A Critical Evaluation of Pregnancy Intendedness as a Public Health Metric

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Abstract

Unplanned pregnancy has been a consistent focus of maternal and child public health and health care initiatives for decades, despite shifting social, political, and medical contexts. Despite recent research revealing flaws in a dichotomous metric — and the concept of pregnancy intendedness — the metric remains a key goal for public health in the United States. Health care settings have an opportunity to help patients reach their multifaceted and nuanced goals, yet initiatives surrounding pregnancy planning continue to focus on binary screening questions. While patient-centered approaches are encouraged, they are often not implemented. In this analysis, we present the history of "unplanned" pregnancy in the public sphere, situate recent literature in that history, and discuss implications for patient care and population-based initiatives. We propose strategies for shifting systems, grounded in the tenants of reproductive justice.

The Evolving Narrative of Unintended Pregnancy

Terms and concepts related to unintended pregnancy have been used by public health practitioners and demographers since the 1940s. Since that time, these concepts have become entrenched in surveillance systems and public health programs, guiding policy and health care practice. This focus has been supported by an association between pregnancy intendedness and health behaviors and outcomes surrounding pregnancy (D'Angelo et al., 2004; Shah et al., 2011).

Typically, unintended pregnancy is measured with post-conception, dichotomous questions. These questions were initially incorporated into the first National Fertility Survey in 1965, and have continued in the National Survey of Family Growth (NSFG) since it began in 1973, which to this day represents the primary data source for statistics on unintended pregnancy in the United States (Santelli et al., 2003). The original series of questions in the NSFG was rooted in a response to the baby boom after World War II, during which many families grew beyond planned family size (i.e. "surplus" fertility) (Luker, 1999).

Social, political, and medical circumstances have shifted since that time — it was not until the 1960s that birth control ("the pill") became available and the 1970s abortion became legal. Across these decades, Americans were granted power over their reproductive decisions (though with limitations to those "choices" based on access to health care and other socioeconomic factors that continue today). Policy focus also shifted in these decades: efforts to prevent unintended pregnancy moved from the end of a person's fertility cycle to the beginning. However, vestiges of earlier priorities — partially to preserve comparability in survey results over time — remain in NSFG questions and continue to guide focus and policy (Luker, 1999).

Since the 1970s, unintended pregnancies have been classified as either unwanted (i.e. the person desired no children or no further children) or mistimed (i.e. the pregnancy occurred sooner than desired)[1]. Unwanted pregnancies are thought of as a subset of unintended pregnancies — situations in

[1] Because pregnancy intention is typically measured post-conception or postpartum, survey data is limited to pregnancies that were carried to a live birth. In other words, pregnancies that end in abortion are assumed to be unintended. This data is further complicated internationally, particularly in countries where abortion is illegal and prevalence data is unreliable or nonexistent (Bearak et al., 2019).

which the person was either using contraception or did not desire pregnancy but was not using a method. As Santelli and colleagues report in their review, "all of these definitions assume that pregnancy is a conscious decision" (2003). However, as this paper hopes to demonstrate, such assumptions have shown to be incorrect.

Shifting (and Unshifting) Public Health Priorities

Critiques of traditional measures of unintended pregnancy have circled literature for many years. In 1995, Trussell and colleagues compared the rates of pregnancy intendedness among women who reported contraceptive failures in the NSFG. An attitudinal scale was added to the survey that assessed women's feelings toward their pregnancy. Only 68% of pregnancies after contraceptive failure were reported to be "unintended;" of these, only 59% reported being unhappy about their pregnancy. Among the 32% who reported their contraceptive failure as an intended pregnancy, the vast majority were happy about the pregnancy. These results appeared to the researchers as a paradox. They conclude: "it is still unclear why these women feeling happy about their unintended pregnancy are practicing contraception" (Trussell et al., 1999).

