2020

The Reproductive Health Needs, Concerns, and Priorities of Women in Midlife

Amy Elizabeth Alspaugh
Medical University of South Carolina

The Reproductive Health Needs, Concerns, and Priorities of Women in Midlife

by

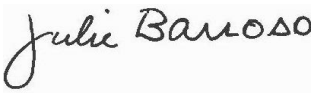
Amy Elizabeth Alspaugh

A dissertation submitted to the faculty of the Medical University of South Carolina in partial fulfillment of the requirements of the degree of Doctor of Philosophy in the College of Graduate Studies.

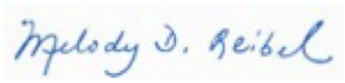
College of Nursing

2020

Approved by:



Julie Barroso, Committee Chair



Melody Reibel, Committee Member

Eun-Ok Im, Committee Member

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

This compendium wouldn't be possible without the support and advice of a host of friends, family, and professors. I am in the debt of all who have, knowing or unknowingly, lent a hand or voiced their support over the last four years. From babysitting to passing along research flyers to reviewing conference submissions, your thoughtfulness has helped make this possible.

First and foremost, I want to acknowledge the skilled and thoughtful mentorship I have received from Dr. Julie Barroso, my dissertation chair. I knew from our first meeting that she would keep me grounded, focused, and rigorous. I had no idea, however, how her guidance and encouragement would make me want to push the envelope, ask more, and dig deeper. Her faith in my ability and my potential will prove foundational to my career as a nurse scientist. Though we don't exactly share a similar area of research, her belief in the importance of women's voices as the lodestar of women's health research and clinical practice provided my research with justification and meaning. I can't imagine working on a qualitative research project in the future without hearing her sparkling wit and wisdom in my ear.

To my other committee members, Dr. Melody Reibel and Dr. Eun-Ok Im, the addition of your input has been invaluable. Dr. Reibel always provided a very thorough review of the manuscripts, providing edits and revisions that greatly enhanced clarity and readability. Her suggestions during data analysis were insightful and helped illuminate the 30,000-foot view. Dr. Im was invaluable for her rich expertise in using feminist framework to guide research. Reading her article "Practical Guidelines for Feminist Research in Nursing" during the first semester of school helped me think about my own research plans in meaningful ways. Having her on the committee, receiving her astute feedback, and getting her advice about my career has been a real pleasure.

To the rest of my PhD cohort, three cheers to you all. Your support, laughter, and guidance have made this process more manageable. Though we lived across the country, I have never felt alone or isolated thanks to you all. You all are an incredible group of scholars and clinicians. I can't wait to see what comes next.

To my parents, David and Betty Lou, thank you for never questioning, at least to me, the odd and meandering career path I have taken. Your constant support, love, and encouragement have seen me through successes and failures my whole life. Thank you for dropping everything to travel to Charleston when your babysitting skills were needed, for asking questions that often had long-winded answers, and, most importantly, for being an unwavering force of support propelling me forward.

To my son, Percy, who has not known a single day in this world where I wasn't in school: Thank you for being an easy-going baby and a delightful fun, spirited, and kind toddler. You have my whole heart, even if you didn't always get my full attention. I hope you are lucky enough to find work that brings your purpose and fulfillment while also helping improve the lives of others. This dissertation is a great feat, but you're my best creation.

To my husband, Dan, who I will never be able to thank enough: I never thought, all those years ago when we met as a barista/aspiring midwife and a beer rep/aspiring theater director, that we'd be where we are today. Marriage is about love, sure. But it's also about the rare chance to find a person who motivates you, inspires you, challenges you, and pushes you forward. Your partnership is the best gift. Thank you, thank you.

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Purpose
The purpose of this dissertation was to explore the reproductive health needs, concerns, and priorities of women. The integrative review serves to explore this topic among adult women at large and identified a dearth of evidence specifically around women in midlife. The qualitative research that is represented by the second and third manuscripts is an attempt to begin filling in the knowledge gap regarding reproductive health in women in midlife.

Problem
Research in the reproductive health field rarely includes women in midlife for a variety of reasons. Lower levels of fertility, perceptions about sexual activity and risk for sexually transmitted infections, and bias against older women are a few reasons why little original research has included or focused on women in midlife. Women in midlife are not immune to reproductive health issues, however, and need age-specific counseling and guidance from their health care provider.

The specific aims of this dissertation were:

- **Aim 1:** To investigate midlife women's reproductive health goals, including pregnancy achievement, avoidance, or ambivalence, and their contraceptive preferences and concerns.
- **Aim 2:** To investigate contraceptive issues that may be unique to midlife women, including management of perimenopausal changes, age-specific reasons for pregnancy avoidance or achievement, and contraceptive decision-making in the final reproductive years.

Design
Both the integrative review and the original qualitative research conducted for this dissertation were done within the feminist poststructuralist framework. In addition, qualitative descriptive methodology guided data collection and analysis.

Findings
The integrative review identified themes of power imbalance between partners and healthcare providers, societal and communal discourses on femininity and motherhood, distrust of hormonal contraception, the ability to enhance personal agency through contraceptive decision making, and a need for open, patient-focused communication. The qualitative research conducted within the feminist poststructuralist framework identified 1) priorities included family formation, the natural body, and healthy aging; 2) concerns regarding sexually transmitted infections, barriers to contraception, problematic dialogue regarding aging and menopause, and concerns regarding birth control interacting with their body; and 3) needs including open communication with health care providers, birth control that fits their life, and the ability to use contraception through midlife. Analysis of data over the arc of time identified several additional themes, including 1) pivotal early experiences; 2) changing versus continuing methods over the decades; and 3) evolution in contraceptive behaviors, beliefs and priorities over time.

Conclusions
As with any age, women in midlife are not a monolith. Research on women in midlife can, however, identify some of the ways in which older reproductive age women are similar to their younger peers and ways in which they are unique. Continued targeted research regarding reproductive health for women in midlife can improve health outcomes, assist clinicians in providing individualized and evidence-based care, and ensure that women in midlife receive the information and care they deserve regardless of age.

Key words: women's health, contraception, family planning, reproductive health, sexually transmitted infections, qualitative research

INTRODUCTION

Background

Pregnancies are increasingly common in women over 40. The pregnancy rate in the United States has been steadily declining for the past three decades; it hit a new low in 2016 and then again in 2017 (1). However, the one age group that has seen an increase in the birth rate are women over 40, steadily increasing every year since 1985 (1). As the mean age of first-time mothers increases, the age-related shift in childbearing means that more women are having children at older ages. Until recently, the ability to explore nationally representative samples regarding reproductive health for women in midlife was limited, but current national data on women aged 40-44 show an unintended pregnancy rate similar to that of the general population, around 48% (2, 3). Of those unintended pregnancies, 46% of them will end in abortion, the highest percentage of any age group (2). Certainly, midlife women are not immune to the phenomenon of unintended pregnancies, nor are these pregnancies necessarily seen as a welcomed surprise when they do occur.

While pregnancies in women over 40 are more common, these pregnancies are increasingly unsafe both for women and babies. Despite worldwide declines in maternal morbidity and mortality, the United States is in the midst of an increase in poor outcomes for women and babies (4). The increase is exacerbated in older women, as these women already have an increased risk of certain maternal and neonatal complications. Fetal complications for older women include an increased risk of low or high birthweight, preterm and very preterm delivery, genetic abnormalities, and stillbirth (5, 6). Maternal complications that increase with age include hypertensive disorders of pregnancy, gestational diabetes, cesarean section, and death (7). Specifically, women over 40 are 7.7 times more likely to die as compared to women under 25 (8).

Contraception offers a chance to prevent unplanned pregnancies and safely time planned pregnancies. However, little is understood about the perceptions of midlife women. Midlife women have complex and unique contraceptive needs. As menopause approaches, changes in menstrual cycle length and irregular bleeding may make women believe they can no longer get pregnant (9). Many older women find themselves in new relationships or unable to use their preferred method of contraception when comorbidities like hypertension occur. After decades of using contraception, many women are tired of the burden of birth control (10). While large-scale US data is lacking, two small studies identified a large percentage of women who were not using any contraceptive method (3, 11). When midlife women do use contraception, dissatisfaction is common (12).

So despite the frequency of pregnancy, the risks inherent in midlife pregnancy, and the underutilization and dissatisfaction with contraception, few studies address this unmet need or seek to understand women's preferences (13). To date, there are no contraceptive interventions specifically for midlife women. A Cochrane review of theory-based contraceptive interventions identified only 3 studies that included women over 30 and all of these studies had an upper age limit of 44 (14). Findings from this study will guide age-specific, targeted interventions such as clinical contraceptive pathways, motivational interviewing, or a contraceptive app.

Problem Statement

Women in midlife are rarely the subject of original research regarding reproductive health. Extant literature on reproductive health for women in midlife is overly prescriptive, is not informed by data, and lacks consideration of individualized, woman-centric care. This qualitative research seeks to address the following questions: What are the reproductive health needs, priorities, and concerns of women in midlife? What are the contraceptive beliefs, attitudes, and

perceptions of women in midlife, and how do these beliefs, attitudes, and perceptions change over the length of women's reproductive lives? To answer these questions, this research study has the following aims:

Specific Aim 1: To investigate midlife women's reproductive health goals, including pregnancy achievement, avoidance, or ambivalence and their contraceptive preferences and concerns.

Specific Aim 2: To investigate contraceptive issues that may be unique to midlife women, including management of perimenopausal changes, age-specific reasons for pregnancy avoidance or achievement, and contraceptive decision-making in the final reproductive years.

Key terms

Broadly speaking, the term midlife refers to the time frame between younger and older adulthood, or between the ages of 40 and 65 (15). For the purposes of this study and due to the specific concern of as a possible pregnancy as a factor for women, the age limit of women in this study has been lowered to 55. The American College of Obstetrics and Gynecologists recommend that birth control may safely be continued for the majority of women until the age of 55, so this recommendation helped guide the age limits of midlife women for the purposes of this research (16).

According to the World Health Organization, reproductive health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so (17)." This definition of reproductive health is important for the purposes of this research because the

emphasis on reproductive lies in the capacity of the woman to make decisions and the importance of overall well-being within the context of sexual function and reproduction. In terms of health topics, reproductive health includes the larger topics of maternal and infant health, contraception, and sexually transmitted infections, and also violence against women, infertility, abortion, and reproductive tract cancers. In this research, pregnancy, contraception, and sexually transmitted infections are the most commonly covered topics.

Design & Method

The study was conducted within a qualitative descriptive approach. The goal of qualitative description is to describe an individual's experience in that individual's own words at a manifest level (18). Qualitative descriptive methodology is based on the overarching principles of naturalistic inquiry, meaning that people are observed and interpreted within the social and cultural context of their lives (19). The approach identifies themes, categories, and outliers that remain close to the surface meaning of the data (20). This type of data collection and analysis lends itself well to the traditions of the feminist framework, which stresses the importance of "close interactions but minimal interpretations" (21). The clarity of these qualitative descriptive findings are especially helpful and translatable to clinical practice (18).

Innovation

This study investigating contraception in midlife women is innovative in several ways. Unintended pregnancy is a well-researched topic but often focuses specifically on adolescents and young women, who are seen as paying the biggest cost of unintended pregnancy. Contraception for women approaching menopause is rarely studied (22). Women in midlife have their own unique situations and burdens, though, often caring for older children and aging parents simultaneously. Children born to older women may result in deferred retirement,

additional expense, and an increased toll on the health of aging women. This research has the potential to shift the clinical practice and research paradigm to refocus on the ways in which women in midlife can receive respectful, individualized reproductive health care and targeted research.

Theoretical Framework

Another innovation of this study is the use of the feminist poststructuralist framework, which will guide each step of the study. The feminist poststructuralist framework is a combination of the poststructuralist writings of Michel Foucault and prominent feminist thinkers, including Judith Butler and Joan Scott (23). In the realm of contraception, this framework allows for an examination of how the women's social context is structured; how their reproduction, or lack thereof, is viewed by society; and how this social context fits within power relations and knowledge communication. While this framework is common in the humanities, it is used infrequently in the health sciences and has never been used in contraceptive research.

Overview of the Manuscripts

This dissertation compendium is a collection of manuscripts which attempt to qualitatively explore the reproductive health needs, concerns, and priorities of women. This is accomplished by the inclusion of the following three manuscripts. The first is an integrative review of qualitative literature exploring women's contraceptive perceptions, beliefs, and attitudes. The second and third manuscripts detail a qualitative study that explored reproductive health in women in midlife, age 40 - 55. The second manuscript explored the reproductive health needs, concerns, and priorities of women in midlife within a feminist poststructuralist framework. The third manuscript explores contraceptive perceptions, beliefs, and attitudes in women in midlife over the arc of time.

References

1. Martin JA, Hamilton BE, Osterman MJ, Driscoll AK, Drake P. Births: Final Data for 2017. National vital statistics reports : from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. 2018;67(8):1-49.
2. Finer LB, Zolna MR. Declines in Unintended Pregnancy in the United States, 2008-2011. The New England journal of medicine. 2016;374(9):843-52.
3. Godfrey EM, Zapata LB, Cox CM, Curtis KM, Marchbanks PA. Unintended pregnancy risk and contraceptive use among women 45-50 years old: Massachusetts, 2006, 2008, and 2010. American journal of obstetrics and gynecology. 2016;214.
4. Joseph KS, Lisonkova S, Muraca GM, Razaz N, Sabr Y, Mehrabadi A, et al. Factors Underlying the Temporal Increase in Maternal Mortality in the United States. Obstetrics and gynecology. 2017;129(1):91-100.
5. Kenny LC, Lavender T, McNamee R, O'Neill SM, Mills T, Khashan AS. Advanced maternal age and adverse pregnancy outcome: evidence from a large contemporary cohort. PloS one. 2013;8(2):e56583.
6. Lean SC, Derricott H, Jones RL, Heazell AEP. Advanced maternal age and adverse pregnancy outcomes: A systematic review and meta-analysis. PloS one. 2017;12(10):e0186287.
7. Laopaiboon M, Lumbiganon P, Intarut N, Mori R, Ganchimeg T, Vogel JP, et al. Advanced maternal age and pregnancy outcomes: a multicountry assessment. BJOG : an international journal of obstetrics and gynaecology. 2014;121 Suppl 1:49-56.
8. Hoyert DL, Minino AM. Maternal Mortality in the United States: Changes in Coding, Publication, and Data Release, 2018. National Vital Statistics Report. 2020;69(2).
9. Taylor D, James EA. Risks of Being Sexual in Midlife: What We Don't Know Can Hurt Us. The Female Patient. 2012;37:17-21.
10. Campo-Engelstein L. Contraceptive justice: why we need a male pill. The virtual mentor : VM. 2012;14(2):146-51.
11. Skouby SO. Contraceptive use and behavior in the 21st century: a comprehensive study across five European countries. The European journal of contraception & reproductive health care : the official journal of the European Society of Contraception. 2004;9(2):57-68.
12. Cumming GP, Cochrane R, Currie HD, Moncur R, Lee AJ. Web-based survey 'Contraception and attitudes to sexual behaviour' completed by women accessing a UK menopause website. Menopause international. 2012;18(3):106-9.
13. Harlow SD, Dusendang JR, Hood MM, Woods NF. Contraceptive preferences and unmet need for contraception in midlife women: where are the data. Women's Midlife Health. 2017;3(6).
14. Lopez LM, Grey TW, Chen M, Tolley EE, Stockton LL. Theory-based interventions for contraception. The Cochrane database of systematic reviews. 2016;11:Cd007249.
15. Thomas AJ, Mitchell ES, Woods NF. The challenges of midlife women: themes from the Seattle midlife Women's health study. Women's Midlife Health. 2018;4(1):8.
16. ACOG Practice Bulletin No. 206: Use of Hormonal Contraception in Women With Coexisting Medical Conditions. Obstet Gynecol. 2019;133(2):e128-e50.
17. WHO. Reproductive Health [Available from: https://www.who.int/westernpacific/health-topics/reproductive-health.

18. Willis DG, Sullivan-Bolyai S, Knafl K, Cohen MZ. Distinguishing Features and Similarities Between Descriptive Phenomenological and Qualitative Description Research. Western journal of nursing research. 2016;38(9):1185-204.
19. Colorafi KJ, Evans B. Qualitative Descriptive Methods in Health Science Research. Herd. 2016;9(4):16-25.
20. Sandelowski M. Whatever happened to qualitative description? Research in nursing & health. 2000;23(4):334-40.
21. Im EO. Practical guidelines for feminist research in nursing. ANS Advances in nursing science. 2013;36(2):133-45.
22. Woods NF, Bachmann G. Contraception for midlife women: lack of information? Lack of interest? Lack of investment? Women's Midlife Health. 2017;3(1):7.
23. Hesse-Biber SN. The Handbook of Feminist Research: Theory and Praxis. 2nd ed. Hesse-Biber SN, editor. Thousand Oaks, CA: SAGE Publications, Inc.; 2012.

Journal of Midwifery & Women's Health www.jmwh.org
Review

Women's Contraceptive Perceptions, Beliefs, and Attitudes: An Integrative Review of Qualitative Research

Amy Alspaugh, CNM, MSN, Julie Barroso, PhD, RN, ANP, Melody Reibel, PhD, Shannon Phillips, PhD

Introduction: Unintended pregnancy rates will remain high until researchers explore the lived experience of women's relationships with contraception. This integrative review examines the extant qualitative literature on women's contraception to illuminate common themes in women's perspectives through the lens of the feminist poststructuralist framework.

Methods: A literature review of PubMed and CINAHL databases was completed for English-language studies conducted in the United States from January 2008 through September 2018 that qualitatively examined women's perceptions, beliefs, and attitudes regarding contraception. Reports, dissertations, mixed-methods research, and literature reviews were excluded. The sample, methods, and findings of 19 studies were reviewed. Themes were identified using the 5 major tenets of the feminist poststructuralist framework: discourse, power, language, subjectivity, and agency.

Results: Themes of power imbalance between partners and health care providers; societal and communal discourses on femininity and motherhood; distrust of hormonal contraception; the ability to enhance personal agency through contraceptive decision making; and a need for open, patient-focused communication arose from the 19 studies included in the review.

Discussion: Using a feminist poststructuralist framework to examine women's contraceptive perceptions illuminates and magnifies the many ways in which contraceptive beliefs and use are dependent on gender roles and power dynamics. Gaps in knowledge specific to older women and exploration of women's subjectivity should be addressed. Clinicians should evaluate the power structures inherent to their practice while providing woman-focused, evidence-based contraceptive education.
J Midwifery Womens Health 2019;00:1–21

Keywords: contraception, contraceptive agents, contraceptive devices, systematic review, qualitative research

INTRODUCTION

An estimated 99% of women in the United States will use some form of contraception during the average of 3 decades spent in pregnancy avoidance.[1,2] Health care technology has advanced the creation of new and novel forms of contraception, from numerous long-term, implantable devices to hormonal pills specially formulated for mood disorder management to, most recently, a vaginal ring that can be left in place for up to a year.[3–5] When selecting a method of contraception, a woman living in the United States will have over 10 categories of contraception and countless formulations from which to choose. Despite these contraceptive advances, unplanned pregnancies make up 45% of all pregnancies in the United States.[6] Seemingly endless options of contraception with high levels of effectiveness do not singularly solve the puzzle of preventing unplanned pregnancies.

At its core, contraception is important because it allows women and those assigned female at birth to choose when and if they have children. The ability to space and limit the number of pregnancies according to a woman's wishes has a direct impact on the health of women and children.[2] A woman's priorities, needs, desires, and concerns play a role in how she interacts with her contraception and should be addressed and understood by both researchers and public health officials.[7]

Women's health care has a long history of largely ignoring the needs, concerns, and problems that women report to their health care providers.[8] Qualitative research suggests that the lived experiences and opinions of individuals should inform health care just as much as their biometric markers.[9] Qualitative methods highlight the voice and needs of the individual. In contraceptive research, qualitative data contribute enhanced insight and deeper understanding of women's experiences with contraception. As most of the literature refers to women, this designation will be used throughout, but where trans individuals were part of the study, it will be identified.[10]

Therefore, this integrative review examined the extant qualitative literature on women's contraception to illuminate common themes in women's perspectives through the lens of the feminist poststructuralist framework. Analysis of the extant literature facilitated identification of clinical implications and gaps in women's contraceptive health to be addressed with further research.

Framework

A feminist perspective was applied because it emphasizes global, democratic, and practical ways to explore women's experiences.[11] It is an appropriate and essential counterbalance to the overly patriarchal stance that has too long dominated women's health.[12] The feminist poststructuralist framework was selected to guide data organization, analysis, and synthesis because of its focus on knowledge exchange and power relations, both concepts at the heart of contraceptive use.

College of Nursing, Medical University of South Carolina, Charleston, South Carolina

Correspondence
Amy Alspaugh
Email: alspauga@musc.edu

ORCID
Amy Alspaugh https://orcid.org/0000-0003-4427-4807

1526-9523/09/$36.00 doi:10.1111/jmwh.12992

Quick Points

- Women interact with contraception within discourses of power relations and gender norms.
- Nonhormonal methods of contraception and having control over one's contraception, including the ability to freely stop and start, are important to many women.
- Health care providers have a great opportunity to improve reproductive health and communication through awareness of power imbalances and the use of open-ended, woman-centric language.

The feminist poststructuralist framework is a combination of the poststructuralist writings of Michel Foucault and prominent feminist thinkers, including Judith Butler and Joan Scott.[13] According to Foucault, knowledge is the exchange of regular communications between individuals within the influence of institutions and society at large.[14] The examination of knowledge should not focus on ways in which the individual may be changed but instead how knowledge can deconstruct and challenge institutions and society itself.[15] In the realm of contraception, this stance means examining the social context within which women exist; how their reproduction, or lack thereof, is viewed by society; and how this context fits within existing institutions of relationships and health care. For example, whereas alternate approaches may hypothesize that women who inconsistently use contraceptive pills are problematic individuals in need of behavior change, the feminist poststructuralist framework examines how society has placed the onus of contraception almost entirely on the woman.

Power relations in feminist poststructuralist thinking are dynamic and reciprocal. According to the feminist poststructuralist framework, the oppression of women is the direct result of male-dominated power relations. Power is not solely exerted over women but instead exists as part of negotiations and communications between individuals.[15] In the context of contraception, power can be the control of a male partner over the form of contraception his female partner uses. However, power can also be the female partner learning about and selecting other methods of contraception through an informal network of friends.

