnancy acceptability" in the context of incidences of pregnancy (Aiken et al. 2016).

These attitudes reflect women's personal pregnancy desires and expectations, but these do not occur in a vacuum. Women are also managing, to varying degrees, the expectations of their partners, families, social networks and communities, and the broader society, all of which can vary considerably across racial groups. Most women express ideal circumstances under which pregnancy should occur, such as having financial stability and being married or in a committed relationship (Borrero et al. 2015; Bute and Jensen 2010). Bute and Jensen (2010) find that low-income women articulate conflicting norms around pregnancy that derive from mainstream society, authoritative sources (such as parents, teachers, and doctors), and peers; out of these, they are most likely to align with norms expressed by their peers. While authoritative and dominant norms prescribed delayed sexual activity and pregnancy, peers normalized sexual activity beginning in high school and, in some cases, childbearing outside of marriage (Bute and Jenson 2010). This is supported by the ethnographic work of Edin and Kefalas (2011), in which childbearing among poor women is an expression of love and commitment to one's partner that is often preferred over marriage. It is worth noting that, in absence of similar studies among other social classes, this finding may not be unique; women of higher classes may also respond more strongly to peer-expressed norms, but those norms may instead align more closely with mainstream and authoritative sources.

All of this considered, it is important to consider the limitations of intentionality and planned behavior in approaching unintended pregnancy. It is vital to center the social and

personal aspects of sexual behavior when exploring the contexts in which unplanned pregnancy occurs.

LITERATURE REVIEW

Unintended Pregnancy

As many as 45% of all pregnancies in the United States are estimated to be unintended (Finer and Zolna 2016). Unintended pregnancy has traditionally been defined as pregnancies that are either mistimed or unwanted (Finer and Zolna 2016). However, this categorization typically relies on women's retrospective reports about their intentions to conceive prior to a pregnancy (Finer and Zolna 2014; 2016). Though this is the standard method for identifying unintended pregnancies, it is not ideal. For one, recollections of past pregnancy intention can be potentially clouded by numerous factors. More significantly, women's pregnancy intentions are typically more complex than retrospective recollections allow (Aiken et al. 2016). For these reasons, standard measures of unintended pregnancy may suffer from some issues with validity. This dynamic may in part explain the high rates of unintended pregnancy observed among certain demographic groups.

To explain the disproportionate rates of unintended pregnancy that Black women experience, it is necessary to review the factors generally associated with unintended pregnancy and how these factors are experienced by Black women. Broadly, these include contraception use, attitudes toward sex and fertility, relationship status, norms and culture, and external, structural factors such as poverty and neighborhood characteristics. Some analyses have found that accounting for enough of these characteristics undercuts the significant relationship between race/ethnicity and unintended pregnancy (Kim, Dagher, and Chen 2016; Kemet, Lundsberg, and Gariepy 2017). These include being under age 20 at conception, having less than high school

education, higher rates of prior live births, and being single, divorced, or widowed (Kim, Dagher, and Chen 2016). On the other hand, Kemet, Lundsberg, and Gariepy (2017) find no difference in pregnancy intention, wantedness, or planning by race/ethnicity among pregnant women. It is worth noting, however, that while accounting for a variety of factors helps to explain the difference between rates among races, it is still worth exploring why those factors are so disparate by race.

Poverty, Education, & Race

Poverty is strongly associated with unintended pregnancy. For women at or below 100% of the poverty level, 60% of pregnancies are unintended (Finer and Zolna 2016). As poverty influences unintended pregnancy, so does unintended pregnancy contribute to poverty. Unintended births partially explain the high rates of poverty for children compared to the general population. One in 6 U.S. children live in poverty, and children are the "poorest age group" in the U.S. (Dawson 2021). Poor women are at higher risk for unintended pregnancies, they have more children and larger families, all of which constrains their already-limited financial resources (Finer and Zolna 2016). Poor women do not necessarily desire larger families, and many poor women articulate mainstream norms around the timing and planning of childbirth (Bute and Jensen 2010; Borrero et al. 2015). However, cultural contexts and conflicting norms may complicate this issue (Bute and Jensen 2010; Borrero et al. 2015). Similarly, the introduction of federal family planning funding in the 1960s and 1970s was found to have decreased the number of children born into poverty, and these children were less likely to live in poverty as adults (Bailey 2014). Thus, the relationship between unintended poverty is bidirectional, and decreases in one will likely lead to decreases in the other.