In her response to Trussell and colleagues, Kristin Luker suggests that "becoming 'accidentally' pregnant permits people to duck the onerous responsibility of having to *decide* whether to enter into parenthood, and to do so in the only country in the developed world that permits people to become parents with virtually nothing in the way of social support" (Luker, 1999). This commentary from two decades ago poignantly predicts what much of the research that has followed has demonstrated: that the concept of planning a pregnancy does not resonate with many young people. For example, in one qualitative study in Pittsburgh, participants reported having strong feelings about the "ideal" situation in which they would become pregnant, including having a committed partner and strong financial situation. However, because many felt these aspects of stability an "unattainable ideal," the concept of planning a pregnancy felt largely irrelevant (Borrero et al., 2015). The broader context and systems influencing these women's lives prevents pregnancy planning from being a salient concept. Combined with complex emotions and feelings surrounding children, reproduction, and families, it becomes clear why a binary measure of "intendedness" may mischaracterize feelings around pregnancy.

The attitudinal scales (relative happiness about becoming pregnant) were added to the NSFG survey in 1995 and represent the roots of what is now referred to as "pregnancy ambivalence." When a respondent gives seemingly conflicting or inconsistent answers, they are coded as being ambivalent toward pregnancy. Researchers have also employed scales to measure pregnancy ambivalence. Of note, one study in San Francisco compared two approaches to inquiring about pregnancy ambivalence: when asked to decide between "yes," "no," and "don't know," only 2% of women responded with the ambivalence-implying answer ("don't know").

When that same group of women were given expanded options that also included "wouldn't mind getting pregnant" and "wouldn't mind avoiding pregnancy," 22% of them were classified as ambivalent. These women were less likely to use contraceptives, suggesting relevance for public health and clinical care (Schwarz et al., 2007). Clearly, as indicated by divergent responses, applying a dichotomous question to the complexities of pregnancy ambivalence is misguided and may misrepresent behaviors and desires of patients.

Despite applying an important angle to classifying pregnancy attitudes, the term "ambivalence" may also be insufficient in encompassing the feelings and desires of women and birthing people. Aiken and colleagues argue that "equating incongruence with ambivalence … may undermine the sincerity of women's intentions and their desires for highly-effective contraception" (Aiken et al., 2015). These two feelings appear to exist simultaneously, and drawing conclusions about the person's attitude as a whole, at least for some women, would be a misrepresentation. Thus, prospective analysis of populations as well as any clinical guidance to patients around pregnancy will likely need to focus on multiple dimensions of attitudes surrounding pregnancy.

Current Health Care and Public Health Attitudes

Despite a growing literature showing that binary measures of pregnancy intendedness neglect the complexities of people's lives and misrepresent the intentions of women and birthing people, preventing unintended pregnancies remains a key

objective in public health in the United States, highlighted in both the Healthy People 2020 goals and the 2010 Affordable Care Act (Levi & Dau, 2011). Rates of unintended pregnancy have fluctuated in recent decades, with recent decreases cited from 2008-2011 (Finer & Zolna, 2016). However, as of the most recent comparison of estimates in 2012, the rates of unintended pregnancy remains substantially higher in the United States (45 per 1,000 women; *Unintended Pregnancy in the United States*, 2019) than in Western Europe (27 per 1,000 women; Sedgh et al., 2014).

While surveys may be limited in nuance by question formatting and volume of data, health care settings may offer opportunities for further conversation. However, public health guidance has been fraught with these goals and permeates health care practice. While the blurring of these borders is typically considered positive, when the clinical relevance of public health goals is unclear, the guidance may become limiting.

Current health care settings are fervently working to incorporate universal screening about intendedness. One Key Question® has been the focus of many initiatives: urging providers to inquire "Would you like to become pregnant in the next year?" and using the response to guide either delivery of preconception health care or contraceptive counseling (Allen et al., 2017; *One Key Question*®, 2020) Despite the recommendation that clinicians offer four responses (yes/no/ok either way/unsure) and patient-centered counseling to account for pregnancy ambivalence, the implementation and effect of One Key Question in clinical practice has not been described. In interviews with health care providers who provide care to people of reproductive age in Wisconsin, clinicians — consistently citing time pressures — reported using the question as a screen, often verbatim (Nacev et al., 2018). The closed format of the question itself contradicts its professed intention: one of the core concepts of patient-centered care is centering the interview in open-ended questions (Hashim, 2017). Indeed, open-ended questions have long been considered to elicit more disclosure from patients than closed-ended questions (Roter & Hall, 1987).