METHODS

The Whittemore and Knafl methodology (2005) guided the review, moving through the initial identification of a specific problem to a well-documented and easily replicable literature search, evaluation of studies based on inclusion and exclusion criteria as well as quality, and finally data analysis and reduction.[16] The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) methodology provided a template for recording its results.[17] The search of databases was conducted in September 2018 with the assistance of a medical reference librarian. The rest of the literature search, article review, data extraction, and theme identification were done entirely by the primary author with periodic expert collaboration. The keyword search for the included the following terms with Boolean phrase AND/OR: *woman*, *women*, *female*, *females*, *lady*, *ladies*, *girls*, *birth control*, *family planning*, *contracept**, *perspective*, *perception*, *opinion*, *opinions*, *experience*, *attitude*, *attitudes*, *belief*, *qualitative research*, *qualitative methods*, *interview*, *focus group*. This search strategy was implemented in 2 databases: CINAHL (n = 1661) and PubMed (n = 1838). A hand search of 7 journals relevant to women's health and qualitative research was undertaken, and no additional studies were identified. After duplicate articles were removed, a total of 2581 articles remained. A title review in which inclusion and exclusion criteria were applied eliminated 2292 articles. Inclusion criterion included original, qualitative studies that took place in the United States and focused on adult women, examining their perspectives on contraception. Exclusion criteria included non-English language reports, dissertations, commentaries, protocols, mixed-method studies, and reviews of literature. Studies primarily conducted with adolescents and young adult women were excluded, and the age cutoff for participants in these studies was consistently 24 years. Adult women were selected as the specific focus of this review because the body of literature around adolescents and young women is already well saturated.

Two hundred and ninety-one articles were identified for either abstract or full-text review. After an initial review, the timeframe for publication was limited to the last 10 years to exclude studies with contraceptive devices no longer used and perceptions no longer consistent with current contraceptive practices. One hundred sixteen studies were removed, leaving 175. After abstract and full-text review, 19 articles met the final inclusion criterion. A full synopsis of the search strategy with reasons for exclusion is presented in Figure 1. These 19 studies were reviewed for quality using the Critical Skills Appraisal Programme[18] checklist for qualitative studies (Supporting Information: Appendix S1). An overview of each study's methodologies and key findings is located in Table 1.

RESULTS

The 19 studies together depict the perspectives of over 700 women in addition to 39 female-assigned-at-birth transgender men. Although many studies did not report a specific qualitative methodology, 6 of the studies used grounded theory. Studies were conducted in all major geographic regions of the United States, including both rural and urban locations. Studies were conducted to examine a variety of contraceptive topics: one study investigated cervical caps,[19] one study addressed emergency contraception,[20] 2 examined sterilization,[21,22] 3 explored long-acting reversible contraception uptake,[23–25] 9 investigated family planning perspectives within specific communities or groups,[26–34] 2 evaluated

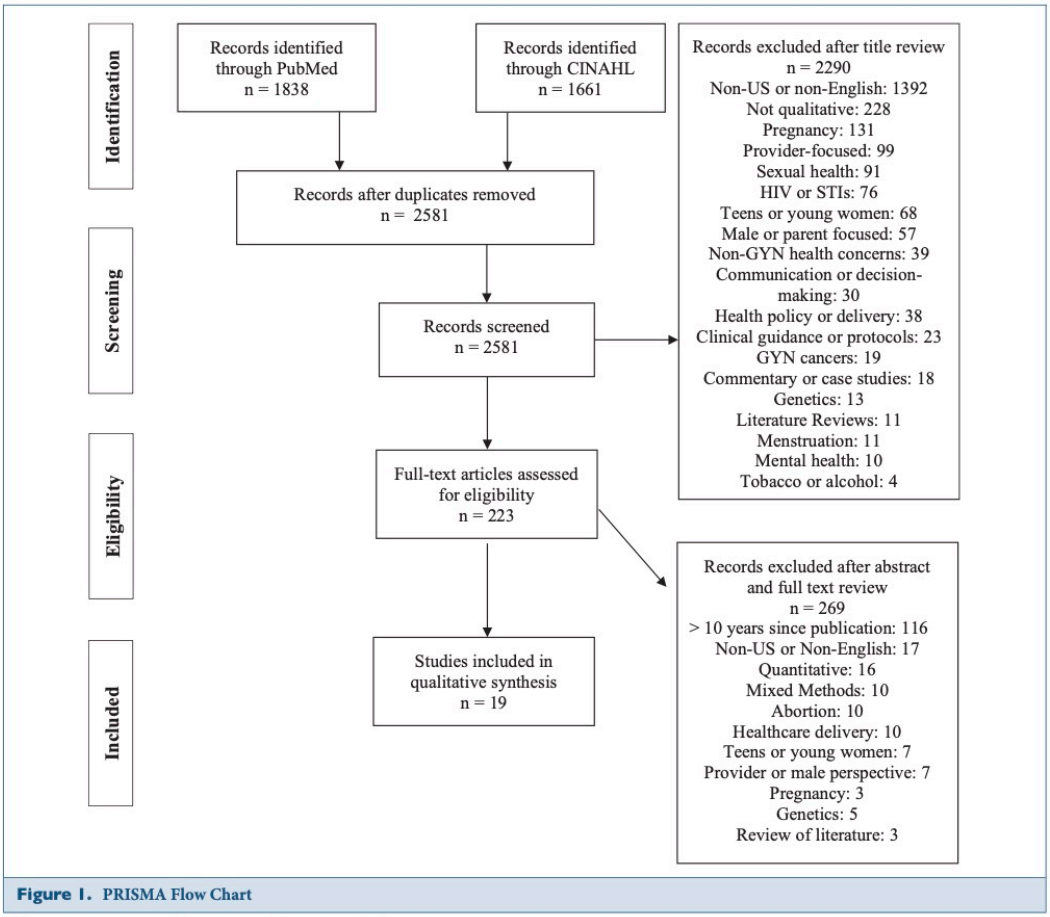


Figure 1. PRISMA Flow Chart

Abbreviations: GYN, gynecology; STI, sexually transmitted infection.
Source: Moher et al.[17]

family planning within the postpartum period,[35,36] and one evaluated contraception within the context of a world view.[37]

Study participants' racial and ethnic backgrounds varied and primarily included white American, African American, and Latina individuals; 2 studies focused on specific immigrant communities.[19,27] Participant ages ranged from 18 to 51 years, and the participants spoke English, Spanish, Somali Bantu, and Haitian Creole. Participants represented a variety of socioeconomic, educational, and religious backgrounds.

Extracted data were organized by the tenets identified within the poststructuralist feminist framework: discourses, power, language, subjectivity, and agency. Results are summarized in Table 2.

Discourse

Discourse, as explained by Foucault, is a way of creating and disseminating knowledge that, together with social practices, subjectivity, and power relations, form a given reality.[38] It is an "institutionally specific structure of statements, terms, categories, and beliefs"[39(p35)] that is manifested in both commonly recognized institutions and communication. These discourses can overlap, compete, and influence one another, existing within the same sphere in individuals' lives and in society at large.[39] In family planning, feminist poststructuralists would contend that contraceptive beliefs and practices are inextricably linked to values, beliefs, and practices that have been constructed by these discourses.[40] In the included studies, discourses involving gender roles, pregnancy timing, motherhood, and femininity and fertility were explored.

Gender Norms

In 7 studies, discourses related to gender norms had a large impact on contraceptive choice and use.[19,22,27,29,32,34,35] Among non-US-born women, contraceptive decision making often defaulted to men, typically in the role of husband.[19,27] In immigrant communities, dueling discourses of gender roles occurred between the roles common to the woman's home country and those prevalent in the United States. The

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Godfrey et al[26] 2011	To compare perceptions about contraceptive methods and use among women with and without an unintended pregnancy after age 35	8	Grounded Theory Semistructured interviews	17 women from the greater Rochester, NY, area	Women preferred contraception that allowed for spontaneity and ease of use and was easily accessible Viewing contraception as a way to treat a health condition or to avoid a dangerous pregnancy enhanced adherence Women were commonly concerned about how contraception affects health Misperceptions of LARC was widespread
Gollub et al[19] 2016	To assess women's perceptions of use of a cervical cap, including ease of use, partner perceptions, and patient education	8	Not stated Focus group	20 women attending a free clinic in the Little Haiti section of Miami, FL	The lack of hormones and systemic adverse effects made this contraception feel more natural and was readily accepted by women For many women, this method was a good alternative to less effective methods (withdrawal most commonly) Gender dynamics and social norms increased the risk of unplanned or unwanted pregnancy
Gurnah et al[26] 2011	To explore the reproductive health experiences of Somali Bantu women in Connecticut to identify potential barriers to care experienced by marginalized populations	10	Not stated Focus group	10 Somali Bantu women living in CT	Unofficial networks of translators, other Somali women, and traditional medicine helped fill in health care gaps Women felt coerced to use contraception to limit the size of their family to retain their insurance Cultural deference and a language barrier held the women back from engaging fully in their care, and often led to a misdiagnosis or improper treatment

(*Continued*)

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Hodgson et al[28] 2013	To describe how African American women with low income approach family planning and the contraceptive decision-making process	7.5	Not stated Focus group	44 women from a hospital-based health center serving primarily low-income patients in CT	All contraception was looked upon poorly because of adverse effects; picking a method was deciding on the least bad option Methods interact with everyone's body differently; women have to find a match for their body Contraception seen as not able to totally prevent pregnancy, just slow down the process Family, friends, partner could be both source of information and a barrier to care Women see the onus for pregnancy prevention and childcare as primarily theirs
Holliday et al[29] 2018	To qualitatively describe and compare contexts for unintended pregnancy risk between black and white women of low income with histories of intimate partner violence or reproductive coercion	9	Not stated Semistructured interviews	40 women from family planning clinics in Pittsburgh, PA	IPV and reproductive coercion commonly produced unwanted pregnancies Adverse childhood experiences (abuse or neglect) were common, led to feelings of hopelessness in women currently experiencing IPV and reproductive coercion, and affected their pregnancy intention Black and white women differed on what they depended on their partners for and what role they took in the relationship
James-Hawkins and Sennott[30] 2015	To investigate experiences of women with low income navigating social norms and stigma at both the beginning and end of the reproductive life course	8	Not stated Semistructured interviews	40 low-income women in Colorado	Women often subscribed to mainstream values about pregnancy timing despite values not aligning with their lived experience Many women believed themselves to be hyperfertile and that no reversible contraception method would protect them from pregnancy Personal narratives help women explain or justify their own deviation from the norm Women felt conflicted about the competing narrative to limit family size vs retain fertility for a future partner

(*Continued*)

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Jones et al[37] 2016	To explore issues of fatalism within the context of pregnancy and contraceptive use in unmarried women	7.5	Not stated Semistructured interviews	52 unmarried women from a large Northeastern city and a smaller Midwestern city	Almost all women felt some degree of fatalism toward pregnancy and contraception Oftentimes, fatalism and feelings of control coexisted Fatalism or feelings of agency did not always predict consistency in contraceptive use
Kennedy et al[20] 2014	To describe the experiences of homeless women with children around pregnancy intention, sexuality, and contraceptive use, as well as to identify barriers to reproductive health care	9	Grounded Theory Semistructured interviews	22 women heading homeless families in San Francisco, CA	No woman reported desiring a pregnancy while homeless, but very few women used contraception consistently Unique obstacles to reproductive health in homeless women included being a low priority, storage problems while living in shelters, difficulty dealing with a method that may cause unpredictable bleeding, fear of stigma Women reported feeling less in control of sexual choices while homeless and often use sex to secure scarce resources; reproductive coercion was common
Leyser-Whalen and Berenson[22] 2013	To explore reasons behind how women view their contraceptive options and why they choose sterilization	6	Grounded Theory Semistructured interviews	44 women from a public family planning clinic in southeast TX	Many women wanted sterilization without regard to current partner desires, especially within the context of relationship instability Sterilization was viewed as a way to help create a better life for both the woman and her children Contraceptive adverse effects and difficulty of consistently obtaining contraception were big factors in choosing sterilization

(*Continued*)

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Neustadt et al[19] 2011	To explore the personal, sexual, contraceptive, and relationship contexts in which women use emergency contraception	8	Grounded Theory In-depth interviews	30 women who had previously used emergency contraception in a Midwestern city	Hormonal contraception was largely viewed negatively because of adverse effects, concerns regarding future health or fertility, and unnaturalness Barrier methods were viewed much more favorably, although consistent use was problematic Emergency contraception was viewed as a good option for women who were infrequently sexually active; for these women it was first-line option
Potter et al[21] 2010	To determine what motivates Latina women with low income in a large border community to choose sterilization and to explore barriers they encounter	6.5	Not stated Semistructured and in-depth interviews	120 (semistructured) and 5 (in-depth) Latina women living in El Paso, TX	Women desired sterilization because they were done having children and did not want to continue using reversible contraception, which was seen as fallible and with many side effects Women faced numerous barriers to obtaining sterilization; these barriers were oftentimes at the discretion of health care providers Women with low income were willing to pay large sums of money to have the procedure done The vast majority of women who desired sterilization had not received one at the 18-month follow-up
Rubin and Winrob[25] 2010	To better understand patient beliefs and attitudes that may act as a barrier to acceptance or use of an IUD	7.5	Not stated Semistructured interviews	40 women from an academic medical facility in the Bronx, NY	For many women, the fact that IUDs are placed internally was the biggest drawback; placement of the device and provider control of insertion and removal were also drawbacks Invisibility of the device and lack of knowledge about female anatomy made some women worry that the IUD would get in the way or fall out without their knowledge IUDs were not discussed commonly between friends and presented as outside of the normal contraceptive options by health care providers

(*Continued*)

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Sable et al[32] 2009	To identify factors that present barriers to accessing and using family planning services and contraceptives among female Hispanic recent immigrants to a small Midwestern community	7	Not stated Focus groups	32 women from a small Midwestern town	Women felt that responsibility of contraception was primarily theirs The Catholic Church had little influence over their contraceptive behaviors, but modesty surrounding gynecologic examinations sometimes did The machismo of male partners created a power differential that affects contraception use, pregnancy, infidelity, and condom usage Knowledge of modern contraceptive methods was limited; old wives' tales were common Barriers to assimilation and language were common, as was the pull between economic advancement through jobs and staying home with children
Schonberg et al[33] 2015	To understand women's contraceptive needs as they prepare to re-enter their communities and learn about their perceptions of receiving contraception at Rikers Island	8	Not stated Semistructured interviews	32 female inmates at Rikers Island, NY	Almost all women thought that all forms of contraception should be offered in jail and viewed time in jail as a good opportunity to receive needed health care Despite wanting the services in jail, many women did not trust the safety of the contraception or the health care system in which it was provided Many women were concerned about contraceptive follow-up after jail, especially in terms of LARC usage and removal Many women viewed a pregnancy after release from jail as an opportunity for a fresh start

(*Continued*)

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Sundstrom et al[36] 2018	To investigate women's knowledge of contraception options, preferences, and perceptions of contraceptive options and counseling in the outpatient postpartum period	10	Grounded Theory Focus groups	47 women using an outpatient obstetric clinic in the Southeast United States	Misperceptions about contraceptives harming fertility were common, as were concerns about long-term side effects such as cancer and weight gain Patients preferred a health care provider who listened to their needs and often prioritized their own experience and autonomy over advice or information provided by health care providers Many women preferred a method that would not interfere with breastfeeding
White et al[24] 2013	To examine awareness of, interest in, and motivations for LARC use of Latina women requesting sterilization	8	Not stated Semistructured interviews	120 Latina women living in El Paso, TX	A third of women in the study expressed an interest in LARC as an alternative to sterilization Women who were not interested in LARCs had concerns about menstrual changes, uncertainty about effectiveness, health risks, and placement process
Wingo et al[34] 2018	To explore priorities and experiences with reproductive health care from LGBTQ, FAAB individuals	9	Not stated In-depth interviews	39 LGBTQ individuals in San Francisco, CA	Individuals identified many commonly cited concerns with regard to reproductive health: infection and Pap testing, pregnancy care, fertility treatment, abortion access FAAB individuals felt they were seen by health care providers primarily for their reproductive potential Noninclusive and out-of-date protocols created barriers to reproductive care; individuals often felt that individualized care was grossly lacking in regard to their specific needs and reported concerns and that providers are unprepared to meet their needs

(*Continued*)

Table 1. Description of Included Studies Reporting on Women's Contraceptive Preferences

Author Date	Study Aim	Quality Score[a]	Qualitative Methodology and Data Collection	Sample	Key Results and Qualitative Themes Identified
Wright et al[23] 2012	To investigate what factors influence women's decisions about using the copper IUD as a form of emergency contraception	7.5	Not stated Semistructured interviews	28 women seeking care at family planning clinics in Salt Lake City, UT	Women were more likely to select a long-term method if they were in a long-term relationship The high upfront cost of an IUD was a major barrier to use Women who did not desire an IUD for emergency contraception were more likely to see the method as harmful for future fertility
Yee and Simon[35] 2011	To understand perspectives on negative contraceptive counseling experiences, including experiences in which there was perceived coercion, in a specific population of urban, minority women with low income	9	Grounded Theory Semistructured interviews	30 postpartum women who had received care at a Medicaid-funded obstetrics clinic in Chicago, IL	Women reported negative contraceptive experiences such as receiving impersonal counseling, feeling that health care providers were uncaring, not having their questions answered, and receiving overbearing or pushy counseling Women often felt unheard or ignored when trying to receive postpartum sterilization, often told they were too young Less commonly, patients felt that contraception was pushed on them because of a racial bias and a desire for them to not have children in the future

Abbreviations: FAAB, female assigned at birth; IPV, intimate partner violence; IUD, intrauterine device; LARC, long-acting reversible contraception; LGBTQ; LGBTQ, lesbian, gay, bisexual, transgender, queer (or questioning).
[a]Quality score derived from the Critical Skills Appraisal Programme (CASP)[18] checklist; scores range from 0-10, with higher scores indicating higher quality.

Table 2. Findings from 19 Qualitative Studies According to a Feminist Poststructuralist Framework

Author Date	Discourses[a]	Power[b]	Language[c]	Subjectivity[d]	Agency[e]
Godfrey et al[26] 2011		Unstable partnerships lead to inconsistent contraceptive use, as children were seen as way to solidify a relationship	Contraception seen as dangerous, unnatural, or harmful	Women who did not view themselves as fertile were less likely to use contraception	Women with a strong desire to avoid pregnancy for health care concerns tended to use contraception more consistently and conscientiously
Gollub et al[19] 2016	Rigid sex and gender roles left women powerless in relationships Children seen as a gift from God and security for the future	Controlling husbands put women at risk for unplanned pregnancy, STIs, forced sex	Emphasis on describing contraception as either natural or unnatural Family and friends serve as a source of information about contraception		Women enjoyed using a method they could control Women viewed pregnancy and contraception as within their realm of decision making, because it affects their bodies
Gurnah et al[27] 2011	Cultural deference given to authority figures and men, including decision making regarding reproductive health Government involvement in family size	Women felt contraception was required of them as a prerequisite for state support Information asymmetry between woman and health care provider	Male health care providers not culturally acceptable Discrepancy between church beliefs on contraception and women's usage		Women sought ownership over their reproductive health care through unofficial networks and use of indigenous medicine
Hodgson et al[28] 2013		Peer pressure encouraged pregnancy and contraceptive nonuse in teens Men often seen as barrier to consistent contraceptive use	Formal education about contraception occurred after the onset of sexual activity Concern over side effects	Need to find contraception that matched their body Overarching belief that pregnancy not absolutely preventable	Women solely responsible for preventing a pregnancy, felt empowered to make family planning decisions
Holliday et al[29] 2018	Intimate partner violence often centered around control of pregnancy achievement or avoidance, forced sex Women felt the need to stay in abusive relationships to provide for children	White women experienced more threats of harm to self and infant by partner Black women described greater reliance on male partner for contraceptive decision making	Male claims of infertility or distrust in medical institution more common from black community	Learned helplessness common in women with history of childhood sex abuse	Black women hid contraceptives as a way to combat reproductive coercion

(*Continued*)

Table 2. Findings from 19 Qualitative Studies According to a Feminist Poststructuralist Framework

Author, Date	Discourses[a]	Power[b]	Language[c]	Subjectivity[d]	Agency[e]
James-Hawkins and Sennott[30] 2015	Teenage pregnancy viewed as shameful The right time to have a child was within the confines of a marriage and economic stability Women should retain fertility within the context of appropriately sized family	Health care providers encouraged limiting births	Women labeled themselves as young and dumb Too many children as defined by economics	Assumption of hyperfertility that was not hindered by contraception	Women created narratives to explain their deviation from the norm
Jones et al[37] 2016	Fate and destiny exerted control over the lives of women			Contraceptive use did not correlate with feelings of fatalism or agency	Reproductive control, primarily through contraception Agency and fatalism often coexist
Kennedy et al[31] 2014	Homeless people are all addicted to drugs Children should be born into stable homes with solid finances	Reproductive coercion common Health care providers treat homeless women poorly, make assumptions		Women reported less control of their reproductive health when homeless, may use sex in exchange for necessities Women made decisions based on what is best for their children	Homeless women prioritized other essential needs over selecting a contraceptive method Health care generally is a low priority
Leyser-Whalen and Berenson[22] 2013	No guarantee that relationships will be monogamous or long term Women were not in control of their partners Women were the primary caretakers of children in all circumstances	Women felt constrained by their partner's salaries Health care providers, bureaucratic barriers had prevented sterilizations in the past based on parity, age, marital status	Social networks encouraged sterilization Side effects were a major barrier to continued hormonal contraceptive use	Women made decisions based on what is best for their children	Sterilization was a means to take control over personal relationships Sterilization allowed women to pursue work, education

(*Continued*)

Table 2. Findings from 19 Qualitative Studies According to a Feminist Poststructuralist Framework

