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ACCORDING TO PLAN? MEDICINE, INEQUALITY AND REPRODUCTION IN  
THE UNITED STATES

By

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## ABSTRACT OF THE DISSERTATION

According to Plan? Medicine, Inequality, and Reproduction in the United States

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This dissertation uses three papers on reproductive health care to examine a broader set of questions: to what extent can women exert control over their fertility? To what extent should they? A number of scholars have tackled the double-edged sword of reproductive control. Access to medical services and technologies like contraception, abortion, and prenatal care can allow individuals the bodily autonomy to shape their fertility and health in ways that align with their personal values and goals. Yet, these services and technologies often come with expectations about how to use them. These tensions have been well-documented in individual lived experience, policy, and broader culture. However, less research examines the twofold meaning of reproductive control in the context of medical institutions and health care – a gap which this work addresses. I look specifically at the attitudes and practices of clinicians who specialize in family planning and reproductive health care. In this dissertation, I examine their views about three areas of reproductive control: 1) the public health objective to prevent unintended pregnancy, 2) birth control – the technological tools that enable pregnancy planning, and 3) bodily risk management before and during pregnancy, particularly in relation to environmental contamination. In these three papers, I show that providers find reproductive control to be both fundamental and unevenly attainable. Importantly, the

way they conceptualize such control vacillates between a focus on their patients' reproductive *autonomy* and a focus on their patients' reproductive *responsibility*. Moreover, as they weigh the competing priorities of autonomy and responsibility, providers frequently reproduce broader social inequalities around race, class, and gender.

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## Chapter 1

### Introduction

This dissertation uses three papers on reproductive health care to examine a broader set of questions: to what extent can women<sup>1</sup> exert control over their fertility? To what extent should they? On first consideration, these questions may seem exceedingly simple. Reproductive control has been a cornerstone of the women's health movement (Morgen 2002) and modern technologies have given heterosexual couples unprecedented control over pregnancy prevention (Gordon 2002). The expansion of prenatal care and, more recently, preconception care, has encouraged women, in concert with medical institutions, to intervene more directly in their health during and before pregnancy (Waggoner 2017).

At the same time, the rate of unintended pregnancy in the United States has been persistently high relative to other wealthy countries and currently only about half of pregnancies are intended (Finer and Zolna 2016). A significant proportion of those at risk of unintended pregnancy do not use birth control even when they have access to it, misuse it, or use less effective methods of contraception (Frost, Singh, and Finer 2007). These trends have exasperated policymakers and public health advocates, who seek to reduce and even eliminate unintended pregnancy. Finally, while there is broad medical consensus about how pregnant women should manage risks like drinking, smoking, and

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<sup>1</sup> Throughout this manuscript, I follow Ross and Solinger's (2017) example of using both gender-specific and gender-neutral language to describe people who can get pregnant. Often, I use terms like "women" or "mother," but I also use "individual," "people at risk for pregnancy," or "parents." I alternate between gender-specific and gender-neutral terms to 1) recognize a pattern of legislation that seeks to intervene in the reproduction of women, as traditionally defined by society and 2) at the same time, recognize gender diversity beyond traditional binaries (Ross and Solinger 2017).

nutrition (Centers for Disease Control and Prevention [CDC] 2018a), environmental contamination has recently come into view as a threat before and during pregnancy (Caserta et al. 2011). However, toxins in the environment are diffuse, uncertain, and harder to control than traditional areas of intervention (Szasz 2007).

Tensions around whether women can or should control reproduction in specific ways are key in contemporary American policy, public health, and medical care. Public narratives typically portray reproductive control as moral, rational, and responsible (Fordyce 2012). This message manifests in both liberal discourse – where individuals should use contraception and, in worst-case scenarios, abortion, to control fertility – and conservative discourse – where sexuality and, therefore, fertility, should be controlled within the confines of heterosexual marriage (Luker 1985). Underlying these admonitions to plan and control fertility are issues of gender inequality, family structure, individual and collective responsibilities for population health and wellbeing, and the promises and pitfalls of contemporary medicine and technology.

A number of scholars have tackled the double-edged sword of reproductive control (Gordon 2002; Petchesky 1990; Roberts 1997). Access to medical services and technologies like contraception, abortion, and prenatal care can allow individuals the bodily autonomy to shape their fertility and health in ways that align with their personal values and goals. Yet, these services and technologies often come with expectations about how to use them. Expectations, for example, that couples should use contraception consistently until they can independently afford to raise children, that abortion should be a last resort and not a primary means to control fertility, or that pregnant women should

take every possible precaution to ensure the health of their (future) children, regardless of the high burdens this risk management may impose.

These tensions have been well-documented in individual lived experience, policy, and broader culture. However, less research examines the double-edged sword of reproductive control in the context of medical institutions and health care – a gap which my work addresses. I look specifically at the attitudes and practices of clinicians who specialize in family planning and reproductive health care. In the chapters that follow, I examine their views about three areas of reproductive control: 1) the public health objective to prevent unintended pregnancy, 2) birth control – the technological tools that enable pregnancy planning, and 3) bodily risk management before and during pregnancy, particularly in relation to environmental contamination. In these three papers, I show that providers find reproductive control to be both fundamental and unevenly attainable. Importantly, the way they conceptualize such control vacillates between a focus on their patients' reproductive *autonomy* and a focus on their patients' reproductive *responsibility*. Moreover, as they weigh the competing priorities of autonomy and control, providers frequently reproduce broader social inequalities around race, class, and gender.

## **BACKGROUND AND THEORETICAL FRAMEWORK**

### *Reproduction as a Social Process*

Rather than conceptualizing reproduction as a series of biological events – menstruation, pregnancy, childbirth, menopause – that happen primarily to women, Almeling proposes that we think about reproduction as “the biological and social process

of having or not having children” (2015:430). First, this definition of reproduction allows us to think about the continuities between discrete “events.” My analysis in this project focuses on less on specific reproductive events and more on the many years of a woman's life (typically between 15 to 44 years old) spent achieving or avoiding pregnancy. This process is intimately tied to contraception, abortion, miscarriage, childbirth, and infertility.

Second, this definition highlights how reproduction is a profoundly social process. Reproduction not only involves the coordinated action of two or more people, but it is regulated, encouraged, enabled, and discouraged by the state (Gal and Kligman 2000; Ginsburg & Rapp 1995). With this broad definition of reproduction in mind, I consider the processes “that [occur] on multiple levels, from individual embodiment to state policy” (Almeling 2015:424). Laws dictate, for instance, whether women have legal access to abortion and contraception and determine the requirements for legal and financial custody of children. Laws also communicate priorities about whose reproduction is valued and whose is discouraged. For instance, federal programs like Medicaid and Title X provide free or low-cost contraception for poor women, but no similar program exists to provide poor women access to infertility services (Bell 2009). Reproduction is also structured by social institutions and processes like family dynamics, public health initiatives, the medical profession, poverty and economic inequality, and sexual morality.

### *Reproduction and Biomedicalization*

The emphasis on reproductive control fits with the larger trend of biomedicalization in the United States (Clarke et al. 2010). Scholars document the

emergence of a new biopolitics of the 21<sup>st</sup> century: rather than focusing on curing illness or ailments, modern medicine takes up “the politics of life itself” – the ability to control, shape, modify, and optimize vitality (Clarke et al. 2010; Knorr-Cetina 2005; Rose 2007). In this refocusing on the optimization of health, individuals are tasked with creating better futures for themselves, a directive which produces fear and anxiety about the future. At the same time, this responsibility creates an “ethos of hope” for the ability to make one's future successful.

I suggest that reproductive planning is an instance of securing better futures – both for one's self and one's children – through optimization. Individuals carefully monitor and improve health, assess personal circumstances, and then select the *best* time to achieve pregnancy. These steps are supposed to ensure optimal health and well-being for parents and children. As a result, “[p]lanfulness appears to be an essential component of contemporary notions of biological citizenship in industrialized societies” and women who do not plan to become or not become pregnant are rendered problematic (Greil and McQuillan 2010:140).

The framework of biomedicalization can also be applied to the effects environmental contamination on health (Shostak 2010). Though most contamination stems from industrial sources, individuals are often tasked with protecting themselves by engaging in “precautionary consumption” – the selection of safe, non-toxic products (MacKendrick 2010). In the case of parenting, this burden falls most heavily on mothers as a gendered form of carework (MacKendrick 2014).

Biomedicalized approaches reflect a Western middle- and upper-class ethos, because they rely on access to particular resources in order to make “good” choices. We

know that efforts to manage risk and optimize health through individual behavioral modifications lead to growing health inequalities (Link & Phelan 2010). Because persons of high socioeconomic status have access to resources, including “knowledge, money, power, prestige, and beneficial social connections,” they are better able to implement healthful choices than their lower-SES counterparts (Link & Phelan 2010: 5).

Additionally, pregnancy planning and management extend beyond the individual patient to include the fetus, the child, and ultimately future generations. Scholars have employed the term “maternal-fetal conflict” to describe ethical debates over who is actually the patient of reproductive health care: the pregnant person or the (future/potential) child (Lyerly et al. 2009; Markens, Browner and Press 1997)? The notion of maternal-fetal conflict further complicates the biomedicalization framework.

Advice for reproductive-age and pregnant women is often grounded in middle class assumptions and agendas and tied to cultural ideas about good motherhood in the post-industrial West. These cultural ideas are connected to shifting conceptions of childrens' roles and needs (Zelizer 1985; Kligman 2005). With health care, public sanitation, and labor protection improvements since the 19<sup>th</sup> century, children are far less likely to die in infancy or young childhood. This ability to count on children’s survival and well-being with relative security helped to pave the way for the formation of post-materialist values among the middle- and upper-classes in these societies, who can now “[focus] in the 'quality' of their children's lives as visible signs of modern, responsible mothering rather than on the number of children they bear” (Kligman 2005:251).

The “focus on quality” is intense and ever-expanding and requires significant amounts of care, particularly from mothers. Cultural values position mothers as primarily

responsible for the well-being of their children and demands that they follow expert advice and engage in intensive mothering practices to protect their children from a wide range of possible dangers (Hays 1996). As Waggoner's (2013) research on preconception care initiatives shows, this responsibility to be a good mother begins *before* conception. The demands of intensive mothering continue through prenatal care (Armstrong 2003; Barker 1998), feeding and breastfeeding (MacKendrick 2014; Wolf 2007), and childrearing (Litt 2000; Romagnoli and Wall 2012). In this context, we can think about reproductive control as part of a larger project of middle-class motherhood and bodily management.

*Reproduction as Politics: Public Health Initiatives in Policy and Medical Organizations*

Good studies of reproduction are also studies of politics; they examine the power struggles that define debates over contraception, abortion, adoption, and sterilization (Gal and Kligman 2000; Solinger 2005). As historian Ricki Solinger notes, these debates rarely center on how best to serve the women whose bodies and lives they concern. Rather, they focus on “how to solve certain large social problems facing the country” by harnessing, restricting, and shaping fertility (Solinger 2005:4). As an example, in the mid-twentieth century, the Romanian government banned abortion and most forms of contraception in order to grow the population and the work force — both considered crucial underpinnings of the development of a strong socialist state (Kligman 1995). By contrast, in the late 1970s, the Chinese government instituted their one-child policy as a way to *restrict* the national population, believing this demographic shift would facilitate modernization and development (Greenhalgh 2003).

Often pro-natalist and anti-natalist policies and practices co-exist in the same body politic, but are applied differentially across populations. From the 1920s through the 1970s, medical practitioners in the United States performed a large number of sterilizations – often through coercion and without consent – on African-American, Native American, and Puerto Rican women and others who were seen as “unfit” to reproduce. At the same time, white women who sought permanent contraception were often barred from accessing the procedure (Gordon 2002). Welfare reform in the 1990s included requirements for poor, single mothers of young children to work outside the home so that they could end their “dependency” on government benefits. Only a few years later, the same legislators pushed for tax credits that would enable middle-class mothers of young children to stay at home to care for their children, claiming that a mother’s love and attention was necessary for the proper development of children (Solinger 2001). This dichotomy of differentially valuing reproduction based on social hierarchies – or “stratified reproduction” (Colen 1995) – has been a consistent theme of reproductive politics in the United States.

In contemporary policy, there is a tension between facilitating reproductive autonomy and coaxing reproductive decisions towards particular population goals. The latter often reflect a system of stratified reproduction, where privileged women’s fertility is prioritized over that of marginalized women. In each subsequent chapter, I frame my arguments using public health and policy initiatives from the federal government and leading medical organizations. I draw on organizations like the Centers for Disease Control and Prevention, the World Health Organization, the American College of Obstetricians and Gynecologists, and the American Association of Pediatrics, which

create specific interventions, goals, and recommendations around unintended pregnancy, contraceptive counseling, and preconception and prenatal care. Through this framing, I show how clinicians' attitudes and practices are embedded within the values of a larger medico-political system.

## **WHY STUDY PROVIDERS?**

Pregnancy planning is a highly social process and it is one that is managed through medical institutions. Many studies investigate individual reproductive practices and lived experiences, but fewer examine the institutional contexts in which they receive expert advice and access medical technologies. Most forms of birth control require a prescription or insertion by a medical provider and services like abortion and infertility treatments are only accessible through health care institutions. In this research, I draw primarily on a set of 24 in-depth interviews with reproductive health care providers in the United States. Health care professionals play a critical role in shaping both the content and tone of these medical interactions (Joffe 1986). They reinforce, translate, or push back against policies and health recommendations. As I show in this dissertation, they also internalize, and sometimes resist, broader social norms about race, class, gender, and reproduction. In each subsequent chapter, I detail my research procedures, sample, and analytic approach to the interview data.

### *Reproductive Justice in Reproductive Health Care*

Reproductive justice is an intersectional theory conceptualized by feminists of color to challenge the idea that the exclusive focus of reproductive rights should be “choice” or legal access to abortion and contraception (Asian Communities for

Reproductive Justice 2005; Ross 2006). Instead, they highlight the convergence of classism, racism, and other forms of oppression in the realm of reproduction.

Marginalized women, historically and currently, have been pushed to limit their fertility, have been stigmatized as mothers, and have been denied access to the resources needed to support their families. With this social context in mind, reproductive justice advocates argue that the right to access reproductive technologies must be paired with the right to have children and parent with dignity (see Luna and Luker 2013 for a review).

In recent years, scholars and practitioners from within the professional medical community have called for the integration of a reproductive justice agenda into clinical care. Gilliam and colleagues (2009) appeal to reproductive health providers to examine their own clinical practices in light of these disparities. They encourage clinicians to take steps to improve access and reduce patient stigma, advocate for policies and practices that remove structural barriers and enable marginalized populations to access needed care, and promote comprehensive sex education.

Another commentary urges clinicians to think about reproductive justice in the context of long-acting reversible contraceptives, which can last multiple years and must be inserted and removed by medical professionals. Because these methods are heavily provider-dependent, and because they have historically been used to control poor women's reproduction (Roberts 1997), the author warns:

Reproductive justice suggests that our premiere responsibility as reproductive health professionals is not necessarily to reduce public expenditures, nor to ensure that all socially disadvantaged women use the most effective contraception possible. Rather, our ultimate reproductive justice endgame is to enhance the health, social well-being and bodily integrity of *all* our contraceptive clients (Higgins 2014:240, emphasis original).

Commentaries like these ask providers to be cognizant of and intervene in historical inequalities in reproductive politics through their medical practice. In this research, I analyze the extent to which providers' attitudes and practices actually reflect these critical frameworks. In doing so, I add to the larger public health conversation about the role of reproductive justice in clinical care.

## OUTLINE OF THE DISSERTATION

### *Chapter 2: Defining the Planned Pregnancy*

#### Background

In this chapter, I show how the “planned pregnancy” is a contemporary medical and social phenomenon that paradoxically both increases individuals' control over their fertility *and* leaves them beholden to constrictive expectations about how to do so.

We have not always thought about fertility as something to be carefully controlled and planned. As reproductive technologies have advanced, so have demands that women have a *responsibility* to use them (Blank and Merrick 1995; Duden 1993; Roberts 2009). We know that, cross-culturally and historically, there have been other predominant modes of managing fertility that do not emphasize personal control and linear planning (Bledsoe 2002; Gordon 2002; Scheper-Hughes 1992; van der Sijpt 2014). For instance, Bledsoe (2002) illustrates why Western models promoting contraception to decrease fertility and promote birth spacing failed to take hold in rural Gambia in the 1990s. Instead, Gambian women frequently used modern contraceptives for short intervals – typically following a miscarriage or infant death – in order to facilitate a period of physical rest and enable high fertility over the long term. While the Western public health

paradigm assumes fertility planning is based on linear time and aging, this case offers another model of control: managing the *cumulative* physical traumas of reproduction, while maintaining high fertility over a reproductive life course. Comparative research like this underlines how planning a small number of pregnancies at the “right” time in one’s life is a particular, contemporary Western concept rather than a universal model.

In American public health, pregnancy planning is often portrayed as a commonsense social good (eg. Colorado Department of Public Health and Environment 2017; McNicholas et al. 2014; Office of Disease Prevention and Health Promotion 2014). It appears desirable for people to become parents only when they want and intend to do so. However, pregnancy intentions are complex, fluid, and not always directly related to behavior. People’s birth control practices often do not match their pregnancy desires (Frost et al. 2007) and attitudes about pregnancy before conception may not match how a person feels when discovering they (or a partner) are pregnant (Sable and Libbus 2000). Importantly, some do not find the idea of carefully planning their fertility as relevant, useful, or possible (Barrett and Wellings 2002; Borrero et al. 2015; Higgins, Popkin, and Santelli 2012; Lifflander, Gaydos, and Hogue 2006).

Multiple dimensions of inequality are embedded in discussions about pregnancy planning. White women, adult women, and women with higher levels of education and income are less likely to report an unintended pregnancy (Finer and Zolna 2011). Because unplanned pregnancies occur most often among marginalized women, pregnancy planning is often assumed to reduce poverty. This logic asserts that if women planned more, they would have children at times in their lives when they have more resources and would have fewer children overall. (This argument has been challenged by

scholars like Arline Geronimus (2003) and Frank Furstenberg (2010)). When policymakers and public health experts draw this causal link, they typically conclude that unintended pregnancies are a significant cause of unnecessary public expenditures and that the cost of social welfare and health care programs could be reduced through improved individual planning. While a burgeoning literature examines the complexity of pregnancy intentions in the U.S. context and the inequalities embedded within, almost none consider them in the context of clinical interactions. This chapter addresses that gap by documenting how the concept of “pregnancy planning” gets deployed by health care providers.

### Abstract

In this chapter, I draw on in-depth interviews with providers to investigate how they interpret and enact the objective to “plan parenthood” and analyze their perspectives in the context of broader discourses about reproduction, family planning, and motherhood. Interviews reveal two central discourses: one defines pregnancy planning as an individual choice, that is as patients setting their own pregnancy intentions; the second incorporates normative expectations about what it means to be ready to have a baby that exclude poor, single, and young women. In the latter discourse, planning is a broader process of achieving middle-class life markers like a long-term relationship, a good job, and financial stability, before having children. Especially illuminating are cases where a patient’s pregnancy intention and the normative expectation of “readiness” do not align. With these, I demonstrate that providers may prioritize normative notions of readiness over a patient’s own intentions. I argue that these negotiations of intention and readiness reflect broader tensions in family planning and demonstrate that at times the seemingly

neutral notion of “planned parenthood” can mask a source of stratification in reproductive health care.

### *Chapter 3: Contraception, Dissatisfaction, and Side Effects*

#### Background

In order to plan pregnancy, women need to be able to control their fertility with high levels of certainty over a long period of time. On average, women in the United States spend thirty years avoiding pregnancy (Boonstra et al. 2006). While women have always taken some measures to manage their fertility, the legalization and widespread availability of hormonal contraceptives in the twentieth century created a novel environment where women could have supposedly "perfect" control of when and if to become pregnant (Gordon 2002; Petchesky 1990). This has been a double-edged sword: birth control creates the opportunity for incredible social, economic, and health benefits for women. For instance, legal access to the birth control pill — and the ability to reliably postpone childbearing — directly contributed to the uptick in women entering the paid workforce in the 1960s and 70s (Bailey 2006). At the same time, the possibility of near-perfect fertility control has often been transformed into an *expectation* that women use birth control technologies to exert such control (Blank and Merrick 1995; Ruhl 2002).