Regardless of effectiveness of screening questions in guiding complex conversations around pregnancy, there remain gaps in how clinicians discuss and counsel around reproductive health and pregnancy and how pregnancy exists in the real lives of people.

Pregnancy Acceptability as an Emerging Concept

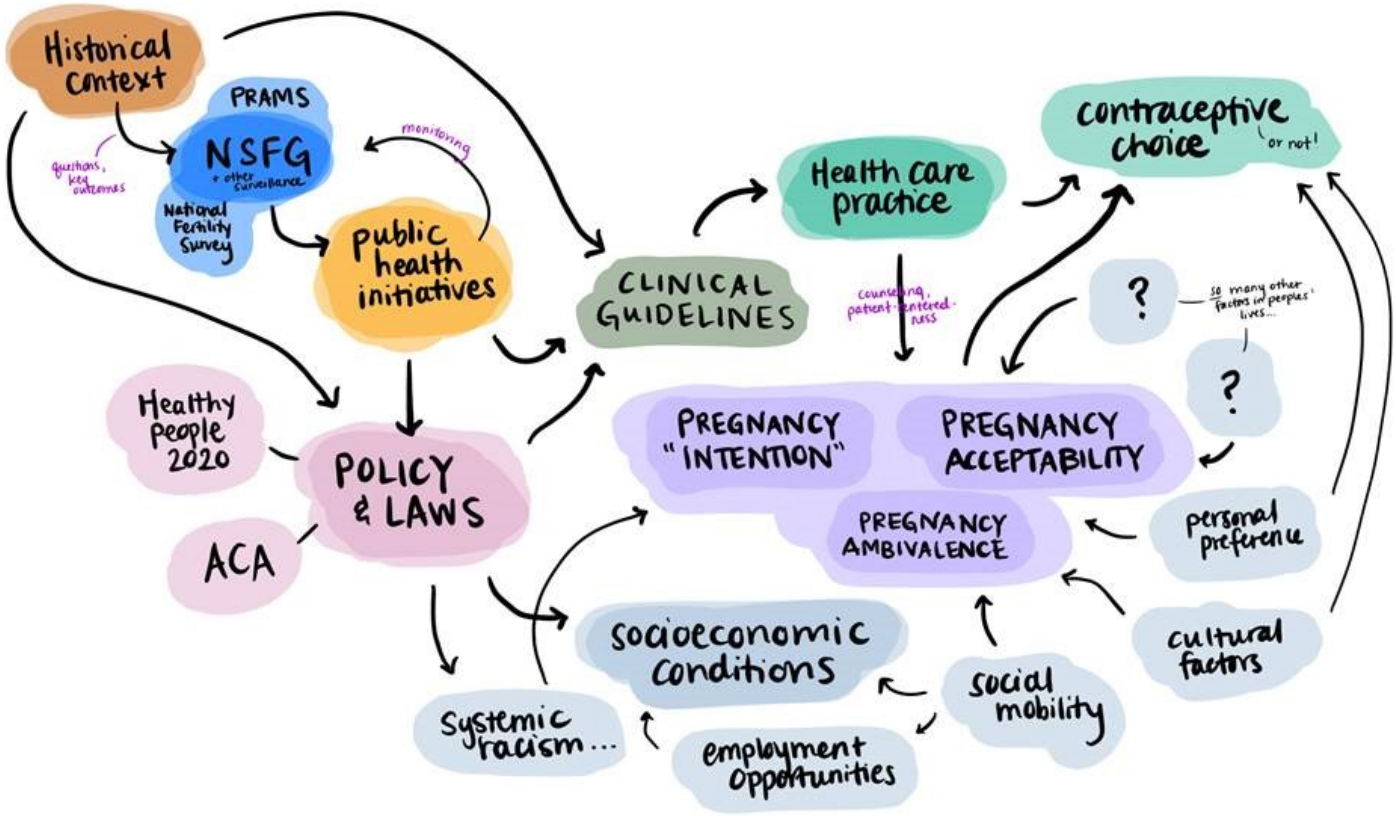
The concept of pregnancy acceptability has emerged in recent years as a way to encompass more of the nuances and complexities that contribute to feelings and desire around pregnancy. Measures of pregnancy unintendedness are necessarily retrospective; in other words, they ask people to think back to their attitudes before becoming pregnant. Perhaps more relevant, many argue, is a person's feeling about a pregnancy after it occurs, regardless of whether the pregnancy was intended or desired prior to conception (Aiken et al., 2015; Borrero et al., 2015; Gomez et al., 2018). Furthermore, the acceptability of a pregnancy may resonate better with young people in early adulthood toward whom initiatives aimed at preventing unintended pregnancy are typically targeted, and for whom the "notion of planning a pregnancy is not salient." Given that public health programs are guided by pregnancy intention and planning as constructs, such programs may bypass the perspective of the people they are intending to serve (Gomez et al., 2018).