Author Date	Discourses[a]	Power[b]	Language[c]	Subjectivity[d]	Agency[e]
Neustadt et al[20] 2011	Women should finish school and get married before having children	Contraception negotiation was often difficult and resulted in many women forgoing protection when partners objected	Partners could initiate discussion of emergency contraception Women found hormonal contraception unnatural and were concerned about a host of adverse effects and long-term effects	Perceived infertility lead to less frequent contraceptive use	Women felt that emergency contraception and contraception in general were critical to educational and career achievement
Potter et al[21] 2010		Health care providers, bureaucratic barriers had prevented sterilizations in the past based on parity, age, marital status	Desire for sterilization is often not communicated to health care providers	Women desire sterilization because their childbearing was complete, they thought they were too old to have more children, and because they did not like the adverse effects and efficacy of reversible methods	
Rubin and Winrob[25] 2010		Dependence on health care providers for insertion and removal was seen as a barrier		Limited knowledge of reproductive anatomy	Control over contraception was seen as desirable
Sable et al[32] 2009	It was essential to be able to provide for all children before having more Machismo Economic advancement vs taking care of children at home	Male power and control could dominate a marriage or partnership Normalization of male infidelity	Cultural modesty hindered honest discussions with health care providers Catholic Church's doctrine on contraception was interpreted differently by women	Women made decisions based on what was best for their children, not necessarily themselves	Women bear the responsibility for family planning Assimilation to a new culture done based on values and beliefs

(*Continued*)

Table 2. Findings from 19 Qualitative Studies According to a Feminist Poststructuralist Framework

Author Date	Discourses[a]	Power[b]	Language[c]	Subjectivity[d]	Agency[e]
Schonberg et al[33] 2015		Lack of trust in the jail clinic to safely offer quality contraceptive methods Demeaning care provided by health clinics			Jail-based health care seen as a good opportunity to get needed services before being released, preparing women for re-entry Women saw a future pregnancy as a chance at new hope or a fresh start
Sundstrom et al[36] 2018	Importance of fertility and breastfeeding	Contraceptive coercion from health care providers	Health care providers who listened, built rapport, and engaged in shared decision making helped women select contraception Hormonal contraception as harmful	Women prioritized their own experiences over the advice of their health care providers Preservation of future fertility essential	Many women felt that they could control their reproduction through contraception Methods within the patient's control were preferable
White et al[24] 2013	Cultural norms dictated that contraception is for birth spacing, and sterilization is used when no more children are desired		Women did not trust the effectiveness of LARC and felt that it could cause more harm than good	Women enjoyed being able to anticipate the timing and duration of their cycle, finding it more natural	

(*Continued*)

Table 2. Findings from 19 Qualitative Studies According to a Feminist Poststructuralist Framework

Author, Date	Discourses[a]	Power[b]	Language[c]	Subjectivity[d]	Agency[e]
Wingo et al[34] 2018	Women, regardless of their identity, were valued for their ability to have children Variations from the gender and sexual norm were rare and do not have unique health needs	Health care providers are unprepared to meet needs of LGBTQ patients Providers do not correctly identify health care priorities of patients	Health care providers consistently brought up fertility when discussing other health care issues Misgendering, transphobic communication common and acted as a barrier to future care	LGBTQ individuals felt their identities were erased, their priorities not important	
Wright et al[23] 2012	Monogamy dictated consideration of long-term contraceptive methods			Women had concerns about the long-term effects on their fertility	Emergency contraception fit within framework of unexpected or unanticipated sexual relations
Yee and Simon[35] 2011	Suspicion of government interference by women regarding their reproductive health Racial motives play a role in contraceptive counseling	Health care providers seemed to have their own agenda when discussing contraception, did not listen	Providers pushed back against women's contraceptive wishes, especially when it came to sterilization Communication was overbearing, one-sided Directive counseling turned women away from specific methods		Women had to continually speak up for themselves to receive their preferred method Contraceptive autonomy was fought for

Abbreviations: IUD, intrauterine device; LARC, long-acting reversible contraception; LGBTQ, lesbian, gay, bisexual, transgender, queer (or questioning); STI, sexually transmitted infection.
[a] Societal views.
[b] Who enforces these views.
[c] How these views are transmitted.
[d] How women see themselves.
[e] How women see their ability to control and/or change their life.

dynamism was met with eagerness for new opportunities in some individuals[19] and resistance to change in others.[32] In Latino communities, gender discourse created a reality in which infidelity and divorce were more commonly expected and anticipated by women. Largely, this was due to the presence of the *machismo* attitude regarding male sexuality. This expectation added additional discourse on attitudes and behavior around contraception in women in this community, encouraging women to plan for a future without their current partner and possibly with a new partner who might have different childbearing goals.[22,32] Among individuals identifying outside of the traditional gender and sexuality norm, these gender roles made interactions involving reproductive health providers alienating.[34] Consistently, patients seeking contraception were doing so within the larger discourse of gender norms that were ascribed either culturally or socially.

Pregnancy Timing

Discourses around the right time to become a mother and the best way to bring a child into the world were presented in 3 studies.[20,30,31] Having economic security, being in a stable relationship that preferably involved marriage, and being older than adolescence were seen by participants as the ideal context in which to have a child. It was generally viewed as preferable for a woman to have completed her education and have achieved many, if not all, of her professional goals before becoming pregnant. These views of culturally defined motherhood were often vocalized by women who had become mothers outside of this context. The women agreed with the ideal despite their variation from the norm.[30]

Motherhood

The discourse of motherhood was identified by 3 studies. The discussion extended beyond the circumstances in which women became mothers. Once motherhood was achieved, the role of women was the primary, if not exclusive, caregiver to their children.[22,29,32] The assumption that a woman must care for her children when fathers are absent or abusive was nearly universally stated among participants. The juxtaposition of the temporality of men and the permanence of the children they helped create was unquestioned.[22]

Fertility and Femininity

Further discourses surrounding motherhood established the importance of fertility as essential to femininity were identified in 4 studies.[30,34,36] Women vocalized their desire to retain their fertility in the instance of meeting a new partner who wanted more children,[30] and women were also unlikely to choose contraceptive options that they felt might harm their fertility in the future.[20,36] Among individuals who did not place value on their fertility, this association was highly problematic and created a sense of erased identity when fertility was prioritized over other health concerns.[34]

Power

In feminist poststructuralist thinking, power is seen as relational and multidirectional. It is the meaning given to an interaction and is connected to knowledge, competence, and qualifications. Power can be either productive or repressive based on the circumstance and context in which it exists.[41] Power is informed by personal, social, and institutional beliefs and is the mechanism by which the enforcement of and resistance to discourses manifest. The included studies examined power relationships between women and their husbands or partners, peer networks, and health care providers.

Husbands and Sexual Partners

The interplay between women and their sexual partners was examined in 7 studies.[19,20,22,27–29,31,32] For single women or those taking part in more casual sexual encounters, power manifested in contraceptive negotiations that often included the partner taking a stance against contraception and condom usage.[20,28,29] In more formal relationships, such as within the institution of marriage, male power represented a more encompassing control over method choice, usage, pregnancies, and health care-seeking behavior in general.[20,28] In the most extreme instances of overt power and control, intimate partner violence and reproductive coercion manifested.[19,22,27,32]

Health Care Providers

Ten studies examined the interplay of power between women and their health care providers.[19,21,22,25,30,31,33–36] Women often considered the opinions of their health care providers in relation to their own family planning, including the provider's preferences over the placement or removal of long-acting contraception and how many children to have.[29,31] For many women, the necessity of obtaining the approval of the health care provider to obtain sterilization was a barrier to care.[21,22] When women were selecting a contraceptive method after the birth of a child, health care providers were often perceived as coercive in their discussion of contraceptive options.[35,36] Homeless or imprisoned women and transgender individuals vocalized poor treatment and marginalization by health care providers.[31,33,34] One study used the term *knowledge asymmetry* to describe the power dynamic of contraceptive and health care knowledge that existed between the health care provider and the patient. This asymmetry was exacerbated in that study by both cultural and language barriers.[27]

Language

Language in the feminist poststructuralist framework does not simply apply to words or grammatical rules but to a system in which meaning and culture is constructed and organized.[13] Language tends to reflect the power of the dominant discourse and, similarly, must be viewed as a tool of institution and power. Evaluation of language must include assessment of how meaning is acquired, how it changes, how it survives or disappears, and what these actions reveal about how power is created and retained.[39] The included studies explored language in the context of contraceptive acceptability and the relationship between a woman and her health care provider.

Contraceptive Acceptability

The language surrounding contraception, especially hormonal contraception, revealed how women interact with their contraception. In 5 studies, women vocalized a desire for contraception they considered natural or disliked anything they considered unnatural, such as a method that stopped or altered normal menstruation.[19,20,24,26,36] In 4 other studies, women vocalized distrust in contraception, especially in relation to contraception's adverse effect profile, efficacy, and short- and long-term safety.[22,28,30,33] The language around the daily use of hormonal and long-acting contraception was largely negative. With intrauterine devices specifically, women often vocalized fear or apprehension of the device based on a misunderstanding of its placement anatomically.[24,25] One study reported that women did not trust specific methods because there was little discussion of them within their group of peers.[25] Networks of women and traditional healers who created an informal network by verbally passing information and experiences back and forth were described in 2 studies.[19,27]

Relationship with Health Care Provider

The language of communication between a woman and her health care provider also reflected the power of the dominant discourse. In 2 studies, cultural modesty hindered women's comfort with and ability to speak openly and freely with their health care providers.[21,32] In terms of a request for sterilization, the language and communication of providers was the difference between a woman receiving wanted services and being denied these services. Health care providers described women as being too young or discussed a husband's potential desire to have more children as reasons to deny sterilization.[21,22] Health care providers who attempted to convince women of something or who relied too heavily on close-ended questions created barriers to care in 2 studies.[35,36] Language between the health care provider and patient was especially important in the case of preferred pronouns of transgender individuals within the health care setting. The power of language was especially notable when health care providers were openly transphobic in their communication with patients.[34] In both mild and more menacing manifestations, language was a barrier to care and source of repressive power against those individuals seeking care.

Subjectivity

Subjectivity is the individual's sense of self, created in large part by the individual's internalization of social power relations.[14] Oftentimes, discourses manifest in language and power, thereby constructing the beliefs, values, and practices that create self-image, or subjectivity. In the instance of women's views on family planning, subjectivity allows researchers to identify how women understand and interpret the power dynamics between partners, health care providers, cultural norms, and religious beliefs and reshape them into their sense of self. In the included studies, subjectivity was highlighted in themes of fertility, motherhood, and control.

Fertility

A women's sense of her own fertility was a factor in shaping her views on contraception in 3 studies.[20,26,30] Perceptions of low or decreasing fertility, either because of age or failure to get pregnant with inconsistent contraception use, resulted in decreased rates of contraception use.[20,26] On the other end of the spectrum, women who considered themselves hyperfertile also had lower rates of contraception use because they felt that their fertility could not be controlled by reversible methods.[30]

Motherhood

The subjectivity of current or future motherhood was identified in 5 studies.[22,23,31,32,36] The importance of preserving or safeguarding future fertility was identified as a barrier or concern related to hormonal contraception. Women who felt that a method might harm their ability to conceive later in life were less likely to select that method, even when health care providers assured them that the method was safe.[23,36] Women who were currently mothers internalized their role as the primary, if not sole, caretakers of their children. These women made decisions that sometimes caused them harm, such as staying in abusive relationships or using sex to help provide financially for their children.[22,23,31] Thus, the ways in which women viewed their role as mothers sometimes meant their contraceptive actions did not line up with their stated desires or plans.

Control

A lack of control or invisibility of identity was noted in 3 studies.[29,31,34] Women who were currently homeless saw themselves as less free to make their preferred contraceptive decisions, in part because of the overwhelming necessity of tending to more pressing and important needs such as food and shelter.[31] Women with a history of childhood sexual abuse were more likely to report feeling hopeless, insecure, or undeserved. The manifestation of these feelings in adulthood made women more likely to stay in abusive relationships or use love-seeking behavior to find self-worth.[29] Transgender men reported feeling a sense of erasure as a result of interactions with health care providers and society at large when the preferred pronouns of these men were not used and their health care priorities were ignored.[34] The intersection of these more vulnerable identities was exacerbated within the hierarchical discourse of sexual relations and health care at great cost to these individuals.

Agency

Agency is the ability to reflect upon one's own thoughts, actions, and relationships in a way that allows for continual change and a degree of autonomy.[13] Although the individual still lives within discursive fields, they are also able to take an active role through the existence, in one form or another, of agency. If power is not unidirectional but multidirectional, it is through agency that the individual with less power is able to resist.[15] Agency as related to contraceptive use, contraceptive control, and goal achievement was explored by the included studies.

Contraceptive Use

In 7 studies, women identified themselves as the primary person in control of their contraceptive behavior.[19,27,28,32,35–37] In 4 studies, women who had relatively little power in their relationship were able to assert their right to control over their reproduction through contraception.[19,27,28,32] One study examined women's confidence in their ability to use contraception to protect against pregnancy in the setting of relatively strong fatalistic beliefs.[37] In the 2 studies that investigated postpartum contraception, women felt confident enough in their control over contraceptive choices to resist health care provider pushback to receive their method of choice.[35,36]

Contraceptive Control

In a similar vein, contraceptive methods that enhanced women's control were examined in 6 studies.[19,22,23,25,29,36] Findings from 3 studies indicated a personal preference for methods that enhanced control, such as the female-inserted cervical cap,[19] or methods that allowed women to decide when to stop and start contraception.[25,36] One study found that women preferred emergency contraception as a way to exert control after an unanticipated sexual encounter,[23] whereas another study found that sterilization allowed women to establish control when they were unable to assert control through other means.[22] In reproductive coercion, methods that could be hidden from abusive men gave women a means of resistance and some degree of autonomy.[29] For example, one woman purchased a purse with a hidden pocket that allowed her to hide her contraceptive pills from her partner. This woman described how she would frequently take the pill while using the restroom to hide all traces of the method.[29]

Goal Achievement

For women in 4 studies, pregnancy achievement or avoidance was a way for them to accomplish specific goals.[20,22,26,33] For older women with age-related menstrual changes, consistent contraceptive use allowed the women to treat a specific condition and enhance their quality of life.[26] More commonly, the use of contraception allowed women to start or finish school and achieve career goals.[20,22] For women finishing up their sentence in jail, however, the idea of pursuing pregnancy was seen as an opportunity to have a fresh start with a newborn.[33]

DISCUSSION

This review examined the contraceptive perceptions and beliefs of women as described in qualitative research through a feminist poststructuralist framework. Our findings suggest that using a feminist poststructuralist framework to examine women's contraceptive perceptions illuminates and magnifies the many ways in which contraceptive beliefs and use are dependent on gender roles and power dynamics. In instances of inequitable power sharing, contraceptive decision making can be used to control or coerce women. Both health care providers and sexual partners inhabited the dominant space of this power imbalance. Gender roles of regarding femininity, fertility, and motherhood often kept women in a more submissive role within these relationships. More often, contraception provided women an outlet with which to exert agency, allowing them to advocate for themselves, their children, or their future. Despite contraception's role in agency, an overwhelming number of women viewed contraception, especially hormonal contraception, in a negative light.

The examination of adult women's perceptions, beliefs, and attitudes surrounding contraception makes this review unique. Other reviews have explored specific methods or specific health conditions under which women use contraception, but none has addressed the patient's perspective.[42–44] Using the feminist poststructuralist framework allowed for a more nuanced understanding of how power dynamics and imbalances affect a woman's interaction with contraception. Overlapping and competing discourses around the timing of motherhood, the ability of a woman to choose a contraceptive, and the ways in which that contraception is or is not under their control converge almost daily. The use of both feminist and intersectional frameworks has the potential to strengthen contraceptive research, as it encourages exploration of underrepresented perspectives among women, people of color, and other marginalized groups.

This review identified a preference among many women for barrier and nonhormonal forms of contraception as well as a distrust and distaste for hormonal contraception. These findings are consistent with studies examining contraceptive preferences among young adult women and adolescents.[45–47] The language around contraception and the women's subjectivity of their own contraceptive choices and behavior is inconsistent with widely accepted scientific data about safety. For instance, women in one study reported thinking that contraception would both increase their risk of cancer and cause harm to later fertility, whereas numerous high-level studies have shown that contraception can decrease the relative risk of many types of cancer and is protective of future fertility.[48,49] Researchers should further explore why these beliefs persist despite contrary scientific evidence and how education or interventions may close this gap.

Long-acting contraceptive methods such as the intrauterine device and implant were especially unpopular among women in this review because of their internal placement and health care provider-based control. Other research reported a higher satisfaction rate with long-acting versus short-acting methods.[50,51] This discrepancy may be due to differences in the sample population. Women in this review who were asked about long-term reversible methods did not currently use them and referred to the methods in a more abstract way, whereas other studies assessed satisfaction among women currently using the devices.

The importance of the health care provider in contraceptive selection was noted in the majority of the studies included in this review. Because most states require a prescription for hormonal contraception and reversible methods, it is unsurprising that women mention that interactions with health care providers affected their contraception. *Health care gaslighting*, a term for dismissing women's health concerns as unimportant or fabricated, is an increasingly recognized phenomenon and is made possible, in large part, by the power imbalance that exists between a woman and her health care provider.[12,52] A desire for respectful conversations in which providers listen to the priorities of the patient is consistent

with other studies.[53] Issues around autonomy and power are especially important in regard to long-acting reversible methods that require a procedure for removal, given the history of state-controlled sterilization of women of color.[54]

This review highlights several gaps in the literature. Of studies identified at the onset of the literature search, a majority specifically addressed adolescent or young adult women's perceptions of contraception. Although unplanned pregnancies in younger women have historically been seen as more burdensome on women and society at large, unplanned pregnancies occur until the onset of menopause. In fact, there has been a persistent increase in abortion rates and abortion ratios in women 40 and older, indicating a need for continued evaluation of unplanned pregnancy and contraception use.[55] Contraception is used, on average, for 3 decades of a woman's life, not just when society deems her at greatest risk.[2] Women throughout the reproductive life span have specific needs, desires, priorities, and concerns that should be addressed in a holistic manner. Research that specifically addresses adult women should be as dynamic, woman-focused, and creative as the current research on adolescents.

Approaching the research question from the feminist poststructuralist framework highlights a gap in research related to women's subjectivity. How women internalize power structures and interpret them in relation to their own sense of self plays a role in their contraceptive perceptions and behavior. One example of this subjectivity is the finding that women preferred a more natural contraception that did not include synthetic hormones. The medical and social discourses of menstrual cycles tell women that a regular, monthly cycle indicates health and fertility. Although the desire to decrease or stop menstruation is clinically popular, easily accomplished, and has been shown to decrease the lifetime risk of certain cancers, there is a mismatch between women's desires and health care providers' advocacy of these methods.[56] Meeting the needs of women means that providers and researchers should explore the meaning behind the desire to have or avoid normal cycles and the ways in which social discourse may affect a women's perception of her menstruation.

The 19 studies were high quality but lacked rigor in comparable areas. Only 5 of the 19 addressed reflexivity fully, and in one study it was partially addressed.[19,27,29,34–36] Reflexivity is an essential component of qualitative studies, as it allows the researchers to explore the ways in which they change the study data through their own participation.[9] Only 3 studies addressed ethical concerns, which is surprising given the sensitive nature of the research and the vulnerability of the participants.[27,31,36]

There are several limitations to this literature review. First, this review was conducted by a single researcher, although collaboration with experts occurred periodically. This use of a single researcher can create concerns regarding insufficient rigor, inconsistent use of inclusion and exclusion criteria, and an unreliable analysis. However, the use of the Whittemore and Knafl methodological framework and the feminist poststructuralist conceptual framework helped enhance reliability and ensure search and sample selection reproducibility. Relevant research studies may have been inadvertently missed by the selection of search terms, although the use of a medical reference librarian and multiple search terms mitigates some of this risk. Additionally, exclusion criteria necessitated the removal of studies that examined contraception from the lens of a specific disease or condition. The majority of the data from these studies was too narrow in scope, but some universal themes may have been missed by excluding these studies.

Clinical Implications

Health care providers, especially certified nurse-midwives and certified midwives (CNMs/CMs), play an important part in providing education about contraception. The power dynamic between provider and patient must be acknowledged first and foremost by the health care provider, as it influences the discourse in which women seek care. The results of this integrative review indicate that health care providers should reflect upon ways in which their actions, communication style, or clinic policies work to strengthen or weaken the imbalance and work toward a more even, patient-centered approach. It is also essential to reflect upon the additional identities that may exacerbate the power imbalance, including the gender, racial or ethnic background, economic status, and sexual and gender identity of both the health care provider and patient. Communication is one area in which power manifests overtly, so health care providers could use open-ended questions to assess the patient's goals and health care priorities and provide guidance and education that does not attempt to convince or coerce.

This study also identified specific educational needs and opportunities for health care providers. Women with a limited or inaccurate understanding of reproductive anatomy were identified in 4 studies.[19,24,25,34] CNMs/CMs are well positioned to facilitate a patient's understanding of their reproductive system, especially in relation to pregnancy and contraceptive use. Additionally, almost all studies identified numerous concerns from women about their contraception, including issues with burdensome adverse effects, unnaturalness, and short and long-term safety concerns related to cancer and fertility, among other things. Health care provider communication should stress evidence-based contraceptive education, including appropriate anticipatory guidance and normal variations.

Finally, numerous studies identified in women a desire to use contraception that they can control. Although long-acting reversible methods have been shown to decrease rates of unplanned pregnancy, they are not always desirable or appropriate for a woman who wishes to be able to start and stop her contraception at will. A woman's desire for contraceptive agency may be more important than the perceived effectiveness as understood by her health care provider. CNMs/CMs should be respectful when this viewpoint is vocalized. Paradoxically, female sterilization was viewed very positively, especially among certain populations, because it is seen as the most effective, final method of contraception. Health care providers should work within their practices and institutions to decrease barriers to access to ensure that patients receive their method of choice in the quickest possible manner.

CONCLUSION

This integrative review explores women's needs, desires, priorities, and concerns around contraception through the

feminist poststructuralist framework. An exploration of discourse, power, communication, subjectivity, and agency creates a more complete, holistic understanding of how women interact with and understand their contraceptive options. Themes of power imbalance between partners and health care providers, societal and communal discourses on femininity and motherhood, distrust of hormonal contraception, the ability to enhance personal agency through contraceptive decision making, and a need for open, patient-focused communication arose from the 19 studies included in the review. Health care providers can assist women in making the best contraceptive choices for their needs and priorities and within the context of their specific discourses by using a feminist poststructuralist framework.