In addition to poverty, unintended pregnancy can be linked to educational attainment. Women with lower levels of education experience higher rates of unintended pregnancy (Finer and Zolna 2016). Indeed, there has been a widening gap of unintended fertility between women without a high school degree and women with a college degree over the last several decades (Hayford and Guzzo 2016). Additionally, mother's education level has correlated with lower levels of unintended pregnancy as well (Kim, Dagher, and Chen 2016). Education is an important variable to consider as it relates to poverty and unintended pregnancy, because pursuing higher education may influence women to delay fertility and/or reconsider the costs and benefits of a potential unintended pregnancy. Anecdotally, this seems to have contributed to the decrease in fertility rates among younger women in recent years, who are delaying having children until finishing school or establishing careers (Tavernise, Miller, Gui and Gebeloff 2021). Poverty, of course, can influence women's access to higher education as well as their perceived access. The perceived attainability of higher education, careers, and financial stability may influence how lower-income women make fertility-related decisions.

However, poverty does not fully explain persistent racial disparities. Among Black women, 64% of all pregnancies are unintended, and rates of unintended pregnancy are higher for Blacks than they are for Whites and Hispanics at each income level (Finer and Zolna, 2016). While rates decrease for all races/ethnicities as income increases, rates for Hispanics approach the same level as Whites starting at 100% of the federal poverty level (Finer and Zolna 2016). At the same time, rates for Blacks remain twice as high as the rate for Whites at or above 200% of the poverty level (38 per 1,000 women compared to 18 per 1,000 women) (Finer and Zolna 2016). In other words, as income levels increase, the disparity also increases. This mirrors other health disparities faced by Black women, such as rates of maternal mortality, in which

supposedly equalizing forces such as income and education do not produce the same benefits that White women experience (Petersen et al. 2019).

These data underscore why this study focuses on rates of unintended pregnancy among Black women specifically as opposed to racial minority groups overall. Though low-income Blacks and Hispanics have similar outcomes and certainly face many of the same structural constraints in the U.S., they also have distinct experiences, cultures, and histories that differentiate them. In the literature on unintended pregnancy, most articles only describe race and ethnicity in terms of Black, White, and Hispanic, and few studies focus on unintended pregnancy prevalence of racial/ethnic groups aside from these three. That limited research, however, indicates that risk factors are also high for American Indians and Alaska Natives (AI/ANs) with (Rutman 2012; Urban Indian Health Institute 2016). It is worth noting that AI/ANs often face general health outcomes that parallel Black Americans, and that they have distinct experiences and challenges depending on whether they reside in or outside of tribal areas. For instance, Black and AI/AN children share the highest poverty rates by race/ethnicity, at 30.1% and 29.1%, respectively, and AI/AN women experience (Dawson 2021).

Contraception Use

There are various methods of contraception available in the United States, and types vary by cost, accessibility, and efficacy. Most effective are long-acting methods, such as sterilization (vasectomy or tubal ligation), intrauterine devices (IUDs), and implants. At the other end of the spectrum, condoms and other barrier methods that are only used during sex are less effective. In addition to actual efficacy, methods can vary in efficacy due to the potential of user error. Male condoms, the most common form of contraception, have a failure rate of 2% with perfect use, but the rate jumps to 13% when accounting for their typical use (Guttmacher Institute 2020).

This is one reason why long-acting reversible contraceptives (LARCs) like IUDs have such high efficacy rates: they can be used long-term and have a low risk of user error.

However, contraceptives are not equally accessible. The most effective methods are more expensive than the least effective methods, and degrees of access vary. For instance, condoms are available at a very low cost at drugstores, birth control pills require a prescription from a physician, and IUDs can require more than one office visit. While the Affordable Care Act (ACA) made birth control more accessible for many with private or public insurance by removing copays—and, indirectly, by expanding overall access to health insurance—a coverage gap remains for those without insurance. Interestingly, however, the overall rate of contraceptive use has not changed significantly since implementation of the ACA (Kavanaugh and Jerman 2018). While more women are choosing highly effective methods like LARCs, fewer women are choosing permanent methods like sterilization, with little other changes in contraceptive type chosen (Kavanaugh and Jerman 2018).

Additionally, continued political attacks on both abortion and Planned Parenthood significantly impact birth control access by forcing the closure of clinics and restricting funds for the reproductive health services that these clinics offer. Rules finalized in 2019 would bar family planning clinics from receiving Title X funding, which are federal funds dedicated to supporting family planning services, as long as they continue to provide abortion services and referrals (McCammon 2019). As Planned Parenthood alone serves an estimated one third of family planning clients—despite representing only 6% of all family planning clinics in the U.S. (Ranji 2019)—these policies would further restrict birth control access for vulnerable groups, particularly those most at risk for unintended pregnancy.