The Push for LARCs as a Symptom of an Underlying Systems Issue

Increasingly, long-acting reversible contraceptives (LARCs) have become both the symbol and the means of the public sphere's goal of reducing unintended pregnancy. Even within the last two years, LARCs have been cited as a key solution to poverty: "How Better Contraception Could Be a Key to Reducing Poverty" read one headline in the New York Times (Margot Sanger-Katz, 2018). Despite acknowledging the complicated history of reproductive coercion, these authors echo an enthusiasm for LARCs that has permeated public health spheres in recent years (Parks & Peipert, 2016; Secura, 2013; Thomas & Karpilow, 2018).

Of note, this article was followed shortly after by a response titled "The Dangerous Rise of the IUD as Poverty Cure," in which the authors argued that the language used by policymakers and researchers surrounding LARCs as a solution to poverty should "raise alarm bells." The idea that preventing women from having children is the way to "cure society's ills has a long, shameful history in the United States" (Christine Dehlendorf & Kelsey Holt, 2019). Indeed, contraception requirements for welfare

recipients, reduced prison sentences in exchange for contracepting, and forced sterilization are all part of a legacy of reproductive coercion — a legacy



not limited to dusty and distant history: as recently as 2010, inmates in California were sterilized without consent (Corey G. Johnson, 2013).

Certainly, the decreased cost and increased availability of LARCs during recent years — for those who want them — has been a positive development. Contraception, generally, is a key element to allowing people control over their reproductive lives. Access to LARCs should indeed be celebrated as a progressive goal for women's health care, as long as it is inextricably tied to access to their removal.

However, some policies have targeted individuals considered to be at "high risk" of unintended pregnancy, and clinical guidance for providers may guide certain patients toward LARCs — in the end, often targeting low-income people and people of color. Herein lie echoes of the 20th century movement for birth control access, which, despite its own progressive potential, was burdened by racism, at times with explicit connections to eugenics[2] (Davis, 1983). Targeted guidance for more effective birth control methods for Black, Indigenous, and other populations of color also dangerously echoes historical and ongoing coercive efforts by the United States government (Gomez et al., 2014). Indeed, in a 2005 survey of 500 African-American women, the majority (67%) reported experiencing race-based discrimination when seeking family planning services (Thorburn & Bogart, 2005).

Moreover, preventing pregnancy is not always a clear, certain, or consistent goal for many people. Tiered effectiveness contraceptive counseling, in which LARCs are emphasized first and as the most effective, disregards this complexity. In other words, the "effectiveness above all" that is emphasized by providers may be misguided

[2] An excerpt from Angela Davis's 1983 book, *Women, Race, and Class*: "By 1919, the eugenic influence on the birth control movement was unmistakably clear. In an article published by Margaret Sanger in the American Birth Control League's journal, she defined 'the chief issue of birth control' as 'more children from the fit, less from the unfit.'" (pg. 360).