CONFLICT OF INTEREST

The authors have no conflicts of interest to disclose.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1. CASP Qualitative Checklist

REFERENCES

1. Daniels K, Mosher WD. Contraceptive methods women have ever used: United states, 1982-2010. *Natl Health Stat Report*. 2013;14(62):1-15.
2. Sonfield A, Hasstedt K, Gold RB. *Moving Forward: Family Planning in the Era of Health Reform*. New York, NY: Guttmacher Institute; 2016.
3. Lopez LM, Kaptein AA, Helmerhorst FM. Oral contraceptives containing drospirenone for premenstrual syndrome. *Cochrane Database Syst Rev*. 2012;(2):CD006586.
4. Hsia JK, Creinin MD. Intrauterine contraception. *Semin Reprod Med*. 2016;34(3):175-182.
5. FDA approves new vaginal ring for one year of birth control. US Food and Drug Administration website. https://www.fda.gov/news-events/press-announcements/fda-approves-new-vaginal-ring-one-year-birth-control. August 10, 2018. Accessed September 24, 2018.
6. Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008-2011. *N Engl J Med*. 2016;374(9):843-852.
7. Espey E. Feminism and the moral imperative for contraception. *Obstet Gynecol*. 2015;126(2):396-400.
8. Macklin R. Women's health: an ethical perspective. *J Law Med Ethics*. 1993;21(1):23-29.
9. Polit D, Beck CT. *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 9th ed. Philadephia, PA: Lippincott Williams & Wilkins; 2012.
10. Likis FE, King TL, Murphy PA, Swett B. Intentional inconsistency as gender-neutral language evolves. *J Midwifery Womens Health*. 2018;63(2):155-156.
11. Im E. Practical guidelines for feminist research in nursing. *ANS Adv Nurs Sci*. 2013;36(2):133-145.
12. Fetters A. The doctor doesn't listen to her. But the media is starting to. *The Atlantic*, August 10, 2018. https://www.theatlantic.com/family/archive/2018/08/womens-health-care-gaslighting/567149/. Accessed September 6, 2018.
13. Aston M. Teaching feminist poststructuralism: founding scholars still relevant today. *Creative Education*. 2016;07:2251-2267.
14. Foucault M. Polemics, politics and problematizations: an interview conducted by Paul Rabinow in May 1984. In: Rabinow P., ed. *Essential Works of Foucault*. Vol. 1. New York, NY: The New Press; 1998. https://foucault.info/documents/foucault.interview/. Accessed October 2, 2018.
15. Foucault M. The subject and power. In: Dreyfus H, Rabinow P, eds. *Beyond Structuralism and Hermeneutics*. Chicaco, IL: University of Chicago Press; 1982:208-226.
16. Whittemore R, Knafl K. The integrative review: updated methodology. *J Adv Nurs*. 2005;52(5):546-553.
17. Moher D, Shamseer L, Clarke M, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Syst Rev*. 2015;4:1.
18. CASP checklists. Critical Skills Appraisal Programme website. https://casp-uk.net/casp-tools-checklists/. Accessed September 27, 2018.
19. Gollub EL, Dévieux J, Michele JG, Pierre Ste-Rose S, Neptune S, Pelletier V. "This method, I think, can shed new light": Haitian-American women's reflections on risk, culture, and family planning decisions from a short-term trial of a cervical barrier (Femcap). *Int Q Community Health Educ*. 2016;36(4):253-263.
20. Neustadt A, Holmquist S, Davis S, Gilliam M. Sexual, relationship, contraceptive and personal factors influencing emergency contraception use: a qualitative study. *Contraception*. 2011;84(3):266-272.
21. Potter JE, White K, Hopkins K, et al. Frustrated demand for sterilization among low-income Latinas in El Paso, Texas. *Perspect Sex Reprod Health*. 2012;44(4):228-235.
22. Leyser-Whalen O, Berenson AB. Control and constraint for low-income women choosing outpatient sterilization. *Qual Health Res*. 2013;23(8):1114-1124.
23. Wright RL, Frost CJ, Turok DK. A qualitative exploration of emergency contraception users' willingness to select the copper IUD. *Contraception*. 2012;85(1):32-35.
24. White K, Hopkins K, Potter JE, Grossman D. Knowledge and attitudes about long-acting reversible contraception among Latina women who desire sterilization. *Womens Health Issues*. 2013;23(4):257.
25. Rubin SE, Winrob I. Urban female family medicine patients' perceptions about intrauterine contraception. *J Womens Health (Larchmt)*. 2010;19(4):735-740.
26. Godfrey EM, Chin NP, Fielding SL, Fiscella K, Dozier A. Contraceptive methods and use by women aged 35 and over: a qualitative study of perspectives. *BMC Womens Health*. 2011;11(1):5.
27. Gurnah K, Khoshnood K, Bradley E, Yuan C. Lost in translation: reproductive health care experiences of Somali Bantu women in Hartford, Connecticut. *J Midwifery Womens Health*. 2011;56(4):340-346.
28. Hodgson EJ, Collier C, Hayes L, Curry LA, Fraenkel L. Family planning and contraceptive decision-making by economically disadvantaged, African American women. *Contraception*. 2013;88(2):289-296.
29. Holliday CN, Miller E, Decker MR, et al. Racial differences in pregnancy intention, reproductive coercion, and partner violence among family planning clients: a qualitative exploration. *Womens Health Issues*. 2018;28(3):205-211.
30. James-Hawkins L, Sennott C. Low-income women's navigation of childbearing norms throughout the reproductive life course. *Qual Health Res*. 2015;25(1):62-75.
31. Kennedy S, Grewal M, Roberts EM, Steinauer J, Dehlendorf C. A qualitative study of pregnancy intention and the use of contraception among homeless women with children. *J Health Care Poor Underserved*. 2014;25(2):757-770.
32. Sable MR, Havig K, Schwartz LR, Shaw A. Hispanic immigrant women talk about family planning. *Affilia*. 2009;24(2):137-151.
33. Schonberg D, Bennett AH, Sufrin C, Karasz A, Gold M. What women want: a qualitative study of contraception in jail. *Am J Public Health*. 2015;105(11):2269-2274.
34. Wingo E, Ingraham N, Roberts SCM. Reproductive health care priorities and barriers to effective care for LGBTQ people assigned female at birth: a qualitative study. *Womens Health Issues*. 2018;28(4):350-357.
35. Yee LM, Simon MA. Perceptions of coercion, discrimination and other negative experiences in postpartum contraceptive counseling

for low-income minority women. *J Health Care Poor Underserved*. 2011;22(4):1387-1400.
36. Sundstrom B, Baker-Whitcomb A, DeMaria AL. A qualitative analysis of long-acting reversible contraception. *Matern Child Health J*. 2015;19(7):1507-1514.
37. Jones RK, Frohwirth LF, Blades NM. "If I know I am on the pill and I get pregnant, it's an act of God": women's views on fatalism, agency and pregnancy. *Contraception*. 2016;93(6):551-555.
38. Weedon C. *Feminist Practice and Poststructuralist Theory*. 2nd ed. Hoboken, NJ: Blackwell Publishing; 1996.
39. Scott JW. Deconstructing equality-versus-difference: or, the uses of poststructuralist theory for feminism. *Feminist Studies*. 1988; 14(1):33-50.
40. Aston M, Price S, Kirk SFL, Penney T. More than meets the eye. Feminist poststructuralism as a lens towards understanding obesity. *J Adv Nurs*. 2012;68(5):1187-1194.
41. Doering L. Power and knowledge in nursing: a feminist poststructuralist view. *ANS Adv Nurs Sci*. 1992;14(4):24-33.
42. Gensous N, Doassans-Comby L, Lazaro E, Duffau P. Systemic lupus erythematosus and contraception: a systematic literature review [in French]. *Rev Med Interne*. 2017;38(6):358-367.
43. Zapata LB, Oduyebo T, Whiteman MK, Houtchens MK, Marchbanks PA, Curtis KM. Contraceptive use among women with multiple sclerosis: a systematic review. *Contraception*. 2016;94(6):612-620.
44. Roe AH, Traxler S, Schreiber CA. Contraception in women with cystic fibrosis: a systematic review of the literature. *Contraception*. 2016;93(1):3-10.
45. Frost JJ, Lindberg LD, Finer LB. Young adults' contraceptive knowledge, norms and attitudes: associations with risk of unintended pregnancy. *Perspect Sex Reprod Health*. 2012;44(2):107-116.
46. Gomez AM, Wapman M. Under (implicit) pressure: young black and Latina women's perceptions of contraceptive care. *Contraception*. 2017;96(4):221-226.
47. Oakley LP, Harvey SM, López-Cevallos DF. Racial and ethnic discrimination, medical mistrust, and satisfaction with birth control services among young adult Latinas. *Womens Health Issues*. 2018;28(4):]313-320.
48. Mikkelsen EM, Riis AH, Wise LA, Hatch EE, Rothman KJ, Toft Sørensen H. Pre-gravid oral contraceptive use and time to pregnancy: a Danish prospective cohort study. *Hum Reprod*. 2013;28(5):1398-1405.
49. Iversen L, Sivasubramaniam S, Lee AJ, Fielding S, Hannaford PC. Lifetime cancer risk and combined oral contraceptives: the Royal College of General Practitioners' Oral Contraception Study. *Am J Obstet Gynecol*. 2017;216(6):580.e9.
50. Peipert JF, Zhao Q, Allsworth JE, et al. Continuation and satisfaction of reversible contraception. *Obstet Gynecol*. 2011;117(5):1105-1113.
51. Diedrich JT, Desai S, Zhao Q, Secura G, Madden T, Peipert JF. Association of short-term bleeding and cramping patterns with long-acting reversible contraceptive method satisfaction. *Am J Obstet Gynecol*. 2015;212(1):50.e1-50.e8.
52. Hoffmann DE, Tarzian AJ. The girl who cried pain: a bias against women in the treatment of pain. *J Law Med Ethics*. 2001;29(1):13-27.
53. Pilgrim NA, Cardona KM, Pinder E, Sonenstein FL. Clients' perceptions of service quality and satisfaction at their initial Title X family planning visit. *Health Commun*. 2014;29(5):505-515.
54. Amico JR, Bennett AH, Karasz A, Gold M. "She just told me to leave it": women's experiences discussing early elective IUD removal. *Contraception*. 2016;94(4):357-361.
55. Pazol K, Creanga AA, Zane SB, Burley KD, Jamieson DJ; Centers for Disease Control and Prevention. Abortion surveillance–United States, 2009. *MMWR Surveill Summ*. 2012;61(8):1-44.
56. Newton VL, Hoggart L. Hormonal contraception and regulation of menstruation: a study of young women's attitudes towards 'having a period'. *J Fam Plann Reprod Health Care*. 2015;41(3):210-215.

MANUSCRIPT 2

The reproductive health priorities, concerns, and needs of women in midlife: A feminist poststructuralist qualitative analysis

Abstract

Introduction: Reproductive health research rarely involves the inclusion of women over 40, creating a large knowledge gap regarding reproductive health of women in midlife. Women continue to have reproductive health needs, concerns, and priorities up to the point of menopause that should be examined in order to improve reproductive health outcomes and provide individualized care to women regardless of their age.

Methods: Individual, semi-structured interviews were conducted on 20 women between the ages of 40 and 55 who had not reached menopause and did not have a permanent method of sterilization. Data were coded using qualitative descriptive methods and analyzed within the feminist poststructuralist framework.

Results: Participants discussed a variety of issues regarding reproductive health in midlife. Priorities included family formation, the natural body, and healthy aging. Concerns included sexually transmitted infections, barriers to contraception, how birth control interacts with their body, and dialogue around aging and menopause. Needs included improved communication with health care providers, the ability to use birth control in midlife, and birth control that meets their lifestyle.

Discussion: Women in midlife have unique priorities, needs, and concerns with regard to their age, their bodies, and current and future health needs that should be addressed both in research and in providing clinical care. Women in midlife are not unlike their younger peers in all aspects, however, so reproductive health care should be individualized and avoid age-based assumptions regarding pregnancy, contraception, and sexually transmitted infections.

INTRODUCTION

Midlife is an important yet underexplored time in the lives of women. Midlife involves the end of the reproductive life span, yet many reproductive health needs continue for women until the time of menopause and beyond. Effective and safe birth control, the desire for healthy pregnancies, protection against sexually transmitted diseases—none of these go away when a woman turns 40. Popular wisdom and scientific research, however, might suggest otherwise. Despite a growing population of midlife women and a steady increase in pregnancies in midlife, there is scant research on the reproductive health of this age group.(1, 2)

Reproductive health for midlife women is unique for several different reasons. Midlife often overlaps with perimenopause, the period of time notable for its frequently symptomatic hormonal fluctuations. A declining number of ovarian follicles creates an erratic and unpredictable production of estrogen, which causes a number of physiologic changes. These include but are not limited to menstrual changes, including longer or shorter menses and longer or shorter cycles, more irregular cycles, hot flashes, and trouble sleeping.(3) Perimenopause also correlates with a decrease in fertility and fecundity, the ability to become pregnant and to have a live birth. However, pregnancy is possible until the onset of menopause, and spontaneous pregnancies have been noted with increasing frequency in women over 50.(2, 4) When a pregnancy does occur in midlife, risks to the woman and fetus are greatly increased including a 7.7 fold increase in maternal mortality for women over 40 when compared to women under 25.(5, 6)

Other common reproductive health issues for women in midlife include, conversely, problems with fertility when a pregnancy is desired in midlife.(7) Additionally, changes in partnership and marriage can put women in midlife at risk for sexually transmitted infections.(8)

Perimenopausal symptoms can also manifest as sexual dysfunction, such as a decrease in sexual desire or an increase in dyspareunia as a result of decreasing vaginal rugae and increasing vaginal dryness.(9) Mood changes, depression, anxiety, and even new-onset schizophrenia are becoming increasingly well-recognized as a result of hormonal changes experienced by women in midlife.(3, 10, 11)

At the same time, it is becoming clear that physicians, advanced practice nurses, and other health care professionals are not fully equipped to provide care for peri- and postmenopausal women.(12) Training is insufficient, and large knowledge gaps related to diagnosis and treatment modalities are widespread.(13) As evidenced by social institutions ranging from Hollywood to the beauty industry, women seem to be valued less as they grow older and lose their reproductive potential.(14, 15)

Extant literature on reproductive health midlife women is limited. The majority of articles in clinical peer-reviewed journals is proscriptive and rarely involve original research.(16-18) Quantitative data on contraceptive preferences and unmet needs for birth control are lacking.(19) Until recently, the ability to explore nationally representative samples regarding reproductive health for women in midlife was limited. Data from Massachusetts suggests that women aged 45-50 were more likely to be contraceptive non-users than women in younger age groups.(20) An internet-based survey of women in midlife in the UK identified high rates of contraceptive non-use and contraceptive dissatisfaction, leaving women at risk for both pregnancy and sexually transmitted infections.(21)

Qualitative data is also scarce. Godfrey et al. (22) explored contraceptive preferences and use among older women, comparing those who had and had not experienced an unplanned pregnancy after the age of 35. This study identified that women who had experienced an

unplanned pregnancy after the age of 35 were more likely to report unstable partnerships, perceive themselves at lower risk of pregnancy, or report prior unwanted side effects with contraception. Additionally, study participants desired contraception that was safe, effective, accessible, and easy to use.(22)

The lack of data overall specific to women in midlife necessitates the use of qualitative research, which allows for the magnification of the voices of women with regards to their specific needs, concerns, and desires. (23) Further research is necessary not only to identify risk factors that may be uniquely present in women in midlife, but also to explore ways to provide evidence-based, patient-centered education and enhance quality of life. To this effect, the present qualitative study explores the following question: What are the reproductive health needs, concerns, and priorities of women in midlife?

Theoretical Framework

To thoughtfully and critically examine reproductive health in women in midlife, a feminist perspective is necessary because it emphasizes global, democratic, and practical ways to explore women's experiences.(24, 25) The feminist poststructuralist framework was selected for its emphasis on power and knowledge, two structures at the heart of reproductive health.(26) According to Foucault, knowledge is the exchange of regular communications between individuals within the influence of institutions and society at large.(27) The examination of knowledge should not focus on ways in which the individual may be affected, but instead on how knowledge can deconstruct and challenge institutions and society itself.(28) Power relations in feminist poststructuralist framework are dynamic and reciprocal between those with more and less power. The oppression of women is understood to be the direct result of male-dominated power relations. However, a feminist poststructuralist understanding of power also considers the

ways in which a different type of power, that of transformation and empowerment of others, can be more easily utilized by women as a counterbalance.(29) Thus, power is not solely exerted over women but instead exists as part of negotiations and communications between individuals.(28) How the feminist poststructuralist influenced the study design and data analysis is covered below.

METHODS

Sample

Participants were recruited throughout the Research Triangle area of North Carolina, a mid-sized urban community compromised of several smaller cities. Information about the study and pertinent contact information was included on flyers placed at women's health clinics and public venues that reach a wide variety of women such as libraries, grocery stores, and coffee shops. Recruitment also occurred through snowball sampling: study participants were encouraged to tell friends or family who may be interested about the study.(30)

The following criteria guided participant recruitment: identifying as a woman, being between the ages of 40 and 55, speaking English, and having not yet reached menopause. Exclusion criteria included having a permanent method of sterilization or having a partner with a permanent method of sterilization. Approval was sought from the Medical University of South Carolina's Institution Review Board (IRB), and the study was deemed exempt from Human Subjects Research Regulations. While there was no a priori number of participants we were seeking to recruit, per qualitative traditions we sought to recruit until we reached data saturation.(31)

Data Collection

Interested participants telephoned the PI for prescreening eligibility or filled out a secure online survey through REDCap. Those who screened eligible were contacted to set up an interview time and location. Interviews were in-depth, face-to-face, individual, and semi-structured.

The feminist poststructuralist framework guided the study throughout. An interview guide was created with an emphasis on power and knowledge, including questions about how women talked about contraception with partners and health care providers, from whom women sought information, and who provided them with it. This interview guide steered the discussion and covered topics such as contraception, pregnancy planning, and the approach of menopause. The guide was minimally revised during data collection based on early interviews to include more questions about birth control negotiation between partners and more exploration of concerns related to STDs.

The interviews occurred between September and December of 2019. Interviews took place at locations selected by the participants to ensure ease of access and optimum comfort level. Most often, interviews occurred at coffee shops, fast food restaurants, and public libraries. Interviews lasted between 35-55 minutes and were audio-recorded with a handheld device and then transcribed verbatim. The interviewer obtained participant verbal consent at the time of the interview.

Data Analysis

The study was conducted within a qualitative descriptive approach. The goal of qualitative description is to describe an individual's experience in that individual's own words at a manifest level.(32) Qualitative descriptive methodology is based on the overarching principles of naturalistic inquiry, meaning that people are observed and interpreted within the social and

cultural context of their lives.(33) As noted above, the feminist poststructuralist framework served as a theoretical guide for this study, influencing the interview guide and data analysis including second-level coding and the creation and organization of themes.(34)

First and second-level qualitative coding was initiated by the first author consistent with qualitative descriptive methodology.(35) Second-level codes were then organized within the five tenets of the feminist poststructuralist framework, including discourse, power, language, subjectivity, and agency. Within these tenets, major themes were identified and grouped together. Interviews were coded in Microsoft Word. Demographic data analysis and data organization were done in Microsoft Excel.

To increase data reliability, the fourth author reviewed all first-level coding for the first 10 interviews and the second-level coding for every other interview. Additionally, the second and third authors reviewed all coding on a quarter of the interviews and provided input to the final coding matrix and themes. Areas of disagreement were discussed and consensus was obtained by all authors. Trustworthiness was enhanced through 1) prolonged engagement with the transcripts, 2) creation of an audit trail, 3) use of reflexive journaling by the interviewer, and 4) member checking with 9 participants. Member checking both assisted in confirming themes and also provided further clarification on participants interpretation and understanding.

RESULTS

Of the 32 women who completed prescreening eligibility, 22 participants met all of the inclusion criteria. Of these 22 women, 20 completed the study and 2 were unable to be scheduled for interviews due to scheduling conflicts or being lost to follow-up. Participant recruitment continued until data saturation was reached and no new themes were identified.

Table 1 shows the participants' demographic information in greater detail. Figure 1 presents the contraceptive methods used in the past and current method of the participants. Table 2 presents information regarding the sexual behavior of the participants. Contraceptive nonuse was common (n=9) among participants, but this sample includes women who were in relationships with only women at the time of the interview and women who were not sexually active.

Extracted themes were organized by the tenets within the feminist poststructuralist framework: discourses, power, language, subjectivity, and agency. A fuller description of the individual tenet is located within each section. Table 3 provides a summary of major themes organized by tenet.

Discourse

Foucault explains discourse as a way of creating and disseminating knowledge which, together with social practices, subjectivity and power relations, form a given reality.(36) These discourses can overlap, compete and influence one another, existing within the same sphere in individuals' lives and in society at large.(37) For women in this study, major discourses included the formation of a family and the discourse of the natural body.

- *Family formation.* Forming a family was not a thing of the past for many women in midlife but an active and evolving process. At the time of the interview, two of the study participants were actively trying to get pregnant and five more were considering a pregnancy in the future. Some women, including those trying to get pregnant, were considering adoption as well. For women considering a child in the future, all vocalized a need for expediency in terms of making the decision. One woman said: "I mean my days are definitely limited. Um, so if I do, I need to kind of make the decision sooner than later." This understanding of fertility in midlife

is indicative of the feelings expressed by many women, as the vast majority of subject participants vocalized an understanding of fertility as something that declines with age. Additionally, women desiring a pregnancy in midlife expressed a desire to do so in a manner that was healthy for mother and baby while acknowledging the age-related risks.

In terms of partnerships, over half (n=11) of the participants were single or divorced. Of these women, several had long-term partners. Some were thinking about a possible marriage in the future while others did not feel the need to make a relationship official in that manner. So while not all women interviewed were actively trying to expand their families, family formation via children and partners remained a priority for many women in midlife.

- *The natural body.* Several women discussed their preference for a birth control method that allowed them to remain in touch with their natural body. This preference manifested in a number of different ways. Several participants mentioned birth control that interrupted a body's natural processes. One woman spoke of the disruption she felt using hormonal contraception: "I wanted something that allowed me to still be in tune with my body. Because, I remember getting, you know, pill, birth control pills are extra hormones, and I remember I was really out of touch with my body. I couldn't... It was like, it was weird. I couldn't feel my body the way I normally do." (Participant #26).

For other women, talking about the natural body manifested as a preference for a regular menstrual cycle. Women were split almost evenly in regards to who preferred to have and not have a period. But among those for whom a period was preferable, they spoke about it being natural, healthy, or reassuring.