For women who are sexually active with men, contraception is integral to controlling fertility. Eighty percent of couples who have unprotected sex for a year will get pregnant. With even the *least* effective method of birth control (spermicide), that number drops to twenty-eight percent. With long-acting, highly effective methods, like the hormonal implant and intrauterine device, the chance of pregnancy is less than half of

one percent. Yet, the most effective methods of contraception can also have the highest physical burdens, particularly on women's bodies (Hatcher et al. 2011).

Indeed, the burden of fertility management, including pregnancy prevention, is gendered and falls heavily on women (Daniels 2006; Fennell 2011). In part, this responsibility is shaped by reproductive technologies. The overwhelming majority of contraceptive methods work through women's bodies. Only two methods – condoms and vasectomy – impact men's bodies. Yet, technological limitations alone cannot account for the unequal responsibility for pregnancy prevention. For example, though permanent methods of sterilization exist for both men and women, tubal ligations are three times more common than vasectomies, even though the latter are safer, cheaper, and easier to perform (Campo-Engelstein 2011).

Gender also shapes the scientific process of developing and marketing medical technologies. Those technologies, in turn, encapsulate and further reproduce cultural values and social conflicts (Carpenter and Casper 2009). For instance, the cultural expectation that heterosexual women will sacrifice more than male partners to prevent pregnancy is embedded in the research and design of contraceptives. Women's concerns about non-life-threatening side effects have been routinely downplayed or ignored in the development of contraceptive technologies. In contrast, in research and trials of male contraception, scientists are highly concerned about non-life-threatening side effects, like loss of libido and potency (Oudshoorn 2003; van Kammen and Oudshoorn 2002). These biases are built into the scientific standards of weighing risks and benefits. For women, adverse effects of birth control are measured against the benefit of preventing pregnancy, while for men, adverse effects are measured against the benefit of having no treatment

(van Kammen and Oudshoorn 2002). This differential standard has contributed to the glacial pace of research and production of male methods of birth control: while hormonal contraception for men has been technically feasible since the 1970s, a product has never made it to market (Hatcher et al. 2011; Oudshoorn 2003).

In this chapter, I center on those highly effective, female-body based contraceptives and ask: how do healthcare providers react when women are dissatisfied with the *tools* for reproductive control?

### Abstract

Although women in the United States use birth control at high rates, they also discontinue it at high rates, often citing dissatisfaction and side effects (Daniels et al. 2013; Littlejohn 2012; Moreau et al. 2007). At the same time, research shows that clinicians often discursively downplay the importance of side effects in contraceptive counseling or neglect to discuss them at all (Dehlendorf et al. 2014; Minnis et al. 2014; Littlejohn and Kimport 2017). Scholars have yet to consider how clinicians' beliefs about the legitimacy of patient concerns and dissatisfaction may undergird these patterns. Here, I examine clinician attitudes about common complaints regarding hormonal birth control. I identify how their reliance on formal medical knowledge, including evidence-based models, can lead them to frame patients' experiences or concerns about side effects as "myths" or "misconceptions" to be corrected rather than legitimized. I also describe a pattern of portraying negative side effects as normal to contraception and therefore encouraging patients to "stick with" methods despite dissatisfaction. Finally, I explore how these themes manifest in racialized and classed discourses about patient populations. I discuss the potential cumulative impact of the attitudes – if providers do carry them into

clinical practice, they can have the effect of minimizing patient concerns and dissatisfaction, while steering women towards the most effective methods of contraception.

#### *Chapter 4: Environmental Contamination and Reproductive Bodies*

##### Background

Chapters 2 and 3 explore how clinicians often reinforce the message that women are responsible for 1) planning childbearing around normative social expectations and 2) engaging with reproductive technologies to enable that planning. The final empirical chapter departs from the topic of planning versus preventing pregnancy, but continues to ask to what extent women are considered responsible for reproduction. Here, I look at reproductive control through the lens of bodily management before and during pregnancy. In particular, I examine the intense scrutiny of women's health and lifestyle behaviors because of their reproductive capacity and I ask whether this framework does or does not apply in the case of environmental hazards.

Waggoner (2017) details the rise of the preconception health movement, which urges women to take specific health and lifestyle measures in anticipation of pregnancy. This paradigm positions all women as potentially pregnant and entrusted with the wellbeing of their future children. As she explains, these recommendations stem less from solid evidence than pre-pregnancy behaviors have a significant impact on fetal health. Instead, they aim to address behaviors during *early* pregnancy. Many individuals do not know they are pregnant in the initial weeks of a pregnancy – a problem that is compounded by the prevalence of unintended pregnancy (Finer and Zolna 2016). The CDC encourages those who are or may become pregnant to engage in preventative

behaviors, like abstaining from alcohol, caffeine, tobacco and street drugs; reaching and maintaining a healthy weight; taking folic acid; and treating uncontrolled medical conditions; and avoiding toxic exposures (CDC 2018b).

All of these recommendations may be burdensome to follow, but avoiding environmental exposures can be particularly difficult. Toxics are unevenly regulated in the United States (MacKendrick 2018) and emanate from a range of sources, from consumer products to industrial facilities to chemical spills. Though some individuals try to manage their personal exposure through precautionary consumption, they find their ability to control contamination to be incomplete (MacKendrick and Stevens 2016). Moreover, racial minorities, people of lower socio-economic status, and other marginalized communities experience the highest environmental burdens and the least access to environmental goods (Pellow and Nyseth Brehm 2013). For instance, Sze (2007) documents the historical patterns of segregation that, combined with contemporary politics, have contributed to the predominance of noxious facilities in poor, minority neighborhoods in New York City. Simultaneously, a legacy of unequal investment leaves these same neighborhoods with fewer parks and open-air green spaces (Sze 2007).

In this chapter, I ask how health care providers think about reproductive risk management in relation to these diffuse and difficult-to-contain environmental threats.

### Abstract

Increasingly, leading health organizations recommend that women who are pregnant or considering pregnancy avoid certain toxic chemical found in our products, homes, and communities in order to protect fetuses from developmental and future harm.

In the contemporary United States, women's maternal bodies have been treated as sites of exceptional risk and individual responsibility. Many studies have examined this phenomenon through the lens of lifestyle behaviors like smoking, drinking, and exercise. However, we know little about how environmental hazards fit into the dominant framework of gendered, individual responsibility for risk regulation. I draw on the perspectives of health care providers to explore how they think about their patients' exposure to environmental contaminants.

Contrary to the overriding trend of individual maternal responsibility, here I find that both health care organizations and providers treat environmental exposure as largely *involuntary*. Unlike smoking or drinking, providers characterize these hazards to reproduction as emanating from the external world. Moreover, they move into bodies in uncertain, invisible, and diffuse ways. Health care providers point to collective sources of contamination, like unsafe workplaces, polluted neighborhoods, and unregulated products. This is an important and unexpected shift away from the strong pressure on women to engage in exceptionally high standards of reproductive risk management.

### *Chapter 5: Conclusion*

I conclude by tying together the overlapping themes of reproductive control, individual responsibility, and inequality that run through the previous chapters. I discuss the implications and broader significance of this research and propose future directions.

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## **Chapter 2**

### **Planning Parenthood: Clinician Perspectives on Pregnancy Intention, Readiness, and Family Planning**

While planning pregnancy is a central objective of reproductive medicine, nearly half of all pregnancies in the United States are unintended (Finer and Zolna 2011). Recent public health initiatives focus on expanding reproductive health services, encouraging individuals to engage in reproductive planning, and training providers to counsel patients on creating long-term reproductive plans (Centers for Disease Control and Prevention [CDC] 2006; CDC 2012; Office of Disease Prevention and Health Promotion [ODPHP] 2014). As part of its Preconception Health and Health Care initiative launched in 2006, the CDC encourages people to take “individual responsibility across the lifespan” by making a reproductive life plan. With this plan, individuals should monitor health “from menarche to menopause” and map the number and timing of desired pregnancies to fit with other personal goals, like educational and career plans (CDC 2006; CDC 2012; see Waggoner 2013). In 2015, the Title X family planning program (the main federal funding source for family planning health care for low-income individuals) named “assessing clients' reproductive life plans” as one of its main priorities (Department of Health and Human Services n.d.).

While the focus on pregnancy planning has expanded and intensified in public health programs, in practice, the meaning of planning a pregnancy is varied and imprecise (Klerman 2000). “Planning” can include setting an individual intention, taking

an action to conceive or avoid conception, and/or making broader life preparations to have or expand a family (Barrett and Wellings 2002; Lifflander, Gaydos, and Hogue 2007; Santelli et al. 2003). Furthermore, there is significant evidence that many U.S. women feel ambivalence about pregnancy and some do not find the idea of carefully planning their fertility as relevant, useful, or even possible (Barrett and Wellings 2002; Higgins, Popkin, and Santelli 2012; Kendall et al. 2004). These investigations of attitudes about fertility planning typically focus on women, and to a lesser extent, men. Yet, little research examines reproductive health care providers (henceforth, “providers”), who can serve as medical experts, health educators, life counselors, and gatekeepers to medicalized fertility control. In this paper, I investigate how the goal that patients “plan parenthood” is interpreted and enacted by providers.

Providers practice in the context of broader discourses about reproduction, family planning, and motherhood. Feminist scholars have long noted the dual potential of family planning initiatives. These programs can give individuals, and women in particular, the necessary tools to control fertility, protect against sexually transmitted infections, and reduce the risk of maternal mortality (Lupton 2012). Public family planning clinics in the U.S. often provide respectful, confidential, and low cost care to meet the diverse needs of patients (Frost, Benson Gold, and Bucek 2012). Simultaneously, policymakers and medical establishments have historically treated women's reproductive bodies as vehicles to address larger social problems, like population growth and poverty. To this end, technologies like birth control and sterilization have been used to coerce and oppress women, especially poor women of color (Luna and Luker 2013; Roberts 1997; Ross 2006; Solinger 2005). Even when fertility is not directly controlled, women's

reproductive autonomy is suspect when they make choices that are not considered “appropriate” and “responsible” (Ruhl 2002).

This tension between family planning as an instrument for reproductive rights and as a tool for addressing larger social problems continually appears in public health programs and agendas. For instance, the 1994 International Conference on Population and Development in Cairo included a landmark articulation that reproductive rights, including access to family planning, are integral to human rights more generally. With this, RamaRao and Jain (2015:88) note that:

[t]he view of family planning shifted from being primarily a means to population and development ends to being a component of reproductive health, with the goal of facilitating individuals' ability to determine whether, when, and how many children to bear.

Still, they argue that contemporary initiatives often lose sight of these goals and lapse into focusing on numerically-driven, rather than patient-driven, benchmarks. The Office for Disease Prevention and Health Promotion cites improving family planning and reducing the proportion of unintended pregnancies as a top health priority as it allows individuals to achieve desired spacing and timing of births and because family planning is “cost-effective” for taxpayers and unintended pregnancy is correlated with negative health and economic outcomes (ODPHP 2014). These dual purposes – to facilitate individual desires and to solve broader social problems – can conflict. Tensions arise especially when marginalized women desire to have children even though they are likely to face financial and health-related hardships due to structural disadvantages. As Ross (2006) highlights in her conceptualization of “reproductive justice,” simple reproductive *choice* is inadequate to address the coercion and oppression that poor women of color have historically faced. Marginalized women also need “the necessary social supports in

safe environments and healthy communities” to raise children with dignity and autonomy.

Broader discourses about what it means to be a “good mother” also inform conversations about family planning. In the dominant discourse, good mothers are well-educated, financially secure, married or in stable relationships, and well out of their teens (Geronimus 2003; Roberts 1997; Solinger 2001). They follow expert biomedical advice in reproduction (Rapp 1999) and child-rearing (Hays 1996) and actively research, plan, and manage their reproductive bodies (Avishai 2007). According to these dominant ideals, children's health and well-being depend on their mothers' willingness to adhere to these expectations and women are successful only if they plan well. Yet, these expectations for good motherhood are stratified. Poor, young, unmarried women may desire or *intend* to become pregnant, but have few opportunities to *plan* a normatively good pregnancy. Previous research shows that establishing oneself financially, settling into a secure marriage and career, and maintaining peak physical health before having children require substantial material resources (Edin and Kefalas 2005; Furstenberg 2007; Geronimus 2003).

#### *Reproductive Health Care Providers*

Providers are an important site of investigation, as reproductive health care in the twenty-first century has been marked by a curious blend of non-directive counseling, which seeks to emphasize patients' informed choice and autonomy (Schwennesen and Koch 2012; Williams 2006), and a lingering paternalism (Bell 2010; Lupton 2012). Current scholarship finds a lack of engagement between providers and patients during contraceptive counseling. Dehlendorf et al. (2014) demonstrate how providers' “hands-

off’ approach to birth control counseling neglects patients’ individual preferences, concerns about side effects, and medical histories. Alternatively, previous studies demonstrate how medical apparatuses exert control over birth control and sterilization (Roberts 1997), prenatal care and childbirth (Bridges 2011; Lyerly et al. 2009), and infertility treatment (Bell 2010). In family planning clinics specifically, low-income women and minorities are more likely to report discrimination by their providers, encouragement to limit childbearing, and pressure to use specific methods of birth control (Borrero et al. 2009; Dehlendorf et al. 2010; Downing, LaVeist, and Bullock 2007; Thornburn and Bogart 2007).

Some initial studies investigate the attitudes and practices of family planning workers, although most are limited to those who treat adolescent patients. Mann (2013) shows how reproductive health providers work to convince their mostly young, poor, Latina patients to use birth control even when patients are ambivalent or intend to get pregnant (see also Breheny and Stephens 2007). Hawkes' (1995) investigation of family planning clinics in the U.K. demonstrates that providers frame young women's contraceptive decisions as “irresponsible,” especially among lower-class patients. Yet, we know little about the perspectives and practices of providers in the U.S. who work with a broader range of patients.

Here, I draw on interviews with providers who teach and practice reproductive health care in the United States to ask: How do they reinforce, resist, or transform dominant discourses about reproduction, family planning, and motherhood? My analysis begins by comparing providers who emphasized their patients' individual intentions in family planning with those who emphasized “normative readiness” – a term I use to refer

to the non-medical criteria that providers cite as important for their patients to consider before getting pregnant. These normative expectations about family planning included factors like being married or in a long-term relationship, being out of one's teens, having sufficient financial means, completing an education, and holding a steady job. Standards of normative readiness tended to reflect dominant discourses about good motherhood and position family planning as a tool to prevent poverty or dependence on social welfare programs.

My interviews reveal cases where patients' individual intentions and normative readiness did not align. These examples illustrate the complexities of family planning, showing that providers sometimes judged intended pregnancies as “bad” and unintended pregnancies as “good,” depending on a patient's age, class, education, and relationship status. These examples call into question whether respecting a woman's intentions, plans, and desires is always the primary goal in reproductive health care. Finally, I examine the perspectives of providers who resist the notion of “being ready” to have a baby. In this alternate conceptualization, providers recognize the utility of reproductive planning, but also pointed to significant limitations and drawbacks.

Ultimately, this paper works towards a larger project of interrogating the notion of “planned pregnancy” – a concept central to reproductive medicine – and revealing how it can simultaneously empower women to have bodily autonomy *and* leave them beholden to sometimes impossibly high expectations about how to “correctly” and “rationally” build their families.

## **DATA AND METHODS**

Data come from 24 interviews with nurse practitioners, certified nurse midwives, and medical doctors who practiced or taught in the United States. I limited my sample to primary care providers who could practice independently and had multiple years of work experience in reproductive health care, especially birth control counseling. Most

**Table 1: Characteristics of Interviewees**

	N (24 total)
<i>Provider Gender</i>	
Female	22
Male	2
<i>Provider Race</i>	
White	19
Black or African-American	2
Asian or Pacific Islander	1
Hispanic	1
Unknown	1
<i>Provider Type</i>	
Certified Nurse Midwife (CNM)	2
Nurse Practitioner (NP, DNP, or PhD in Nursing)	19
Medical Doctor (MD)	3
<i>Type of Insurance(s) Accepted at Most Recent Practice</i>	
Private Insurance Only	7
Private Insurance and Medicaid	8
Private Insurance, Medicaid, and Uninsured	9
<i>Geographic Region</i>	
Northeastern U.S.	18
Midwestern U.S.	1
Southern U.S.	3
Western U.S.	1
Abroad	1

respondents specialized in women's health care or obstetrics and gynecology. They worked across a range of settings, including hospitals, private practices, non-profit and federally-funded clinics, university health centers, and workplace wellness centers. Many simultaneously held positions at academic institutions. At the time of interview, twenty-

three respondents were living and working in the northeastern, mid-western, southern, or western United States. One was living abroad, but her most recent clinical experience was in the U.S.

Although fairly homogenous, these providers served a broad range of patient populations. Most saw only women in their practices, but some saw men as well. Patients ranged from adolescents to elderly, although interviews focused mostly on the care of reproductive-age individuals. In Table 1, I use the type of insurance(s) accepted at the respondent's most recent practice as a proxy for the patient population it served. Generally, a high proportion of Medicaid patients signified a low-SES patient population, as this federal health insurance program requires that recipients meet a certain percentage of the poverty level to qualify for coverage. Most providers at practices accepting only private insurance described their clientele as predominantly white and high-SES. Those at practices accepting private insurances and Medicaid described clientele that were more mixed socioeconomically, but predominantly white. Most at practices accepting uninsured patients described their patient population as predominantly minority and low-SES. Having demographic information about the patient population each provider served helps to create a fuller and more complex analysis. However, because of a limited sample size, I cannot identify definitive patterns in providers' attitudes or practices based on the type of patients with whom they worked.

I conducted all interviews in 2013. Interviews were semi-structured, open-ended, and covered a range of topics, including birth control, abortion, preconception care, pregnancy, and infertility. About half were conducted in-person and half by telephone. I began recruiting respondents through personal and professional contacts and then used

references to gather additional interviews. I also recruited at a national conference for nurse practitioners and through an online forum for nurse practitioners in women's Health. All participants gave both verbal and written consent before participation. The Rutgers University Institutional Review Board approved this study.

I transcribed interviews, except for one where the respondent declined to be recorded, and coded them using QSR NVivo computer software. I engaged in thematic analysis to guide this research (Braun and Clarke 2006). Because interviews were broadly focused, I adopted an inductive approach to identifying themes of how interviewees described family planning, pregnancy, and parenthood. I then used these themes to examine “the underlying ideas assumptions...and ideologies” contained in the interviews (Braun and Clarke 2006:13). For instance, I teased apart providers' accounts of what, if anything, makes a person “ready to have a baby” in order to understand the broader frameworks about planning and parenthood on which they drew. This theme included codes like “age or old enough,” “good relationship,” “job, house, and finances,” “it depends,” and “nothing.” Some providers also gave examples of patients who were or were not ready to have a baby. With further analysis, I found that these examples revealed complexities and contradictions in providers' appraisals of pregnancy intendedness and readiness.

Throughout, I take a constructionist approach and view interview data and the themes that arose as socially produced and stemming, rather than as fixed within individuals (Burr 1995). This approach broadens the analysis beyond providers themselves to the way in which their accounts are situated in wider power relations,

institutional structures, and cultural discourses. The themes I identify are also ideal types; in practice, they sometimes overlap and co-occur within the same interview.

In the results, I present both providers' accounts of their *attitudes* about reproductive planning and of their *actions* in clinical encounters. Although the latter more clearly demonstrates how providers enacted family planning provision, I take the former as informative as well: evidence indicates that patients can sense the judgments of providers, even when unspoken, and become reticent in environments where they sense disapproval (Katz and Alegria 2009). Finally, I am attentive to the distinction between providers' expressions of their own perspectives and practices and their descriptions of their patients' perspectives and practices. This paper focuses on the former. When I draw on the latter, I am mindful that the talk of providers does not necessarily reflect patients' actual perspectives and practices, but providers' discursive construction of patients' experiences.

## RESULTS

### *Defining Planning: Individual Intentions and Normative Readiness*

Providers generally affirmed the goal of improving pregnancy planning, although two different discourses emerged in their explanations of what family planning entailed: the first focused on the importance of individual intention in planning, while the latter highlighted normative standards for readiness.