(Gomez et al., 2014). Patient- centered contraceptive counseling should help guide a patient to a better understanding of their priorities and a birth control method that meets those (Rivlin & Isley, 2018).

In contrast, in some clinical settings, a patient deciding on anything other than a LARC can feel like a failure. Here, I cannot help but cite my personal experience as a medical student, having been tasked many times with providing contraceptive counseling to patients either after giving birth or in clinic. Personally, I felt an unspoken pressure to report back to my team that the patient had decided on a LARC method. Even in my early training years, I have been indoctrinated into the mental models held by many clinicians.

Recognizing the different mental models held by patients and those held by the health care and public health fields is critical. Continuing to operate under disparate understandings of pregnancy attitudes, planning, and intendedness will only perpetuate systems that oppress the most vulnerable.

Emerging strategies to improve health care delivery and public health initiatives involving pregnancy attitudes

A focus in many realms of health care in recent years has been patient-centeredness. This applies to not only quality improvement initiatives but also to provider-patient relationships and patient experiences throughout health care (Park et al., 2018). Patient-centered counseling has been suggested as one way to introduce more nuance at the touchpoint where providers may be discussing pregnancy attitudes with their patients (Rivlin & Isley, 2018). One randomized trial used an innovative, tablet-based patient-centered decision-making tool and showed promising results, from improved patient knowledge to enhanced experience (Dehlendorf et al., 2019).

In a similar vein, One Key Question®, discussed previously in this analysis, encourages providers to use patient-centered counseling techniques when discussing pregnancy planning. The creators acknowledge the simplicity of the question and the complexity of the answers: they offer four possible responses to the seemingly yes/no question and frame the initiative as encouraging discussion to reveal a "woman's desire or ambivalence about pregnancy" (Allen et al., 2017; *One Key Question*®, 2020). While implementation research regarding One Key Question® is lacking, the intention behind the design is promising.

Beyond health care delivery itself, public health researchers have attempted to introduce more nuanced measures of pregnancy attitudes into research practices as well. One key example of this, as discussed previously, is pregnancy "acceptability." Much of the initial research in this area has been done by Dr. Anu Gomez at the University of California, Berkeley, and the results have been promising. Still, shifting the framework of decades worth of public health initiatives and surveillance systems — particularly those on a national scale — takes time and investment from those in power. Thus far, the dominant mental model, even within the field of maternal and child health, remains focused on preventing unintended pregnancy.

Part of moving toward broader acceptance of more nuanced measures will be demonstrating the association with key maternal and child outcomes of interest. Unintended — and in particular unwanted — pregnancy has been associated with more risky behaviors and adverse outcomes (Beck et al., 2002; D'Angelo et al., 2004). Within the field of public health, this association has reinforced the importance of tracking and "tackling" unintended pregnancies. Some suggest that happiness at learning about the pregnancy (which is not mutually exclusive with a pregnancy being "unwanted" prior to conception) may have differential consequences for these outcomes (Aiken et al., 2015). Continuing more nuanced research on a population scale that is able to test these hypotheses will equip practitioners with the data they need to advocate for these changes.

Proposed Systems Improvements: Introduce questions in national surveys that measure pregnancy acceptability.

Ample research has shown flaws in the concept of pregnancy unintendedness. This data is sufficient to argue a shift in the language used in national surveys around pregnancy planning and intention.

Changing the language at this level will have downstream effects. Public health measurement and surveys have been entrenched in how the country thinks about pregnancy for long time. In other words, mental models have been well established. Researchers and public health practitioners across the country rely on these data to inform and evaluate initiatives. If the

information they have is framed in a way that embraces nuance, mental models that have become entrenched in the field may start to shift.

Granted, in order to make these changes to surveys in the first place, the mental models of those with decision-making power will need to shift. But having been stymied in their efforts to improve rates of unintended pregnancy for decades, this may be a moment when higher-ups in public health may be willing to reframe the discussion entirely. Measuring progress toward this initiative would require close monitoring of the data systems used by public health practitioners, whether they include questions about pregnancy acceptability, and whether those questions are being actively monitored.