Use of contraception varies by income level, race/ethnicity, and often, religion (Grady, Dehlendorf, Cohen, Schwarz, and Borrero 2015; Kramer, Rowland Hogue and Gaydos 2007). Black women tend to use contraception less frequently than White and Latina women, even after adjusting for demographic characteristics and access to healthcare (Grady et al. 2015). Rocca and Harper similarly find that Black women are less likely to use contraception and more likely to use less effective methods (2012). However, knowledge about contraception does not explain the difference in usage among racial-ethnic groups, as knowledge does not differ between Black and White women (Rocca and Harper 2012).

Race also correlates with coercive reproductive experiences that can subsequently increase risk of pregnancy. Black women, along with Latina, multiracial, and low-income women, are disproportionately impacted by reproductive coercion (Grace and Anderson 2018; Borrero et al. 2015). Reproductive coercion refers to another person, typically a partner, limiting one's reproductive autonomy by asserting control over reproductive decisions (Grace and Anderson 2018). Often this manifests as sabotaging contraceptive use. Women have described partners throwing away condoms and flushing birth control pills down the toilet (Borrero et al. 2015). It can also encompass pressure to get pregnant or to terminate a pregnancy (Grace and Anderson 2018). In a study of contraceptive nonuse, Mosher, Jones, and Abma (2015) find that about 12% of women not contracepting prior to an unintended birth claimed that their partner did not want them to use birth control. In a qualitative study of low-income women, 45% of Black women reported having experienced some type of reproductive coercion, compared to only 17% of White women (Borrero et al. 2015). In the context of unintended pregnancy, this underscores how Black women overall may experience decreased control over their reproductive decisions that in turn enhances their risk for unintended pregnancy.

Sexual History

Important to understanding overall rates of unintended pregnancy are varying types of adolescent sexual behavior that influence adult sexual behavior. Younger age (less than twenty years old) at first conception is associated with higher risk of unintended pregnancy (Kim, Dagher and Chen 2016). Younger age at first intercourse, while not directly associated with unintended pregnancy, is linked to higher risk of adolescent pregnancy (Biello et al. 2013). Notably, adolescents across the board are engaging in sexual, and other "adult" activities, later than adolescents in past decades (Twenge and Park 2019). After peaking in the early '90s, rates of teen birth and ever having intercourse are at all-time lows, with decreases among all races, income levels, and geographic regions (Twenge and Park 2019). Some of the largest drops were seen among Black adolescents, who previously had the highest rates of sexual activity but have now approached the rates of non-Black adolescents (Twenge and Park 2019). Although rates of unintended pregnancy are still highest for women in younger age brackets, the decline in adolescent sexual activity may contribute to further decreases in the overall rate of unintended pregnancy in the future.

Hardships & Social Stability

At least one study has explored the experience of poverty and hardships prior to or during pregnancy (Braveman et al. 2010). Hardships included financial hardships as well as life hardships such as divorce, domestic violence, incarceration, etc. (Braveman et al. 2010). The likelihood of experiencing hardships and the number of hardships experienced were correlated with income level, with nearly 60% of low-income women experiencing hardships before or during pregnancy (Braveman et al. 2010). However, this study sample includes only women

experiencing pregnancy and does not explore the relationship between hardships, pregnancy intention, and risk of unintended pregnancy.

Social stability refers to "the range of life structure and reliable routine that is protective against further situational hazards" (German and Latkin 2011). Interruptions in social stability are a normal part of life, but frequent, chronic sources of instability can be disruptive to one's well-being in numerous ways. Social instability may lead to two divergent outcomes regarding the risk of unintended pregnancy: some may attempt to reduce their risk of unintended pregnancy, while others may adopt more fatalistic outlooks that result in more risk-taking behaviors. Houston Su (2019) found that women in areas with high unemployment had lower rates of unintended pregnancy, relative to no pregnancy.