In drawing on the first discourse, providers presented planning as a source of empowerment and agency for their patients. These responses reflected broader discourses about family planning being integral to reproductive rights and autonomy. For instance:

You can't have control of your life if you don't have family planning. It's either you never have sex, which is unrealistic, or it's just the random unpredictable world.

*(Nurse Practitioner 5)*

This provider echoed the reproductive rights discourse wherein women need access to family planning to avoid pregnancy, childbirth, and parenting at “unpredictable” times and to gain agency over their lives.

Another stressed the importance of formulating intentions to achieve the reproductive life you want:

NP14: What do I think that family planning means. I think it's being mindful of your reproductive health and desires.

*LS: Okay, what do you mean by desires?*

NP14: Do you wanna get pregnant, do you not wanna get pregnant? When do you think you wanna have children? When do you wanna prevent having children? When do you think it's the best time for you? Why is it the best time? How do you wanna plan your life around what you want and what happens when surprises come?

*(Nurse Practitioner 14)*

Here, family planning meant internally answering questions about what one wants and how to put those desires into action.

In these discourses, providers sometimes explicitly rejected the idea that it was their role to encourage patients to time pregnancy with the attainment of certain life markers. When I asked this provider if she advised patients to have certain things in their lives settled before trying to have a baby, she responded adamantly,

No, because I'm not in control of their lives! I mean, I could have a 22 year-old patient who's much more mature than a 33 year-old patient.

*(Nurse Practitioner 12)*

Her response suggested that providing advice about meeting normative expectations would usurp patient agency and autonomy. She supported this view with an example of how qualifiers like age do not always map neatly onto parenting ability.

Nurse Practitioner 5, quoted above, began to give an example of a couple who would *not* be ready to have a baby, saying,

I mean, if you're close to bankruptcy or they're not married and they're having relationship troubles and they have three other kids that they're struggling with and she's just like [*in carefree voice*] 'I feel like having another baby!'...

(Nurse Practitioner 5)

Here, she paused for a moment to think about how she would react to this couple and then continued, “Okay...but, okay! Alright, then. It's totally up to you.” Although the first half of this quote indicated that the provider thought the characteristics of this type of couple – one who had relationship and financial troubles and already had multiple children – would make them poor candidates to get pregnant again, she stopped herself and reaffirmed her commitment to honoring patients' desires, even if they did not meet typical definitions of readiness. In essence, this discourse framed family planning as a tool to fulfill individual desires and aimed to be non-judgmental and patient-driven.

A competing discourse emerged that framed planning as a way for women to achieve normative readiness before starting a family. Unlike the previous discourse, which stressed that individuals should construct plans around personal desires and individual definitions of readiness, these plans centered around markers of a middle-class lifestyle. When I asked providers, “What, if anything, makes a person or a couple ready to have a baby?”, some said “desire” or “feeling ready,” but others alluded to traditional milestones like being out of one's teens, being married or in a long-term relationship, completing an education, and having a stable job. One provider defined “readiness” as follows:

See, I'm old-fashioned. I think you should be in a committed relationship, preferably a marriage, financially stable, with insurance and, you know, just stable with your partner, your spouse. I don't think anybody that's an adolescent is ready for...I don't

care how mature you are. 18, 19; you're not ready for a baby. [...]. I get 19 year-olds telling me they're trying to get pregnant and I try to talk 'em out of it! I say, "You're young, you have your whole life, you have to get yourself set." I would try to talk them out of it...but, it doesn't always work, obviously.

(*Nurse Practitioner 8*)

Here, planning a pregnancy involved a committed relationship, insurance, financial stability, and being old enough before having children. This nurse practitioner said that in her counseling she explicitly tried to convince patients under twenty that they were not ready for pregnancy, despite their pregnancy intentions. (It is not clear if she would do the same with an older patient who did not meet her other criteria for readiness).

Another provider emphasized the importance of maturity and financial independence in being ready to have a baby:

Maturity...being able to afford the baby. That they don't have to be on public assistance. They're capable of putting their own needs second to another little human being.

(*Nurse Practitioner 18*)

For this nurse practitioner, public assistance was not a legitimate means to support children – individuals needed to ensure they could afford a baby *without* government support before they were ready.

The provider quoted below linked class to family planning even more explicitly, saying that in contrast to her middle-class, professional patients, that “it's your uneducated, lower population [...] who just procreate. There is no family planning.” She noted that her counseling and education of these patients did not lead to changes in their behavior:

If you're raised in a welfare environment or your mothers and sisters and everybody got pregnant at 15 and popped a kid out and you just go on welfare and you get food stamps and you stay at home and have 4, 5 different baby daddies [...] then that's all you know. I'm finding you do all this teaching, you try to show them, you try to educate them and in two years they're pregnant and it's the same scenario.

(Nurse Practitioner 4)

This provider did not argue that “there is no family planning” among lower-class patients, because they failed to set an intention or because they did not desire pregnancy at the time of conception. Instead, they failed to plan because they got pregnant at young ages, with multiple partners, and relied on welfare. The provider tried to intervene by educating patients, but found her counseling to be ineffective. The term “baby daddies” also evoked racialized stereotypes about non-traditional black family structures (Edin and Nelson 2013). Although interviewees infrequently addressed race and ethnicity directly, we know that stereotypes about poor mothers are racialized (Bridges 2011; Roberts 1997; Solinger 2005) and that treatment in reproductive health care is stratified by race (Borrero et al. 2009), making race silenced, but nevertheless salient.

Defining “readiness” to have a baby as being old enough, establishing a career, settling into a stable relationship, and never relying on public assistance reflects dominant discourses about good motherhood and family planning as a tool to prevent poverty. It also excludes young, poor and working-class, and often minority women who are unlikely to meet these standards. Effectively, these women will *never* be deemed ready to have a baby. This may help explain why, in their encounters with health care providers, low-income patients report receiving more advice on how to avoid rather than achieve pregnancy (Bell 2010).

#### *When Intention and Readiness Do Not Align*

Providers occasionally shared stories where a patient’s intention did not align with normative readiness. These examples illustrate a key tension in family planning: What happens when a patient desires a pregnancy, but is not deemed ready by providers?

Alternatively, how do providers react when patients seem ready, but do not express clear intentions to get pregnant? This analysis suggested that when competing discourses were contradictory, normative readiness often outweighs a patient's intention.

### “Bad” Intended Pregnancies

Some providers spoke of patients who expressed an intention to have a baby, but had not achieved normative readiness. One provider who worked in a clinic serving mostly poor, minority youth suggested that “there is no such thing as an accidental or unplanned pregnancy,” because “in an adolescent's mind, it's all unplanned.” For this provider, the adolescents she worked with (who ranged from 15 to 22 years old) did not have the capacity to truly plan a pregnancy, regardless of their intention. She related stories about patients who had explicitly expressed intent to get pregnant and then described trying to get them to think through whether they were really “ready” or not:

It's the same conversation I have even with the people who say they don't want to [get pregnant] [*chuckles*]: “So what do you do? I mean, do you work? What are your plans? What are your future goals?” And then I move on to: “Well, what does your partner do? What are his goals? [...] Where are you gonna live? Are you gonna breastfeed? Bottlefeed?” And then trying to get them to see that there's more than just having a baby and to really get them to make sure that they've really thought through the whole process of being ready.

*(Medical Doctor 2)*

In the provider's view, teenagers who expressed intent to get pregnant were not necessarily “planning” a pregnancy, because planning involved a much more complex process that included identifying goals and demonstrating that a baby would not interfere with plans to work and set up a two-parent household. Later in the interview, she added that she always encouraged couples who are thinking about having a baby to “get married or make it official in some capacity” and told them was “not a good idea” to have a baby outside of a long-term relationship.

Another more startling example brings to light the muddled nature of planning. This provider recounted a story of a patient who desired to get pregnant, but, in the provider's opinion, was not ready to have a baby. The patient, in her mid-twenties, came in to have her Implanon [a hormonal contraceptive in the form a rod, which is placed under the skin in the arm] removed, because she wanted to get pregnant. The provider objected because this patient already had four children by four different fathers:

She said she wanted to be pregnant again. I said, “Are you in a relationship? Because that would be news to me.” She said, “Well no, but I'm thinking of it.” And what I said, this was the real conversation, I said, “You bring him in so I can look him over, because that's what I do with my daughters.”

*(Nurse Midwife 1)*

The patient declined to have her partner “looked over” and threatened to remove the Implanon on her own. The provider did not yield because, as she put it, the patient was not having any “problems” with the Implanon and no other form of birth control worked for her – a response that seemed to overlook that this particular patient was not seeking birth control. Ultimately, the patient left, removed her own implant, and returned pregnant. (Implanon removal is a surgical procedure that should only be performed by medical professionals). At the story's conclusion, I suggested that this seemed like a planned pregnancy, given the forethought it takes to remove your own implant, to which the provider responded, “No, it doesn't take any planning at all! What it takes is stubbornness.”

In this provider's view, intention and active preparation for conception did not constitute a planned pregnancy. There was likely nothing this patient could have done to plan a “good” pregnancy. Because the patient already had too many children (with too many different partners), she had effectively forfeited her right to plan. Here, normative

standards for planning were directly at odds with the reproductive justice goal for women to be able to get pregnant and parent with autonomy and dignity (Ross 2006). While this case powerfully demonstrated the difference between intention and normative readiness, it was the only instance where a provider reported using coercion.

### Divergent Treatment of Unintended (Sub-Intended) Pregnancies

Providers also talked about patients who did not communicate intention, but still demonstrated “readiness” to have a baby. I designate these pregnancies as unintended or sub-intended, because many, at least in the providers' telling, lacked clear intention, though these patients were not averse to pregnancy. An example of this came in the following exchange:

*LS: You said that sometimes [patients] having things settled in their lives can make them ready to have a baby. Could you give me an example of a person who you thought was settled and ready to have a baby and the types of things that she had in order?*

NP15: I saw a woman who had a career and had been with her husband about quite some time and was ambivalent about whether she wanted to start a family or not and asked for hormonal testing just to see if she was fertile, so I did that, and I said, "Yeah, you shouldn't have any problems" and then pretty much as soon as we finished the testing, she was pregnant [*laughs*].

*LS: Can you tell me more about her being ambivalent about starting a family?*

NP15: I think that she was just – they had waited for quite a while and it was kind of now or never. She knew that she was getting older and wouldn't be as fertile in the future, but liked her lifestyle that she had currently.

*(Nurse Practitioner 15)*

Not demonstrating a clear intention to get pregnant, this patient expressed ambivalence about whether to start a family, in part because she liked her current lifestyle. But for the provider, this patient was the first example that came to mind as someone ready to have a baby, whether or not she intended to get pregnant, because she had the appropriate

normative markers in place, including her finances (“had a career”), relationship (“been with her husband about quite some time”) and age (“was getting older”).

Similar sentiments about how people could be ready to get pregnant without formulating clear intentions emerged in discussions of whether patients expressed an “if it happens, it happens” attitude about pregnancy. Nearly all providers confirmed seeing patients who expressed ambivalent or unclear attitudes about pregnancy, but their examples typically split into one of two narratives: one about poor and/or young women who maintained a cognitive dissonance between their birth control practices and fertility desires or seemed apathetic about their futures. The other was about women, usually older and in long-term relationships, who were unsure of their fertility or who already had children and were uncertain about having more.

One provider who saw patients with private and public insurance, talked about this “if it happens, it happens” attitude:

Well, I mean, they're a lot of people that that ['if it happens, it happens'] works really well for them. You know, that “I've gotten married, I've always wanted to have a child, we're not trying, but if it happens, it happens.” That's pretty benign and you know that that's okay [...] Or the woman who may be closer to 35 who hasn't gotten pregnant yet and maybe she isn't in a committed relationship, but if she has a child, fine...

*(Nurse Practitioner 3)*

Here, the uncertainty of patients who are married or over 35 was “benign.” Providers were particularly sympathetic towards ambivalence about pregnancy when a patient was unsure of her fertility. They accepted such women using ambivalence as a way to cope with the possible disappointment of being unable to conceive.

Yet, in instances where patients were young and/or poor, providers were hesitant to accept ambivalence towards pregnancy. In this example, a provider who worked with

mostly low-income, adult women recounted the type of conversation she would have with her patients about unclear intentions:

*[Patient]: "If it happens, well, you know, he wants me to have a baby."*

[Provider] "Do you wanna have a baby?"

*[Patient] "Well, I guess I wouldn't mind."*

[Provider] "Ma'am, do you wanna have a baby!?"

*[Patient] "Well, not really right now."*

[Provider] "Alright, then this is what you have to do..."

And I talk about fertility awareness – cause I know she's not gonna use the pill! I give her a pack and I will, for free. And I'll say, "I'm giving you these pills for free [...] I'm giving them to you because you might change your mind tomorrow or the next day and this way you'll be armed in advanced."

*(Medical Doctor 1)*

Here, the provider did not treat ambivalence as benign, but as a contradiction to resolve. This provider repeatedly pressed patients to clarify their intentions and then ensured that they left with not one, but two, forms of birth control just in case they changed their minds.

This dichotomy in how to approach ambivalence appeared when this provider reflected on patients who take an 'if it happens, it happens' attitude:

Usually it's an individual when maybe they've been married for like greater than five years, and they're not using birth control, so...if it happens, it happens, and they're possibly still in their 20s and so it's still okay for them, you know...

*(Nurse Practitioner 16)*

When I asked if she encountered younger patients who took the same type of attitude towards pregnancy, she responded,

They do and I say 'But you've gotta think about this because...' You know, say they're still in, like just got out of high school and they're in a new relationship and they're just like 'I don't care.' They need to.

*(Nurse Practitioner 16)*

While the provider did not comment on the validity of ambivalence for an individual in a long-term relationship who was in her twenties or older, she reported telling younger patients in short-term relationships that they needed to care about whether they got pregnant or not.

Research shows that health care providers stereotype patients and provide disparate treatments (Smedley, Stith, and Nelson 2009). van Ryn and Burke (2000) also demonstrate that physicians are less likely to view low-SES patients as rational, responsible, and independent when compared to their middle and high-SES counterparts. Age, in addition to class, appeared as important factors in providers' assessments of ambivalence. In their accounts, providers seemed trusting of older and middle-class women to make responsible and rational decisions, even when they communicated ambivalence about pregnancy. Alternatively, they tended to view poor or young women's ambivalence as a sign of irrationality and an urgent problem to solve.

*The Limitations of Planning*

Providers' occasional acceptance of ambivalence indicated that they did not always fully embrace the dominant public health message that all pregnancies should be carefully planned. In fact, nearly half of providers interviewed suggested that planning was ideal, but not always possible or that too much planning could even be detrimental. These statements sometimes co-occurred with discourses about individual intention or normative readiness. For instance, one provider at first described markers for readiness in great detail:

*LS: [...]do you advise patients to have certain things in their lives settled before they try to have a baby?*

NP11: Yeah, I'm kinda old school: you graduate from high school, you go to college, later in college you meet that person that you're probably interested in [...] you settle down with that person, you both start building a career, you both start building a positive relationship that's supposed to sustain over a life period and *then* you start tryina' raise a family. That means you have to have some planning done, you have to have some ducks in a row [...]

*(Nurse Practitioner 11)*

For this provider, there was a specific order to planning a family that included a college education, meaningful careers, and a strong, long-term relationship. Yet, he added:

Is that the answer of the way it happens in my house? [*laughs*] Probably not [...] We all live in this philosophical, theoretical, this-is-how-it's-supposed-to-be world. To me everybody's supposed to go to church, [...] you never get divorced, there is no crime, the government takes care of sick people like in Canada, [...] but that's not my [reality] – so does that mean I'm schizophrenic because I don't live in reality? NO! [*laughs*]

*(Nurse Practitioner 11)*

This qualification of his answer moves into a third discourse, one that is not typically present in public health conversations: that careful planning is not always possible. While he strove to encourage his patients, mostly low-income black women, to achieve particular levels of normative readiness, he also recognized that the world did not always work this way. He laid out clear, “old school” standards, but also indicated flexibility in his recognition that significant limitations exist.

Another provider reacted to the CDC's reproductive life plan initiative, which encourages individuals to work with their health care providers to make a long-term reproductive plan, by saying,

A long term plan, you know, I think that's ideal for the people that are making the family, for the children of that family, [but] sometimes an “accident” happens or a “mistake” happens [...] and that ends up being the best thing for everybody.

*(Nurse Practitioner 3)*

This provider recognized that many women adapt quite well to unintended pregnancies (Klerman 2000) and an “accident” or “mistake” could end up being beneficial. Her response also indicated that preventing all unintended pregnancies was not necessarily a desirable goal.

Other providers talked about how extensive planning might not be useful, because people ultimately adjust their plans to unforeseen circumstances. One provider did not like the idea of encouraging her patients to formulate reproductive life plans, because their lives changed from year to year. She explained,

You have these great, grandiose ideas, but until you experience life, then you experience life and things change. Your relationships don't work. Your job doesn't work or it does or you get promoted and you're doing something else. Every day is a growth. How do you know really where you wanna be?

*(Nurse Practitioner 14)*

This response indicated that people cannot truly plan for the future, because a combination of life experiences and changing circumstances alter what a person wants in life. This provider challenged the public health logic that careful, long-term reproductive planning could create ideal circumstances for building a family. While the dominant discourse tends to portray women who do not plan their fertility as naïve and irrational (Ruhl 2002), this provider’s response suggested that the promotion of reproductive plans could be understood as naïve as well, because they would create an unrealistic blueprint for life.

Another provider who worked with a mostly low-income and undocumented, Latina population worried that some patients *overplanned*, saying:

I get women in that say, "I'm gonna wait 'til I finish school. And then he needs to go to school. And then we wanna have a house. And we wanna have a savings." [*laughs*] It's like, well, then you'll never have a baby!

*(Nurse Midwife 2)*

She went on to explain that structural barriers prevented her patients from achieving these life markers and that “perfect” conditions were not necessary to be a good parent.

This discourse on the limitations of planning, a theme that emerged from the analysis unexpectedly, challenges both individual intention and normative readiness discourses. First, it questions the dominant public health logic that all pregnancies should be intended and carefully planned. Second, it resists the idea that individuals need to have met certain middle-class life markers met in order to be good parents. The final provider quoted, in particular, pointed out how unrealistic dominant normative expectations are for disadvantaged women and how strict adherence to them would prevent some individuals from ever having children.

## **DISCUSSION**

Conflicts over reproduction are, at their essence, political. Reproductive bodies become ideological battlegrounds to delineate the appropriate relationships between gender, sexuality, population, and family (Gordon 2002). Joffe’s (1986) seminal research asserts that reproductive health providers play a pivotal role in mediating political conflicts over what family planning should be. In this study, I have examined providers’ construction of what it means for their patients to “plan parenthood” and considered those constructions in the context of public health agendas and dominant discourses about reproduction. Recent studies of family planning professionals have found that providers monitor and moralize the reproductive behaviors of young women (Breheny and Stephens 2007; Hawkes 1995; Mann 2013). In part, my research confirms those findings. Providers often drew on discourses that emphasized normative standards in family

planning. Moreover, these standards included, but were not limited to adolescent patients. Yet, I also find more complexity in providers' accounts. Many interviews featured a strong discourse of individual intention, which emphasized patients' autonomy to make independent decisions about their fertility. At times, these discourses collided and created a very real tension. Finally, providers sometimes resisted the idea that reproductive planning was invariably useful – a finding that is novel in research on providers and challenges the dominant public health narrative.

Identifying these varying discourses adds nuance and depth to the commonsense notion of what it means to “plan parenthood.” The present study also highlights instances where this seemingly neutral public health goal is laden with moralized expectations about family planning. Though contemporary medical ethics and practice have moved away from traditional paternalism and emphasized a respect for patients' individual rights and autonomy (O'Neill 2002), this has not always been the case when these patients are reproductive-age women (Lupton 2012). My interviews demonstrate that medical providers' respect for women's autonomy in reproductive decision-making is inconsistent. Sometimes providers adopt paternalistic discourses and view it as their role to warn or even prevent patients from getting pregnant when they are young, poor, undereducated, or unmarried.