Proposed Systems Improvements: Create changes in medical education that emphasize reproductive justice

Gaps around reproductive health abound in medical schools in the United States. Based on conversations with medical students from around the country, there are also large differences between curriculums at medical schools in places such as California and those in states like Alabama. Even here in Wisconsin, the lecture at the school of medicine regarding pregnancy physiology for first year medical students in 2018 was cancelled (later rescheduled as optional), and there exist no formal education about abortion outside of an ethics workshop.

One guiding framework that should be incorporated not only into medical education at the undergraduate level but also in the medical field generally is reproductive justice (RJ), defined by women of color advocates as the ability to have children, not have children, and raise the children they have in a safe and supported environment, all while maintaining autonomy over their bodies (Loretta J. Ross & Rickie Solinger, 2017). Curriculums and best practices for teaching medical providers have been developed by RJ experts, and many health systems have created strong partnership with RJ organizations. This learning is ongoing and requires active, two-way partnerships (Loder et al., 2020).

Challenges in medical school curriculums regarding reproductive health exist before arriving at a place to discuss nuances within pregnancy intendedness, ambivalence, and acceptability. However, using a curriculum that introduces medical professionals to concepts of reproductive justice early in their careers represents an opportunity to create downstream changes in how future physicians practice and may allow them to incorporate a different framework into their practice. It is not only the knowledge of RJ that matters; it is incorporating a lens of RJ to other parts of medical care (Loder et al., 2020).

Challenges to implementing widespread changes to curriculum would be substantial. Medical schools are subject to pressures from many angles: accrediting bodies, medical licensing exams preparation. For public institutions, this list also includes political pressure. These pressures will continue to exist. Shifting the emphasis away from standardized exams toward a more holistic evaluation of medical students (read: residency applicants) would be a potential method of circumventing this, but presents challenges of its own. Starting with the accrediting bodies or the licensing exams, however may prove more feasible: physician advocates for abortion education who write questions for the US Medical Licensing Exam have long been writing questions that exclusively test on medical and surgical abortion concepts. The hope here — as it could be for RJ concepts in health care — is that schools will continue to teach to these exams, so using opportunities to shape those exams may begin to encourage (or even require) schools to introduce learning objectives.

Measuring progress toward this goal in the current atmosphere would also present challenges. However, pending initiatives from the American Medical Student Association to assess reproductive health curriculum at medical schools around the country (give a “grade” to each school) would be helpful in tracking the incorporation of RJ concepts.

Conclusion

In this paper, the narratives, history, systems, and current public health and health care strategies surrounding pregnancy intendedness have been examined. In order to move toward equity, strategies for shift those systems around health care’s handling of contraception counseling and talking about pregnancy planning and intention must be grounded in the tenants of reproductive justice. The factors that create an irrelevance of pregnancy planning as a *concept* for many are rooted in systems beyond health care, including systemic racism and economic suppression. Shifting larger systems to achieve the core aims of

reproductive justice — including that society prioritize and create conditions under which families can thrive (Loretta J. Ross & Rickie Solinger, 2017) — will likely contribute to shifting attitudes surrounding pregnancy intention. It will be key to not only create these conditions for people, but also to shift the mental models of health care providers and public health practitioners to see these aims as the priority.

References

Aiken, A. R. A., Dillaway, C., & Mevs-Korff, N. (2015). A blessing I can't afford: Factors underlying the paradox of happiness about unintended pregnancy. *Social Science & Medicine*, *132*, 149–155. https://doi.org/10.1016/j.socscimed.2015.03.038

Allen, D., Hunter, M. S., Wood, S., & Beeson, T. (2017). One Key Question®: First Things First in Reproductive Health. *Maternal and Child Health Journal*, *21*(3), 387–392. https://doi.org/10.1007/s10995-017-2283-2

Bearak, J. M., Popinchalk, A., Sedgh, G., Ganatra, B., Moller, A.-B., Tunçalp, Ö., & Alkema, L. (2019). Pregnancies, abortions, and pregnancy intentions: A protocol for modeling and reporting global, regional and country estimates. *Reproductive Health*, *16*(1), 36. https://doi.org/10.1186/s12978-019-0682-0

Beck, L. F., Morrow, B., Lipscomb, L. E., Johnson, C. H., Gaffield, M. E., Rogers, M., & Gilbert, B. C. (2002). Prevalence of selected maternal behaviors and experiences, Pregnancy Risk Assessment Monitoring System (PRAMS), 1999. *Morbidity and Mortality Weekly Report. Surveillance Summaries (Washington, D.C.: 2002)*, *51*(2), 1– 27.