Environment, Housing, and Place

Housing is one factor within neighborhoods that, to my knowledge, has not yet been explored as it relates to unintended pregnancy. The housing accessible to women varies by race due to historic patterns of segregation and subsequent disinvestment from predominately Black neighborhoods (Massey and Denton 1993; Rothstein 2017). Housing, especially in the broader neighborhood context, also introduces a potential of axis of instability experienced by Black Americans. Homeownership is a key component of housing security, and the Black homeownership rate has steadily remained just half the rate of Whites (U.S. Department of Housing and Urban Development 2020). Renting and housing unaffordability have both been linked to lower self-reported health (Pollack, Griffin and Lynch 2010). Exposure to public housing has been associated with higher rates of single motherhood among black high school dropouts, specifically (Shester, Allen and Handy 2018). In the context of reproductive decisions, housing insecurity in conjunction with poverty may create a social context in which planning a

pregnancy may seem ill-advised, subsequently increasing the likelihood of unintended pregnancies to occur.

The housing context for Black Americans is inextricably linked to patterns of residential segregation, which also plays a role in health outcomes (Williams and Collins 2001). Racial and class-based segregation combine to disproportionately concentrate Black Americans in impoverished environments (Massey and Denton 1993). The concentration of multiple sites of disadvantage in these neighborhoods is key to understanding the reproduction of poverty and inequality. Decades of disinvestment from these communities exacerbates the experiences of poverty, while gentrification in these areas contributes to even more instability for residents, often leading to displacement. While neighborhood-level data is absent from the proposed analysis, the context of neighborhood differentials between Blacks and Whites is key to understanding disparate racial outcomes.

The literature on unintended pregnancy generally does not explore the relationship between place and environment. Some links have been established between neighborhood characteristics and quality to outcomes such as teenage pregnancy (Crane 1991; Harding 2003) as well as other adverse reproductive health outcomes for adolescents (Decker et al. 2018). These and other studies have established place as an important variable determining health outcomes, as poverty interacts with the social environment to produce health outcomes.

However, factors like segregation are not inherently deleterious for social and health outcomes. While factors like low collective efficacy and neighborhood unsafety are related to poor outcomes for adolescent reproductive health, these factors may or may not be present in segregated and/or low-income communities (Decker et al. 2018). It is also worth noting that racial minorities living in predominately White neighborhoods may also experience negative

health outcomes (Gibbons and Yang 2014). In the context of unintended pregnancy, impacts of segregation have not been well explored. Age at first sexual intercourse, a risk factor associated with unintended pregnancy, has been correlated with both high and low levels of segregation, depending on the type of segregation measure (Brooks Biello et al. 2013). Higher rates of sexual activity among Black adolescents are partially explained by the concentration of black families in neighborhoods with lower median incomes, suggesting that both neighborhood-level poverty and individual-level poverty also play a role in sexual health outcomes (Brewster 1994).

METHODS

Data

To address these research questions, I used the 2012-2014 Continuity and Change in Contraceptive Use Study (CCCUS) conducted by the Guttmacher Institute. This study was designed to assess contraceptive use patterns and various issues that impact these patterns. It collected data in four waves of surveys over an 18-month period. Respondents received $10 in compensation for each wave of the study completed. A final total of 1,842 women completed all four waves of the survey, which represents 77% of the initial 4,634 women who completed the initial first wave.

The sample was recruited through GfK's Knowledge Panel, which is a nationally representative household panel. Surveys were conducted online. GfK ensures computer and internet access to households recruited for their panel. The study sample consists of women of reproductive age who had potential risk for unintended pregnancy. Specifically, only women who had ever had sex with a man, were not currently pregnant, had not had tubal sterilization, and whose main partner had not had a vasectomy were included in the study.

Study Variables

In addition to variables that typically influence unintended pregnancy, this study includes variables that measure certain types of financial and life hardships in addition to characteristics about their living environment. While it does not include neighborhood-level characteristics, it does ask respondents about housing type and whether they rent or own their home.

Independent Variables

Housing tenure is measured with the variable OWNHOME, which asks respondents if their living space is owned (or being bought), rented, or occupied without payment. Only owners and renters are included in the analysis.

Housing security is measured with the variable RENT, which asks respondents if they have fallen behind on rent in the past six months and is asked in each wave of the survey (0=no, 1=yes).

Financial security is with the variable MONEY, which asks respondents if they have experienced a worsening financial situation in the last six months, in each wave of the survey (0=no, 1=yes).

Finally, HHTYPE asks about the type of housing respondents live in. Options include a one-family house (detached from any other house), a one-family house attached to one or more houses, a building with two or more apartments, a mobile home, or a boat, RV, van, etc. This is simplified into dummy variables for all one-family homes, apartments, and mobile homes. Other housing was excluded from the analysis.