I propose that providers' accounts demonstrate a tension between individual intention and normative readiness, in part, because they operated within a highly stratified society that provides few social supports for poor, young, and single parents (Edin and Lein 1997). Providers may have felt obligated to prepare patients for these broader realities, especially given health care initiatives that encourage providers to help

individuals achieve their goals and plans. Those especially working with low-income populations had few tools to accomplish this large feat. Many talked at length about the need for more services, such as access to social workers, reliable transportation, affordable health care, and better educational systems, that were beyond the scope of their care. These broader critiques remind us that reproductive justice is not attainable when parenting with dignity and autonomy is a class privilege rather than a universal right (Luna and Luker 2013; Ross 2006).

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### **Chapter 3**

#### **Birth Control Side Effects and Clinician Attitudes about the Legitimacy of Patient Concerns and Dissatisfaction with Contraception**

A recent study made waves in the press when it found significant associations between the use of hormonal birth control and depression (Skovlund et al. 2016). Commentaries with headlines like “The pill is linked to depression – and doctors can no longer ignore it” argued that users have long known about this negative side effect, but their experiences have not been taken seriously by medical providers (Grigg-Spall 2016). While experts debate whether the study is flawed (Yasmin 2016), the public response highlights that many patients find their embodied knowledge minimized, especially when it comes to relying on synthetic hormones for pregnancy prevention.

Nearly all adult women in the United States have used a contraceptive method at some point in their lifetimes and over 85 percent have used a highly or moderately effective, reversible method, like the pill, shot, or intrauterine device (IUD) (Daniels et al. 2013). Women use birth control at high rates, but they also discontinue it at high rates. More than a third of hormonal contraceptive users will stop because of dissatisfaction, mainly due to side effects (Littlejohn 2012).

Health care providers play a crucial role in contraception: they educate and counsel patients about different forms of birth control, write prescriptions and insert contraceptive devices, and help patients manage adverse reactions. Long-acting reversible contraceptives also require a health care provider for removal. We know that women frequently report dissatisfaction and side effects from contraception (Littlejohn 2012, 2013), but little about how health care providers think about the legitimacy of that

dissatisfaction. I aim to fill that gap in this research using in-depth interviews with reproductive health care providers.

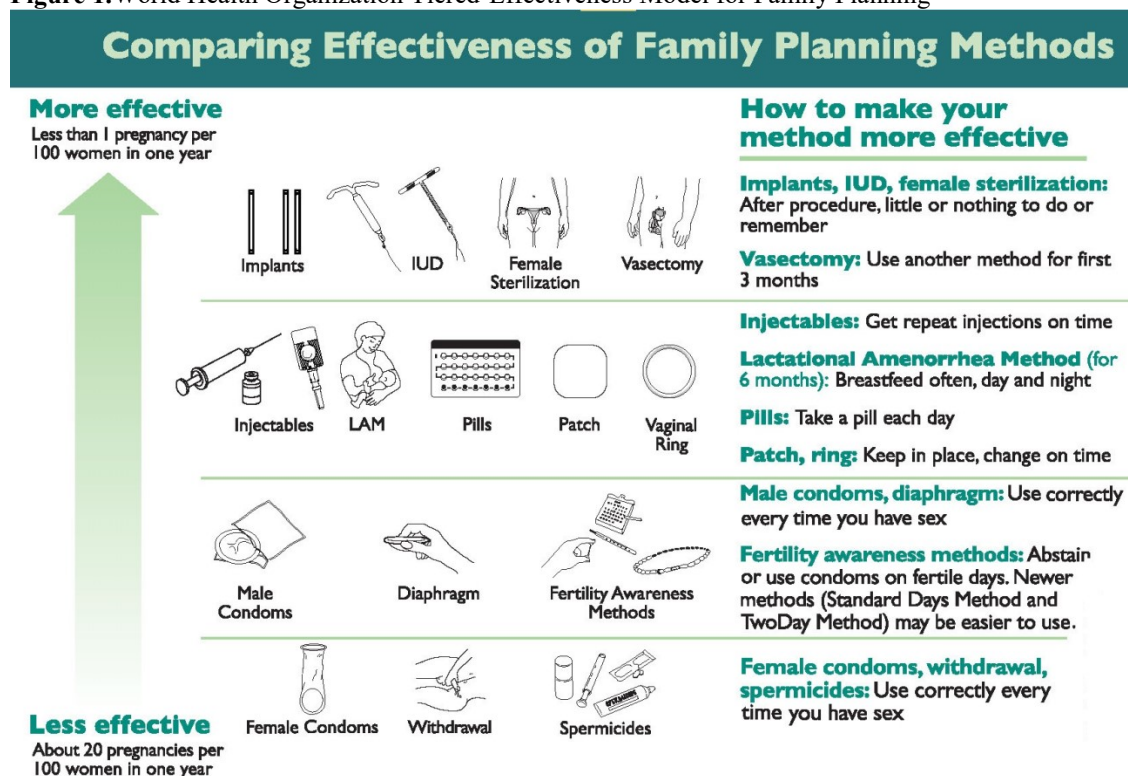
## **BACKGROUND**

Nearly half of contraceptive users have discontinued a method because of dissatisfaction (Moreau et al. 2007). Negative side effects drive much of the dissatisfaction with hormonal methods in particular (Moreau et al. 2007). Users of hormonal contraception commonly report side effects such as headaches, weight gain, mood changes, nausea, and breakthrough bleeding (Brunner Huber et al., 2006; Littlejohn 2012; Westhoff et al. 2007). The experience of negative side effects is common, but not universal – many report temporary or no side effects from hormonal contraception and some report only positive side effects, like clearer skin and less painful periods (Haider and D’Souza 2009). Non-hormonal methods of contraception can have negative side effects as well. For instance, condoms can inhibit sexual pleasure and spontaneity (Fennell 2014). However, in this paper I focus on provider-controlled methods, most of which contain synthetic hormones.

Provider-controlled methods, including all hormonal methods and the copper IUD, are more effective at preventing pregnancy than most non-prescription methods of contraception. Differences in efficacy are important to understand, because a major public health goal in the United States is to reduce unintended pregnancy (Office of Disease Prevention and Health Promotion 2014). Women experience, on average, 1.3 contraceptive failures in their lifetimes (Trussell and Vaughan 1999), meaning it is relatively common to get pregnant when you do not intend to, even while contracepting.

Leading health care organizations aim to increase the use of the most effective methods of contraception among women at risk of unintended pregnancy (American Association of Pediatricians [AAP] 2014; American College of Obstetricians and Gynecologists [ACOG] 2012). For example, the World Health Organization (WHO) promotes tiered-effectiveness contraceptive counseling, where health care providers present information about the most effective methods first and then, if needed, discuss remaining methods in descending order of effectiveness (WHO 2007; see also Stanback et al. 2015).

**Figure 1.** World Health Organization Tiered-Effectiveness Model for Family Planning



Source: WHO 2007

According to the WHO model (see Fig. 1), implants and intrauterine devices (IUDs), including hormonal and copper IUDs, make up the first tier of highly effective reversible contraceptives. The contraceptive injection, pill, patch, ring, and the lactational amenorrhea method (LAM) make up the second tier of moderately effective methods.

The bottom two tiers of less effective methods consist of diaphragms, male and female condoms, sponges, withdrawal, fertility awareness methods, and spermicide. The top two tiers contain only two non-hormonal methods – LAM, which is based on consistent breastfeeding and is only possible for those who have recently given birth, and the copper IUD – while the bottom tiers are composed completely of non-hormonal contraception. All methods in the top two tiers except LAM require a prescription or insertion by a health care provider. Importantly, long-acting reversible contraception (LARCs), which are often promoted as “first-line” options (AAP 2014; ACOG 2012), also require a provider for removal.

Not all medical providers and health advocates have embraced the enthusiastic promotion of tiered-effectiveness counseling and LARC methods. Critics point out counseling that focuses heavily on efficacy and provider-dependent methods can lead to clinical models that minimize patients’ individual preferences and undermine reproductive autonomy, especially for disadvantaged women historically marginalized in reproductive medicine (Gomez, Fuentes, and Alina 2014; Gubrium et al. 2015).

Though efficacy is often primary in medical models of family planning, studies of women's contraceptive preferences illuminate the multiplicity of factors users weigh. For example, one survey of women seeking abortions found that for over 90 percent, no contraceptive method contains all of the features they rank as “extremely important” (Lessard et al. 2012). This is partly because users often desire features that conflict – for example, methods that are highly effective, easy to use, *and* have few or no side effects. Users may find seemingly minor side effects, like weight gain and mood swings, to be intolerable and consequently switch or discontinue their methods (Littlejohn 2013).

A central tension in addressing women's dissatisfaction with contraception is how to weigh evidence-based medicine with user's individual preferences, values, and experiences (Downey et al. 2017). Scholars have documented both the predominance and pitfalls of evidence-based medicine in the United States (Greenhalgh, Howick, and Maskrey 2014; Timmermans and Berg 2010). In its ideal form, the evidence-based model decreases uncertainty and increases standardization by using the results of randomized controlled trials to guide clinical practice (Timmermans and Berg 2010). One way this model manifests in contraceptive counseling is in debates over whether providers should discuss potential side effects, especially those for which there is no established, epidemiological link to hormonal contraception. Users commonly cite nausea, weight gain, headaches, and mood changes in conjunction with hormonal contraceptives (Brunner Huber et al. 2006). Yet, none of those side effects have been causally linked to birth control in randomized controlled trials (Grimes and Schulz 2011), though some evidence is inconclusive (Gallo et al. 2014). There is one important exception: research has linked Depo-Provera or "the shot" to weight gain (Bahamondes et al. 2001).

Some researchers suggest that warning patients about side effects that have not been established by randomized controlled trials can create a "nocebo effect." The expectation of adverse, nonspecific side effects, they argue, can cause more users to experience them. Therefore, they advise clinicians to avoid mentioning nonspecific side effects in contraceptive counseling (Grimes and Schulz 2011). Others suggest that despite a possible "nocebo effect," providers should elicit patients' specific concerns, because many are already worried about side effects (Dehlendorf et al. 2013). This viewpoint is based on research highlighting perspectives of family planning patients: women name the

discussion of side effects as a high priority and feel providers often overlook or sometimes even suppress these topics (Dehlendorf et al. 2013).

Previous research has also documented how users value embodied experience –or evaluations of health based on direct experience and the everyday realities of life (Bell 2009) – as an important source of information about contraception (Anderson et al. 2014; Brown et al. 2013; Dehlendorf et al. 2013; Lowe 2005). For instance, one study of how women gather information about contraception demonstrates that most trust personal recommendations from friends and prefer to learn about a method from a person who has used it herself (Anderson et al. 2014). Another finds that even in consultations with medical professionals, women value their providers’ embodied knowledge, stemming from personal contraceptive use, over their formal medical expertise (Lowe 2005). The author concludes that “despite its apparent ‘medicalization’, women consider contraception as distinct from ‘medical matters’, and that ‘real’ expertise over contraception stems from embodied rather than textual knowledge” (Lowe 2005:362). These informal information-gathering techniques that prioritize experiential knowledge contrast strongly with evidence-based models.

Recent research that combines patient surveys with audio-recordings of their contraceptive counseling visits provides a window into provider-patient interactions. For instance, when providers counsel patients about birth control, discussion of side effects is often limited and not presented as a significant part of the decision-making process (Dehlendorf et al. 2014). Moreover, that discussion primarily addresses medical risks and safety rather than side effects that can be salient to patients (Minnis et al. 2014). When side effects are discussed, providers portray positive side effects as highly likely and

beneficial, while presenting negative side effects as less likely and producing minimal discomfort (Littlejohn and Kimport 2017). These studies elucidate patterns of clinical interaction, but cannot provide insight into clinicians' attitudes and motivations for discursively downplaying the importance of negative side effects.

Extant literature explores women's dissatisfaction with birth control, their experiences of side effects, and how these factors are (not) discussed in contraceptive counseling visits. However, less research examines how clinicians' beliefs may undergird their approaches to contraceptive counseling. In the present study, I analyze providers' own words and perspectives to address this gap. I identify how their reliance on formal medical knowledge, including evidence-based models, can lead them to frame patients' experiences or concerns about side effects as "myths" or "misconceptions" to be corrected rather than legitimized. I also describe a pattern of providers portraying negative side effects as normal to contraception and therefore encouraging patients to "stick with" methods despite dissatisfaction. Finally, I explore how these themes manifest in racialized and classed discourses about patient populations.

## **DATA AND METHODS**

Data come from an interview study conducted with reproductive health care providers (N=24) about their experiences in the clinic. Interviews were semi-structured, open-ended, and covered topics like contraceptive counseling, abortion, preconception care, pregnancy, and infertility. The goal of the broader study was to investigate provider attitudes and beliefs around reproductive planning and unintended pregnancy. Here, I focus on data about approaches to contraceptive counseling and provision, including how

clinicians described helping patients select a method of birth control, how they addressed dissatisfaction and discontinuation, and what they saw as common challenges in family planning.

**Table 2: Characteristics of Interviewees**

	N (24 total)
<i>Provider Gender</i>	
Female	22
Male	2
<i>Provider Race</i>	
White	19
Black or African-American	2
Asian or Pacific Islander	1
Hispanic	1
Unknown	1
<i>Provider Type</i>	
Certified Nurse Midwife (CNM)	2
Nurse Practitioner (NP, DNP, or PhD in Nursing)	19
Medical Doctor (MD)	3
<i>Type of Insurance(s) Accepted at Most Recent Practice</i>	
Private Insurance Only	7
Private Insurance and Medicaid	8
Private Insurance, Medicaid, and Uninsured	9
<i>Geographic Region</i>	
Northeastern U.S.	18
Midwestern U.S.	1
Southern U.S.	3
Western U.S.	1
Abroad	1

I conducted a purposive sample with the goal of reaching providers who served a broad range of patient populations to capture the breadth of clinical experiences. I recruited participants at a national conference and online forum for nurse practitioners as well as through a snowball sampling technique, starting with personal and professional contacts. I conducted all interviews in 2013. About half were conducted in-person and

half by telephone. In-person interviews typically took place in the respondent's workplace or a local café. All interviewees gave both oral and written consent to participate and all but one agreed to have their interviews recorded and transcribed.

As Table 2 shows, the majority of respondents were nurse practitioners, but the sample also includes nurse midwives, and doctors. I limited my sample to providers who could prescribe medication, including birth control, and had more than two years of experience working in reproductive health care. The respondents worked across a range of settings, including hospitals, private practices, non-profit and federally-funded clinics, university health centers, and workplace wellness centers. Many simultaneously held teaching positions at academic institutions. At the time of interview, 23 respondents were living and working in United States and most came from the Northeast. One was living abroad, but her most recent clinical experience was in the United States. The majority of respondents were white and female, which closely parallels the demographics of nurse practitioners and nurse midwives overall (Sipe, Fullerton, and Schuiling 2009). The providers served diverse patient populations and their practices ranged from serving predominantly poor, uninsured clientele to high-income patients with private insurance.

I transcribed interviews and coded them using QSR NVivo computer software. I used thematic analysis, by trying to understand the “underlying ideas, assumptions, and conceptualizations” in the data (Braun and Clarke 2006:13). Because interviews were broadly focused, I adopted an inductive approach to identifying themes in how interviewees described contraceptive counseling and patient satisfaction. For example, in initial coding, I identified a theme of providers minimizing patient dissatisfaction because of side effects. In iterative coding, I documented how this minimization often arises from

distinction between formal and informal knowledge about contraception.

A key strength of these methods is that in-depth interviews can document provider attitudes and motivations, which are often difficult to discern from patient reports or direct observation of clinical interactions. However, the data can only account for provider reports of their own perspectives and practices; they likely do not fully capture actual clinical practice or patterns of behavior among their patients. I am mindful of these strengths and limitations as I report results below.

## RESULTS

### *Formal and Informal Knowledge*

Providers' approaches to contraceptive counseling often match medical literature and public health guidelines. For example, the Centers for Disease Control and Prevention (CDC) provides evidence-based guidelines so that health care practitioners can assess the safety of contraceptive methods for individuals with various medical conditions or characteristics (Curtis et al. 2016). The providers I interviewed reported screening patients for such contraindications and restricting certain methods when the risk of potentially life-threatening events — like blood clots, heart attack, and stroke — was elevated. For example, this nurse midwife draws a clear line about instances about when she refuses to prescribe hormonal contraceptives:

If you get somebody with a lot of illnesses – the other day I had an older woman who smoked, had hypertension, high triglycerides – there's not a whole lot of options. And I just had to come right out and say, "This is what I would give you for birth control and I won't give you anything else."

*(Nurse Midwife 2)*

Providers commonly reported exercising this type of caution and restricting methods,

especially those containing estrogen, for patients with a combination of risk factors like older age, smoking history, and high blood pressure.

However, providers had a much wider range of responses when discussing those non-life-threatening side effects that are often reported by birth control users. Providers frequently framed side effects — especially those not verified by the medical literature — in terms of patient misconceptions. Many juxtaposed their formal medical knowledge and expertise with “myths” that patients derive from informal sources, including television, the Internet, and peers. Some also categorized patients’ past or current embodied experience of side effects as unreliable. Occasionally, clinicians referred specifically to their reliance on “evidence-based medicine” as a counter to this informal knowledge. On the whole, interviewees believe addressing these myths is essential to their role as clinicians and view themselves as trustworthy, educational resources whom patients can rely on to sort through the confusing and contradictory information they encounter about birth control. For instance, this nurse practitioner says:

Myths are a big issue. Everyone thinks they're gonna gain weight using contraception. Everyone. And the reality is, weight gain happens, but it's usually not related to the birth control method. So we have to be mythbusters, that's a lot of what we do.

*(Nurse Practitioner 1)*

Another nurse practitioner talks about the importance of educating patients who are upset when a method of birth control causes amenorrhea (the absence of menstruation), as they believe that having a regular period “cleanses” them:

There are a lot of women that like to see their period. They wanna see it every month. That's fine. You know...myths.

*(Nurse Practitioner 17)*

I argue that this emphasis on using formal medical knowledge to correct myths can create a tension in contraceptive counseling: while it can provide patients with important,

factual information (for instance, the reason that some contraceptives cause amenorrhea), it also has the potential to create an adversarial relationship between clinicians and patients. In the process of correcting misconceptions, providers may simultaneously delegitimize those sources of knowledge that patients find most important in decisionmaking (Lowe 2005) or minimize their personal preferences. For instance, in the previous example, the nurse practitioner affirms that it is “fine” for patients to prefer a monthly bleed, but also asserts that this preference is based on “myths.”

That tension also arises for this nurse practitioner when her patients report weight gain from the pill: “We have patients [who say], ‘I can't be on the pills, they all make me fat,’ even though evidence-based medicine says it won't.” (*Nurse Practitioner 12*). In light of institutional medical knowledge, patients’ embodied experiences of weight gain appear unreliable. She continues to explain the difficulty of counseling patients who have reservations about multiple methods of birth control:

NP12: [They say] “I can't use the ring, because I'm not putting anything up there. No, I don't want the shot, because I gain weight. I don't want the IUD, because it's unnatural having anything in my uterus.” You know, so for everything you come back at, there's always something different.

*LS: Do you think there's anything behind that or do you think that they just really don't like all the different methods?*

NP12: I just think that they had misinformation from friends or whatever or that they went on the Internet and they're reading stuff that isn't really true.

(*Nurse Practitioner 12*)

In this provider’s view, patients’ reliance on informal sources of knowledge about contraception (personal experience and information from friends and the Internet) makes contraceptive counseling difficult, especially when patients become resistant to all provider-controlled forms of birth control. Though this nurse practitioner faults

misinformation, there is slippage here between beliefs that do not align with evidence-based medicine (that the pill will cause weight gain), patient preferences (not wanting to place and remove the ring from one's vagina every month, finding the IUD unnatural), and beliefs that are *supported* by evidence-based medicine (that the shot can cause weight gain).

Another nurse practitioner is skeptical of the common reasons her patients discontinue birth control:

NP10: The biggest one probably is irregular bleeding, mood disorder –presumed mood disorder [...]

*LS: Tell me about the presumed mood disorder. Why do you say presumed?*

NP10: Well they just assume that their PMS-y type of symptoms are related to this new birth control pill.