Borrero, S., Nikolajski, C., Steinberg, J. R., Freedman, L., Akers, A. Y., Ibrahim, S., & Schwarz, E. B. (2015). "It just happens": A qualitative study exploring low-income women's perspectives on pregnancy intention and planning. *Contraception*, *91*(2), 150–156. https://doi.org/10.1016/j.contraception.2014.09.014

Christine Dehlendorf, & Kelsey Holt. (2019, January 2). The Dangerous Rise of the IUD as Poverty Cure. *The New York Times*. https://www.nytimes.com/2019/01/02/opinion/iud-implants-contraception-poverty.html

Corey G. Johnson. (2013, July 7). Female inmates sterilized in California prisons without approval. *The Center for Investigative Reporting*. https://www.revealnews.org/article/female-inmates-sterilized-in-california-prisons- without-approval/

D'Angelo, D. V., Gilbert, B. C., Rochat, R. W., Santelli, J. S., & Herold, J. M. (2004). Differences between mistimed and unwanted pregnancies among women who have live births. *Perspectives on Sexual and Reproductive Health*, *36*(5), 192–197. https://doi.org/10.1363/psrh.36.192.04

Davis A. Racism, Birth Control, and Reproductive Rights. In: *Women, Race, and Class*. Vintage Books; 1983:353-367.

Dehlendorf, C., Fitzpatrick, J., Fox, E., Holt, K., Vittinghoff, E., Reed, R., Campora, M. P., Sokoloff, A., & Kuppermann, M. (2019). Cluster randomized trial of a patient-centered contraceptive decision support tool, My Birth Control. *American Journal of Obstetrics and Gynecology*, *220*(6), 565.e1-565.e12. https://doi.org/10.1016/j.ajog.2019.02.015

Finer, L. B., & Zolna, M. R. (2016). Declines in Unintended Pregnancy in the United States, 2008–2011. *New England Journal of Medicine*, *374*(9), 843–852. https://doi.org/10.1056/NEJMsa1506575

Gomez, A. M., Arteaga, S., Ingraham, N., Arcara, J., & Villaseñor, E. (2018). It's Not Planned, But Is It Okay? The Acceptability of Unplanned Pregnancy Among Young People. *Women's Health Issues*, *28*(5), 408–414. https://doi.org/10.1016/j.whi.2018.07.001

Gomez, A. M., Fuentes, L., & Allina, A. (2014). Women or LARC First? Reproductive Autonomy And the Promotion of Long-Acting Reversible Contraceptive Methods. *Perspectives on Sexual and Reproductive Health*, *46*(3), 171–175. https://doi.org/10.1363/46e1614

Hashim, M. J. (2017). *Patient-Centered Communication: Basic Skills*. *95*(1), 6.

Levi, A., & Dau, K. Q. (2011). Meeting the National Health Goal to Reduce Unintended Pregnancy. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *40*(6), 775–781. https://doi.org/10.1111/j.1552-6909.2011.01292.x

Loder, C. M., Minadeo, L., Jimenez, L., Luna, Z., Ross, L., Rosenbloom, N., Stalburg, C. M., & Harris, L. H. (2020). Bridging the Expertise of Advocates and Academics to Identify Reproductive Justice Learning Outcomes. *Teaching and Learning in Medicine*, *32*(1), 11–22. https://doi.org/10.1080/10401334.2019.1631168

Loretta J. Ross, & Rickie Solinger. (2017). *Reproductive Justice: An Introduction*. University of California Press.