Power

Power is relational and multidirectional in the feminist poststructuralist theory. Based on its context and circumstance, power can be productive or repressive.(38) Power is part of personal, social and institutional beliefs, and is the mechanism by which the enforcement of and resistance to discourses occurs. For women in this study, power was explored in the context of concern of sexually transmitted infections and barriers to contraception.

- *Sexually Transmitted Infections.* All study participants had experience with male condoms, and the vast majority vocalized that contraception for STI prevention had been important at some time in their life. Current concerns about sexually transmitted infections were common especially, but not exclusively, among women who were not married. Having multiple partners or experiencing infidelity while in a monogamous relationship were commonly cited reasons for wanting to use condoms. Six women specifically framed discussions about condom use with the trust, or lack thereof, they had in men. One woman discussed how she decided to resume condom use with her current partner: "There was a time where um, he stepped out of the relationship. So I felt, 'Okay, I'm gonna have to use a condom since you decided you needed to step out.'" (Participant #16).

There was a shift in the stories of many women related to protecting themselves against STIs, however. Many women described less condom use, more sexual risk taking, and greater difficulty advocating for themselves when they were younger. One woman summed it up by saying: "I was younger and less competent, I don't think I asserted myself in the conversation [about condom use] particularly well." (Participant #17) Age and experience, however, seemed to give these same women higher levels of comfort and confidence in talking about contraception and prevention of STIs with their partners. One woman explicitly expressed her feelings

regarding putting condoms on her partner, saying: “I like putting them on. 'Cause it, kind of likes, give me power. You know?” (Participant #22)

- *Barriers to contraception.* When asked about barriers to contraception at baseline, most women reported minimal difficulty accessing birth control. While the majority of the participants (n=15) reported no barriers to contraception, seven women, including five of the women who had reported no barriers to contraception, discussed problems with condom negotiation at some point in their life. This seemed especially common in instances where women wanted dual protection, meaning using a hormonal method for contraception and a barrier method to prevent transmission of infection. One woman discussed interactions with two different partners as: “Because with those two people, they knew I took birth control. They were like, You're on birth control. And I'm like, Yep. And we're still going to use a condom.” (Participant #10) Usually, this negotiation was seen as an annoyance by women as opposed to a real barrier to a method and for the most part, one easily solved by being assertive about their desire to use condoms. This was not always the case, however.

Six women reported that insurance coverage had been a barrier to health care for them in the past or was presently. Most commonly, insurance coverage had kept them from using an IUD because it either was not covered at the time or was prohibitively expensive. One woman reported having trouble with insurance coverage throughout her life and expressed the difficulty she has faced in this way: “I think because I don't have no insurance. They don't think I'm worth nothin'. You know what I'm sayin'? Even when you go to the hospital and you don't have insurance, you're treated differently from a person that has insurance.” (Participant #22)

Language

Language in the feminist poststructuralist framework applies not only to direct communication, but also to a system in which meaning and culture is constructed and organized.(26) Language reflects the power of the dominant discourse and should be viewed as a tool of institution and power. Evaluation of language must include assessment of how meaning is acquired, how it changes, how it survives or disappears, and what these actions reveal about how power is created and retained.(37) For women in this study, language was explored in their communication with their health care providers and in the language widely used to talk about aging and menopause.

- *Communication with health care providers.* Almost all of the study participants (n=17) reported getting information on reproductive health from their health care provider. However, three quarters of the participants (n=15) also discussed that they had received little to no information about menopause from their health care providers, including women in their early and mid-fifties. Many of the younger women had not yet experienced perimenopausal symptoms. Among these women, lack of information from healthcare providers was insignificant or non-problematic. Some of the older women identified this gap in care as more problematic: "I guess part of it is like, well, yeah, they should have told me. Uh, on the other hand, I never broached it." (Participant #2).

Several women discussed a desire to learn more about menopause. Specifically, participants reported wanting to learn more about perimenopausal symptoms, treatment options, sexual function, and when to stop using contraception. However, some women conveyed menopause was not a prime concern in their lives and were not interested in learning more about it from a health care provider or anyone else. This was especially true in women trying to get

pregnant or those still considering a pregnancy in the future. Yet, at the end of the interview, many women expressed a desire to talk with their health care provider more about menopause.

- *Dialogue around menopause and aging.* Most women gained knowledge of menopause through the stories shared by other women, including mothers and older friends. Typically, these stories were presented as scary tales about the difficult and sometimes life-altering changes that take place. Participants shared stories that they had heard of sexual dysfunction, debilitating hot flashes, paper-thin and dry vaginal tissue, mood fluctuations, and the continued possibility of pregnancy that could last for years. Without exception, stories shared by other women to study participants revolved around negative physical and emotional changes. One woman expressed exasperation around this phenomenon: "It probably would be nice if, if menopause was approached from a little more positive standpoint, just so that you can look at it as, 'Okay, you know, we're going forward, yeah there are other problems to be managed.' But, you know, you've got this great time in your life when you're not gonna get pregnant. To worry about (laughs)." (Participant #28).

Discomfort with or fear of aging was also mentioned, especially in women who had only recently entered their 40s. Often, this feeling was expressed as women discussed how they felt, and sometimes looked, younger than their chronological age. In other instances, women spoke of balancing their changing bodies with their desires to remain sexually active, fun, or spontaneous with sexual partners. Concerns about aging and the changes associated with menopause were commonplace in the stories of women in midlife.

Subjectivity

Subjectivity is the individual's sense of self, created in large part by the individual's internalization of social power relations.(27) Explorations of subjectivity allow for the

examination of lived experience within contexts of social and institutional power.(39) Women in this study expressed subjectivity as a concern over how their body interacts with birth control and how birth control fits into their lives.

- *Birth control and the body.* Concern regarding how birth control interacts with their individual bodies was common. Half of the participants discussed side effects they had experienced in the past while on birth control. Many of these women, including some who had not reported an experience with side effects, vocalized a fear of specific side effects. Weight gain was the most commonly cited side effect, followed by a decrease in sex drive, mood changes, and skin changes. Two women described side effects so severe or impactful they planned on never using a hormonal method again.

Almost half of women (n=9) expressed a fear or dislike of internally placed contraceptive methods. This sentiment was more commonly cited in reference to the implant. While some women expressed dislike of all internal methods, many women felt more comfortable with the placement of the IUD. Notably, no women in this study had experience with the implant whereas 5 women had experience with the IUD.

Concern regarding use of hormonal contraception was a frequently discussed topic by participants. Some reported that their hesitancy regarding hormones had existed since they started using contraception in their youth. At the time, pregnancy avoidance was such a high priority that their concern for hormones mattered less. As they got older, however, they felt empowered to select a method that was more congruent with their desire to avoid exogenous hormones. One woman said, “I've always been leery of [hormones], I just really wanted to protect myself from becoming pregnant.” (Participant #15) Other women vocalized a more recent hesitancy to use hormonal methods. For some women, this meant not using hormonal

methods at all, but for others, it meant using methods with a lower or more localized dose. Many women discussed a desire for a natural hormonal balance and were looking for methods that allowed for hormonal fluctuations, ovulation, or both.

- *Birth control that fits their lifestyle.* Like younger women, women in midlife have certain factors that they need or value more than others in their birth control. Ease of use was the most commonly cited factor to consider when evaluating birth control methods. Over half of participants expressed either a desire to use a "set it and forget it" method or discussed daily dosing as a drawback. Just over half (n=11) of women cited contraceptive efficacy as an important factor to consider. Participants were almost evenly split on whether or not they preferred to have a menses while on their birth control, with slightly more in favor of not having a period (n = 8 vs 6). When asked about who should be in control of contraception, twice as many women (n = 10 vs 5) responded that it was very important for them to be in control of their contraception than those who did not have a preference. Many expressed this feeling: "No, I don't think I'd trust anybody but myself for... Yeah, that's too big of a consequence (laughs)." (Participant #12)

When approaching birth control from a wider angle, women spoke of the necessity to find a birth control method that fits their lifestyle or their life philosophy. For some women, this meant selecting a method that fit how important it was for them to avoid pregnancy or a selecting a dosing schedule that fit with how busy they were. For other women, selecting a birth control method was a decision that should align with their worldview. One woman described her decision to stop using hormonal birth control like this: "I feel it was just more a general like, you know, I'd go and buy organic meat that doesn't have antibiotics, right? And, and so like kinda this general, like, why do I need extra stuff in my body, right?" (Participant #11)

Agency

Agency is the ability to reflect upon one's own thoughts, actions and relationships in a way that allows for continual change and a degree of autonomy.(26) While women exist within discourses, they are also able to take an active role in these discourses through agency. Agency is a way to exert power, even if in small and individual ways.(40) Agency was identified by women as a prioritization of healthy aging and the ability to use contraception in midlife.

- *Healthy aging*. Women in midlife spoke of their desire to age in as healthy a way as possible. Many voiced a renewed commitment to health and wellness, especially for those who had already felt the effects of aging on their body. Health priorities, from most to least common, included exercise, strength, and flexibility, followed by nutrition, cancer screening and prevention of chronic disease, weight loss, and sleep. While many of the women mentioned feeling younger than their age, all of the women spoke of the process of aging. Generalized aches and pain were commonly cited as symptoms of an aging body, and women prioritized staying healthy or improving upon their health. One woman said: "I'm pretty convinced that, um, as healthy as you can be at baseline, the better you're able to kind of, age, in a healthy way." (Participant #17)

Only one woman specifically mentioned dealing with symptoms of menopause as a health priority. Additionally, very few women specifically mentioned contraception as a health priority. Most women, especially those who did not desire another pregnancy, felt very strongly about the importance of contraception in their lives. One woman, who was adamant about not getting pregnant, reflected on her broader health needs in midlife, saying: "It's not about sex and having babies. It's about, like, staying healthy." (Participant #3).

- *Contracepting in midlife.* For those women not actively trying to get pregnant, there was broad agreement that contraception was important to use even in their 40s and 50s. The majority of women using a method vocalized satisfaction with that method. However, several women, even those happy with their method, discussed feeling like contraception was a stopgap measure to prevent pregnancy until menopause. Four women discussed that contraception would be important regardless of their age and that it was important not to make assumptions about fertility in midlife. Five women, however, discussed that to some degree their assumptions about their lower fertility rate in midlife played into their decision to, most frequently, use a less effective form of contraception.

Despite many decades of contraceptive use for women in midlife, only three participants vocalized some fatigue over continuing to need or use contraception. One woman, who had known since she was young that she did not want children, had been trying to get a tubal ligation since her 20s. She expressed frustration and distrust of a health care system that disregarded her needs. Another woman who vocalized fatigue with contraception was trying unsuccessfully to convince her husband to get a vasectomy. She discussed how discussion of birth control affected their relationship: “And so, at this point, I had done the pills, I had done the ring, I had done the IUD, everything. I had the babies. And so, you know, I said, "Well let the onus be on you for this." And, you know, the fact that he was willing put it back on me, and I don't know, it changed our dynamic a little bit.” (Participant #25) In both of these situations, the power of others worked to inhibit these women’s agency.

Generally, women said contraception was a tool to help them avoid pregnancy. While only three women specially mentioned that they used contraception partly to help treat unwanted perimenopausal symptoms, satisfaction with their method of contraception was very high for

these women. They expressed a desire to continue using contraception regardless of pregnancy risk because of the impact on their quality of life, which included decreased bleeding and control of hot flashes.

DISCUSSION

This study examined the reproductive health priorities, concerns, and needs of women in midlife through a feminist poststructuralist framework. Analysis of qualitative data under the tenets of discourse, power, language, subjectivity, and agency allowed for a richer and deeper understanding of reproductive health in the lives of women in midlife. While women in midlife have unique priorities with regard to their age, their bodies, and current and future health needs, in many aspects women in midlife are not unlike their younger counterparts in regards to their specific needs and concerns.

Midlife is, for many, a time to restructure priorities. This was evidenced by the duality of contraception not being given as a health priority very often even among women who spoke to the important role it plays in their lives. Preventing an undesired pregnancy, both for health and personal reasons, was still very important for many women in midlife in this study. Contraception was, if not a priority, a very important tool to achieving this goal and was viewed positively by most women. Contraceptive fatigue was rarely noted and tended to exist in instances where women were not satisfied with their method or where power imbalances existed. Often, this dissatisfaction related to unmet sterilization needs, either for themselves or their partners. Dissatisfaction regarding access to sterilization has been noted previously and should be addressed clinically and with regards to health policy.(41, 42)

In some very important ways, the priorities, concerns, and needs of women in this study were specific to their age. Generally, individuals in midlife are more likely to experience chronic

health conditions like hypertension and diabetes (43), and women in this study were no exception. Screening, preventing, or managing chronic health conditions was often viewed as more important than reproductive health. Additionally, the presence or fear of these diseases reframed their concerns about the health risks of both birth control and pregnancy. For many women, the risk of exogenous hormones was no longer an abstraction to be dealt with in the future but a risk in the present moment. Women in midlife approached reproductive health from the framework of healthy aging, as well. Women who were both trying to get pregnant and trying to avoid pregnancy discussed their desire to work towards healthy aging, whether this was an improved diet, running more, or exercise specifically targeted to retain flexibility and strength during a time of rapid muscle and bone loss.(44) For many women, an emphasis on the natural body ensured safety from unwanted side effects and possible health-related risk factors. Many women could already feel an age-related change in their bodies, so it is not surprising that a consideration of these concerns carried over into how they approached reproductive health.

Many of the findings in this study overlap with previous work done relating to reproductive health. Like the previously noted study by Godfrey et al., these results as identified ease of use, efficacy, and access as important factors when selecting a birth control method.(22) A study by Kelly et al. (2017) identified a tendency to approach contraceptive and sexual relationships from highly gendered assumptions, where women acted submissively regarding contraceptive behavior.(45) Women in this study and our own discussed how contraception can lessen sexual desire or drive. Submissive sexual behavior regarding contraception was not noted in these women in midlife, but some women reporter similarly submissive behavior when they were younger. These findings point to a potential evolution of women's beliefs and concerns with age.

A surprising finding during data analysis was the lack of overlap in the themes identified within the tenet of power. While most tenets included multiple themes with 15 or more women in agreement, the tenet of power included only one theme with more than 10 women. To this end, power may be unusual within the feminist poststructuralist framework in that it presents itself in more individualized ways within women's lives.

Another unexpected finding was the high percentage (35%) of women who were still considering a pregnancy in midlife. This finding provides real context to the data from the National Vital Statistics Reports, which identified women over 34 as the only age range with an increasing pregnancy rate. (46) As average age of marriage and first birth continue to rise, so too does age the age of the mother at her final pregnancy or birth.(47, 48) Clinically, this finding underscores the importance of continuing to evaluate for pregnancy desires and contraceptive needs in women in midlife who have not yet reached menopause. The assumption that women in midlife have completed their family is outdated, inaccurate, and inconsistent with providing patient-centered care.

This study was limited in the following ways. Despite the overall high percentage of participants who are a racial or ethnic minority, have a lower socioeconomic status, or are a sexual minority, many racial and ethnic groups were not represented in this research. Specifically, because speaking English was part of the inclusion criteria, non-English speakers, which are a significant population in this geographic area, were not able to participate. Focus on these communities and other populations, such as sexual and gender minorities, would be beneficial. Additionally, the positionality of the first author who conducted the interviews, including race, sexual orientation, experience as a provider in women's health, and other

sociodemographic factors, likely exacerbated imbalances of power, privilege, and knowledge creation among study participants.(49)

Policy Implications

While very few women identified barriers to contraception in the past, barriers that were mentioned were almost always due to insurance coverage. Increased access to insurance with coverage gaps, either through an expansion of the Affordable Care Act or through a universal, public-only option, would help ensure that women are not forced to use less effective methods such as condoms if this is not their desire. Another essential component to decreasing contraceptive barriers to women throughout their reproductive lives is the contraceptive mandate, which ensures that all birth control methods are covered at no charge.(50)

Clinical Implications

One of the most clinically relevant findings is the lack of communication and education regarding perimenopause between health care providers and women in midlife. As reviewed earlier, perimenopause is a process that can last up to ten years and manifest in overt and more subtle ways. The fact that so few women had explored this time period in detail with their health care providers is a missed opportunity. While women may need assistance managing perimenopausal symptoms, this time just prior to menopause should also be used to start discussing specific health risks related to menopause. For example, an acceleration in bone density resorption actually starts a year before the final menstrual period, equating to two full years of rapid bone loss before menopause is diagnosed.(44) With the protective effect of estrogen lost, postmenopausal women are also at increased risk for cardiovascular diseases including high blood pressure, high cholesterol, and stroke.(51) Targeted, anticipatory guidance on bone and cardiovascular health in the perimenopause can prepare women for these risks and

allow them time to start or improve upon behaviors, such as weight-bearing exercise and a heart-healthy diet, that can be beneficial after menopause. For as much as we do to prepare children and young adolescents for puberty, the lack of standardized care and education provided at the other end of the reproductive spectrum presents a stark contrast.

Conclusion

This study on the reproductive health priorities, concerns, and needs of women in midlife adds to the small body of research aimed in women in this age group. The qualitative methodology and feminist poststructuralist framework provide a fuller, more robust understanding of the issues facing women approaching menopause. Further research is necessary to explore these concepts further, including more research on safe alternatives to hormonal contraception, education on perimenopausal symptoms, and health aging. Additionally, it is essential for health care providers and members of the public to think about the assumptions made and the language used to talk about women in midlife. Like women across the lifespan, women between 40 and 55 are not a monolith. Desires regarding sex, pregnancy, partners, and birth control must not be based on age-related assumptions. More should be done to provide individualized, evidence-based care to women at all ages and stages in their life, especially those whom have historically been ignored or marginalized.

Funding: This study was paid for in part by the Stewart Dissertation Award given by the Medical University of South Carolina's School of Nursing.

References

1. Woods NF, Bachmann G. Contraception for midlife women: lack of information? Lack of interest? Lack of investment? Women's midlife health. 2017;3:7.
2. Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2018. NCHS data brief. 2019(346):1-8.
3. Li RX, Ma M, Xiao XR, Xu Y, Chen XY, Li B. Perimenopausal syndrome and mood disorders in perimenopause: prevalence, severity, relationships, and risk factors. Medicine. 2016;95(32):e4466.
4. Johnson-Mallard V, Kostas-Polston EA, Woods NF, Simmonds KE, Alexander IM, Taylor D. Unintended pregnancy: a framework for prevention and options for midlife women in the US. Women's midlife health. 2017;3:8.
5. Hoyert DL, Minino AM. Maternal Mortality in the United States: Changes in Coding, Publication, and Data Release, 2018. National Vital Statistics Report. 2020;69(2).
6. Pinheiro RL, Areia AL, Mota Pinto A, Donato H. Advanced Maternal Age: Adverse Outcomes of Pregnancy, A Meta-Analysis. Acta medica portuguesa. 2019;32(3):219-26.
7. Van Heertum K, Liu J. Contraception and conception in Mid-life: a review of the current literature. Women's midlife health. 2017;3:3.
8. Taylor D, James EA. Risks of Being Sexual in Midlife: What We Don't Know Can Hurt Us. The Female Patient. 2012;37:17-20.
9. Thomas HN, Neal-Perry GS, Hess R. Female Sexual Function at Midlife and Beyond. Obstetrics and gynecology clinics of North America. 2018;45(4):709-22.
10. de Kruif M, Spijker AT, Molendijk ML. Depression during the perimenopause: A meta-analysis. Journal of affective disorders. 2016;206:174-80.
11. McGregor C, Riordan A, Thornton J. Estrogens and the cognitive symptoms of schizophrenia: Possible neuroprotective mechanisms. Frontiers in neuroendocrinology. 2017;47:19-33.
12. Manson JE, Kaunitz AM. Menopause Management--Getting Clinical Care Back on Track. The New England journal of medicine. 2016;374(9):803-6.
13. Kling JM, MacLaughlin KL, Schnatz PF, Crandall CJ, Skinner LJ, Stuenkel CA, et al. Menopause Management Knowledge in Postgraduate Family Medicine, Internal Medicine, and Obstetrics and Gynecology Residents: A Cross-Sectional Survey. Mayo Clinic proceedings. 2019;94(2):242-53.
14. Chalouhi S. Menopause: A complex and controversial journey. Post reproductive health. 2017;23(3):128-31.
15. Hofmeier SM, Runfola CD, Sala M, Gagne DA, Brownley KA, Bulik CM. Body image, aging, and identity in women over 50: The Gender and Body Image (GABI) study. Journal of women & aging. 2017;29(1):3-14.
16. Baldwin MK, Jensen JT. Contraception during the perimenopause. Maturitas. 2013;76(3):235-42.
17. Wildemeersch D. Why perimenopausal women should consider to use a levonorgestrel intrauterine system. Gynecological endocrinology : the official journal of the International Society of Gynecological Endocrinology. 2016;32(8):659-61.
18. Long ME, Faubion SS, MacLaughlin KL, Pruthi S, Casey PM. Contraception and hormonal management in the perimenopause. Journal of women's health (2002). 2015;24(1):3-10.