*(Nurse Practitioner 10)*

Implicit here is that patients misattribute mood changes to the pill and that their embodied experiences are not reliable enough to distinguish between pre-existing symptoms and new instances of mood disorder. By contrast, from patients' viewpoints, hormones can have a real and significant effect on their moods: some users report such extensive mood changes from hormonal birth control that they have difficulty managing their interpersonal relationships (Littlejohn 2013). The same nurse practitioner explains her process of managing patient complaints about side effects:

Most of them will come back and just say "I don't like it" and then you have to really get more information from them in terms of what they don't like and when it's occurring, so you can make an education change [...].

*(Nurse Practitioner 10)*

I read her focus on making an “education change” as a signal that she tries to counter patients' informal knowledge and preferences with formal medical knowledge. She says

her education focuses particularly on correcting the misconception that “birth control may be a harm to their body.” However, she does not explain whether or how she ameliorates those side effects that patients dislike.

The nurse practitioner quoted below, who works at a university health center, also asserts that her patients misattribute side effects to contraception:

Weight gain really is not a true side effect of birth control [...] Most of the time it's actually, they're at that level where they decrease their activity and they increase their food intake and their beer intake and their weekend partying intake and *that's* what's leading to the “freshman fifteen,” not the birth control that you got started on.

*(Nurse Practitioner 13)*

The same nurse practitioner talks in detail about her own experiences using hormonal birth control and the difficulty of finding a method that did not cause her nausea — she switched pill formulations multiple times and “felt like I had morning sickness for the first three months I was on pill packs.” Though she doubts that weight gain will be a consequence, she affirms “[...] there *are* a lot of side effects with birth control, especially if you have a very sensitive stomach, that's the main thing.” Current epidemiological research cannot confirm that either weight gain or nausea is associated with hormonal birth control (Grimes and Schulz 2011). While this provider applies formal medical knowledge in the case of weight gain, it appears that she thinks about the legitimacy of nausea through the lens of her own personal history. She goes on to explain that she is particularly sensitive and understanding of patients who also experience nausea with hormonal birth control.

It is important to note that some providers in my sample do attribute side effects not verified by randomized controlled trials, like weight gain and mood swings, to hormonal birth control. For instance, the nurse practitioner quoted below categorizes both

side effects like weight gain and more serious risks as legitimate reasons to switch methods. She explains the common causes of patients discontinuing a method: “For instance, the birth control pill: headaches, bloating, weight gain, then, more seriously, elevated blood pressure.” (*Nurse Practitioner 18*). She lists these side effects without doubt or objection and addresses patient complaints by prescribing a different formulation of pill or a new method altogether.

Others prioritize patient preferences, whether they are grounded in formal medical knowledge or not. For example, this nurse practitioner explains her model of contraceptive counseling:

NP14: I never prescribe where a patient's not comfortable or they're like "oh, geez, I don't know," because I know that's gonna be a failure. So, I'd rather go through what their preferences are and what their life is [...]

*LS: And, ultimately after that type of education and counseling, they're usually able to find something that they can [use]?*

NP14: Yeah, but I also tell them, “Look, you're not married to anything I give you. If you have side effects, there's somethin' else [...]”

*LS: And then, do you get people who come back multiple times to switch?*

NP14: Every once in a while because, I think socially and their friends. Like "Oh, my friend said this pill was better than mine." Or [there's a difference between] what they think they want while they're in the office and then they experience it as not what they really want.

(*Nurse Practitioner 14*)

Here, patients' initial comfort level, their personal experiences using a method, and their peers' opinions are all legitimate criteria to consider in the selection and continuation of a contraceptive method.

*“Stick With It”*

Sometimes when providers do acknowledge negative side effects, they employ a

narrative that patients should tolerate them or “stick with it,” at least temporarily, in exchange for effective pregnancy prevention. One reason clinicians report encouraging patients to stick with a method is because they believe most side effects will decrease or disappear within the first few months of use. This nurse practitioner explains that only a minority of her patients who struggle because of side effects have legitimate reasons:

I would say that people who have a lot of trouble finding a birth control method, only 20 percent of them truly have an issue. The other 80 percent, it's either because their friend told them it was bad or they don't give it enough time or they don't really stick with it or they're not taking it right.

*(Nurse Practitioner 5)*

Among those who do not have a true issue are users who do not “give it enough time” or “stick with it.” In this view, users should expect and be willing to endure side effects temporarily. Here, we also see another example of portraying informal knowledge (friends) as illegitimate and unreliable.

Another nurse midwife is more rigid in her expectation that patients continue contraception, particularly the IUD, despite side effects. She reports counseling new users: “I’m not removing this [IUD] for six months. No matter what happens. If it’s there and it’s doin’ its thing, remember, big picture, you don’t need to be pregnant [...]” *(Nurse Midwife 1)*. She goes on to explain her strategy of convincing patients to stick with IUDs:

They'll come back for their six week check and they say, "Well, I don't like this. I've been having bleeding every day since you put this in." I say, "Well that's what's to be expected. Remember our previous conversation? Okay? So this is the best choice for you at this time and we need to continue with this." Very often I can get by with that.

*(Nurse Midwife 1)*

She minimizes continuous bleeding as acceptable, because it is “expected” and because she has already communicated to patients that she will prioritize the IUD’s efficacy in preventing pregnancy “no matter what happens.” The assertion that the IUD is the “best

choice for you at this time” foregoes the possibility that the patient may have re-evaluated her decision and priorities after experiencing a month and a half of bleeding. The declaration that “very often I can get by with that” communicates that the provider’s ultimate goal is for patients to continue IUD use (as opposed to, for example, alleviating symptoms or finding a more acceptable method); therefore, by changing a patient’s mind about removal, she has been successful.

Others echoed the sentiment that side effects are to be expected with birth control use, as with this nurse practitioner who affirms that weight gain is a side effect of Depo-Provera. However, she minimizes the importance of the contraception relative to her patients’ eating habits:

[...] People make choices all the time. You know, if you want to eat this, that's fine, but you're gonna gain weight. If you're on Depo [-Provera], and you're eating like a little friggin' pig, you're gonna get weight and if you eat healthy food, you hopefully won't gain a whole lot of weight.

*(Nurse Practitioner 12)*

Though evidence-based medicine does link Depo-Provera use to weight gain (Bahamondes et al. 2001), here responsibility shifts to individual women to engage in healthy diets and mitigate its effects; if they do not, they can be criticized for their lack of self-control.

While addressing her patients’ concerns about hormones, another nurse practitioner portrays side effects as inherent to *all* contraception:

I have a large population of patients that are like, "Well, I want all-natural." [...] I think that they think that if something is non-hormonal, there will be no side effects. That the only side effects come from hormones. And that's a misconception [...] I was talking to a patient yesterday about birth control and I said, "You know what? There's nothing free in the world. Even your non-hormonal IUD, it's not nothing. There's gonna be side effects to everything. What we're choosing is, what are the side effects that you can deal with best?"

*(Nurse Practitioner 7)*

Here, side effects are part of the “price” of pregnancy avoidance. In this way, she encourages her patients to change their thinking from ‘How can I avoid side effects?’ to ‘Which side effects can I accept?’ With this re-framing, the nurse practitioner can correct what she sees as a misconception: that non-hormonal contraception is less physically burdensome than contraception with hormones.

Although the above provider is resigned to the idea that every birth control method will have side effects, this nurse practitioner pushes back against the notion that her patients should have to make serious trade-offs when contracepting. She often finds patients cycling through multiple methods without finding one that is acceptable, explaining:

I wish I could make a birth control pill that you didn't have to take quite as often...see, that's the double-edged sword of the birth control pill right now is that it's a lower dose, so they don't have a lot of breast tenderness and they don't have the headaches and they don't have the weight gain. But then the compliancy is more strict, they have to take it every 24 hours [...] I wish they could make a pill that had a little bit better leeway [...] If somebody devised even a *new* method, could keep looking for more and more methods.

(Nurse Practitioner 17)

This provider acknowledges a number of adverse effects of the pill, including weight gain. Yet, her frustration is not directed towards the women who do not accept the trade-off; instead she directs it towards the insufficiency of the technologies themselves.

### *Race and Class in Counseling*

In a few instances, providers draw on racialized and classed discourses to describe their patients’ resistance to contraceptive methods, especially those containing hormones. According to the providers, sometimes these patients express concerns specifically about side effects related to hormones and sometimes patients hold a general dislike of

hormones. In these examples, two broad “types” of patients emerge: patients who reject these methods because they are uneducated or irresponsible and those who reject them because they are *too* educated and selective. As I describe below, race and class are integral to building these two patient types.

The first patient type is a woman who rejects contraception because of an ignorance of formal medical knowledge about the safety and mechanics of birth control or because she holds an ambivalent attitude about pregnancy prevention. In providers’ descriptions, I find subtle or explicit references to race and class that mark these patients as minority and/or of low-socioeconomic status. Like Nurse Practitioner 17 quoted above, a number of providers portrayed their patients’ dislike of menstrual suppression as a preference based on misconceptions. One nurse midwife, who works in a clinic with mostly Latina patients on the United States-Mexico border, echoes this and explains how she counsels her patients about why this side effect should be perceived as harmless:

One of the barriers, one of the problems we have with family planning down here is through cultural superstitions and beliefs [...] like, with [some hormonal methods], sometimes you stop menstruating, and that's a bad thing to some people. [...] That] you're not cleaning yourself [...] and so they've got their aunties and grandmas saying, "Oh that's not good. You have to have a period every month" and I try to explain to them and go through and show them the reason nothing's coming out is because your body's not making anything to come out and explain all that, very simply.

*(Nurse Midwife 2)*

The language here, that patients’ beliefs about menstruation are “cultural superstitions” fueled by “aunties and grandmas” that need to be explained away “very simply,” suggests that patients’ beliefs are a matter of ignorance and poor education. The nurse midwife also evokes this dislike of amenorrhea as a racialized problem, identifying the cultural superstitions as specific to the border region where she works.

A number of providers also expressed confusion or exasperation when patients

desired to avoid hormones altogether and rely on less effective non-hormonal methods or use no contraception at all. This nurse practitioner describes two recent patients who wanted to discontinue hormonal contraception:

Unfortunately, they were both African-American and they wanted to quote unquote give their bodies a break and I said, "Well, if you get pregnant, are you okay with that?" And they go, "Yeah." They are. They may or may not have a successful job.

*(Nurse Practitioner 10)*

Here, pregnancy prevention becomes a primary goal over and above a negative feature of birth control, even when patients are okay with pregnancy. First, this provider expresses disapproval of the patients' belief that they should not use hormones continuously and that one's body might need "a break" from medicalized contraception. I read her use of "quote unquote" to indicate that this belief is not supported by her medical knowledge. Second, she expresses disapproval of their openness to pregnancy, particularly because they may not be employed. I interpret the use of "unfortunately" with the mention of the patients' race as signifying both that the provider finds their actions regrettable and that she finds it distasteful to stereotype patients based on race, but unfortunately finds the stereotype to be true in this case. Here, stereotypes about race and class manifest in anxieties that run deep in American discourse: that black women's fertility is uncontrolled, that they are financially irresponsible, and that they cause cycles of poverty by having children while poor (Gordon 2002; Roberts 1997).

Another nurse practitioner talks about serving patients who participate in Job Corps, a federally-funded program for low-income young people to complete high-school education and job training. She reports that some of these patients want to discontinue birth control because of side effects while expressing uncertainty about the prospect of getting pregnant:

So, here they are going back to school, they've gotten into this program [Job Corps] and I'll say, "Where does that leave your career goals if you get pregnant right now? And how badly do you not want to get pregnant? Or how badly *do* you want to get pregnant?" And they'll go, "Well, I don't know. I don't really wanna use this because of that [...]" That's another person, too [...] They'll make an excuse for every single method. About why they don't want it and why they don't like it...they can't take hormones or they don't wanna take hormones. [...]

*(Nurse Practitioner 17)*

Although this nurse practitioner is more open to supporting patients who do want to get pregnant, she still connects this group of low-income patients' ambivalence about pregnancy prevention and concerns about hormones back to their job prospects. Her initial question, "where does that leave your career goals [...]" indicates that disadvantaged young people who are on a path to social mobility should be particularly concerned about pregnancy prevention.

The second patient type emerges as a woman who rejects or fears hormonal contraception, because she is highly educated. In these examples, providers do not make explicit references to race, but I interpret the emphasis on education as a marker of the patients' perceived high socioeconomic status. The following two providers also talk about the difficulty of counseling patients who want hormone-free birth control:

I mean, I don't know if it's prissy or not prissy [...] I have a patient who doesn't want anything with chemicals in her body. She doesn't want anything unnatural in her body. So that leaves out a lot of contraception.

*(Nurse Practitioner 12)*

I have a patient who's very intelligent and who's had an unintended pregnancy before and who I've done a termination on before who calls me panicked periodically, because she only wants to use condoms and the condoms fall or break off and she doesn't wanna take the emergency contraception, because she doesn't like the use of hormones. So you know sometimes there's a little *overly* intelligent unintended pregnancy failures [...]

*(Medical Doctor 3)*

Here, providers depict women's concerns about hormones as "prissy" or "overly

intelligent.” Allusions to the “natural” also evoke well-educated, often white, women who reject mainstream medical advice to maintain their lifestyles (see Bobel 2002; Reich 2016). This patient-type, typically portrayed as compliant contraceptive users, become problematic when they want to avoid hormones. In the second case, they are especially problematic when their reliance on less effective methods leads them to experience unintended pregnancies and seek abortions.

Another nurse practitioner says her educated patients, in particular, become overly concerned with birth control risks and side effects:

[...] then there comes a certain point when a lot of our patients, especially educated patients, become completely paranoid and they get fixated on the package insert [...] then they turn to this sort of crazy ruminator.

*(Nurse Practitioner 1)*

As with this the previous two examples, patients’ education becomes problematic when it causes them to fear hormonal contraception. This is also an interesting counter-example to the juxtaposition of formal and informal medical knowledge I have described previously. In this instance, the provider worries that patients focus too much on the reference material provided by pharmaceutical companies — arguably a formal, evidence-based source of medical information.

These explicit and implicit references to race and class when discussing resistance to or dissatisfaction with hormonal contraception were relatively infrequent. Nevertheless, they are illustrative in showing how broader social discourses may enter into clinical thinking about patients’ relationship to medical technologies like birth control.

## DISCUSSION

Women using provider-controlled forms of birth control commonly report dissatisfaction and negative side effects, especially from those methods containing synthetic hormones. (Brunner Huber et al. 2006; Littlejohn 2013; Moreau et al. 2007). At the same time, research drawing from patient surveys and observations of clinical interactions suggests that clinicians often neglect to discuss or discursively downplay the importance of side effects in contraceptive counseling (Dehlendorf et al. 2014; Littlejohn and Kimport 2017; Minnis et al. 2014). Here, I use interviews with reproductive health care providers to explore how their attitudes and beliefs may contribute to this minimization of patient concerns and dissatisfaction. I find that many clinicians portray patients' dissatisfaction as based in "myths" and "misconceptions" that can be corrected with formal medical knowledge. A number also recount encouraging patients to "stick with" a method despite negative side effects. In a few instances, providers draw on race- and class-based stereotypes when making these claims.

Clinicians' tendency to portray formal medical knowledge as more authoritative than those informal sources patients often turn to makes sense in light of dominant medical paradigms, especially the contemporary emphasis on evidence-based medicine (Timmermans and Berg 2010). This paradigm can have the effect of disadvantaging those women whose experiences are not documented in randomized controlled trials. Historically, women's embodied experiences have been cast as incredible and unreliable sources of knowledge (Kempner 2014). Despite its marginalization, lay, embodied knowledge has been crucial in challenging existing medical and scientific paradigms (Brown et al. 2004). The recognition and legitimation of women's embodied experiences, particularly in relation to reproduction, was a central goal of the women's health

movement in the United States and helped, for example, to document the dangers of synthetic diethylstilbestrol (DES) and the first-generation contraceptive pill (Morgen 2002).

The recommendations to “stick with” a method of contraception despite negative side effects illuminate the physical burdens of the unequal, gendered responsibility for reproduction. The burden of fertility management, including pregnancy prevention, is gendered and falls heavily on women (Daniels 2006; Kimport 2018). The idea, for example, that “there’s nothing free in the world” with birth control squares with the cultural notion that women are responsible for contraception and must make sacrifices in exchange for protection from pregnancy. Women’s discomfort – their bleeding, weight gain, depression – is minimized in relation to a state of non-pregnancy. Yet, there is something “free” for the heterosexual men whose partners bear the physical effects of birth control, as they do not have to choose among the side effects they can best cope with.

Though few providers talk explicitly about weighing side effects against contraceptive efficacy, the themes I describe here form a pattern in the aggregate whereby providers minimize patient concerns and dissatisfaction, particularly concerning those methods ranked most highly in the WHO tiered-effectiveness model of contraceptive counseling (WHO 2007). In effect, if providers downplay patient concerns about highly effective methods, they may silence discussion about less-effective methods that patients may find more acceptable and less physically burdensome. (Downey et al. 2017; Kimport 2018; Lessard et al. 2012). Importantly, research has documented how the most effective, reversible methods – LARCs – also have the potential to be coercive,

because they require a medical procedure for removal (Higgins 2014; Roberts 1997). In some cases, providers have resisted or even refused to remove devices upon request, effectively restricting a woman's autonomy to control her own fertility (Hoggart et al. 2013; Stevens 2015). When providers prioritize continuation of a method over patient concerns they may, intentionally or not, continue this broader legacy of medical paternalism and reproductive coercion.

Pregnancy prevention is a formidable goal when it matches the priorities of patients, but previous research shows that a significant number of women describe unexpected pregnancies as positive and wanted (Aiken, Dillaway, and Mevs-Koff 2015; Higgins, Popkin, and Santelli 2012), indicating that health care providers should be careful to assess their patients' goals and values rather than assuming that pregnancy prevention is a priority. Particularly in the case of low-SES and minority women, providers seem uncomfortable with patients' openness to pregnancy. In this paper, I try to highlight instances where this emphasis on pregnancy prevention is classed and racialized, but given the history of contraception as a tool for population control (Gordon 2002), future research should be attentive to even deeper ways that minimization of patients' complaints and values intersects with their marginalized statuses in society.

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## Chapter 4

### **Environmental Contaminants and Reproductive Bodies: Provider Perspectives on Risk, Gender, and Responsibility**

Research in the past decade suggests exposure to certain toxic chemicals found in our products, homes, and communities can disrupt the endocrine system and cause long-term reproductive health consequences (Caserta et al. 2011). Although findings vary, some environmental contaminants have been linked to low birth weight, preterm delivery, infertility, and developmental impairments to the fetus that can manifest during childhood and later in life (American College of Obstetricians and Gynecologists [ACOG], American Society for Reproductive Medicine, and Program on Reproductive Health and the Environment 2013; Caserta et al. 2011; Grandjean et al. 2007). The National Health and Nutritional Examination Survey, which contains nationally representative biomonitoring data, shows that chemicals banned nearly forty years ago in the United States are still detectable in the blood and urine of the majority of women of childbearing age (Axelrad, Goodman, and Woodruff 2009). In light of worrisome findings, the National Cancer Institute vividly warned that babies are “being born pre-polluted” (Reuben 2010:vii) and an increasing number of health organizations encourage women who are pregnant or considering pregnancy to take extra precautions against environmental contaminants.

In addition to advocating for broader reforms, like heightened governmental regulation of industrial pollution, leading reproductive health organizations call for health care providers to improve counseling of reproductive-age patients on reducing exposure to environmental contaminants, like pesticides, lead, mercury, and bisphenol A (BPA)

(ACOG et al. 2013; Di Renzo et al. 2015). Members of University of California – San Francisco's Program on Reproductive Health and the Environment suggest that “obstetricians and gynecologists are poised uniquely to intervene in critical stages of human development (i.e., preconception and during pregnancy) to prevent harm” (Sutton et al. 2012:168). They recommend that, in addition to standard counseling about alcohol and smoking, “clinicians should provide anticipatory guidance to all patients with information about how to avoid toxic exposures at home, in the community, and at work” (Sutton et al. 2012:168). A publication in the *American Journal of Obstetrics and Gynecology* provides resources on how to counsel preconception and prenatal patients about environmental exposures and highlights the role reproductive health professionals play in “empower[ing] their patients to make positive decisions to reduce exposure and to prevent adverse health impacts to both mother and fetus” (Sathyanarayana et al. 2012:463). The American College of Obstetricians and Gynecologists urges clinicians to take a patient's “environmental history” during preconception visits to assess potential sources of exposure during fetal development and provide guidance to patients on reducing body burdens and avoiding further contamination (ACOG et al. 2013).

