

Contraceptive Counseling: Best Practices to Ensure Quality Communication and Enable Effective Contraceptive Use

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Abstract: Improving the quality of contraceptive counseling is one strategy to prevent unintended pregnancy. We identify aspects of relational and task-oriented communication in family planning care that can assist providers in meeting their patients' needs. Approaches to optimizing women's experiences of contraceptive counseling include working to develop a close, trusting relationship with patients and using a shared decision-making approach that focuses on eliciting and responding to patient preferences. Providing counseling about side effects and using strategies to promote contraceptive continuation and adherence can also help optimize women's use of contraception.

Key words: contraception, contraceptive counseling, task-oriented communication, shared decision making

Introduction

Over the past several decades, the proportion of pregnancies in the United States that are unintended has remained stubbornly high at approximately 50%.¹ This high frequency of unintended pregnancy in the United States places a heavy burden on women, their families, and the health care system.^{2,3} Unintended pregnancy is disproportionately experienced by women from racial and ethnic minority groups and women of lower socioeconomic status,¹ which can contribute to the cycle of disadvantage among vulnerable populations.

Nonuse of contraceptive methods, use of less effective methods, and incorrect and inconsistent use of methods underlie the high frequency of unintended pregnancy.^{4–6} In addition, racial and ethnic differences in contraceptive use contribute to disparities in unintended pregnancy.^{6,7} Although the use of contraception is influenced by a complex set of factors, including access to medical care and the influence of social networks,⁸ providers have the potential to positively influence women's ability to use contraception during health care visits, especially as all nonbarrier methods of contraception require either a prescription or a medical procedure. Optimizing this counseling is one approach to helping women of all race/ethnicities and socioeconomic strata to improve their ability to plan pregnancies.

In this review we present what is known about contraceptive counseling, including how it is performed and what is known about what works, and does not work, in this area of health communication. We will draw on the literature from other areas of health communication to inform this discussion, while acknowledging the unique nature of family planning counseling. Specifically, we recognize that providing this counseling is complicated by the fact that providers and patients must not only consider the medical issues involved in method selection—such as the presence or absence of contraindications to methods and

differences in method efficacy—but also consider issues that are intensely personal, including relationship influences on contraceptive use, attitudes toward side effects, and desire (or lack of desire) for future fertility. In addition, there is a need to take into the history in which some family planning providers were involved in coercive efforts to limit vulnerable women's fertility when providing this counseling.^{9,10} Together, these factors result in the provider's role in method selection having the potential to be perceived differently—by both the patient and the provider—than it would be in other medical decisions.

What is the Evidence That Contraceptive Counseling Matters?

The first layer of evidence for the value of contraceptive counseling comes from research in health communication in general. This literature provides support for the value of quality interpersonal communication in the health care setting, as it relates to both the formation of a positive therapeutic relationship between the provider and the patient (ie, relational communication) and the ability of health care providers to successfully communicate essential information about diagnosis and treatment plans (ie, task-oriented communication) (Table 1).

Looking at relational communication first, the importance of the patient's experience of interpersonal care is increasingly being emphasized in the medical literature.¹¹ This emphasis can be justified from both ethical and utilitarian perspectives,¹² with the first focusing on the inherent value of positive interpersonal interactions, and the other on the association of high-quality communication with concrete outcomes. The ethical argument is especially salient in this context, due to the unique nature of contraceptive counseling. Empiric evidence for the value of attending to interpersonal

TABLE 1. Categories of Communication in the Health Care Setting

	Relational Communication	Task-oriented Communication
Definition	Interpersonal communication that contributes to the formation of a positive therapeutic relationship between the provider and the patient	Communication of essential information about diagnosis and treatment options and plans
Rationale	Inherent ethical value of positive interpersonal interactions Evidence that links positive patient-provider communication with improved health outcomes	Evidence linking provision of information with improved health outcomes

communication in the general medical literature includes studies finding positive associations between patient experience of interpersonal communication and outcomes, including self-reported and objectively determined health status, adherence, and use of preventive services.¹² With respect to task-oriented communication, studies in the general medical literature have found, for example, that provision of information, including communication about such specific aspects of treatment plans as potential side effects of medications, leads to better outcomes.^{13–15}

In the area of family planning specifically, the impact of counseling is clearly seen in studies that have found that women's selection of a new contraceptive method is influenced by whether providers mention or recommend specific methods.^{16,17} In addition, there is a small body of evidence supporting the value of both relational and task-oriented communication. Several observational studies in the United States have found a relationship

between the interpersonal quality of family planning counseling and contraceptive use. These include 2 studies that have found that patients who are more satisfied with their family planning visits are more likely to be satisfied with their method,^{18,19} and similarly, that women who are satisfied with their most recent gynecologic visit are more likely to be using contraception.¹⁹ One study in Egypt, using audiorecordings of contraceptive counseling visits, found that receiving counseling that was more "client centered," as opposed to "physician centered," was associated with continuation of one's chosen method.²⁰ In this study, client-centered behaviors were those designed to facilitate women's involvement in the counseling visit, such as statements of partnership, whereas physician-centered behaviors were those that limited this involvement, such as overt directiveness. In addition, several prospective studies in the developing world have used composite measures of counseling, including measures of both relational and task-oriented aspects of communication, and have found that women who report experiencing higher quality care have higher rates of contraceptive continuation^{21,22} and contraceptive use.^{21,23} Studies have also found that provision of information about side effects specifically is associated with improved outcomes.^{24,25}

What Do We Know About How Contraceptive Counseling is Performed?