Dependent Variable

The dependent variable in this study is experience of unintended pregnancy, is measured using the variable AVOIDPG. This variable represents a subsample of participants who report

having given birth in the last six months in either Wave 2, Wave 3, or Wave 4 of the survey. The correlating survey question asks respondents: "This last time you became pregnant, how important was it to you to AVOID becoming pregnant at that time?" Responses ranged from 1-6 on a Likert scale, 1 being "not at all important to avoid pregnancy" and 6 being "very important to avoid pregnancy." As previously discussed, this strategy has potential benefits compared to asking respondents if a pregnancy was either unwanted or mistimed. It may more accurately capture women's intentions by allowing for a spectrum of possible answers.

Control Variables

Risk Factors for Unintended Pregnancy

Contraceptive use and nonuse are primary risk factors for unintended pregnancy. CONSISTENT[1] measures how consistently participants who experienced a recent pregnancy used their respective birth control methods in the month prior to becoming pregnant. Other key risk factors for unintended pregnancy include prior experience having an unintended pregnancy, total number of live births, age at first sexual intercourse, relationship status, and number of sexual partners in the last 30 days. These are measured by EVERUP, NBIRTHS, AGESEX, UNION/UNIONB and NSEXP, respectively. EVERUP and AGESEX are asked in Wave 1 whereas the remaining variables are asked in all waves of the survey.

Ordinarily, the type of birth control used would also be important to measure as efficacy among each type varies. However, this data measures types of birth control used in the last 30 days, whereas the sub-sample includes women reporting a pregnancy anytime in the last 6 months. As a result, the type of birth control used in the last 30 days bears little relevance to the

[1] Variable is named CONSISTENT in Wave 1 of the study and CONSISTEN in subsequent waves.

incidence of pregnancy being studied, so these variables are excluded from the analysis. Consistency of use prior to pregnancy, as measured by CONSISTENT, is more appropriate for these purposes.

Demographic Characteristics

Demographic characteristics include variables measuring race and ethnicity (RACEETH), poverty status (POVCAT), age (AGE), employment status (EMPSTAT), and education level (ED). POVCAT is measured in Waves 1 and 3; all other variables are measured in each wave.

Analytic Strategy

Data from CCCUS was collected in four waves, each as separate data files. These data files have been combined, excluding variables that are not pertinent to the overall analysis. The analysis includes three models.

Model 1 includes the independent variables of race/ethnicity, housing security, housing tenure, financial security, and housing type. Model 2 adds the sociodemographic characteristics of poverty status, age, employment status, education, and age. Finally, Model 3 adds control variables related to risk factors for unintended pregnancy.

SAMPLE DESCRIPTION

Twenty one percent of all pregnancies in the sample were unintended, defined in the study as women who wanted to avoid pregnancy at the time they became pregnant. Black respondents were 9% of the sample. Hispanic/Latinas were 17% of the sample. Those reporting more than two races were 3% of the sample, and those selecting other race were 6%. Whites, the reference group, were 65% of the sample.

Six percent of the sample fell behind on rent and 18% reported financial difficulties at some point in the six months prior to the survey. Thirty-three percent of respondents lived in apartments and 48% rented their housing. Forty-eight percent owned their home, 63% lived in single-family homes, and 4% lived in mobile homes. Twenty one percent of the sample were below 100% of the poverty level, while 23% were between 100%-199% of the poverty level, and the remaining 56% of the sample were at 200% or more of the poverty level.

Five percent of the sample had less than a high school education, while 14% were high school graduates, 36% have completed some college, and 45% had a Bachelor's degree or higher. Eighty one percent of the sample were employed, while 18% are unemployed. Forty nine percent of respondents were married, 19% were cohabiting, another 19% were dating, whereas 11% had never been married and 2% had previously been married. The sample was between the ages of 18-39, and 26% are aged 18-24, 56% are between 25-34, and the remaining 16% are 34-39.

Thirty four percent of the sample have had a prior unintended pregnancy. Most respondents (96%) had one sex partner in the last 30 days, whereas 3% had two sex partners and 1% had three or more. Eleven percent of women in the sample had sexual intercourse for the first time at age 14 or younger, 65% did between the ages of 15-19, and 24% did at age 20 or older.

Sixty percent of the women who reported a recent pregnancy were not using birth control in the month prior to getting pregnant because they wanted to get pregnant. Another 21% were not using birth control due to other reasons. 11% were using birth control inconsistently, and 7% were using it consistently.