Specific recommendations clinicians can give patients include choosing fresh and organic instead of processed and conventional foods, monitoring fish consumption to avoid high levels of mercury, selecting safe containers for food and beverage storage, using non-toxic household and beauty products, testing one's home for lead, refraining from pesticide use in one's home and yard, and learning about exposures and protective measures at work (ACOG et al. 2013; Association of Reproductive Health Professionals [ARHP] 2010; Sathyanarayana et al. 2012). These professional guidelines position

exposure before and during pregnancy as significant hazards that can be addressed by patients and health care providers. Although some guidelines address men's reproductive health, recommendations are directed primarily towards women. Clinical counseling is designed for preconception and prenatal visits, which are attended predominantly by female patients.

Environmental health social movements have long pressed for medical and scientific communities to acknowledge how environmental pollution impacts health (Brown et al. 2006). Professional reproductive health organizations reflect this call, communicating that structural actions are necessary in addition to individual measures. Recently, the International Federation of Obstetrics and Gynecology called on health care providers around the world to advocate stronger policies to prevent toxic exposure and create healthier food systems (Di Renzo et al. 2015). The authors of an article published in *Fertility and Sterility* advocate better regulation at local, state, and national levels; more scientific research to inform policy; and community activism around environmental and reproductive justice. They note that women can take some individual preventative actions, but “placing the responsibility on women to avoid everyday toxins [...] is not an effective strategy for protecting reproductive health” (Woodruff et al. 2008:e14). Similarly, a report by three leading reproductive health organizations states, “Because individuals alone can do little about exposure to toxic environmental agents, the authoritative voice of health care professionals in policy arenas is critical to translating emerging scientific findings into prevention-oriented action on a large-scale” (ACOG et al. 2013:1).

These recommendations are optimistic about providers’ and patients’ ability to

enact meaningful harm reduction but explicit that these individual behaviors are only effective in the context of large-scale action to reduce the levels of toxic agents in the environment. In the absence of larger reforms, it is unclear the extent to which individual protective behaviors can effectively protect reproductive health and fetal development. As Brown and Kelley (1996) note, when we look to medical providers to intervene in environmental disease, we implicitly ask them to step beyond the traditional boundaries of medical practice and into the realm of public health. Organizations like the American College of Obstetricians and Gynecologists and others ask medical providers to do just that when they emphasize the limits of individual action (ACOG et al. 2013). Other advocacy organizations like Physicians for Social Responsibility have long campaigned for doctors to take a more active role in environmental health and illness, both through direct provision of care and through broader actions to change environmental policy (Brown and Kelley 1996; Physicians for Social Responsibility 2015).

A significant body of research documents that health care providers generally believe environmental hazards impact health, but few report feeling competent to address environmental health issues (see Massaquoi and Edwards 2015 for a review). Two studies focusing on prenatal care echo these results, finding that providers are uncertain about counseling pregnant patients on environmental exposures and desire more training (Sharma, Hodgson, and Nisker 2014; Stotland et al. 2014). One survey of obstetricians found the majority believed that their counseling could help reduce patients' exposures to environmental health hazards, but fewer than 10 percent had any formal training on the topic (Stotland et al. 2014). However, studies have not yet analyzed how providers think about contaminants as a threat to maternal bodies more generally or how providers treat

these issues when they do arise in clinical interactions.

We know that women's behaviors are subject to intense scrutiny during pregnancy (Kukla 2005). However, environmental contaminants are difficult to pinpoint and avoid in everyday life. Professional guidelines ask health care providers to counsel their pregnant and preconception patients on reducing the risk of contamination, but also characterize avoidance as impossible without structural changes to decrease contamination in the wider environment. Moreover, in rare instances where scientific research has considered *men's* contributions to reproduction, it focuses on environmental contaminants encountered at work or in warfare, and frames these exposures as involuntary (Daniels 2006). In this research, I consider the multiple, sometimes conflicting messages about environmental contamination and reproduction and ask: Do health care providers frame environmental risks as an individual responsibility, similar to smoking, drinking, and nutrition? If so, does this responsibility fall on women alone or include men as well? Or do providers see structural causes and collective solutions to environmental threats to reproductive health?

## **BACKGROUND**

### *Environmental Hazards and Individual Reproductive Responsibility*

Most environmental threats to health are inherently collective. Intensified production and consumption have resulted in the proliferation of synthetic chemicals that are present in air, water, and soil and move through bodies and across borders (Murphy 2008). Though the majority of contaminants enter the environment through industrial and commercial sources (National Oceanographic and Atmospheric Administration 2014),

science, medicine, media, and public discourses often focus on individual-level protective actions to shield oneself and one's family from environmental hazards (MacKendrick 2010; Szasz 2007). These typically emphasize personal health through lifestyle changes and “precautionary consumption” – the selection of safe, non-toxic foods and products (MacKendrick 2010).

Framing lifestyle modifications and precautionary consumption as the solutions to environmental health hazards is part of a larger trend in medicine. The dominant medical paradigm in Western, neoliberal societies treats health as an individual problem and responsibility (Cranshaw 2012; Petersen and Lupton 1996; Rose 2007). Health promotion focuses predominantly on the modification of personal “lifestyle behaviors” (Minkler 1999). Environmental scientists have recently extended their focus from the impacts of government regulatory action to include risks that stem from individual bodies (Shostak 2010, 2013). Molecular biomarker technologies, which can detect levels of individual exposure and genetic susceptibility to toxic substances, enable an ethos of individual moral responsibility to maximize personal health and avoid exposures (Shostak 2010; see also Altman et al. 2008). This focus can also obscure the social, economic, and political factors that shape environmental health (Shostak 2013). Simultaneously, environmental scientists have broadened the definition of “environment” beyond involuntary exposure to include lifestyle choices and other “voluntary” factors like diet, physical activity, and use of addictive substances (Shostak 2013). Although environmental exposure is often beyond personal control, we increasingly imagine that its effects can be combated on an individual level (MacKendrick and Stevens 2016).

Emerging advice about avoiding environmental exposure before and during

pregnancy concerns more than the individual – it also concerns potential fetuses, offspring, and future generations. Maternal-fetal relationships, where the woman's body is seen as the barrier between the fetus and the larger environment, complicate and magnify the individualization of health (Kukla 2010; Mansfield 2012; Markens, Browner, and Press 1997). Unlike male bodies, which are envisioned as unified and seamless, women's bodies carry cultural meanings as having the power to both protect and corrupt future life and the womb is believed to have “little resistance against outside forces and eminently crossable boundaries” (Kukla 2005:6). Because of their perceived vulnerability, women's behaviors undergo intense scrutiny when they are pregnant (Kukla 2005; Lupton 2012) and parenting (MacKendrick 2014; Wolf 2007). The failure to avoid risks completely is viewed as a personal shortcoming and indication of poor parenting (Armstrong 2003; Keenan and Stapleton 2010).

Scientific research increasingly focuses on maternal-fetal epigenetics, which centers exposures in the “fetal environment” as important predictors of health later in life and in future generations. Social science examinations of this burgeoning field highlight how epigenetics positions maternal bodies as the primary vector to transmit harm over generations. Therefore, maternal bodies become primary targets of intervention (Mansfield and Guthman 2015; Richardson 2015). As reproductive health experts expand their focus to include the importance of “preconception health,” women's actions before pregnancy are increasingly scrutinized as well (Waggoner 2013). About half of pregnancies in the United States are unintended (Finer and Zolna 2014), making a specific preconception period difficult to define in many cases. Therefore, the U.S. Centers for Disease Control and Prevention (2015) recommends that all women of

reproductive age, even if they do not plan to get pregnant, take folic acid, avoid tobacco, drugs, and excessive amounts of alcohol, and avoid toxic chemicals in the workplace and at home to protect reproductive health and be prepared for a possible future pregnancy. These recommendations extend maternal responsibilities to all women, regardless of whether they will become mothers or not.

Social scientists have examined the intense regulation of women's smoking (Oaks 2000), drinking (Armstrong 2003), drug use (Harris and Paltrow 2003; Roberts 1997), exercise (Nash 2011), and nutrition (Keenan and Stapleton 2010; Markens et al. 1997) before and during pregnancy. Many point out how public health recommendations and media representations draw heavily on moralized notions of femininity and “good motherhood” (Bell, McNaughton, and Salmon 2009). One result of this intense regulation is the arrest and incarceration of women for their behaviors during pregnancy. Most cases involve prosecution of pregnant women who use illegal drugs, but women have also been arrested for using alcohol, failing to obtain prenatal care, having a “suspicious” pregnancy loss, and withholding consent for medical interventions (Paltrow and Flavin 2013). The criminalization of pregnancy disproportionately impacts marginalized women: nearly three-quarters of women involved are poor and over half are women of color (Paltrow and Flavin 2013; see also Roberts 1997). These punitive responses demonstrate that the expectation of risk-avoidance during pregnancy is more than a cultural norm; it is a standard that can be enforced with legal action.

We know little about whether environmental contaminants are treated like other lifestyle behaviors during pregnancy, ie. as a risk to be managed by individual women. A small group of studies analyzing public health campaigns around environmental hazards

during pregnancy suggest that contaminants fit easily into the framework of maternal risk avoidance. While mercury accumulates in seafood as a result of industrial pollution, Mansfield (2012) illustrates how public health campaigns position “pregnant women as the threshold – the narrow margin – between the contaminated environment and the fetus” and by making “safe choices,” women ensure health both for their child and for the general population (p. 971). Similarly, Kukla (2010) shows how reproductive risk warnings in California, posted by businesses to notify pregnant women of the presence of chemicals on site that could cause reproductive harm, “locate responsibility for foetal risk management in pregnant 'consumers'...rather than on those responsible for creating safe public spaces” (p. 323). In both examples, pregnant women are singled out with the responsibility to protect future children from toxins that compound in the broader environment.

In biological and social sciences, an overwhelming amount of research on reproduction focuses on women (Daniels 2006, 1997; Inhorn et al. 2009; van Kammen and Oudshoorn 2002). Scientific research and popular discourse draw direct links between women’s health and behaviors and reproductive outcomes, especially fetal health. Researchers have paid scant attention to men, partly because of cultural ideas about gender and reproduction. Daniels (2006) formulates the term *reproductive masculinity* to describe how men are treated as: 1) secondary in biological reproduction, 2) less vulnerable to reproductive harm, 3) virile, and 4) distant from the health problems of the children they father. Although male-factor infertility has received some attention, researchers are hesitant to draw links between men’s health and the quality of their offspring’s health. Instead, men’s reproduction tends to be positioned as all-or-nothing: if

harm occurs, men can be rendered infertile; otherwise, they will contribute healthy sperm to a pregnancy (Daniels 2006). Moreover, research that does link paternal exposures before conception to fetal health emphasizes uncertainty and inconclusiveness of studies as a way to avoid stigmatizing and condemning the behaviors of men (Daniels 1997). In contrast, although studies linking light or moderate alcohol use to prenatal outcomes are uncertain at best, health campaigns warn pregnant women that even one alcoholic drink poses a risk to their gestating fetus (Armstrong 2003).

*The Case for Understanding Exposure as Involuntary*

Daniels (2006) notes rare instances where scientific research considers men's contributions in reproduction. Unlike much of the research on women's smoking, alcohol use, nutrition, and other lifestyle behaviors, this research focuses on involuntary exposures, especially environmental contaminants encountered at hazardous workplaces or in chemical warfare. As environmental contamination comes into the frame of reproductive health, particularly *women's* reproductive health, it is important to ask: are these exposures still couched as involuntary? Previously, I offer evidence suggesting that the framework of gendered, individualized responsibility should extend to environmental contaminants. However, there are reasons to believe this might not be the case.

First, multiple factors make environmental contamination difficult for individuals and health care providers to address. Contaminants are ubiquitous: they are present in air, water, soil, dust, food, and other consumer products (Murphy 2008). Though pervasive, contaminants are invisible in daily life and only made legible through technologies like biomonitoring (Sexton, Needham, and Pirkle 2004). Researchers increasingly question that there are "safe doses" of certain chemicals and argue that even low-levels of

exposure during critical windows of susceptibility, like gestation and infancy, are harmful (ARHP 2010; Grandjean et al. 2007). Moreover, people are exposed to mixtures of multiple contaminants, making it difficult to pinpoint sources of adverse health impacts (Schwarzman 2008). Identifying, measuring, and intervening in environmental contamination on the individual level is highly uncertain.

Second, although studies have examined the perspectives of health care providers on hazards around reproduction, those that exist are mixed on the extent to which providers internalize and reflect dominant messages about risk, individualization, and maternal bodies. Providers are an important meso-level link between formal knowledge and everyday practice (Markens 2013). One study of perceptions of smoking during pregnancy found that views of health professionals mirrored those of lay non-smokers, believing that “every woman should assume responsibility for the health of her baby-to-be” and those who fail to abstain from smoking are “unhealthy” and “irresponsible” (Oaks 2000:71). Other studies highlight more nuance and resistance in providers' perspectives (Armstrong 2003; Waggoner 2011). Armstrong (2003) found considerable variation in how doctors understand the potential dangers of alcohol consumption during pregnancy. While many moralized the behaviors of mothers who “caused” fetal alcohol syndrome, others were more hesitant to assign blame or pointed to significant structural barriers, like poverty and inadequate nutrition, which exacerbated the effects of the condition. In sum, health care providers sometimes modify or resist dominant ideologies based on their on-the-ground experience interacting with patients.

Finally, environmental justice advocates work to frame contamination as a collective problem that is not only difficult for individuals to avoid, but unequally

distributed throughout society. Certain populations, particularly poor communities of color, bear a disproportionate share of the negative health and environmental consequences of pollution (Brulle and Pellow 2006). This stems from both the unequal distribution of environmental disadvantages, like the placement of toxic sites in poor, minority neighborhoods (Sze 2007), and the unequal distribution of environmental privileges, like access to healthy food, parks, and green spaces (Pellow and Brehm 2013). Professional medical organizations, like the American College of Obstetricians and Gynecologists, have adopted the language of environmental justice to frame appeals for regulations and reform. One committee opinion, for example, argues underserved women are particularly vulnerable because of the “complex interactions of race, place, and the environment” that lead to more exposure to pollution and environmental disaster and less access to resources to protect their health (ACOG et al. 2013:6). Another relates disparities in access to healthy foods to “food system-related environmental justice” (Sutton et al. 2011:892). Centering environmental justice rebuffs the idea that women can take individual-level protective actions to ensure health and instead highlights how race and class inequalities create significant disparities.

In the next section, I detail the methods for the study. I then turn to my results to demonstrate that while some providers frame avoidance of environmental risks as the responsibility of individual pregnant women, most treat contamination as a broader, involuntary threat that is not easily amenable to individual action. I document the specific ways, like identifying hazardous workplaces or the ubiquity of chemicals in consumer products, that providers broaden the scope of contamination beyond lifestyle behaviors. I

also closely compare providers' discussions of men's versus women's exposures to examine how environmental health risks remain gendered.

## DATA AND METHODS

Data come from a broader interview study I conducted with reproductive health care providers (N=19) about their experiences in the clinic, with a focus on how they counsel patients about contraception and reproductive planning (see Stevens 2015). Here, I centered on data about if and how providers counsel reproductive-age patients about environmental contaminants. I sampled with the goal of recruiting respondents who worked across practices that accepted 1) private insurance only, 2) Medicaid and private insurance, and 3) uninsured patients, Medicaid, and private insurance.<sup>2</sup> I began recruiting respondents through personal and professional contacts and then used references to gather additional participants. I also recruited at a national conference for nurse practitioners and through an online forum for nurse practitioners in Women's Health. I conducted all interviews in 2013. About half of the interviews were conducted in-person and half by telephone. All except one agreed to have interviews recorded and transcribed.

Respondents included nurse practitioners (NPs, DNPs, and PhDs in nursing), Certified Nurse Midwives (CNMs), and doctors of medicine (MDs). I limit my sample to

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<sup>2</sup> I was not able to collect statistics on patient demographics from each health care organization. Instead, I use the type(s) of insurance accepted at the respondent's most recent practice as an indicator of the patient population it served. Generally, a high proportion of Medicaid patients signified a low-SES patient population, as this federal health insurance program requires that recipients meet a certain percentage of the poverty level to qualify for coverage. Most providers at practices accepting only private insurance described their clientele as predominantly white and high-SES. Those at practices accepting private insurances and Medicaid described clientele that were socioeconomically mixed, but predominantly white. Most at practices accepting uninsured patients described their patient population as predominantly minority and low-SES.

primary care providers who could practice independently and had multiple years of work experience in reproductive health care. The respondents worked across a range of settings, including hospitals, private practices, non-profit and federally-funded clinics, university health centers, and workplace wellness centers. Many simultaneously held positions at academic institutions. As Table 1 shows, providers were mostly white, female, and Nurse Practitioners. Eighteen respondents lived and worked in the northeastern, mid-western, southern, or western United States. One lived abroad, but her most recent clinical experience was domestic.

**Table 3: Characteristics of Interviewees**

	N (19 total)
<i>Gender</i>	
Female	17
Male	2
<i>Race</i>	
White	16
Black or African-American	1
Hispanic	1
Unknown	1
<i>Provider Type</i>	
Nurse Practitioner (NP, DNP, or PhD in Nursing)	15
Certified Nurse Midwife (CNM)	2
Medical Doctor (MD)	2
<i>Type of Insurance(s) Accepted at Most Recent Practice</i>	
Private Insurance Only	6
Private Insurance and Medicaid	7
Private Insurance, Medicaid, and Uninsured	6
<i>Geographic Region</i>	
Northeastern U.S.	14
Southern U.S.	3
Western U.S.	1
Abroad	1

Interviews were semi-structured, open-ended, and covered a range of topics, including birth control, abortion, preconception care, pregnancy, and infertility. I introduced conversations about environmental health hazards in the context of if and how providers counsel patients on preconception care. I asked: “Do you ever talk to patients who are thinking about planning a pregnancy about exposure to environmental contaminants like lead, mercury, or plastic?” I followed this question with probes about whether patients ever initiated these discussions and what types of advice providers gave. Although I brought up this topic under the subject of preconception care, providers frequently talked about how they counsel patients who are *already* pregnant (e.g., at my mention of mercury, some described their recommendations for pregnant women to limit fish consumption). Therefore, I combined these two categories – preconception and prenatal counseling– in this article. For this analysis, women planning a pregnancy and those already pregnant are theoretically similar in their roles as “potential” or “future” mothers (Waggoner 2013).

I transcribed interviews and coded them using QSR NVivo computer software. I used “thematic analysis” to guide this research (Braun and Clarke 2006). I began analyzing interviews with environmental contaminants as one of the sensitizing concepts to explore. The themes of gendered, individualized risk versus collective responsibility arose through this inductive approach to data analysis.

## RESULTS

My analysis begins with the minority of providers who fit environmental risks seamlessly into existing frameworks for thinking about the maternal body. They either

view the responsibility to avoid contaminants as similar to the responsibility to avoid other risks during pregnancy or view lifestyle behaviors like smoking and drinking *as* the primary environmental hazards. In contrast, discussions of men's exposure to environmental contaminants typically adopt the lens of involuntary exposure, which could cause infertility, rather than fetal damage (see Daniels 2006). I was not expecting providers to discuss men to the extent they did because their patients are predominantly female and because larger discourses about risk in reproduction focus on women. Providers' introduction of men into conversations about environmental contaminants indicates they are thinking, at least to some extent, about male contributions to reproduction. It also lends analytic leverage to parse out if and how discourses about reproductive risk are gendered.