19. Harlow SD, Dusendang JR, Hood MM, Woods NF. Contraceptive preferences and unmet need for contraception in midlife women: where are the data? Women's midlife health. 2017;3:6.
20. Godfrey EM, Zapata LB, Cox CM, Curtis KM, Marchbanks PA. Unintended pregnancy risk and contraceptive use among women 45-50 years old: Massachusetts, 2006, 2008, and 2010. American journal of obstetrics and gynecology. 2016;214(6):712.e1-8.
21. Cumming GP, Cochrane R, Currie HD, Moncur R, Lee AJ. Web-based survey 'Contraception and attitudes to sexual behaviour' completed by women accessing a UK menopause website. Menopause international. 2012;18(3):106-9.
22. Godfrey EM, Chin NP, Fielding SL, Fiscella K, Dozier A. Contraceptive methods and use by women aged 35 and over: A qualitative study of perspectives. BMC women's health. 2011;11:5.
23. Polit D, Beck CT. Nursing research: Generating and assessing evidence for nursing practice. . 9th ed. Philadephia, PA: Lippincott Williams & Wilkins; 2012.
24. Im EO. Practical guidelines for feminist research in nursing. ANS Advances in nursing science. 2013;36(2):133-45.
25. Im EO. A feminist approach to research on menopausal symptom experience. Fam Community Health. 2007;30(1 Suppl):S15-23.
26. Aston M. Teaching feminist poststructuralism: Founding scholars still relevant today. Creative Education. 2016;7(15):2251-67.
27. Foucault M. Polemics, politics and problematizations In: Rabinow P, editor. 1984.
28. Dreyfus HL, Rabinow P. Michel Foucault: Beyond Structuralism and Hermeneutics. 2nd ed. Chicago, IL: The University of Chicago Press 1983.
29. Allen A. Feminist Perspectives on Power. In: Zalta EN, editor. The Stanford Encyclopedia of Philosophy. Stanford, CA: Metaphysics Research Lab; 2016.
30. Moser A, Korstjens I. Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. The European journal of general practice. 2018;24(1):9-18.
31. Sandelowski M. Sample size in qualitative research. Res Nurs Health. 1995;18(2):179-83.
32. Willis DG, Sullivan-Bolyai S, Knafl K, Cohen MZ. Distinguishing Features and Similarities Between Descriptive Phenomenological and Qualitative Description Research. Western journal of nursing research. 2016;38(9):1185-204.
33. Colorafi KJ, Evans B. Qualitative Descriptive Methods in Health Science Research. Herd. 2016;9(4):16-25.
34. Hesse-Biber SN. The Handbook of Feminist Research: Theory and Praxis. 2nd ed. Thousand Oaks, CA: SAGE Publications, INC; 2012.
35. Sandelowski M. Whatever happened to qualitative description? Research in nursing & health. 2000;23(4):334-40.
36. Weedon C. Feminist practice and poststructuralist theory. 2nd ed. Hoboken, NJ: Blackwell Publishing; 1987.
37. Scott JW. Deconstructing equality-versus-difference: Or, the uses of poststructuralist theory for feminism. Feminist Studies. 1988;14(1):33-50.
38. Doering L. Power and knowledge in nursing: a feminist poststructuralist view. ANS Advances in nursing science. 1992;14(4):24-33.
39. Heyes CJ. Subjectivity and power. In: Taylor D, editor. Michel Foucault: Key Concepts: Acumen Publishing; 2010. p. 159-72.
40. Foucault M. The Subject and Power. Critical Inquiry. 1982;8(4):777-95.

41. Potter JE, Perpetuo IH, Berquo E, Hopkins K, Leal OF, de Carvalho Formiga MC, et al. Frustrated demand for postpartum female sterilization in Brazil. Contraception. 2003;67(5):385-90.
42. Potter JE, White K, Hopkins K, McKinnon S, Shedlin MG, Amastae J, et al. Frustrated demand for sterilization among low-income Latinas in El Paso, Texas. Perspectives on sexual and reproductive health. 2012;44(4):228-35.
43. Gubbels Bupp MR. Sex, the aging immune system, and chronic disease. Cellular immunology. 2015;294(2):102-10.
44. Karlamangla AS, Burnett-Bowie SM, Crandall CJ. Bone Health During the Menopause Transition and Beyond. Obstetrics and gynecology clinics of North America. 2018;45(4):695-708.
45. Kelly M, Inoue K, Barratt A, Bateson D, Rutherford A, Richters J. Performing (heterosexual) femininity: female agency and role in sexual life and contraceptive use - a qualitative study in Australia. Culture, health & sexuality. 2017;19(2):240-55.
46. Martin JA, Hamilton BE, Osterman MJK, Driscoll AK, Drake P. Births: Final Data for 2017. National vital statistics reports : from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. 2018;67(8):1-50.
47. Mathews TJ, Hamilton BE. Mean age of mothers is on the rise: United States, 2000–2014. National Center for Health Statistics Sata Brief. 2016;232.
48. U.S. Census Bureau Releases 2018 Families and Living Arrangements Tables [press release]. U.S. Census Bureau2018.
49. Muhammad M, Wallerstein N, Sussman AL, Avila M, Belone L, Duran B. Reflections on Researcher Identity and Power: The Impact of Positionality on Community Based Participatory Research (CBPR) Processes and Outcomes. Critical Sociology. 2014;41(7-8):1045-63.
50. Becker NV. The Impact of Insurance Coverage on Utilization of Prescription Contraceptives: Evidence from the Affordable Care Act. Journal of policy analysis and management : [the journal of the Association for Public Policy Analysis and Management]. 2018;37(3):571-601.
51. Collins P, Webb CM, de Villiers TJ, Stevenson JC, Panay N, Baber RJ. Cardiovascular risk assessment in women - an update. Climacteric : the journal of the International Menopause Society. 2016;19(4):329-36.

Table 1. Demographic Characteristic of Interview Participants (N=20)

	Frequency	Percentage
Age, y		
Range	40 – 55	
Mean	45.05	
Median	45	
Gender		
Female	20	100
Transfemale/transwoman	0	0
Race*		
White	12	60
Black or African American	8	40
Native American or American Indian	0	0
Asian/Pacific Islander	0	0
Other	1	5
Ethnicity		
Hispanic/Latinx	0	0
Non-Hispanic/Latinx	20	100
Sexual Orientation		
Heterosexual or straight	18	90
Gay or lesbian	1	5
Bisexual	1	5
Pansexual	0	0
Household Income		
Less than $10,000	3	15
$10,001 – $24,999	4	20
$25,000 – $34,999	2	10
$35,000 – $49,999	1	5
$50,000 – $74,999	1	5
$75,000 – $99,999	3	15
More than or equal to $100,000	6	30
Marital Status		
Single	10	50
Married	8	40
Widowed	0	0
Divorced or Separated	1	5
Prefer not to say	1	5
Education		
High school diploma or GED	1	5
Some college, no degree	4	20
Trade, technical, or vocational training	1	5
Associates degree	0	0
Bachelor's degree	2	10
Master's degree or higher	12	60

Religion		
Catholic	2	10
Protestant	1	5
Non-denominational Christian	7	35
Jewish	1	5
Muslim	0	0
Agnostic	1	5
Atheist	0	0
Other	5	25
None	3	15

*Participants able to select more than one option

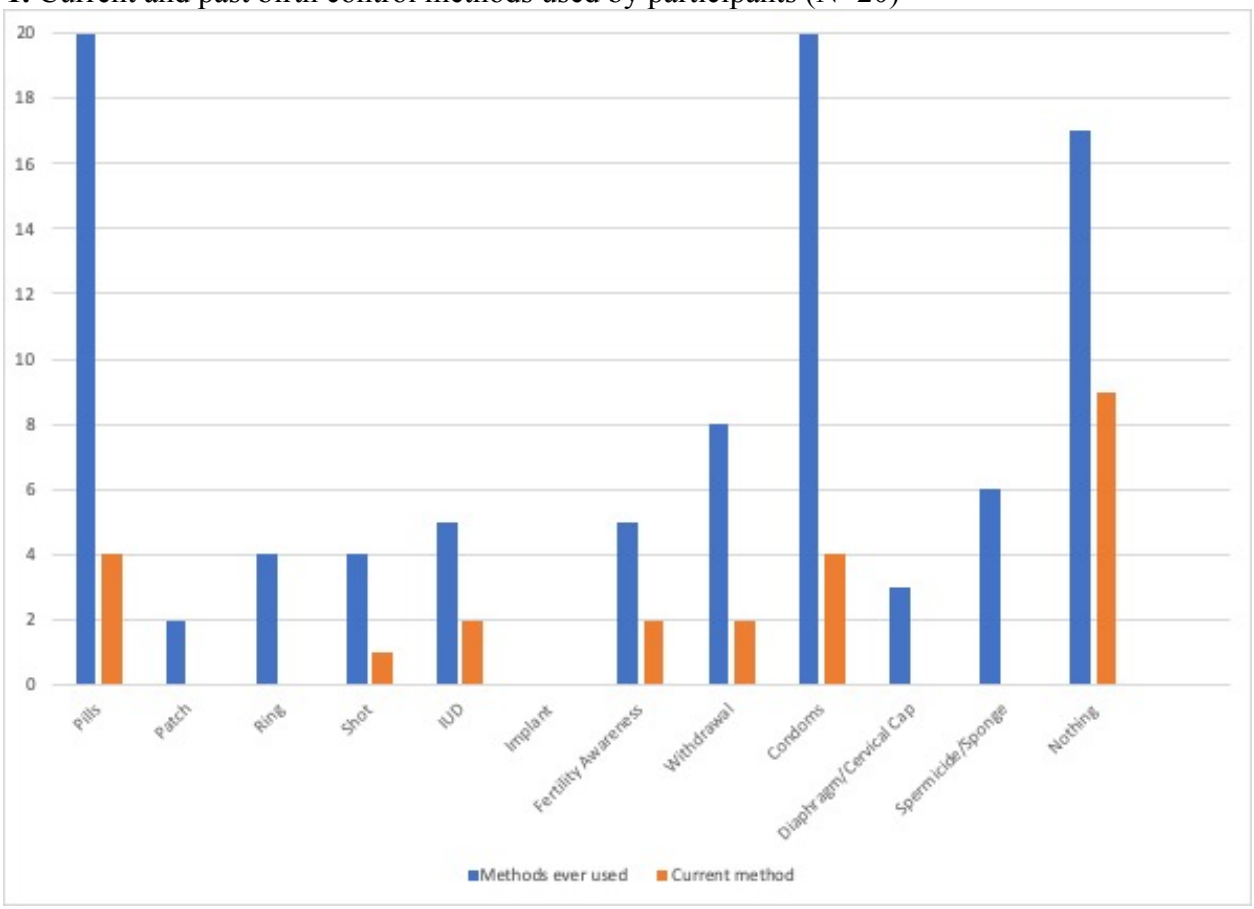
Table 2. Reported Sexual Activity of Interview Participants

	Frequency	**Percentage**
Do you consider yourself sexually active?		
Yes	15	75
No	5	25
Have you been sexually active in the past two months?		
Yes	15	75
No	5	25
Currently, with whom are you sexually active?		
Men	18	90
Women	2	10
Both	0	0
Currently, how many people are you sexually active with?		
0	5	25
1	13	65
2	1	5
More than 2	1	5

Table 3. Results categorized within each relevant feminist poststructuralist tenet

DISCOURSE	**POWER**	**LANGUAGE**	**SUBJECTIVITY**	**AGENCY**
Family formation *Priority*	Sexually transmitted infections *Concern*	Communications with health care provider *Need*	How birth control interacts with the body *Concern*	Healthy aging *Priority*
The natural body *Priority*	Barriers to contraception *Concern*	Dialogue around aging, menopause *Concern*	Birth control that meets their lifestyle *Need*	Contracepting in midlife *Need*

Figure 1. Current and past birth control methods used by participants (N=20)



MANUSCRIPT 3

"Since I'm a little bit more mature": Contraception and the Arc of Time

Precis: Exploring contraceptive experiences over then length of one's life is a powerful way to a gain deeper understanding of the contraceptive beliefs, perceptions, and attitudes of women in midlife.

Abstract

Introduction: Birth control methods have rapidly evolved over the past several decades, but little research has explored how women interact with contraception over time. Exploring contraceptive beliefs, perceptions, and attitudes of women in midlife can reveal much about how lived experience affects contraceptive decisions and reproductive health choices.

Methods: Individual, semi-structured interviews were conducted with 20 women between the ages of 40 and 55 who had not reached menopause and did not have a permanent method of sterilization. Data were coded using qualitative descriptive methods.

Results: Four major themes were identified: 1) pivotal early experiences; 2) changing versus continuing methods over the decades; 3) evolution in contraceptive behaviors, beliefs and priorities over time; and 4) contracepting as menopause approaches. Past experiences with or fear of side effects and hormones were common reasons to change or avoid certain birth control methods. Most participants were happy with their contraceptive method; however, those who were unhappy were more likely to vocalize fatigue at continuing to need contraception as menopause approached.

Discussion: There is no single ideal method for women in midlife. Approaching contraceptive counseling from a place that considers the journey with contraception over a reproductive life span will help identify how beliefs, perceptions, and attitudes of women affect their contraceptive practices and choices.

Keywords: contraception, middle aged, contraception behavior, reproductive health, menopause, qualitative research

Quickpoints

- Women in midlife may be more likely to be conscientious of contraception side effects and the safety of hormones, leading them to select hormone-free or lower dose methods.
- Early reproductive health experiences are often easily recalled even in midlife, especially if they involve barriers to contraception or poor treatment by health care providers or family members.
- Individual factors, such as desiring a pregnancy, changes in sexual partners, and changes in sexual frequency, are important to consider in women in midlife.

INTRODUCTION

The field of contraception has undergone a remarkable evolution in the past several decades. So remarkable, in fact, that the Centers for Disease Control and Prevention named family planning one of the success stories of public health in the 20th century.[1] With new contraceptive methods coming to the market every year, it is easy to forget a time not so long ago when contraceptive options were not as plentiful.

Women nearing menopause have seen this evolution take place throughout their reproductive years. A woman currently in her mid-fifties likely started her journey with contraception in the early-to-mid 1980s, when the only options available were pills and male condoms. The fallout from the immense harm caused by Dalkon Shield in the early 1970s was still very much on people's minds, made worse by the fact that the parent company, A.H. Robins, did not officially recall the device until 1984.[2] By 1988, however, the Paragard nonhormonal intrauterine device (IUD) was released, providing a highly effective method that did not require the use of exogenous hormones. The beginning of the 1990s saw the introduction of the first implantable contraceptive device, depo-provera, a novel injectable contraceptive method, and the release of a female condom. By end of that same decade, emergency contraception in the form of the morning-after pill became more widely available.[3]

The start of the 21st century was a time of rapid innovation and increasing options that are still going on today. The first decade of the new century gave rise to the first levonorgestrel-releasing IUD, a contraceptive patch, vaginal ring, and a single-rod implant. The next decade saw a plethora of new levonorgestrel-releasing IUDs, an updated implant, an extended-use vaginal ring, and the continued evolution of contraceptive pills in both type of hormone and dosing level.[3]

When considering these new and novel methods, it is essential to look past the technological innovation and examine how these methods are seen by the women for whom they were created. Are women trying newer methods, or do they continue largely unaffected by such advances? How do past experiences, both positive and negative, influence current contraceptive decision-making? The most recent data collected from 2006-2010 indicate that women aged 15-44 use an average of 3.1 contraceptive methods during their lives.[4] These data suggest that many women will only use a small number of the many family planning methods available.

To date, only a few studies have evaluated women's perceptions and experiences with contraception over time. Downey et al. explored the contraception decision-making journey of young women who were black and Latina through qualitative interviews. From these interviews, the researchers identified an iterative, relational, and reflective process in which young women made contraceptive decisions.[5] Another study explored the contraceptive journey of women age 16-50 quantitatively, evaluating methods used, reasons for changing a method, and interactions with healthcare providers.[6] To our knowledge, the current study is the first to address the contraceptive journey from the perspective of women in midlife, between the ages of 40 to 55, who arguably have the most experience but are rarely included in contraceptive research.[7] Consequently, little is known about the reproductive journeys of women in midlife, who have potentially been using contraception for three or more decades.[8]

There is currently much debate among family planning practitioners and researchers regarding how to make birth control methods and counseling more patient-centric.[9, 10] Efforts to move past tiered contraceptive counseling, based on method effectiveness alone, is losing favor as reproductive justice becomes the default framework.[11, 12] Included in this effort is considering the lived, personal experience of the individual as equally important if not superior to the evidence-based, scientific knowledge.[5, 13] Part of the process that is necessary to elucidate these perspectives involves feminist and intersectional qualitative research.[14] To this effect, the present qualitative analysis explores the following questions: How do women in midlife view their contraceptive journey? How have past experiences and relationships shaped their current beliefs, perceptions, and attitudes about contraception? What can be learned from women in midlife that may help enhance personal autonomy and emphasize lived experience in family planning?

METHODS

Sample. Participants were recruited throughout the Research Triangle area of North Carolina, a mid-sized urban community compromised of several smaller cities. Information about the study and pertinent contact information was included on flyers placed at women's health clinics and public venues that reach a wide variety of women such as libraries, grocery stores, and coffee shops. Recruitment also occurred through snowball sampling: study participants were also encouraged to tell friends or family who may be interested about the study.[15] While there was no a priori number of participants we were seeking to recruit, per qualitative traditions we sought to recruit until we reached data saturation.[16]

The following criteria guided participant recruitment: identifying as a woman, being between the ages of 40 and 55, speaking English, and having not yet reached menopause. Exclusion criteria included having a permanent method of sterilization or having a partner with a permanent method of sterilization. Approval was sought from the Medical University of South Carolina's Institution Review Board (IRB), and the study was deemed exempt from Human Subjects Research Regulations.

Data Collection. Interested participants telephoned the PI for prescreening eligibility or filled out a secure online survey through REDCap. Those who screened eligible were contacted to set up an interview time and location. Interviews were face-to-face, individual, semi-structured, and in-depth. An interview guide steered the discussion and covered topics such as contraception, pregnancy planning, and the approach of menopause. The guide was minimally revised during data collection based on early interviews.

The interviews occurred between September and December of 2019. Interviews took place at locations selected by the participants to ensure ease of access and optimum comfort level. Most often, interviews occurred at coffee shops, fast food restaurants, and public libraries. Each participant was interviewed a single time. Interviews lasted between 35-55 minutes and were audio-recorded with a handheld device and then transcribed verbatim. Participant verbal consent was obtained by the interviewer at the time of the interview.

Data Analysis. The study was conducted within a qualitative descriptive approach. The goal of qualitative description is to describe an individual's experience in that individual's own words at a manifest level.[17] Qualitative descriptive methodology is based on the overarching principles of naturalistic inquiry, meaning that people are observed and interpreted within the social and cultural context of their lives.[18] First and second-level qualitative coding was initiated by the first author consistent with qualitative descriptive methodology.[19] Four overarching themes were identified based on thorough review of the first and second-level codes and all second-level codes were organized under the relevant theme.

The fourth author reviewed all first-level coding for the first 10 interviews and the second-level coding for every other interview. Additionally, the second and third authors reviewed all coding on a quarter of the interviews and provided input to the final coding matrix and themes. Areas of disagreement were discussed and consensus was obtained among all authors. Interviews were coded in Microsoft Word and demographic data were analyzed in

Microsoft Excel. Trustworthiness was enhanced through 1) prolonged engagement with the transcripts, 2) creation of an audit trail, 3) use of reflexive journaling by the interviewer, and 4) member checking with 9 participants. Member checking both assisted in confirming themes and also provided further clarification about participants interpretation and understanding.

RESULTS

Of the 32 women who completed prescreening eligibility, 22 participants met all the inclusion criteria. Of these 22 women, 20 completed the study and 2 were unable to be scheduled for interviews due to scheduling conflicts or being lost to follow-up. Participant recruitment continued until data saturation was reached and no new themes were identified. Table 1 shows the participants' demographic information in greater detail. Figure 1 presents the contraceptive methods used in the past and current method of the participants. Table 2 presents information regarding the sexual behavior of the participants.

Four major themes were identified: Pivotal early experiences; changing versus continuing methods over the decades; evolution in contraceptive behaviors, beliefs and priorities over time; and contracepting as menopause approaches. Subthemes are presented in order of most to least prevalent.

Pivotal early experiences

Male condoms and combined oral contraception as first methods. Without exception, male condoms and combined contraceptive pills comprised the first methods for the participants. Many, especially those in older midlife, noted that there simply were not many choices regarding contraception options when they first initiated a method. They saw their options as pills, male condoms, or the sponge. While more uncommon in the current landscape, many midlife women had experiences with the contraceptive sponge when they were younger. For these women, this method was appealing because of its over-the-counter availability but generally had not been well liked in terms of ineffectiveness and difficulty of use.

Younger midlife women who may have known about other options perceived these methods as requiring extra work to access. One woman discussed what she considered a possible barrier to contraception when she was in college:

> *...I felt like condoms were being tossed around or at health facilities, like being thrown around at like, concerts, wherever. Easy access to that, but and... pills, maybe easily but I think beyond that it didn't seem like there was access, easy access to, to much more. And,*

and I had a perception. I don't know if it's true that you really had to, like, explain a lot more and be a lot more, kind of, um, confident, almost, to get other options and to ask for those. (Participant #1)

Contraception to treat a medical condition. Numerous women reported initiating a combined contraceptive pill in part to treat a medical condition during their teens and early twenties. Medical conditions such as polycystic ovarian syndrome, acne, and dysmenorrhea were cited by participants as conditions that improved with the addition of combined hormonal pills. Two of the women who were started on pills to treat a medical condition were still using pills as their primary method of contraception at the time of the interview, equating to over 30 years of use: "Well I got on the pill when I was a teenager because I had terrible cramps- And I basically just stuck with it for the rest of my life (laughing). I guess that's kind of boring but- It was working fine so." (Participant #8).

Difficult reproductive experiences. Over half of the women interviewed reported a difficult reproductive health scenario when they were young and newly sexually active. During their first few years of sexual activity, women in this study reported adolescent pregnancy, abortion, and risky sexual behavior. Some women also reported difficulty obtaining the contraceptive method of their choice, due to family members preventing access or because of problems with insurance.

The role of mothers. Mothers, or mother-figures, played a large role in how women talked about reproductive and sexual health in their youth. More commonly, women reported difficult relationships with their mothers. This difficulty manifested in numerous ways, from mothers who refused to talk about sexual activity or birth control with their adolescent children to mothers who simply tossed contraceptive pills across the dinner table at their daughters without further discussion. Several women reported approaching their mothers for help in obtaining contraception only to find that help denied. One woman discussed a conversation that did not feel age-appropriate to her:

Well, when I got my period, I was 12, she told me I could get pregnant. And, um, I was still playing with Barbie dolls and, um, sex was not something that was on my mind. For a very long time, even after that conversation. So I was very confused. So she's not a person that I would really go to about anything sexual whatsoever. (Participant #20)

On the other end of the spectrum, one woman spoke about her mother demanding she receive birth control at a local Planned Parenthood after being denied access by their government insurance. Another woman recalled that she and her friends were able to ask her mother, a nurse, questions about sexual and reproductive health in the days before widespread internet access.

Additionally, women who had adolescent or young adult children prioritized talking to their children about birth control and in many cases helped them select or procure their desired method. Women who had negative experiences with their own mothers intentionally tried to create open and accessible dialogue with their own children. They expressed a desire for the kind of communication and respect that they did not receive themselves at that age.

Changing versus continuing methods over the decades

Continuing the same method. Many women reported using fewer than 4 methods during their lifetime. Notably, half of the women in this study had not used a hormonal method other than the pill. Many of the women who had continued with the same method for decades reported no problems with side effects and general ease of use that kept them from needing to change methods. One woman said: "I guess I just, I was old-fashioned. I knew what I wanted and I just went and got it. And it worked, so I guess I never reopened that box." (Participant #2) A smaller number of women currently using a barrier or non-hormonal method reported previous side effects of hormonal birth control that made them wary of all hormonal methods.