Luker, K. C. (1999). A reminder that human behavior frequently refuses to conform to models created by researchers. *Family Planning Perspectives*, *31*(5), 248–249.

Margot Sanger-Katz. (2018, December 18). Set It and Forget It: How Better Contraception Could Be a Key to Reducing Poverty. *The New York Times*. https://www.nytimes.com/2018/12/18/upshot/set-it-and-forget-it-how-better- contraception-could-be-a-secret-to-reducing-poverty.html

Nacev, E., Taboada, M., Raymo, N., & Ehrenthal, D. (2018, November). *Health professionals' perceived barriers and attitudes regarding implementation of preconception care.* American Public Health Association Annual Meeting, San Diego, CA.

One Key Question®. (2020). Power to Decide. https://powertodecide.org/one-key-question

Park, M., Giap, T.-T.-T., Lee, M., Jeong, H., Jeong, M., & Go, Y. (2018). Patient- and family- centered care interventions for improving the quality of health care: A review of systematic reviews. *International Journal of Nursing Studies*, *87*, 69–83. https://doi.org/10.1016/j.ijnurstu.2018.07.006

Parks, C., & Peipert, J. F. (2016). Eliminating health disparities in unintended pregnancy with long-acting reversible contraception (LARC). *American Journal of Obstetrics and Gynecology*, *214*(6), 681–688. https://doi.org/10.1016/j.ajog.2016.02.017

Rivlin, K., & Isley, M. M. (2018). Patient-centered Contraceptive Counseling and Prescribing: *Clinical Obstetrics and Gynecology*, *61*(1), 27–39. https://doi.org/10.1097/GRF.0000000000000337

Roter, D. L., & Hall, J. A. (1987). Physicians' interviewing styles and medical information obtained from patients. *Journal of General Internal Medicine*, *2*(5), 325–329. https://doi.org/10.1007/BF02596168

Santelli, B., Rochat, R., & Hatfield, K. (2003). The Measurement and Meaning of Unintended Pregnancy. *Perspectives on Sexual and Reproductive Health*, 9.

Schwarz, E. B., Lohr, P. A., Gold, M. A., & Gerbert, B. (2007). Prevalence and correlates of ambivalence towards pregnancy among nonpregnant women. *Contraception*, *75*(4), 305– 310. https://doi.org/10.1016/j.contraception.2006.12.002

Secura, G. (2013). Long-acting reversible contraception: A practical solution to reduce unintended pregnancy. *Minerva Ginecologica*, *65*(3), 271–277.

Sedgh, G., Singh, S., & Hussain, R. (2014). Intended and Unintended Pregnancies Worldwide in 2012 and Recent Trends. *Studies in Family Planning*, *45*(3), 301–314. https://doi.org/10.1111/j.1728-4465.2014.00393.x

Shah, P. S., Balkhair, T., Ohlsson, A., Beyene, J., Scott, F., & Frick, C. (2011). Intention to Become Pregnant and Low Birth Weight and Preterm Birth: A Systematic Review. *Maternal and Child Health Journal*, *15*(2), 205–216. https://doi.org/10.1007/s10995-009-0546-2

Thomas, A., & Karpilow, Q. C. (2018). Long-Acting Reversible Contraception: A Silver Bullet Solution for Unintended Pregnancy? *American Journal of Public Health*, *108*(8), 1007– 1008. https://doi.org/10.2105/AJPH.2018.304523

Thorburn, S., & Bogart, L. M. (2005). African American women and family planning services: Perceptions of discrimination. *Women & Health*, *42*(1), 23–39. https://doi.org/10.1300/J013v42n01_02

Trussell, J., Vaughan, B., & Stanford, J. (1999). Are all contraceptive failures unintended pregnancies? Evidence from the 1995 National Survey of Family Growth. *Family Planning Perspectives*, *31*(5), 246–247, 260.

Unintended Pregnancy in the United States. (2019). Guttmacher Institute. https://www.guttmacher.org/fact-sheet/unintended-pregnancy-united-states