Yet, I found that most frame environmental contamination as mostly or wholly involuntary. First, providers highlighted female-dominated, but hazardous jobs where, like dangerous, male-dominated occupations, exposure is difficult to avoid. Second, although providers infrequently address class directly, a number identify barriers, like the inability to leave one's job or move to less-toxic neighborhoods, which echo the broader critiques of environmental justice advocates. Finally, some providers conceptualize contamination as coming from ubiquitous sources that are simply not subject to individual intervention. When providers frame environmental exposure as involuntary, gendered hazards may remain salient (ie. maternal bodies are vulnerable and in need of protection), but the gendered *responsibility* to avoid those hazards disappears.

#### *Environmental Risk Avoidance as Gendered and Individualized*

Some providers fit environmental contaminants into traditionally gendered and

individualized frameworks, where women are personally responsible for exposures, while men's exposures are largely involuntary.

This provider places responsibility for fetal health squarely on mothers, saying:

The very first thing I learned in my maternal-child nursing course is, 'No one's gonna ever like hearing this, but the woman's body is a house for the baby and requires a lifetime of work to have a good house.' And [the teacher] was absolutely, a hundred percent correct. We have women in society who are just piss-poor gestational carriers and they should not have children.

*(Nurse Midwife 1)*

When I ask specifically about environmental exposures, she responds:

NM1: Yeah...my patients are more exposed to drugs.

*LS: Oh, okay [...] so those kinds of contaminants.*

NM1: We don't live on the seashore where we have a lot of people who are fishing and eating fish. I mean, this is an urban population [...] [so] there's city water [...], but the REAL environmental exposures are what the woman does with her everyday life, which is bad nutrition and exposure to drugs. Either alcohol, IV drugs of any type, cocaine, heroin, marijuana [...]

*(Nurse Midwife 1)*

This provider focuses on whether women have prepared their bodies to be “good houses” to babies. Such a perspective leaves little room to consider collective threats to maternal health and when broader threats exist, they are limited to specific at-risk groups, like seaside and rural populations. According to this provider, the “real” exposures are the things that women do to themselves in their day-to-day lives. Cigarettes, drugs, and alcohol constitute a handful among many sources of chemical exposure, but this provider attributes the entire scope of contamination to these substances. Those who fail to implement healthy lifestyle behaviors are “piss-poor gestational carriers” – their bodies become hazardous containers that threaten fetal health – and for this reason, the provider believes these women “should not have children.”

In contrast, providers tend to discuss men in the context of widespread, involuntary exposures. This provider mentions workplaces as important sites of toxic exposures:

If they had exposure to these toxic chemicals, first of all, you don't see that today. [...] Today you have OSHA [the U.S. Department of Labor's Occupational Health and Safety Administration] that comes in and if there's any toxic exposure - you see more men exposed to toxic chemicals than you see women exposed to toxic chemicals. In the environment, you've got exposure from fumes from gasoline and that kind of stuff or if you're living in a city with high pollution, like Los Angeles.

*(Nurse Practitioner 2)*

She writes off workplace exposure as insignificant, because she believes 1) it affects men more than women and 2) regulatory organizations like OSHA effectively manage workplace hazards.<sup>3</sup> However, she does mention one pervasive source of exposure - air pollution in cities. When I ask what types of advice she gives to her mostly female patients, she responds:

Oh, well one thing that I failed to mention, first thing is to avoid smoke. I do smoking cessation counseling and give them resources for that. Number two, avoid smoke if you work in an environment where there's smokers - you need to not even go outside with them while they're having their cigarette. Avoid those areas where the smokers are. Find a different door to go in.

*(Nurse Practitioner 2)*

In this provider's framing, toxic chemical exposures affect men at work, although she believes this threat is significantly reduced by government regulation. Alternatively, the top priority for women is to avoid smoke, a traditional arena of women's gendered responsibility during pregnancy. Women can achieve this both by quitting smoking and

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<sup>3</sup> Health advocates argue that existing workplace regulations are not sufficient to ensure workers' safety, particularly during pregnancy. They note that many chemicals in use have not been tested for health effects and that legal exposure limits are not appropriate to measure harm to a developing fetus (PRHE 2012). Additionally, advocacy groups like Asian Communities for Reproductive Justice highlight how women, especially poor women of color, are particularly vulnerable to workplace exposures in female-dominated jobs like hair and nail salon work (Rojas-Cheatham et al. 2009).

by carefully maneuvering themselves in public spaces to avoid secondhand smoke.

We see a similar juxtaposition of women's and men's contributions to reproduction in the following example. This provider, who specializes in infertility services, talks at length about how some women have trouble getting pregnant because they delay childbearing and have false hopes about conceiving in their forties without an egg donor. She then shifts to hypothesizing about male-factor infertility, which she suspects is impacted by hormones in the water supply and other environmental factors:

NP4: Male infertility? There are a lot of theories about that. I think a lot of it's environmental. There's even a theory that so many women are on hormone pills, that the estrogen is in the urine and when they urinate, it goes into the septic system and water-treatment plants and they feel that might actually be affecting males. [...] So, I kinda think it's an age-factor in prolonging things for career, but I also think there's a lot of environmental factors and probably things that we don't even KNOW of. I mean, obviously, all the pesticides and all of those things that are meant to alter the reproduction of the bugs! *[laughs]* So that they don't reproduce!

*LS: It might be affecting our endocrine systems...*

NP4: So, you're not washing your vegetables and you're not washing all this stuff and you're consuming this over a period of time...well, then is that not going to affect you in some way? [...] I mean, environmental pollutants, obviously, are everywhere.

*(Nurse Practitioner 4)*

Here, reasons for male infertility are largely involuntary – some individual behaviors, like washing produce, could be modified, but otherwise contaminants are “everywhere,” traveling through water supplies and food systems.

A pattern emerges in these two examples where providers consider both women's and men's contributions to reproduction. Hazards to men are mostly involuntary and stem from larger systems, like industry and food and water supplies. Women's reproduction is largely within their locus of personal control, impacted by personal behaviors like avoiding smoke and planning pregnancies

early enough to avoid infertility. They also allude to notions of “reproductive masculinity” (Daniels 2006): that men’s reproduction is not harmed at all or the harm manifests as infertility.

The next provider quoted challenges reproductive masculinity, framing both men’s and women’s lifestyle behaviors as impacting the *quality* of fetal health. He talks about counseling couples who plan to conceive. With these patients, he covers a list of behaviors, including avoiding certain consumer products that contain chemicals, saying:

Okay, so now, who's trying to get pregnant? Two people [...] You're gonna make a baby. The factory is you, so we gotta get the factory ready [...] Take a prenatal vitamin, don't smoke, don't drink, don't use any drugs, exercise. Drink eight glasses of water a day, make sure your immunizations are up to date, be healthy. Don't get around people that smoke, don't use bleach, Clorox, anything that you think that you can breathe that's gonna stay in there [...] Not only that, it takes two people! So it's not just about you. If your boyfriend is out smoking a blunt and he's drinkin' beer every night, now that's his sperm that he's contributing to your baby. So, you gotta explain that. Don't let him drink. Don't let him do drugs.

(*Nurse Practitioner 10*)

Here, the “factory” metaphor applies to both women and men: their bodies need to be in good condition to create a good product. The advice to avoid environmental contaminants like bleach and other chemicals that are dangerous to inhale fits with a long list of health and lifestyle admonitions. This provider is emphatic that men play a specific role in fetal health that goes beyond maintaining fertility. Their sperm, which is impacted by their behaviors, directly contributes to the “reproductive equation,” at least in conception and fetal health (Almeling and Waggoner 2013). Yet, ultimately admonitions to men are framed in terms of female partners not “let[ting] him” drink or do drugs. While men are included, much of the onus of lifestyle changes still seems to fall on women, who should now monitor their own *and* their partners’ behaviors.

*Individual Responsibility in Perspective*

Unlike the previous section, where providers identify women's bodies as potentially toxic environments, the providers I describe below envision contamination occurring on a larger scale – in workplaces, neighborhoods, or simply everywhere. Here, women do not create dangerous environments for their future children. Instead, they are forced by their circumstances to exist in dangerous environments. Chemicals may ultimately move *through* women's bodies, but this refocusing removes much of the blame from women themselves.

Although hazardous workplaces have traditionally been gendered as male, providers mention a number of female-dominated jobs, like salon worker, house cleaner, and health care technician, that pose threats to reproductive health. These jobs, where workers encounter toxic products and radiation, are major sources of involuntary exposure. As respondents describe, women can try to take some precautions, but they are incomplete. This provider reports that patients who work in salons are concerned the chemical products they use might affect pregnancy. I ask:

*LS: Now, that's difficult. What do you do when someone's working as a hairdresser and they say they want to get pregnant?*

NP3: Yeah, it's tricky [*laughs*].

*LS: Would you have advice for them?*

NP3: Well, the advice that...there've been no studies done that show that there's any higher incidence of birth defects in that type of environment. The recommendation is that a person who's pregnant not stay eight hours consistently in that same environment. Open windows, circulating air, go outside to change it up. That's really the best they can do.

*(Nurse Practitioner 3)*

Here, managing threats at work is “tricky,” and while pregnant women can take some measures, like maintaining proper ventilation and taking breaks outside,

these are not foolproof. Rather, they are merely “the best they can do.”

We see a similar response from another provider, who asks during preconception visits whether her patients or their partners encounter hazards at work:

*LS: If someone is working in a hazardous workplace, what kind of advice can you give them?*

NP11: It's really tough. Let's say they work in a nail salon or they work in a hair salon or whatever and they're exposed to all that stuff. You might wanna wear something to protect your nose and your mouth; you might wanna wear protective clothing. I would look and see what chemicals they use and if that's toxic or not. [...] Because in this day and age, unfortunately, people can't leave their jobs, but there might be ways that you could protect yourself while you're there.

*(Nurse Practitioner 11)*

Again, women might take some steps to protect themselves, but avoiding exposures at work is “really tough,” especially when people do not have the economic security to leave jobs that could harm their reproductive health. Moreover, these are mostly low-wage jobs, which can give individuals even less room to demand workplace protections or take temporary leaves of absence.

Providers also express uncertainty about counseling patients when environmental risks seem ubiquitous, invisible, unavoidable, or unknown. This provider puzzles over how to give advice about contaminants, a topic her patients sometimes ask about:

Our world is so contaminated, it's a good question. I think that it's something we probably need to step up in terms of interacting with patients [...] I think environmental contaminants are so potentially overwhelming.

*(Nurse Practitioner 1)*

She continues:

All - everything in lotions are chemicals and they're systemically absorbed and we put them all over our bodies! So should we be doing that? [...] Environmental toxins are just so everywhere. What do we do? Tell people not to live their lives? I don't know if we have time enough for these conversations. Their cleaning fluids, their this, their that, their carpets -- I mean everything; deodorant!

*(Nurse Practitioner 1)*

This provider is interested in counseling her patients about avoiding environmental exposures, but overwhelmed by the sheer ubiquity of contaminants. Her repeated use of questions like “Should we be doing that?” and “What do we do?” portrays her uncertainty about what advice to give. Although she might help patients select a lotion without chemicals, she notes that the list of dangerous consumer products is so long that people would not be able to “live their lives” if they tried to avoid every source of contamination. Unlike the Nurse Practitioner 10, quoted above, who finds it unproblematic to ask his patients to engage in a long list of protective behaviors, this provider expresses that it would be too demanding to advise patients to take on the responsibility of avoiding potentially hazardous consumer products.

Another provider offers a critique of the way we treat pregnancy and risk more generally:

NP5: I'm also a little bit in the camp that, sometimes we can't see the forest through the trees. I think if we're just a healthy person, we'll be fine in our pregnancy, or we'll generally be fine and I think we nitpick about a lot of different things, but also, our environment's a disaster, so we can talk all we want about trying to avoid mercury and lead and heavy metals, it's everywhere.

*LS: Yeah, how do you do it?*

NP5: We're a mess. That's why we're all -- chronic illnesses and stuff. Our food is a disaster, in my opinion.

*(Nurse Practitioner 5)*

The provider resists the idea that maternal bodies need to be perfectly pure. She is frustrated that medical institutions already “nitpick” pregnant women about particular behaviors instead of encouraging overall health, a critique that echoes the feminist scholars mentioned previously (Armstrong 2003; Kukla 2005; Markens et al. 1997). For her, introducing yet another arena of caution for women – environmental contaminants –

would be especially unwarranted in the context of a disastrous environment and food system. By linking problems like chronic illnesses to the environment, this provider counters the idea that individuals can control and are ultimately responsible for their own health (Petersen and Lupton 1996; Rose 2007).

A provider who serves a low-income population, many of whom are undocumented immigrants, reacts against the idea of reviewing a litany of preconception recommendations with her patients. She finds particularly unrealistic the recommendation that individuals planning a pregnancy should avoid toxic work environments and describes her patients' crisis orientation towards medicine:

You don't take the pill unless you're sick, you don't do it for prevention. If you can't afford it, you don't buy it, even if you're being told and prescribed it. So, if you have to work, you work at whatever job you can get for the money you can get, it doesn't matter as far as exposures to things. So, yeah there's people that make the decisions and then there's people that actually have to [*exasperated laugh*] do them.

(*Nurse Midwife 2*)

This response highlights how the ability to follow health recommendations is fundamentally linked to socioeconomic resources (Link and Phelan 1995). Her patients are rarely able to practice preventative care, including avoiding exposures at work, because the financial consequences are prohibitive.

Another provider reports a number of local hazards that could impact her mostly rural patients:

NP6: It depends where they come from. [...] Radon; we have a lot of that down our way. Down in the [local] area, they have the nuclear power plants [...] some down the [other] way, those houses are built over landfills [...]

*LS: So if you were talking to someone who lived near the nuclear power plant, what kind of advice might you give to them?*

NP6: Move. [*laughs*].

*LS: Move before they thought about getting pregnant?*

NP6: Yeah, but most cases if they can't, to be aware of what's going on in that area. The citizen-awareness groups that they have in those particular areas become part of that, so they know what to look for.

*(Nurse Practitioner 6)*

For patients who live near a source of contamination, like a landfill or nuclear power plant, this providers' best advice is to “move” before they get pregnant. She says this with a laugh, however, in recognition that for her mostly low- and moderate-income patients, moving is not a realistic option. Her suggestion that patients look for citizen-awareness groups points to the need for more collective forms of protection.

These providers emphasize that environmental contaminants are ubiquitous - they are found in workplaces, consumer products, a polluted food system, and toxic neighborhoods. Although some encourage patients to take precautions against contamination, respondents here are unsure that lifestyle changes will result in real protection. They also point to specific barriers, like the inability to leave a hazardous job, that make it difficult to avoid contamination while pregnant. Providers express concern about patients' and their future children's health, but they cannot assign their patients a responsibility to avoid environmental toxicants.

## **DISCUSSION**

In the contemporary United States, pregnant and maternal bodies are treated as sites of exceptional risk and regulation. The paradigm of individual risk-management dominates clinical practice: providers are trained to monitor individual behaviors, like smoking, drinking, nutrition, and exercise, in order to prevent harm to patients and their gestating fetuses. Environmental contaminants, which have come into view as a

significant threat to reproductive health in the past decade, have the potential to shift conversations away from gendered, individualized responsibility in reproduction. In this research, most providers point to uncertainties, collective sources of contamination, and other barriers that prevent individuals from protecting their maternal bodies from environmental exposures. For the most part, providers treat women's exposure to environmental contaminants the same way that health research has treated men's contributions to fetal harm (Daniels 1997): they highlight uncertainties and thus avoid designating individual responsibility. Because providers are unsure of the sources of harmful exposure, the effects it has, or methods to prevent it, they typically cannot blame women for failing to avoiding it. These findings are surprising and significant given the seemingly relentless pressure on women of reproductive age to engage in exceptionally high standards of risk management and take individual responsibility for their and their children's health.

There may be multiple explanations for this pattern. First, previous research documents how health care providers hold more nuanced views of risk in pregnancy and motherhood than dominant discourses suggest (Armstrong 2003; Waggoner 2011), although this is not always the case (Oaks 2000). Health care facilities are sites where the idealistic demands of risk-avoidance collide with the realities of everyday life. Providers must negotiate public health directives and broader discourses about risk and motherhood with the tangible barriers their patients face. Many of the providers quoted above convey intimate knowledge of the difficult decisions their patients make about the communities they live in, the places they work, the products they use, and the medical advice they follow. One contributing factor may be the predominance of nurse practitioners in this

study. Compared to doctors, nurse practitioners tend to have higher patient satisfaction, perform longer consultations, and give patients more information (Laurant et al. 2005). Characteristics like these may relate to why many of the providers in this study express an acute understanding of how their patients' lived experiences interact with health.

Although providers do not use the language of “environmental injustice,” the examples they give, like patients' difficulty moving out of toxic neighborhoods or leaving dangerous jobs, tap into larger patterns of environmental inequality. Though providers point to abstract structural barriers, none specifically identify faults with government regulation or mention corporate responsibility for chemical pollution. They also do not discuss the importance of leveraging their professional voices to advocate for stronger environmental policies, as medical organizations have suggested. Still, they seem to internalize messages about environmental justice without directly identifying them or explicitly engaging in political efforts.

Second, my results indicate that female-dominated jobs, like salon work and cleaning, feature prominently in providers' minds when they think about “hazardous” work. Traditionally, we imagine dangerous workplaces as masculine spaces, like chemical plants and industrial factories. Female-dominated spaces like beauty salons force a re-imagining of *who* is exposed to environmental contaminants at work.

Third, many providers I talked with describe environmental contamination as ubiquitous, intangible, or unknown. While sometimes they link contamination to certain products (like bleach or cigarettes), they also perceive contamination as “out there” in air, food, and water. Even when providers can connect contamination to concrete objects, like lotions or hair dyes, they struggle to give their patients useful recommendations for

avoidance, especially when women use these products at work. These factors – limited knowledge of concrete, practical recommendations and the sense that contaminants are “everywhere” – may lead providers to ruminate on the broader causes of contamination and the forces that make avoidance feel impossible. They may also find it difficult to moralize environmental risk-avoidance behaviors because, unlike smoking or drinking, they cannot say precisely what those behaviors are and whether patients have the power to avoid them.

Finally, in the case of environmental contaminants, the acknowledgment of structural barriers also occurs in official discourse. While leading professional organizations in reproductive health encourage providers to counsel patients about individual actions to guard against environmental exposure, they also explicitly call for large-scale reforms to protect food, air, water, and soil from further pollution (ACOG et al. 2013; ARHP 2010; Sutton, Giudice, and Woodruff 2010). Though these official statements are relatively recent and have not completely disseminated to providers, the results I present here mirror this tension. This study also points to the need to investigate how professional medical organizations decide to adopt environmental health recommendations, especially those aimed at structural reforms, and how recommendations do or do not filter to providers through (continuing) medical education, journals, and other outlets.

Although emphasizing collective responsibility for environmental contamination does not invoke a gendered responsibility for risk avoidance, gender is still entwined in the issue. Appeals for better regulation and environmental protection rely on images of the corruption of pure wombs and babies. For example, one health advocate quoted in

report on environmental challenges to reproductive health says, “It's a tremendous irony that we believe that the womb is safe, and that something that is supposed to be so sacred – where life begins – is where the problem begins” (PRHE 2008:11). Examples like this, along with the language of “babies being born pre-polluted” (Reuben 2011:vii), appeal to gendered notions of maternal purity and innocence that need protection.

The emphasis on collective, rather than individual, maternal, responsibility for environmental contaminants is not a given. Some health care providers frame environmental contaminants as another item in a long list of things for women to avoid before and during pregnancy. Respondents simultaneously describe men's exposure to environmental contaminants as involuntary or inconsequential. It is possible that as professional guidelines become more familiar and routine, actions like eating organic food, using “natural” personal care products, and buying BPA-free plastics could become new expectations of individual risk-management during pregnancy. Because of gendered ways of thinking about reproduction, these expectations would likely adhere more to women than to men. Because professional medical organizations emphasize both individual protective actions *and* structural interventions, research should continue to monitor how health care providers, the media, and the public treat environmental contaminants as risk to reproduction as these recommendations become more widely disseminated.