Changing methods over the years. Among women who had used more than 4 methods during their life, many discussed changing over the years to find a method that better aligned with their lifestyle. For several women, this meant gradually shifting toward methods with smaller doses of hormones. For others, it meant exploring nondaily dosing options or switching to a coitus-dependent method if they were not frequently sexually active. While the majority of women made these decisions on their own, a few women specifically mentioned the role of their health care provider in prompting them to explore another option. Generally, these suggestions were met positively, as long as the women felt the guidance was individualized to their specific situation in life. Suggestions from the health care provider to change a method in the absence of an identified problem, however, were met with suspicion and distrust by women in this study.

Evolution in contraceptive behaviors, beliefs, and priorities over time

Hesitancy with hormonal contraception. Concern regarding use of hormonal contraception was a frequently discussed topic by participants. Some reported their hesitancy regarding hormones had existed since they started using contraception in their youth. Avoiding pregnancy was so important to these women when they were younger that they ignored their own hesitancy. As they got older, however, they felt empowered to select a method that was more congruent with their desire to avoid exogenous hormones. One woman said, "I've always been leery of [hormones], I just really wanted to protect myself from becoming pregnant." (Participant #15) In a few instances, use of non-hormonal methods was made easier by an increase in their knowledge about their own reproductive physiology, which helped them to feel more confident using fertility awareness or a barrier method. So while beliefs regarding hormones did not change, the ability to act on them did.

Other women vocalized a more recent hesitancy to use hormonal methods. For some women, this meant not using hormonal methods at all, but for others, it meant using methods with a lower or more localized dose. Many women expressed a desire to have more bodily awareness or a natural hormonal balance and were looking for methods that allowed for hormonal fluctuations, ovulation, or both. One woman who had used contraceptive pills for many years expressed concern about the length of time she had been using hormonal contraception:

> *Um, when I was younger I used the pill, I was not worried about hormones when I was younger. Like, I knew there was risks to it, but when I was young I was like "eh, whatever, this is the easiest and the best way to do it, and I'm just gonna do it." And then as I've gotten older I've thought "You know what? I don't think I should really be on the pill nonstop for twenty, thirty years." So, the thought of like, what something is doing to my body has gotten more pronounced as I've gotten older. I care more about what it's doing to me.* (Participant #3)

Experiences with side effects or perceived risks. Although some women, especially those who had been using the same methods for several decades, reported no problems with side effects, many women had experienced side effects that influenced their perceptions of the safety and ease of use of contraception. For two women, a family history of breast cancer affected their perceptions regarding the safety of hormonal birth control, especially regarding a method containing estrogen and their ages. Others had experienced a decrease in their sex drive, an

exacerbation of fibroids, and/or fatigue that they attributed to their hormonal contraception since the fatigue improved when they stopped using that particular method. A small number of women said that side effects they experienced, even if those side effects happened several decades in the past, would likely deter them from using a hormonal method again.

Changes in sexual behavior or frequency over time. Several women noted sexual practices that made them feel less at risk for pregnancy in midlife. Two women in the study have had female partners for the last few years, so these participants shared that they did not feel the need to use contraception in the same way they did when they had male sexual partners. Others expressed that sex was not as much of a priority at this time in their life, usually due to the demands of caring for children and working. For these women, using a less effective method such as condoms or fertility awareness made sense. One woman summed up her decision: "I guess we just kinda decided that like, you know, between not having sex a lot, using one of these temporary methods or like in the moment methods, it was good enough" (Participant #11).

More empowered in addressing contraceptive needs. Many women described an increase in their comfort level when discussing their contraceptive needs with their partner or partners compared to when they were younger. For some women, this meant not using a method with which they felt uncomfortable. For others, it meant sharing the task of contraception with the partner, such as by using male condoms, instead of feeling the need to take care of it all by themselves.

Several women specifically mentioned that they felt much more comfortable insisting on condom use from their partners now than when they were younger. One woman discussed how she ensured safety against STIs: "Condoms and plus, now since I'm a little bit more mature, you're gonna go take a test for whatever disease before I even think about having sex with you" (Participant #31). Women who specifically mentioned that condoms were currently non-negotiable with new partners were often the same women who had talked about their own sexual risk-taking when not using protection in their youth.

Contracepting as menopause approaches

Interest in other methods. Although most of the women interviewed were satisfied with their birth control method, some of these women vocalized interest in other methods. Primarily, women discussed that they would use the IUDs, especially the levonorgestrel device, if they were younger. Some had used the method before and liked it but felt that there would not be

enough time left before menopause to use it to justify the hassle of getting an appointment to have it placed.

Continuing to explore the possibility of pregnancy. While most of the women reported no plans for pregnancy in midlife, a quarter of participants were actively trying to get pregnant or seriously considering a pregnancy in the future. Women actively trying to get pregnant expressed some concern about the likelihood of pregnancy given their age but felt hopeful and excited at the prospect of a becoming a mother in midlife. The women considering another pregnancy all reported valuing the ability to stop a method quickly and easily while wanting that method to allow a quick return to fertility.

Birth control dissatisfaction and fatigue. A small number of women reported dissatisfaction with their current method; their current method felt like a stopgap measure that would see them through to menopause. Women who were unhappy with their current method of contraception were more likely than women who were satisfied with their method to report feeling fatigued with continuing to deal with contraception in midlife. One woman expressed the following: *"*Me and birth control are ready to break up… I'd say it was a newness in my 20s, and a steady relationship, you know, in my 30s, but it's kind of time to have that conversation to end things" (Participant #25). Interestingly, all of the women who reported dissatisfaction with their contraceptive method felt that it was very important to use a method until reaching menopause.

DISCUSSION

This study explored the ways in which the arc of time influenced the contraceptive beliefs, preferences, and attitudes of women in midlife. From reviewing extant literature, it appears that this research is the first of its kind to qualitatively address the contraceptive journeys of women in midlife. Exploring contraception as a journey over time allows for the inclusion of women's lived experiences, providing space and consideration for specific fears and concerns while treating the personal as more important than the scientific. Women in midlife, like women across the lifespan, make contraceptive decisions based on numerous individual factors. Pregnancy prevention and method effectiveness, once gold standards in family planning research and development, may or may not be strongly considered at all times by all individuals.[13, 20] For women in this study, contraception in midlife was dependent on pivotal first experiences, positive and negative experiences with methods over their lifetime, their own beliefs and preferences, and how and if they were considering the approach of menopause.

First experiences with seeking contraception are important life events that are often remembered long after they occur. At a clinical and policy level, it is essential to ensure that women have access to affordable or no-cost contraception at any age. Over-the-counter contraception or ensuring parent consent is not required for any family planning service including abortion, and more targeted education in schools can help address this from the policy level.[21-23] There also needs to be a concerted effort to ensure that parents have the right information and training to know how and when to talk to their children about sex and contraception. Evidence-based educational efforts are necessary to ensure parents have the tools necessary to fulfill this important function for their children.[24, 25]

Eight women in the present study expressed hesitation at the use of exogenous hormones for contraception. Women were split between those who had felt this way their entire adult life and those who had become more wary with age, because of an experience with side effects or a concern over specific medical conditions. While the use of hormonal contraception, especially the levonorgestrel-releasing IUD, has been touted as an excellent choice for midlife women[26], these findings suggest that further research is needed on how nonhormonal methods may best be used during midlife by women who wish to avoid exogenous hormones. These findings mirror the results of a small number of US-based studies focused on adolescent and young women, all of which pointed to a hesitancy regarding hormones that is not often discussed clinically.[27, 28] Contradictory results about the safety and risks of hormone replacement therapy (HRT) from the Women's Health Initiative study further compound this hesitancy, especially for women in midlife.[29] Further exploration of fear and mistrust of hormonal contraception, exogenous hormones, and hormone replacement therapy, specifically in the US, is needed.

Another clinically relevant finding was that many women vocalized interest in a different method but felt that it was too late because of the amount of time remaining before menopause. Many of the women who expressed this concern were specifically referring to the levonorgestrel-releasing IUD, which, at least theoretically, may decrease potentially bothersome perimenopausal symptoms such as hot flashes.[26, 30] Women reach menopause on average at the age of 51, meaning that many of the women who vocalized interest in an IUD would likely have received many years of highly effective pregnancy prevention and perhaps even a reduction in perimenopausal symptomology.[31] Clinical guidelines encourage continuation of contraception

until age 55, so clinicians should address the potential benefits to any woman who expresses interest in a different method even at an older age.

This study was limited in the following ways: Despite the overall high percentage of participants who are a racial or ethnic minority, have a lower socioeconomic status, or are a sexual minority, many racial and ethnic groups were not represented in this research. Specifically, because speaking English was part of the inclusion criteria, non-English speakers, which are a significant population in this geographic area, were not able to participate. Focus on these communities and other populations, such as gender minorities, would be beneficial.

If the past two decades are any indication, contraception will continue to evolve to include new devices, delivery systems, and hormonal formulations. By examining the women in midlife who have been privy to the changes during their own lifetime, there is much to gain in terms of understanding contraceptive beliefs, priorities, and attitudes. The ability to access, use, and control contraception when it is desired is a hallmark of reproductive autonomy across the lifespan.[13]

Funding: This study was paid for in part by the Stewart Dissertation Award given by the Medical University of South Carolina's School of Nursing.

References

1. Ten Great Public Health Achievements -- United States, 1900-1999. MMWR Weekly 1999;48(12):241-3.
2. Cox ML. The Dalkon Shield saga. The journal of family planning and reproductive health care 2003;29(1):8.
3. Thompson KMJ. A brief history of birth control in the US. 2013. Available from: https://www.ourbodiesourselves.org/book-excerpts/health-article/a-brief-history-of-birth-control/ [Accessed Jan 13, 2020.
4. Daniels K, Mosher W. Contraceptive methods women have ever used: United States, 1982-2010. Natl Health Stat Report 2013(62):1-15.
5. Downey MM, Arteaga S, Villasenor E, Gomez AM. More Than a Destination: Contraceptive Decision Making as a Journey. Women's health issues : official publication of the Jacobs Institute of Women's Health 2017;27(5):539-45.
6. Nelson AL, Cohen S, Galitsky A, Hathaway M, Kappus D, Kerolous M, et al. Women's perceptions and treatment patterns related to contraception: results of a survey of US women. (1879-0518 (Electronic)).
7. Woods NF, Bachmann G. Contraception for midlife women: lack of information? Lack of interest? Lack of investment? Women's midlife health 2017;3:7.
8. Alspaugh A, Barroso J, Reibel M, Phillips S. Women's Contraceptive Perceptions, Beliefs, and Attitudes: An Integrative Review of Qualitative Research. Journal of midwifery & women's health 2019.
9. Foster DG. Unmet need for abortion and woman-centered contraceptive care. Lancet (London, England) 2016;388(10041):216-7.
10. Dehlendorf C, Reed R, Fox E, Seidman D, Hall C, Steinauer J. Ensuring our research reflects our values: The role of family planning research in advancing reproductive autonomy. Contraception 2018;98(1):4-7.
11. Brandi K, Fuentes L. The History of Tiered-Effectiveness Contraceptive Counseling and its Effects on Patient-Centered Family Planning Care. American journal of obstetrics and gynecology 2019.
12. Higgins JA. Celebration meets caution: LARC's boons, potential busts, and the benefits of a reproductive justice approach. Contraception 2014;89(4):237-41.
13. Potter JE, Stevenson AJ, Coleman-Minahan K, Hopkins K, White K, Baum SE, et al. Challenging unintended pregnancy as an indicator of reproductive autonomy. Contraception 2019;100(1):1-4.
14. Im EO. Practical guidelines for feminist research in nursing. ANS Advances in nursing science 2013;36(2):133-45.
15. Moser A, Korstjens I. Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. The European journal of general practice 2018;24(1):9-18.
16. Sandelowski M. Sample size in qualitative research. Res Nurs Health 1995;18(2):179-83.
17. Willis DG, Sullivan-Bolyai S, Knafl K, Cohen MZ. Distinguishing Features and Similarities Between Descriptive Phenomenological and Qualitative Description Research. West J Nurs Res 2016;38(9):1185-204.
18. Colorafi KJ, Evans B. Qualitative Descriptive Methods in Health Science Research. Herd 2016;9(4):16-25.
19. Sandelowski M. Whatever happened to qualitative description? Research in nursing & health 2000;23(4):334-40.

20. Callegari LS, Aiken AR, Dehlendorf C, Cason P, Borrero S. Addressing potential pitfalls of reproductive life planning with patient-centered counseling. American journal of obstetrics and gynecology 2017;216(2):129-34.
21. Fuentes L, Ingerick M, Jones R, Lindberg L. Adolescents' and Young Adults' Reports of Barriers to Confidential Health Care and Receipt of Contraceptive Services. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 2018;62(1):36-43.
22. Lopez LM, Bernholc A, Chen M, Tolley EE. School-based interventions for improving contraceptive use in adolescents. The Cochrane database of systematic reviews 2016(6):Cd012249.
23. Wilkinson TA, Miller C, Rafie S, Landau SC, Rafie S. Older teen attitudes toward birth control access in pharmacies: a qualitative study. Contraception 2018;97(3):249-55.
24. Santa Maria D, Markham C, Bluethmann S, Mullen PD. Parent-based adolescent sexual health interventions and effect on communication outcomes: a systematic review and meta-analyses. Perspectives on sexual and reproductive health 2015;47(1):37-50.
25. Ford CA, Mirman JH, Garcia-Espana JF, Fisher Thiel MC, Friedrich E, Salek EC, et al. Effect of Primary Care Parent-Targeted Interventions on Parent-Adolescent Communication About Sexual Behavior and Alcohol Use: A Randomized Clinical Trial. JAMA network open 2019;2(8):e199535.
26. Wildemeersch D. Why perimenopausal women should consider to use a levonorgestrel intrauterine system. Gynecological endocrinology : the official journal of the International Society of Gynecological Endocrinology 2016;32(8):659-61.
27. Coombe J, Harris ML, Loxton D. Motivators of contraceptive method change and implications for long-acting reversible contraception (non-)use: A qualitative free-text analysis. Sexual & reproductive healthcare : official journal of the Swedish Association of Midwives 2019;19:71-7.
28. Chernick LS, Schnall R, Higgins T, Stockwell MS, Castano PM, Santelli J, et al. Barriers to and enablers of contraceptive use among adolescent females and their interest in an emergency department based intervention. Contraception 2015;91(3):217-25.
29. Langer RD. The evidence base for HRT: what can we believe? Climacteric 2017;20(2):91-6.
30. Miller TA, Allen RH, Kaunitz AM, Cwiak CA. Contraception for midlife women: a review. Menopause (New York, NY) 2018;25(7):817-27.
31. ACOG Practice Bulletin No. 141: management of menopausal symptoms. Obstetrics and gynecology 2014;123(1):202-16.

Table 1. Demographic Characteristic of 20 Interview Participants

	Frequency	Percentage
Age, y		
Range	40 – 55	
Mean	45.05	
Median	45	
Gender		
Female	20	100
Transfemale/transwoman	0	0
Race*		
White	12	60
Black or African American	8	40
Native American or American Indian	0	0
Asian/Pacific Islander	0	0
Other	1	5
Ethnicity		
Hispanic/Latinx	0	0
Non-Hispanic/Latinx	20	100
Sexual Orientation		
Heterosexual or straight	18	90
Gay or lesbian	1	5
Bisexual	1	5
Pansexual	0	0
Household Income		
Less than $10,000	3	15
$10,001 – $24,999	4	20
$25,000 – $34,999	2	10
$35,000 – $49,999	1	5
$50,000 – $74,999	1	5
$75,000 – $99,999	3	15
More than or equal to $100,000	6	30
Marital Status		
Single	10	50
Married	8	40
Widowed	0	0
Divorced or Separated	1	5
Prefer not to say	1	5
Education		
High school diploma or GED	1	5
Some college, no degree	4	20
Trade, technical, or vocational training	1	5
Associates degree	0	0
Bachelor's degree	2	10
Master's degree or higher	12	60
Religion		

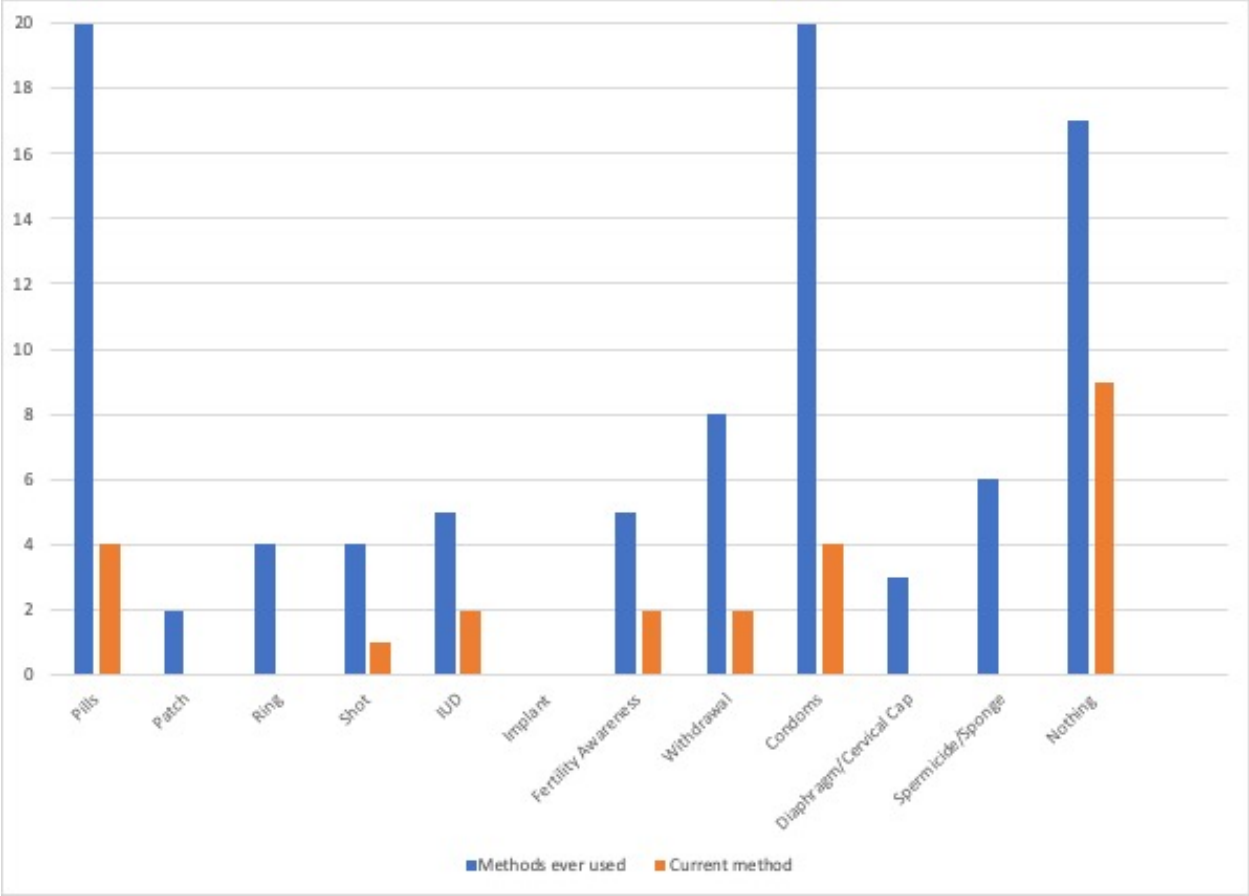
Catholic	2	10
Protestant	1	5
Non-denominational Christian	7	35
Jewish	1	5
Muslim	0	0
Agnostic	1	5
Atheist	0	0
Other	5	25
None	3	15

*Participants able to select more than one option

Table 2. Reported Sexual Activity of 20 Interview Participants

	Frequency	**Percentage**
Do you consider yourself sexually active?		
Yes	15	75
No	5	25
Have you been sexually active in the past two months?		
Yes	15	75
No	5	25
Currently, with whom are you sexually active?		
Men	18	90
Women	2	10
Both	0	0
Currently, how many people are you sexually active with?		
0	5	25
1	13	65
2	1	5
More than 2	1	5

Figure 1. Current and past birth control methods used by 20 interview participants



SUMMARY

This compendium consists of three manuscripts that highlight the unique needs of women regarding their reproductive health. Together, this body of research suggests that there is much to be gained from listening to voices of women regarding their own reproductive health. In an era where health care "gas lighting," maternal mortality, and attacks on reproductive health are increasingly common, it can often seem like women are losing access to their own standing within our health care system.

The first manuscript, an integrative review of qualitative literature, created a foundation for a fuller understanding of women's perceptions and beliefs regarding contraception. Findings from this review included the existence of power imbalances between women and both health care providers and sexual partners and the role of societal and communal discourses on femininity and motherhood. Many studies also addressed widespread distrust of hormonal contraception, the ability to enhance personal agency through contraceptive decision making; and a need for open, patient-focused communication. This integrative review highlighted a lack of qualitative research involving older women.

The research that is described in the second and third manuscripts is an attempt to begin filling the knowledge gap identified by the integrative review. Specifically, 20 individual, semi-structured interviews were done with women between the ages of 40-55 to identify their reproductive health priorities, concerns, and needs. Feminist poststructuralism served as the theoretical framework, while qualitative description served as the methodological framework.

The second manuscript presents the qualitative research findings as organized and analyzed specifically within the feminist poststructuralist framework. Findings from this study highlight some unique aspects of reproductive health for women in midlife, including: continued

concerns about family formation, an emphasis on the natural body and healthy aging, and a consideration for how birth control interacts with their body and fits their lifestyle. One especially startling finding was the lack of communication from health care providers about the specifics of perimenopause and menopause.

The third manuscript explores women's contraceptive beliefs, perceptions, and attitudes over the arc of time. Four major themes were identified: 1) pivotal early experiences; 2) changing versus continuing methods over the decades; 3) evolution in contraceptive behaviors, beliefs and priorities over time; and 4) contracepting as menopause approaches. Past experiences with or fear of side effects and hormones were common reasons to change or avoid certain birth control methods.