Table 1: Descriptive Statistics for Independent, Dependent, and Control Variables

Variable	Mean	SD	Min	Max
Dependent Variable				
Pregnancy avoidance at last pregnancy	0.22	0.41	0	1
Independent Variables				
Black	0.09	0.29	0	1
Fell behind on rent, last 6 months	0.06	0.24	0	1
Lives in apartment	0.33	0.47	0	1
Lives in rented housing	0.49	0.50	0	1
Experienced financial difficulties, last 6 month	0.18	0.39	0	1
Control Variables				
Race				
White	0.65	0.48	0	1
Hispanic	0.17	0.38	0	1
More than two races	0.03	0.16	0	1
Other race	0.06	0.23	0	1
Education				
Less than high school	0.05	0.21	0	1
High school	0.14	0.35	0	1
Some college	0.36	0.48	0	1
Bachelor's degree or higher	0.45	0.50	0	1
Employment				
Employed	0.81	0.39	0	1
Unemployed	0.19	0.39	0	1
Union status				
Married	0.49	0.50	0	1
Cohabiting	0.19	0.39	0	1
Dating	0.19	0.39	0	1
Never married	0.11	0.31	0	1
Previously married	0.02	0.15	0	1
% of Poverty Level				
Below 100%	0.21	0.41	0	1
100%-199%	0.23	0.42	0	1
200% or more	0.56	0.50	0	1
Age				
Age 18-24	0.26	0.44	0	1
Age 25-34	0.56	0.50	0	1
Age 34-39	0.18	0.38	0	1
Housing Type				
Single family home	0.63	0.48	0	1
Mobile home	0.04	0.19	0	1
Housing Tenure				
Owns home	0.48	0.50	0	1
Prior unintended pregnancy	0.34	0.47	0	1
Sex Partners in Last 30 Days				
1	0.96	0.19	0	1
2	0.03	0.17	0	1
3 or more	0.01	0.09	0	1
Age at First Sexual Intercourse				
14 or younger	0.11	0.31	0	1
Age 15-19	0.65	0.48	0	1
Age 20 or older	0.24	0.43	0	1
Birth Control Use in Month Prior to Most Recent Pregnancy				
Consistent user	0.07	0.25	0	1
Inconsistent user	0.11	0.32	0	1
Non-user, wanted to get pregnant	0.60	0.41	0	1
Non-user, for other reasons	0.21	0.41	0	1

LOGISTIC RESULTS

Table 2 presents the results of the logistic regression analysis. The dependent variable in all models is unintended pregnancy. Unintended pregnancy is measured against women who had intended pregnancies. Specifically, the study asks women how much they wanted to avoid pregnancy at the time of their most recent pregnancy. This differs slightly from the way unintended pregnancy is usually framed; for instance, the National Survey of Family Growth questions the "wantedness" of a pregnancy.

Model 1 shows logistic regression results for all independent variables. In Model 1, Black women have 220% greater odds of unintended pregnancy compared to White women. Hispanic women's odds of unintended pregnancy are 128% greater than those of White women. Women who report having financial issues in the last six months also have 130% higher odds of unintended pregnancy than women who did not.

Model 2 adds sociodemographic controls: employment, education status, poverty level, and age. Among the independent variables in this model, only Black race retains its significance, with Black women still having 220% higher odds of unintended pregnancy compared to White women. Financial issues within the last six months drops in significance and those with financial issues have 79% higher odds of unintended pregnancy than those without financial issues. Of the sociodemographic controls, only poverty level was significant. Those with income less than 100% of the poverty level had 95% higher odds of unintended pregnancy than those at over 200% of the poverty level, while those between 100 and 199% of the poverty level had 98% higher odds.

Finally, Model 3 adds predictors of unintended pregnancy related to past sexual history, contraceptive use, and relationship status. Here, none of the independent variables retain

significance. Of the sociodemographic variables, only unemployment, having a high school degree, and age between 25-34 are significant. Those who are unemployed have 330% higher odds of having an unintended pregnancy than those who are employed. Those with only a high school degree have 72% lesser odds than those with a bachelor's degree or higher of having an unintended pregnancy. Women in the 25-34 age range have 77% lesser odds of having an unintended pregnancy than women who are 35-40 years old.