Environmental contamination is just one among many potential threats to reproduction. I demonstrate that, in this case, health care providers do not wholly subscribe to the dominant paradigm of individual, gendered responsibility for risk avoidance. In fact, many subvert this paradigm by focusing on structural barriers to

personal protection and collective sources of contamination. Future research should be attentive to whether, and how, similar ruptures in discourse occur around how we understand gender, health, and the vulnerability of reproductive bodies.

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## Chapter 5

### Conclusion

In American public health, there is an ideal reproductive life course that hinges on personal control and planning: individuals prevent pregnancy using highly effective contraceptive technologies until they are ready to start a family. Before couples decide to get pregnant, they engage in healthy behaviors, like cutting caffeine, alcohol, and tobacco; treating medical conditions; and avoiding toxic exposures. Only then do they try to get pregnant. After a healthy, well-monitored pregnancy and delivery, the process begins over again. But in reproduction, things do not always go according to plan. In this dissertation, I look at the public health ideal through the lens of clinicians – those doctors, nurse practitioners, and nurse midwives who deliver reproductive health care on the ground. I use their perspectives to ask, how much can women control reproduction? And how much should they?

In general, providers find reproductive control to be incredibly important for individual patients, for their (future) children, and for society as a whole. Many express a mandate for patients to plan pregnancy and control reproductive risks, although that view is not uniform across my sample. This is because providers often find personal control over reproduction to be elusive. For instance, some recognize significant shortcomings in the medical technologies women use to control fertility and many view environmental harms to reproduction as outside the aegis of personal control. A number also point to instances when unintended pregnancy is benign or even positive. In other words, health care providers are mostly, though not *fully*, committed to their patients' reproductive lives unfolding according to plan. Multiple social inequalities are embedded in the narrative of

reproductive control. Gender, race, age, and class structure individuals' ability to control fertility. These factors also often structure clinicians' perceptions and expectations of their patients' trustworthiness and ability to parent.

A major health goal in the United States is to reduce unintended pregnancy. In Chapter 2, I show that clinicians believe pregnancy planning is important in general, but they communicate two divergent ideas of what that planning looks like. For some, planning means controlling fertility according to one's individual intentions and desires. But the second idea conceptualizes planning as a larger process of becoming self-sufficient before one is "ready" to be a parent. This concept of pregnancy planning can look quite neutral, innocuous, and even a boon to women's agency. However, when considering both the aspects of individual intention and normative expectations of readiness that manifest in clinical practice, I argue that the directive to plan pregnancy also becomes a source of stratification, excluding women who do not meet normative criteria, especially poor, single, and young women.

Medical, political, and social institutions have long reinforced the idea that women have a gendered responsibility for pregnancy prevention (Daniels 2006; van Kammen and Oudshoorn 2002). With this gendering of contraception, women gain more options for autonomy and control over their fertility. They also experience more of the emotional and physical burdens of family planning (Bertotti 2013; Fennell 2011; Kimport 2017). Often, women are dissatisfied with the technologies available for pregnancy prevention, because of the negative bodily changes contraception can create (Littlejohn 2013; Moreau, Cleland, and Trussell 2007). In Chapter 3, I document a pattern of provider skepticism towards patients' complaints and preferences about medicalized birth

control, especially methods that contain hormones. This skepticism was not uniform across my sample and some providers take their patients' complaints and preferences quite seriously. Nevertheless, clinicians frequently frame common side effects as "myths" and "misconceptions" that can be countered and corrected with evidence-based medicine. Many also portray side effects as a small consequence to be endured, at least temporarily, in exchange for effective pregnancy prevention. Finally, some draw on racialized and classed stereotypes to frame women's resistance to hormones as unreasonable. When providers represent contraceptives as unproblematic they, intentionally or not, contribute to the broader idea that women have a responsibility to use these medical technologies. This responsibility persists despite reservations users might have about the impact of contraception on their bodies.

In Chapter 4, I present a case where clinicians believe their patients have far less ability and responsibility to exert control over reproduction. On the whole, providers view environmental contamination as an important threat to reproduction, but one that is difficult for their individual patients to manage. At the conclusion of this chapter, I propose reasons the object of environmental contamination might be perceived differently than traditional pregnancy risks, like drinking and smoking. Here, I offer ideas about why the findings in Chapter 4 contrast with the findings in Chapters 2 and 3. While the exhortation to control reproduction comes through strongly (though not completely) when providers talk about the importance of planning parenthood and preventing unintended pregnancy, that theme is much weaker here. One contributing factor may be that environmental contamination seems less entrenched as an individualized moral problem than unintended pregnancy. As I have described, women who do not prevent

unintended pregnancy are often cast as irrational, irresponsible, and a burden on taxpayers (Ruhl 2002). Another reason may be that environmental contamination is less clearly under the mandate of reproductive health care. Professional guidelines for providers to conduct environmental histories with preconception and pregnant patients are fairly recent (eg. Sutton et al. 2012). On the other hand, the prevention of unintended pregnancy has been an explicit and consistent goal of reproductive health care for decades (Gordon 2002). Therefore, clinicians have clearer visions of why and how their patients should prevent unintended pregnancy.

Throughout these chapters, I frequently document patterns that reflect critically on the reproductive health care providers I interviewed. However, it would be a misrepresentation to leave readers with the impression that providers intended to perpetuate bias or impose undue burdens on their patients. Instead, it was apparent in interviews that these clinicians were driven by a passion for women's health. Many worked in hectic and under-resourced clinics, where they persisted because they viewed their work as a direct way to address gender inequality. Clinicians described a common double-standard for their patients: sex is more taboo and stigmatized for women, yet women bear the brunt of the responsibility when it comes to birth control, pregnancy, and family. For this reason they were dedicated to making healthcare accessible and affordable and to empowering women with knowledge and accurate information about their bodies, about sex, and about birth control.

As I document many non-medical, normative judgements can enter into and impact clinical care. However, biases that parents should be married, financially secure, old enough, and not have too many children do not originate from individual providers.

Instead, providers' normative ideas closely mirror broader discourses about reproduction that manifest in public discourse, policy, and public health programs. In addition, these normative expectations are not just abstract ideas, as these healthcare providers operate within a highly stratified society that provides few social supports for poor, young, and single parents. Therefore providers may feel obligated to prepare patients for these broader realities.

## **LIMITATIONS**

One limitation of this research is that I cannot directly assess clinical practices. Instead, I rely only on providers' reports of their attitudes and behaviors. Neither do these data capture how providers' actions are understood and interpreted by patients, nor how the institutional context of workplaces shape and constrain providers. Despite these limitations, I have argued that interview data like mine are valuable, because they illuminate beliefs that can undergird clinical approaches, but are not necessarily apparent from clinical observations or patient surveys.

As I have presented this research over the past few years, the most common question I have been asked is: What factors shape provider attitudes? In the preceding chapters, I document considerable variation in how clinicians conceptualize reproductive control. Some hold patients to normative standards of readiness to be a parent; others focus instead on patients' individual pregnancy intentions. Some take seriously patient complaints about birth control, while others minimize them. Some believe women can control their exposure to environmental harms; others view that protection as elusive and unattainable. Can providers' specialty and professional type account for these differences? What about their gender, age, and race? Or the demographics of the patients

with whom they work? These are all excellent hypotheses and my data do not provide clear answers or patterns. This may be a limitation of the data. I use a relatively small, homogenous sample with which it is hard to unpack meaningful comparisons. Another possibility is that variation in their attitudes does not map easily onto these categories.

I suspect that providers' professional and demographic backgrounds are significant, but are mediated by another factor: whether she has identified that health care providers *do* stereotype patients and reflected on how these dynamics may manifest in her own practice. In addition to one's personal background, this type of introspection may be spurred by professional education as well as the broader social and political values she holds. In my interviews, it seemed that holding a non-judgmental attitude towards patients was not a default reaction and took *effort*. (Think, for example, of the nurse practitioner in Chapter 2 who stops her train of thought on a patient who would be a bad candidate for pregnancy and changes course, saying it is not her place to judge). Future research should investigate these cognitive processes and the factors that spur them.

## **IMPLICATIONS AND BROADER SIGNIFICANCE**

### *Alternative Models of Reproductive Counseling?*

The Centers for Disease Control and Prevention and leading medical organizations like the American College of Obstetricians and Gynecologists encourage clinicians to work with patients in order to create a reproductive life plan. In this model of reproductive counseling, clinicians ask patients whether they want more children and, if so, how many and when (Johnson et al. 2006). These questions require patients to identify a positive or negative intention and articulate clear plans about childbearing.

Some recommendations note that patients may express ambivalence, but suggest that providers will be able to help patients resolve this ambivalence and clarify an intention to pursue pregnancy (and engage in preconception care) or avoid pregnancy (and adopt an effective method of contraception) (Callegari et al. 2017).

My research suggests that these programs, which are built around clear-cut plans and the binary of intended/unintended pregnancy, may fail in practice. Not all individuals conceptualize their own reproduction that way and even clinicians who specialize in family planning find this framework limiting. Moreover, a number of clinicians morph the idea of “pregnancy planning” into a much broader set of normative expectations that can be applied to patients. What might an alternative model of reproductive counseling look like? One group of medical and social scientists (Callegari et al. 2017) suggest that clinicians elicit patients’ intentions using open-ended (rather than yes/no) questions, which allow for the possibility of mixed feelings about pregnancy. Unlike the CDC’s reproductive life plan model, they suggest that “counseling need not attempt to resolve ambiguity or address all issues that arise in one visit” (Callegari et al. 2017:133). Importantly, they stress that counseling should center on the individual patients’ goals, values, and preferences. In this model, a clinician’s introduction of her own normative values about readiness for parenting or “best” methods of contraception would be considered inappropriate and detractors from a trusting patient-provider relationship. This is a promising model that tries to match medical counseling to the realities of women’s lived experiences. In light of my findings here, I suggest that future research should consider the extent to which providers are open to adopting such a model in their clinical practice and whether, in practice, they will implement it in a non-judgmental manner that

centers patients' values, even when those values conflict with their own. Research should also investigate whether additional training can help clinicians address implicit and explicit biases in their practice.

### *Measuring Pregnancy Outcomes*

One of the most common measures used to assess family planning in the United States is whether pregnancies were intended or unintended at the time of conception. Many U.S. policies and public health programs are motivated by the statistics derived from this measure, namely that the rate unintended pregnancy is roughly equal to the rate of intended pregnancy (eg. Colorado Department of Public Health and Environment 2017; McNicholas et al. 2014; Office of Disease Prevention and Health Promotion [ODPHP] 2014). This metric gauges whether an individual or couple got pregnant on purpose, but it does not directly measure how the pregnant person feels. It cannot tell us whether the pregnancy causes happiness or distress or whether an individual thinks the pregnancy is acceptable and supportable. Instead, those who employ this measure repeatedly point out the “cost ineffectiveness” of unintended pregnancy – that this phenomenon increases the cost of health care and other social support programs (ODPHP 2014). In Chapter 1, I discuss a persistent tension in reproductive politics: we have medical services and technologies that allow individuals to shape their fertility in ways that align with their personal values and goals. However, those services and technologies often come with expectations about the right way to use them. One reason I think the goal of preventing unintended pregnancy continually straddles this tension is because of the ambiguity of the measure itself. We do not know whether the high rate of unintended

pregnancy primarily signifies a burden to women or whether it signifies a burden to the neoliberal state that is caused through women's reproductive decisions.

Often, the prevention of unintended pregnancy is motivated by the desire to lower rates of abortion (eg. American College of Obstetricians and Gynecologists [ACOG] 2016). Indeed, unintended pregnancy is correlated with abortion (Guttmacher Institute 2016). This correlation does not directly tell us whether those pregnant women feel burdened, relieved, or neither by the incidence of abortion. Petchesky (1990) argues that abortion serves a purpose that is distinct from contraception - it allows women, often independently of men or formal institutions, to end a specific, concrete pregnancy and help their bodies "return to normal." In this view, reliance on abortion is not a personal failure to plan appropriately, but a crucial piece fertility control that meets those needs that contraception cannot. One difference between measuring pregnancy intention and pregnancy happiness is temporal. An intention is set before conception, while a woman may not decide how she feels about a pregnancy until discovering she is pregnant. Centering a woman's feelings about an actual pregnancy changes the role of abortion from a stop-gap measure when pregnancy prevention fails to a key tool for those who decide a given pregnancy is not acceptable. This legitimization of abortion can be uncomfortable, even for health organizations like the American College of Obstetricians and Gynecologists, who seek to both expand access to abortion *and* decrease its incidence (ACOG 2018).

### *Planning, Eugenics, and Reproductive Justice*

Beck-Gernsheim (1996) calls life in late modernity a "planning project" - one where individuals have increased paths and choices, but also more responsibility to use

those choices to secure good futures. Unlike in the past, where trajectories were largely circumscribed by traditional ties and systems, people now have diverse options for work, school, and family. This emphasis on individual rights and responsibilities has been accompanied by significant and growing economic inequality and precarity (Duggan 2003).

This project is one example of a larger case study of the way we are supposed to plan our lives in the context of multiple choices in order to secure better futures. This rests on the assumption that people, through proactive and intentional measures, have the power and agency to shape their lives and produce good outcomes: good health, financial security, happy relationships, stable families, et cetera. This neoliberal discourse of planning permeates twenty-first century Western society. We hear admonitions to do appropriate financial planning in order to have a good retirement. We are offered testing in order to have children with good genetics (Rapp 2004; Stern 2012). We are directed to prepare disaster plans in order to keep ourselves and our families safe in an emergency (Department of Homeland Security n.d.). We are even advised to engage in end-of-life planning in order to have a good death (Carr and Luth 2016).

None of these actions, like getting genetic testing or preparing an end-of-life plan, are bad in and of themselves. The problem that theorists like Beck-Gernsheim point to is that the trend of ever-increasing individualization necessarily leads to inequalities that are made to look like personal failings (see also Giddens 1991). She notes,

You've got to be well-informed - about everything from student grants to mortgage schemes to further education courses and pension calculations - and know how to use the information. Anyone who doesn't is out in the cold, without a job and without the prospect of work, without a house and garden, without a pension in his or her old age (Beck-Gernsheim 1996:140-141).

In the case of reproductive control, people – women, in particular – are asked to use rationality and foresight to create healthy, financially stable, successful families with few social supports or outside resources. Middle- and upper-class individuals have the resources to do just that: save money, further educations and careers, foster long-term relationships, and maintain good health while 'planning' to have children in the future. When their lower-class and poor counterparts fail to do the same, their poor planning is considered to blame rather than the absence of resources that would enable planning in the first place.

If we think about the goal and justifications of preventing unintended pregnancy that appear in public health and policy, a eugenic logic begins to emerge. This eugenic logic is particularly visible when women's reproductive autonomy fades into the background and is replaced by population goals (RamaRao and Jain 2015). In practice, some marginalized women's reproduction is discouraged by their healthcare providers because of their social situations. With this eugenic logic, reproductive planning can become a form of biopower – of organizing and controlling populations – and knowingly or not, clinicians can become agents of the state when they apply normative expectations to their practice of healthcare.

In contrast to this eugenic logic, I want to return to reproductive justice: a perspective which demands that women's choices are supported, whether they choose to prevent pregnancy, end a pregnancy, or whether they choose get pregnant and parent). A reproductive justice framework also demands that these choices are supported regardless of whether those choices fit with larger policy and population goals. If we apply a reproductive justice lens to the problem of reproductive control, the solution is found in

directly addressing inequalities that lead families to be exposed to physical, environmental, and material harms.

## **FUTURE RESEARCH**

In future research, I plan to examine the role of ambivalence and uncertainty in women's reproductive lives. There is some evidence that ambivalence about pregnancy prevention, in particular, is common among women in the United States (McQuillan, Greil, and Shreffler 2011). This phenomenon stands directly at odds with the idea that women should exert complete control over their reproduction. The papers in this dissertation indicate that reproductive health care systems are not built to handle ambivalence and uncertainty about reproduction, particularly when that uncertainty is voiced by disadvantaged women. Public health programs categorize pregnancies as intended or unintended; the former are considered a positive reproductive outcome and the latter negative. In Chapter 2, we see that health care providers complicate this paradigm. First, they do not have a uniform understanding of what planning a pregnancy actually means. Second, many question the idea that all pregnancies can or should be carefully planned. Nevertheless, the providers I interviewed seemed more comfortable when ambivalence manifested in older, married, and financially secure patients than in those who were young, single, and poor. In Chapter 3, I argue that providers' reactions to patient dissatisfaction, taken in the aggregate, likely have the effect of leading patients to use or continue those methods of contraception with the lowest failure rates. This is valuable for patients who are highly determined to avoid unintended pregnancy, but as I show, this emphasis on highly effective methods persists even when patients are

uncertain about or open to pregnancy. Although Chapter 4 does not deal with pregnancy intention directly, we see how public health programs to encourage prenatal health deal with unintended pregnancy by simply asking *all* women of reproductive age to engage in preventative measures, like avoiding environmental exposures.

The complexities of women's reproductive lives do not seem to fit into the medical model. How, then, do everyday women experience medical care and technologies, especially when they fall outside of the "planning" paradigm? For instance, do women who feel ambivalent about pregnancy still seek reproductive health care? Do they disclose the complexities of their intentions to health care providers? Or, how do those who want to prevent pregnancy using less-reliable methods, like withdrawal or fertility awareness, navigate a medical system that emphasizes efficacy in contraception? Finally, if women are not fully following the medical model of reproductive planning, what ideas *do* guide their thinking about fertility management?

Although previous research explores pregnancy intentions, desires, and ambivalence among poor, young, and/or minority women, very few examine a broader population (cf. Askelson et al. 2015; Esacove 2008). Almost no research considers pregnancy intention in the context of clinical interactions. My future research will compare the dominant cultural and medical ideas about pregnancy planning I have documented here with laypeople's own experiences of fertility management. I will use qualitative interviews to understand how individuals think about their fertility and interact with (or avoid) health care institutions that often emphasize careful, conscious planning.

Ambivalence about pregnancy is correlated with disadvantage among teenage women (Brückner, Martin, and Bearman 2004) and most studies focus on disadvantaged and young women (Borrero et al. 2015; Higgins, Popkin, and Santelli 2012; Lifflander, Gaydos, and Hogue 2006). Many have been particularly interested in explaining why sexually active adolescents do not use contraception (Biggs et al. 2010; Brückner et al. 2004; Jaccard, Dodge, and Dittus 2003). This focus is partly warranted, as unintended births are more common among disadvantaged women, although young adults are more likely than adolescents to experience them (Sweeney and Raley 2014). Yet, poor, minority, and/or young people are also the subjects of the majority of research because their reproduction is framed as problematic and in need of intervention (Geronimus 2004). We may not have a full picture of pregnancy intention, broadly construed, because of the intense focus on the “problematic” reproductive behaviors of teens and marginalized women. I propose that unclear pregnancy intention is a broader phenomenon that reaches across demographics, although it may manifest in different ways. For this reason, I will recruit a diverse sample of reproductive-age women, focusing especially on variation across age, race, and class.

The broader phenomenon of pregnancy ambivalence has been corroborated by some initial research. One national random sample of reproductive-age women in the United States found that more than 20% reported of their pregnancy intentions that they would “be okay either way” (McQuillan et al. 2011). In one qualitative study with a mixed-class sample, nearly all of the respondents expressed some degree of ambivalence when asked explicitly whether they had any mixed feelings about unintended pregnancy (Askelson et al. 2015). In this dissertation research, nearly all of the providers I

interviewed confirmed seeing patients who exhibited ambivalence and these stories were not limited young or poor patients. Many cited cases of married women in their forties or who had experienced signs of infertility and were having unprotected sex with their partners, believing that “if it [conception] happens, it happens.” However, as I discuss in Chapter 2, providers treat ambivalence from advantaged women as much more benign than ambivalence from their disadvantaged counterparts. While researchers have typically thought about reproductive intentions in relation disadvantaged women, I am motivated to understand pregnancy ambivalence as a *broad* phenomenon that subsumes and reproduces existing inequalities.

I expect this research to directly address the assumption that marginalized women suffer negative outcomes because of their poor individual planning. Drawing commonalities between diverse women's experiences can counter the notion that there is something unique and problematic about the way marginalized women manage reproduction and build their families. Finally, this research can inform clinical practice to make reproductive health care more relevant, patient-centered, and effective, particularly when determining and responding to the complexity of patients' reproductive intentions.

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