As noted previously, the feminist poststructuralism guided the research. As a combination of the philosophy of Michel Foucault and feminist scholars like Judith Butler and Joan Scott, it highlights the ways in which women live within structures of discourse, power, and knowledge that form and continually shape women's individual subjectivity and agency. While this framework has been used in health research, it has never been applied to research about reproductive health. This body of work points to how useful the feminist poststructuralist tenants are in exploring reproductive health through the lens of social institutions and ways of thinking while also considering relationships, knowledge acquisition, and personal empowerment. It was an especially helpful framework because it necessitated the consideration of several specific areas that may have otherwise gone unexplored. One such example was power dynamics, which opened the door to conversations about condom negotiation, who should be in control of contraception, and how health care providers can help or hinder access. The tenant of agency

lead to explorations of how women assert their own power and autonomy, an area that fit well with this more mature, confident, and assertive group of women.

Of course, feminist theory is incomplete without a further discussion of the influence of intersectional identities on the lives of women. Intersectional theory highlights the ways in which individuals live at the intersection of different identities, such as race, class, and gender, which combine to create overlapping or interconnected systems of discrimination or disadvantage.(1) Women in this study, for instance, who identified as women of color faced a combination of discrimination from being both female and black, and often times were also economically disadvantaged. as well. Participants who identified as a sexual minority, too, existed at a unique intersection of discrimination. A further exploration of how intersectional identities influenced women in this research study could highlight new themes and concepts.

This compendium is not without its limitations, however. The literature search for the integrative review was conducted by a single researcher, meaning that relevant studies may have been excluded because of errors in search terms or during the title and subtract review stage. The second and third manuscripts have the same limitations because of their shared data source. The findings from these studies are limited by the small range of race and ethnicity among research participants. Though the sample had a large percentage of women of color, women of low income, or sexual-minority women, study participants identified only as white or black. No participants identified as Latinx or Asian, partly due to the fact that speaking English was part of the inclusion criteria. Additionally, the positionality of the researcher likely effected what participants felt comfortable sharing.(2)

Going forward, having a team of interviewers with a variety of social, racial, ethnic, and linguistic backgrounds would help ensure for a more diverse and comfortable experience for

participants. Additionally, including women in the target age-range in the creation and dissemination of recruitment material is an important oversight made during this research study. Including the opinions of women in midlife would help ensure that possible research participants are fully able to see themselves on flyers, posters, and other study material. Notably, it was surprisingly difficult to find images on a large online database of women who appeared to be between 40 and 55 who were not photographed with children or with older adults. Women in midlife are often made to feel invisible, both figuratively and apparently literally, as well.

The research that went into this compendium will serve as the groundwork for much of my future research pursuits. Next steps include further work on this research as an Abortion Care Training Incubator for Outstanding Nurse Scholars (ACTIONS) postdoctoral fellow at the University of California at San Francisco. In this role, I will continue to collect qualitative data collection using online recruitment in attract participants with a wider range of variation of experiences. I will use this same online recruitment methodology to test specific scales and questionnaires used widely in reproductive health to assess their validity on women in midlife. Additionally, quantitative analysis on specific methods used by midwife women as collected in national databases will be analyzed.

There are both clinical and health policy implications that can be drawn from this research. Both the integrative review and the qualitative research identified a hesitancy by many women regarding hormonal contraception. While there is much consensus in the health care community regarding the safe of hormonal methods, many women discussed either an adverse event while on hormonal birth control or a concern for the role hormones have in affecting their overall health. Hormonal methods makes up the overwhelming majority of contraceptive option,

and only one nonhormonal method is considered highly effective.(3) Further research into nonhormonal method development and dissemination is necessary to meet that needs of women.

While very few women identified barriers to contraception in the past, barriers that were mentioned were almost always due to insurance coverage. Increased access to insurance with coverage gaps, either through an expansion of the Affordable Care Act or through a universal, public-only option, would help ensure that women are not forced to use less effective methods such as condoms if this is not their desire. Another essential component to decreasing contraceptive barriers to women throughout their reproductive lives is the contraceptive mandate, which ensures that all birth control methods are covered at no charge.(4)

Additionally, there are several ways in which results from this study can be used toward the creation of interventions and patient-centered outcomes research. The fact that many women in midlife still desire a pregnancy means that health care providers should assess pregnancy desire, ambivalence, or avoidance at every health care encounter until menopause has been established. Partnering with reproductive life planning campaigns such as One Key Question® would ensure this information is distributed widely.(5) Women in this study also reported little communication from health care providers and a desire to learn about the spectrum of perimenopausal symptoms. Interventions that increase communication about perimenopausal symptoms and treatment options, including birth control methods that may alleviate side effects such as hot flashes and vaginal dryness, should also be considered.

Women in midlife both deserve and need originally, thoughtful research on the topics that are important to them. Research involving contraception often limits the age-range of participants to 35, or 40 at the oldest while much literature on reproductive health generally stops after menopause.(6) Age alone cannot signify the beginning or end of specific health concerns.

The needs, concerns, and priorities of individual women should be at the forefront of every encounter with a health care professional and at the heart of every researcher question concerning them. These manuscripts help shed light on what is both unique and universal about women in midlife regarding to their reproductive health, but the onus remains on providers and researchers alike to keep asking the important questions to women themselves.

References

1. Crenshaw K. Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. Stanford Law Review. 1991;43(6):1241-99.
2. Muhammad M, Wallerstein N, Sussman AL, Avila M, Belone L, Duran B. Reflections on Researcher Identity and Power: The Impact of Positionality on Community Based Participatory Research (CBPR) Processes and Outcomes. Critical Sociology. 2014;41(7-8):1045-63.
3. Thompson KMJ. A brief history of birth control in the US 2013 [Available from: https://www.ourbodiesourselves.org/book-excerpts/health-article/a-brief-history-of-birth-control/.
4. Becker NV. The Impact of Insurance Coverage on Utilization of Prescription Contraceptives: Evidence from the Affordable Care Act. Journal of policy analysis and management : [the journal of the Association for Public Policy Analysis and Management]. 2018;37(3):571-601.
5. Stulberg DB, Dahlquist IH, Disterhoft J, Bello JK, Hunter MS. Increase in Contraceptive Counseling by Primary Care Clinicians After Implementation of One Key Question(R) at an Urban Community Health Center. Matern Child Health J. 2019;23(8):996-1002.
6. Crockett C, Cooper B. Gender norms as health harms: reclaiming a life course perspective on sexual and reproductive health and rights. Reprod Health Matters. 2016;24(48):6-13.

APPENDICES

Appendix A

The IRB approval letter for the study reported in manuscripts 2 and 3

Institutional Review Board for Human Research (IRB)
Office of Research Integrity (ORI)
Medical University of South Carolina

Harborview Office Tower
19 Hagood Ave., Suite 601, MSC857
Charleston, SC 29425-8570
Federal Wide Assurance # 1888

APPROVAL:
This is to certify that the research proposal **Pro00089636** entitled:
Reproductive Health in Midlife Women: A Qualitative Analysis within a Feminist Poststructuralist Framework

submitted by: **Amy Alspaugh**
Department: **Medical University of South Carolina**
Sponsor: **MUSC Internal Funding, Amy Alspaugh**

for consideration has been reviewed by **IRB-I - Medical University of South Carolina** and approved. The Institutional Review Board for Human Research (IRB) also recommends approval of the investigator's request for a HIPAA Waiver of Authorization, as it appears that the criteria of the Privacy Rule have been satisfied. The HIPAA Waiver of Authorization was reviewed under exempt review procedures.

In accordance with 45 CFR 46.101(b), the referenced study is exempt from Human Research Subject Regulations. No further action or IRB oversight is required, as long as the project remains the same. However, you must inform this office of any changes in procedures involving human subjects. Changes to the current research protocol could result in a reclassification of the study and further review by the IRB.

Because this project was determined to be exempt from further IRB oversight, consent document(s), if applicable, are not stamped with an expiration date.

Approval Date: **8/8/2019**

Type: **Exempt**

Chairman, **IRB-I - Medical University of South Carolina**
Mark Hamner, MD*

***Electronic Signature**: This document has been electronically signed by the IRB Chairman through the HSSC eIRB Submission System authorizing IRB approval for this study as described in this letter.*

Appendix A

The IRB amendment approval letter for the study reported in manuscripts 2 and 3

Institutional Review Board for Human Research (IRB)
Office of Research Integrity (ORI)
Medical University of South Carolina

Harborview Office Tower
19 Hagood Ave., Suite 601, MSC857
Charleston, SC 29425-8570
Federal Wide Assurance # 1888

APPROVAL: **Protocol: MS1_Pro00089636**
MUSC Amendment #: Ame1_Pro00089636
Amendment Title: Amendment 1 for IRB Study #Pro00089636

This is to certify that the amendment to the research proposal entitled:
Reproductive Health in Midlife Women: A Qualitative Analysis within a Feminist Poststructuralist Framework

Submitted by: **Amy Alspaugh**
Department: **Medical University of South Carolina**
Sponsor: **MUSC Internal Funding, Amy Alspaugh**

for consideration has been reviewed by **IRB-I - Medical University of South Carolina** and approved with respect to the study of human subjects as adequately protecting the rights and welfare of individuals involved, employing adequate methods of securing informed consent from these individuals and not involving undue risk in the light of potential benefits to be derived therefrom. No IRB member who has a conflicting interest was involved in the review or approval of this amendment, except to provide information as requested by the IRB. If this amendment required a change in the currently approved Informed Consent, then all previous Informed Consent documents should be marked obsolete.

Approval Date: **9/12/2019**

Amendment Type: **Expedited**

Chairman, IRB I - Medical University of South Carolina
*** Mark Hamner, MD**

* ***Electronic Signature****: This document has been electronically signed by the IRB Chairman through the HSSC eIRB Submission System authorizing IRB approval for this study as described in this letter.*

Appendix B
Letter of Support from a recruitment site used in manuscripts 2 and 3

Public Health

July 12, 2019

To Whom it May Concern:

I am aware of the recruitment materials being used by Ms. Alspaugh as part of her doctoral research at MUSC. I have approved the flyers being posted in clinical exam rooms of the Women's Health Family Planning Clinic at the Durham County Department of Public Health.

Please feel free to reach out with any questions.

Sincerely,

Gayle B. Harris, MPH, RN
Public Health Director
Durham County Department of Public Health
414 E Main Street
Durham, NC 27701

Human Services Building | 414 East Main Street, Durham, North Carolina 27701
(919) 560-7600 | Fax (919) 560-7652 | dconc.gov/publichealth
Equal Employment/Affirmative Action Employer

Appendix C

Copyright information from the Journal of Midwifery & Women's Health for Manuscript 1

a. The right to self-archive the Accepted Version on: the Contributor's personal website; the Contributor's company/institutional repository or archive; Compliant SCNs; and not for profit subject-based repositories such as PubMed Central, all subject to an embargo period of 12 months for scientific, technical and medical (STM) journals and 24 months for social science and humanities (SSH) journals following publication of the Final Published Version. There are separate arrangements with certain funding agencies governing reuse of the Accepted Version as set forth at the following website: http://www.wileyauthors.com/funderagreements. The Contributor may not update the Accepted Version or replace it with the Final Published Version. The Accepted Version posted must contain a legend as follows: This is the accepted version of the following article: FULL CITE, which has been published in final form at [Link to final article]. This article may be used for non-commercial purposes in accordance with the Wiley Self-Archiving Policy [http://www.wileyauthors.com/self-archiving].

b. The right to transmit, print and share copies of the Accepted Version with colleagues, including via Compliant SCNs (in private research groups only before the embargo and publicly after), provided that there is no systematic distribution of the Accepted Version, e.g. posting on a listserve, network (including SCNs which have not signed up to the STM sharing principles) or automated delivery.

3. Final Published Version. The Owner hereby licenses back to the Contributor the following rights with respect to the final published version of the Contribution (the "Final Published Version"):

a. Copies for colleagues. The personal right of the Contributor only to send or transmit individual copies of the Final Published Version in any format to colleagues upon their specific request, and to share copies in private sharing groups in Compliant SCNs, provided no fee is charged, and further provided that there is no systematic external or public distribution of the Final Published Version, e.g. posting on a listserve, network or automated delivery.

b. Re-use in other publications. The right to re-use the Final Published Version or parts thereof for any publication authored or edited by the Contributor (excluding journal articles) where such re-used material constitutes less than half of the total material in such publication. In such case, any modifications must be accurately noted.

c. Teaching duties. The right to include the Final Published Version in teaching or training duties at the Contributor's institution/place of employment including in course packs, e-reserves, presentation at professional conferences, in-house training, or distance learning. The Final Published Version may not be used in seminars outside of normal teaching obligations (e.g. commercial seminars). Electronic posting of the Final Published Version in connection with teaching/training at the Contributor's company/institution is permitted subject to the implementation of reasonable access control mechanisms, such as user name and password. Posting the Final Published Version on the open Internet is not permitted.

Appendix D
IRB-approved flyers used for manuscripts 2 and 3

Are you a woman aged 40 - 55?

VOLUNTEERS NEEDED FOR A RESEARCH STUDY

Researchers are conducting brief interviews about family planning and birth control use.

Compensation available for eligible participants.

Call: (919) 666-7848

Visit: http://j.mp/2K87Veg

Appendix D

IRB-approved flyers used for manuscripts 2 and 3

Appendix D

IRB-approved business cards used for manuscripts 2 and 3

Appendix E

Introductory Script for Interviews for Manuscripts 2 and 3

SCRIPT

Hello,

Thank you for your willingness to participant in this research exploring reproductive health in midlife women. The research team and I are very thankful that you are willing to give your time and personal experience to help us explore this topic in greater detail. Midlife women are often excluded from research on reproductive health and we are hoping to draw attention on this important time of life.

Before we begin, I would like you to remember that participation in this research is voluntary, meaning that it is entirely your choice. You can always decline to answer a specific question or stop the interview at any time.

The interview should take anywhere from 45 to 90 minutes. This interview is being audio-recorded and at the completion of the interview, each word of the interview will be transcribed. Additionally, part of the evaluation of our study findings involves double checking themes and concepts identified during these interviews. I may call you anywhere between 4 and 8 weeks in the future to do this. If you would prefer that I not reach out to you, please let me know now.

The risks of participating in this research are minimal and I would like to review them with you.. There is a risk of loss of privacy and confidentially. This risk is increased especially is if you choose to have the interview take place in a public location, such as a restaurant or public building. There is also the risk that some of these questions may be upsetting to you. Please know that you can skip any questions that you do not wish to answer.

There are no benefits to you personally from participating in this research, however we hope that this research will benefit women in the future.

What questions can I answer for you?

By starting and participating in the interview, you are consenting to volunteer in this research study.

Thank you for participating in this research, we have reached the end of the interview. I may be in touch later to confirm a few of themes I identified from your interview, would this be OK? Can I confirm the best way to reach you? You have my contact information as well if anything comes up or you think of anything else you could like to add to your answers. Thank you so much for your thoughts and your time today.

IRB Number: «ID»
Date Approved «ApprovalDate»

MUSC
Medical University of South Carolina
Changing What's Possible

Appendix F

Interview Guide for manuscripts 2 and 3

Topic	Probes
Pregnancy • Future Pregnancy Plans o Would you like to have more children? o Are you actively planning on getting pregnant? • Ambivalence (how important is it for you…) o How important is it for you to achieve/avoid… o How do you think you would feel if it happened? • Perceived fertility o Tell me about your understanding of fertility in general as you age? o What are your thoughts regarding your own fertility? ▪ Do you feel you are more, less, or similarly fertile than… ▪ How do you think this effect your contraception use?	Can you give me an example of what you mean? Please tell me more about that. What you are sharing (or have said) is important. Can you say more? How does your experience before that time compare to your experience now? Tell me more about that experience (or that time)? Describe… If you could change anything about that experience, what would it be?

Appendix F

Interview Guide for manuscripts 2 and 3

Topic	Probes

Age specific
 	
• Contracepting in 40s/50s
  o Describe how your relationships with contraception has evolved
  o What are some things you prioritize in contraception now that you didn't in your 20s or 30s?
  o What concerns do you have at this age that you didn't use to?
 	
• Perimenopausal changes
  o Have you talked with your healthcare provider about your reproductive health as you approach menopause?
  o What changes do you anticipate?
  o How do you see these changes in relation to your fertility?
 	
• Understanding of menopause
	Can you give me an example of what you mean?
	
	Please tell me more about that.
	
	What you are sharing (or have said) is important. Can you say more?
	
	How does your experience before that time compare to your experience now?
	
	Tell me more about that experience (or that time)?
	
	Describe…
	
	If you could change anything about that experience, what would it be?

Appendix F

Interview Guide for manuscripts 2 and 3

Topic	Probes

Decision Making
• What factors go into selecting a method of contraception?
  o In what ways have these factors changed over the years?
• Who do you get your information about contraception from?
  o Why do you trust them?
• Who do you discuss your contraception with?
  o Who do you go to for advice?
  o Why do you trust these people/sources?
  o Is there anyone you don't trust?
• Has anyone ever prevented you from using a method that you wanted to you?
• Has access to contraception ever been a barrier?
  o Can you tell me about other barriers?
• What factors into your decision to….
	Can you give me an example of what you mean?
	
	Please tell me more about that.
	
	What you are sharing (or have said) is important. Can you say more?
	
	How does your experience before that time compare to your experience now?
	
	Tell me more about that experience (or that time)?
	
	Describe…
	
	If you could change anything about that experience, what would it be?

Appendix F

Interview Guide for manuscripts 2 and 3

Topic	Probes

Contraception
• Previous use
  o Tell me about your experience....
  o What did you like about...
  o What did you not like...
• Current use
  o Tell me about your current experience with...
• Satisfaction
  o Happy with method?
  o Liked other methods more in the past?
• Any what points in your life did you not use any method?
  o (if current no use) can you tell me about your decision not to use a method.... Intentional? Logistical? Health related?
• Concerns & Side Effects
  o What concerns do you have with current...
  o Have you had concerns in the past?
  ▪ Did these concerns make you stop the method or change to another?
  o When you have these concerns, who do you go to?
  ▪ Friends? Family? Internet? Healthcare provider?
  o Have you heard stories about birth control side effects ...
• What does an ideal method look like?
  o Long acting v short acting?
  o Female or male based?
  o Menses? No bleeding?
  o Self-controlled?
	Can you give me an example of what you mean?
	
	Please tell me more about that.
	
	What you are sharing (or have said) is important. Can you say more?
	
	How does your experience before that time compare to your experience now?
	
	Tell me more about that experience (or that time)?
	
	How do you see that (or yourself) in the future?
	
	If you could change anything about that experience, what would it be?

Appendix G

Pre-eligibility screening questions for participants in Manuscripts 2 and 3

Question	Yes	No
Does the patient speak and understand English?		
Is the patient between 40 and 55?		
Does the patient identify as female?		
Has the patient reached menopause, as defined by 12 month without a menses while not on contraception?		
Does the patient have a nonreversible method of contraception?		
Does their partner have a nonreversible method of contraception?		

Participant's prescreen eligibility status

☐ Study Pre-screen Eligible
☐ Study Pre-screen Ineligible

Interview Date: _____
Interview Time: _____
Interview Location: _____
In need of transportation assistance?

☐ Yes
☐ No

Appendix H

Demographic Survey for Participants in Manuscripts 2 and 3

Age: What is your current age? _____

Gender: Do you consider yourself to be:

1. Male
2. Female
3. Trans male/Trans man
4. Trans female/Trans woman
5. Genderqueer/Gender non-conforming
6. Prefer not to say

Race: Do you consider yourself to be:

1. White
2. Black or African American
3. Native American or American Indian
4. Asian/Pacific Islander
5. Other
6. Prefer not to say

Ethnicity: Do you consider yourself to be:

1. Latinx/Latina
2. Non-Latinx/Latina

Sexual Orientation: Do you consider yourself to be:

1. Heterosexual or straight
2. Gay or lesbian
3. Bisexual
4. Pansexual
5. Prefer not to say

Household Income: What is the total combined income, before taxes, of everyone living in your home?

1. Less than $10,000.
2. $10,001 to $24,999.
3. $25,000 to $34,999.
4. $35,000 to $49,999.
5. $50,000 to $74,999.
6. $75,000 to $99,999.
7. $100,000 or more.
8. Unknown
9. Prefer not to say

Appendix H

Demographic Survey for Participants in Manuscripts 2 and 3

Marital Status: What is your marital status?

1. Single, never married
2. Married or domestic partnership
3. Widowed
4. Divorced
5. Separated
6. Prefer not to say

Education

1. No schooling completed
2. Nursery school to 8th grade
3. Some high school, no diploma
4. High school graduate, diploma or the equivalent (for example: GED)
5. Some college credit, no degree
6. Trade/technical/vocational training
7. Associate degree
8. Bachelor's degree
9. Master's degree or above
10. Prefer not to say

Religion

1. Catholic
2. Protestant
3. Non-denominational Christian
4. Jewish
5. Muslim
6. Agnostic
7. Atheist
8. Other
9. None
10. Prefer not to say

CONTRACEPTION

1. Have you ever used a method or practice to prevent pregnancy?
Yes
No [If no, skip to FERTILITY section]

2. Are you currently using a method of birth control?
Yes
No [If no, skip to PREGNANCY & FERTILITY section]

Appendix H

Demographic Survey for Participants in Manuscripts 2 and 3

3. Circle all that apply

	Pills	Patch	Ring	Shot	IUD	Arm Implant	Condoms	FAM	Withdrawal	Diaphragm/Cap	Spermicide
Which methods/practices are you familiar with?	1	2	3	4	5	6	7	8	9	10	11
Which have you ever used in the past?	1	2	3	4	5	6	7	8	9	10	11
Which method are you currently using?	1	2	3	4	5	6	7	8	9	10	11

PREGNANCY & FERTILITY

1. Have you ever been pregnant before? [Circle one]
Yes
No [Skip to question 3]
Prefer not to say [Skip to question 3]

SEXUAL ACTIVITY

1. Do you consider yourself sexually active?
Yes
No

2. Have you been sexually active in the past two months?
Yes
No

3. With whom are you sexually active? [Circle one]
Men
Women
Both
Prefer not to say

4. How many people are you currently sexually active with?
None
One
Two
More than two
Prefer not to say

Appendix I

Interview Checklist for manuscripts 2 and 3

1. Introduction, what we'll be doing (demographic information, brief overview and interview, compensation), time frame (1 hour?)
2. Participant characteristics - review by me on the computer
3. Intro statement - **recorded**
4. interview - **recorded**
5. End statement - confirm if they are OK to be contacted later, best way to reach them - **recorded**
6. Offer gift cards, record information in excel sheet
7. Give cards for snowball sampling