Women who reported not using birth control, but who were not trying to get pregnant, in the month before their pregnancy had 3,392% higher odds of unintended pregnancy compared to women using no birth control who were trying to get pregnant. Women who used birth control consistently in the month prior to pregnancy had 44,694% higher odds than women using no birth control who were trying to get pregnant. Women using birth control inconsistently in the month prior to pregnancy have 8,326% higher odds of unintended pregnancy than women not using birth control and trying to get pregnant. Finally, women who are dating have 430% higher odds of unintended pregnancy than women who are married. Collinearity tests were performed on this model, and high levels of collinearity were not found.

Table 2: Logistic Regression Models Comparing Odds of Unintended Pregnancy by Race, Housing Status, and Financial Issues N=351

	Model 1 o.r./(s.e.)	Model 2 o.r./(s.e.)	Model 3 o.r./(s.e.)
Independent Variables			
Black	3.20 ***	3.20 ***	1.89
	(0.95)	(0.95)	(1.21)
Hispanic	2.28 ***	1.67	1.55
	(0.52)	(0.48)	(0.80)
Non-Hispanic, Other Race	1.27	1.83	1.96
	(0.57)	(0.93)	(1.97)
Non-Hispanic, Two or More Races	2.30	1.87	0.61
	(1.01)	(0.95)	(0.77)
Fell behind on rent, last 6 months	1.55	1.59	0.61
	(0.53)	(0.64)	(0.46)
Rents housing	1.16	0.71	1.05
	(0.24)	(0.19)	(0.58)
Apartment	0.96	1.62	1.13
	(0.22)	(0.44)	(0.64)
Financial issues, last 6 months	2.30 ***	1.79 *	0.93
	(0.49)	(0.44)	(0.44)
Sociodemographic Controls			
Unemployed		1.19	4.30 **
		(0.30)	(2.37)
No high school degree		2.48	1.85
		(1.31)	(1.93)
High school degree		1.10	0.28 *
		(0.35)	(0.18)
Some college		0.81	0.33
		(0.22)	(0.19)
Less than 100% poverty level		1.95 *	2.81
		(0.62)	(1.76)
100-199% poverty level		1.98 *	1.51
		(0.53)	(0.77)
18-24 years old		1.52	0.42
		(0.57)	(0.31)
25-34 years old		0.70	0.23 *
		(0.24)	(0.17)
Unintended Pregnancy Risk Factors			
Experienced prior unintended pregnancy			1.01
			(0.45)
14 years old or younger at first intercourse			0.29
			(0.23)
15-19 years old at first intercourse			2.12
			(1.17)
2 sex partners in last 30 days			1.06
			(0.96)
3 or more sex partners in last 30 days			4.76
			(7.80)
Not using birth control prior to last pregnancy, not trying to get pregnant			34.92 ***
			(23.27)
Consistent birth control use prior to last pregnancy			447.94 ***
			(415.17)
Inconsistent birth control use prior to last pregnancy			84.26 ***
			(61.39)
Dating			5.43 **
			(3.35)
Cohabiting			1.28
			(0.66)
Never married			11.59
			(15.50)
Constant	0.15 ***	0.15 ***	0.02 ***
	(0.02)	(0.05)	(0.01)
LR Chi-Square	58.25	76.84	194.66
R-squared	0.07	0.11	0.51

Note: *p<.05, **p<.01, ***p<.001; White, Home owners, Single-family home dwellers, No issues paying rent last 6 mos., No financial issues last 6 mos. are reference groups.

DISCUSSION

This study sought to examine the potential impacts of housing factors on unintended pregnancy, particularly unintended pregnancy among Black women. It was hypothesized that being Black, having insecure housing arrangements such as renting or apartment living, and having recently fallen behind on rent or having financial difficulties would all increase the likelihood of experiencing unintended pregnancy.

For the most part, these hypotheses were not supported. While Black women experienced higher odds of unintended pregnancy even when controlling for demographic factors, the significance of these odds disappeared once sexual health risk factors were accounted for in the final model. All housing-related factors failed to achieve significance, and recent financial difficulties were only significant before controlling for sexual health risk factors. Indeed, in the final analysis, falling behind on rent and having financial difficulties no longer increased the odds of having an unintended pregnancy, in addition to losing significance.

There are many potential explanations for these results. First, these variables may be unrelated to unintended pregnancy after all. This is understandable given some of the limitations of this data, discussed later. These housing variables attempted to account for some known racial disparities in housing. However, apartment living can vary dramatically depending on quality of housing as well as neighborhood-level factors. The same can be said for renting instead of owning.

Recent financial difficulties had a stronger association with unintended pregnancy than the specific experience of falling behind on rent. The proposed hypotheses predicted that financial instability would increase the risk of unintended pregnancy by generating instability in other areas; for instance, lapsed birth control usage due to cost, or generating more “irrational,”

risky behaviors. In this case, such financial instability is not explanatory when controlling for more relevant sexual risk factors, and likelihood of unintended pregnancy decreased. Here, financial instability instead may be related to more protective, rational behaviors to prevent unintended pregnancy.

Regarding race, some of the literature has demonstrated that certain risk factors explain the higher rates of unintended pregnancy for Black women. It was expected that these, in addition to some demographic factors, would change the relationship between these variables. That said, as indicated by the second model, Black race maintained a significant relationship with unintended pregnancy even when accounting for poverty level, even as the significance for Hispanics/Latinas disappeared. This suggests that the sexual risk factors included in Model 3 help to explain racial disparities more so than poverty. Black women may exhibit more of these risk factors independent of their socioeconomic status.

Unemployment had an unexpected relationship with unintended pregnancy in this analysis, reaching significance in the final model. Some women who are unemployed may be choosing not to work to care for children. Though this would likely be more associated with intended pregnancies, perhaps the lack of career-related restraints influences women's attitudes toward pregnancy and choices around contraception. It is also possible that women who are unemployed are more likely to define a pregnancy as unintended simply because their employment situation makes them unlikely to plan for an intended pregnancy.

Another unexpected result was found in education level and age. In the final model, women with a high school degree or who were 25-34 years old had significantly lesser odds of unintended pregnancy than women with a bachelor's degree or higher (77%) and those 35-39 years old (72%), respectively. Both are significant in the opposite direction than expected. It is

possible that the stronger risk factors for unintended pregnancy help to explain the differences between education levels. The odds ratio for having a high school degree decreased from having 10% higher odds to 72% lower odds between Model 2 and Model 3. It is less clear why women 25-34 have lower odds of unintended pregnancy than lower women in the sample, however. Perhaps more women in this age range have stronger and more consistent attitudes toward contraceptive use or are more likely to desire a pregnancy.

The strength of various sexual health risk factors is important to note in this analysis. A group of controls associated with birth control use and pregnancy intention all had very high odds of increased risk of unintended pregnancy. This can in part be explained by the fact that the reference group were women who were not using birth control because they were trying to get pregnant—by definition, these women's pregnancies were likely intended. Subsequently, all other groups were much more likely to describe their pregnancy as one they wanted to avoid, regardless of their consistency in birth control usage.

There were several limitations in using secondary data for this study. The research question had to be adjusted to account for limitations in the dataset, which did not focus on housing or social context, but instead on contraception use and the potential factors that impact consistency in usage. The data lacked specific geographic information, only asking respondents about their state of residence and whether they lived in a metro or non-metro area.

The results of this study, along with the current literature on unintended pregnancy, present multiple opportunities for further research. While this and other studies have found that sexual health decisions and risk factors moderate the influence of race on unintended pregnancy, it is still worth exploring the relationship between unintended pregnancy and race. These sexual risk factors do not occur in a vacuum, and the data suggests there is a higher concentration of

these risk factors among Black women. Qualitative research may more be more appropriate to delve into Black women's experiences around reproduction and sexual health decisions. On a structural level, the impacts of housing inequality may be better explored through research that addresses segregation and its role in concentrating these unintended pregnancy risk factors in Black communities. Additionally, most research into unintended pregnancy is concentrated in medical and health research. Given the relationship between unintended pregnancy and family inequality, more research should lend a sociological approach to these topics.

It is important to contextualize the issue of unintended pregnancy as a social problem, particularly when exploring its relationship to race. The reproduction of Black women has been heavily policed, historically and currently, from the state and intimate partners alike (hooks 2000). The goal of this project was to further explore the relationship between race and unintended pregnancy. But it is vital to acknowledge that the problems posed by unintended pregnancy do not necessarily have to be resolved by direct interventions to reduce the number of unintended pregnancies. Anti-poverty measures, particularly designed to support children in poverty, can ameliorate the effects of unintended pregnancies on families' financial resources. Indeed, relief efforts tied to the COVID-19 pandemic have significantly lowered child poverty rates, albeit temporarily (Parolin, Collyer, Curran and Wimer, 2021). While every effort should be made to ensure equitable access to the tools and knowledge required to make informed reproductive decisions, Black and White women may always approach these decisions somewhat differently, resulting in disparate outcomes. In the meantime, more attention should be paid to exactly what these differences are, what influences them, and how women can be better served throughout their reproductive lives.

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