Studies using observation of family planning encounters have been conducted in both the developing and developed world. With respect to relational communication, these have documented that, across settings, the interaction is often provider dominated, with minimal engagement between women and their providers in the process of method selection^{20,26,27} and with frequent failure of providers to

deliver personalized counseling tailored to the individual women's needs and preferences.²⁷⁻³⁰ Similarly, providers inconsistently engage in such task-oriented communication as providing information about side effects or how to use a method correctly. For example, 1 study documented that 37% of women choosing the hormonal IUD were not informed of the likelihood of irregular bleeding with this method,³⁰ and in a study of counseling about oral contraceptive pills 26% of women were not given any information about what to do if they forget a pill.²⁹

Additional studies have used qualitative interviews of both patients and providers to assess their experiences of contraceptive counseling, with respect to both relational and task-oriented communication. These have found that women often report being dissatisfied with their experience of counseling, including feeling that they are unable to discuss their concerns and that they receive insufficient information about their options.³¹⁻³³ Quantitative studies investigating this question have also found that many women express dissatisfaction about the patient centeredness and adequacy of counseling.^{19,34,35} Other studies have found that providers frequently have inaccurate knowledge about contraceptive methods, including out-of-date information about the safety of IUDs.³⁶⁻³⁹ Qualitative studies of providers have had varying reports of the counseling strategies utilized. One study of clinicians serving high-risk communities throughout the United States found that many reported having an influence on patients' decisions about contraception, including through the use of scare tactics and by drawing on authority derived from their professional expertise.⁴⁰ In contrast, a similar study, also using qualitative methods, of providers serving African American adolescents in community health centers in Chicago found that providers emphasized relationship building in their counseling.⁴¹

Overall, these studies support the need for improved counseling about

contraceptive methods, both with respect to the interpersonal relationship between the patient and the provider and quality of information that is provided during counseling. The varying perspectives on counseling in the 2 studies of providers themselves suggest the presence of substantial variation in approaches among family planning providers.

What are Best Practices for Contraceptive Counseling?

In the following sections we present what is known about how best to perform contraceptive counseling with respect to relational and task-oriented communication. These findings are summarized in Table 2.

RELATIONAL COMMUNICATION

As described, women who are more satisfied with their family planning experiences are more likely to use contraception. Limited research has explored what women value in their relationship with their providers to guide clinicians in fostering these positive interpersonal relationships.

Developing Close Personal Relationships

Given the sensitive and personal nature of discussions of contraception, it is perhaps not surprising that research suggests that women value an intimate, friend-like relationship with their clinicians when discussing their family planning options.³³ The desire for this type of connection raises the question of whether it is appropriate for providers to disclose anything about their own contraceptive use during the counseling interaction. This type of self-disclosure is a controversial topic in the health communication literature in general, as it can be seen, on one side, as enhancing the therapeutic relationship, or, alternatively, as a transgression of professional boundaries and an inappropriate distraction from the needs and experiences of the patient. Evidence from 1 study in family planning

TABLE 2. Do's and Don'ts for Contraceptive Counseling

	Do's	Don't's
Relational communication	Develop appropriate level of closeness with patients in order to foster therapeutic relationship Build trust, including respectfully addressing patients' concerns about contraceptive methods Work to optimize decision-making dynamic, including incorporating aspects of shared decision making such as focusing on patient preferences for features of contraceptive methods	Dismiss patients' concerns Pressure women to use a specific method Assume that efficacy is the only, or most important, contraceptive feature that should be factored into choice of a method for all women
Task-oriented communication	Offer adequate, evidence-based counseling about side effects Anticipate and address barriers to consistent and correct contraceptive use Ensure advance provision of emergency contraception to all sexually active women Address (mis)perceptions of low susceptibility to pregnancy Counsel about dual protection for women at risk for STIs, including addressing self-efficacy for negotiating condom use Consider screening for reproductive coercion and offer harm reduction strategies	Use self-disclosure as a means to direct patients to a specific method Encourage women to be concerned about the potential for side effects for which there is no evidence of an association with a given method Neglect to consider role of limited health literacy and numeracy on understanding of contraceptive efficacy Neglect to consider role of limited health literacy and numeracy on understanding of contraceptive efficacy Use abstract concepts to switching methods if a patient is dissatisfied Use abstract concepts such as percent or relative risk when communicating about risks and contraceptive effectiveness
Address disparities in contraceptive counseling	Foster awareness of one's own biases and work to consciously overcome their impact on behavior	Assume that a lack of conscious stereotyping eliminates the potential effect of bias on health communication

suggests that this type of disclosure is generally perceived to be appropriate by patients and contributes positively to the counseling dynamic,⁴² which is consistent with patients' desire for a closer personal connection with their provider in this context. The power of self-disclosure during contraceptive counseling is highlighted by a study that found that self-disclosure of IUD use increases uptake of this method.⁴³

Building Trust

A related consideration for family planning providers when establishing an interpersonal relationship with their patients is the importance of working to ensure they are

perceived of as trustworthy. Patients commonly have concerns and misconceptions about the safety of contraceptive methods and the potential for side effects, and several studies indicate that women may have doubts about their providers' willingness to reveal potential negative aspects of contraceptive use.^{33,44} This lack of trust may negatively impact women's willingness to use contraception.³³ Although 1 approach to this issue is a full discussion of side effects, as will be reviewed in more detail below, on a relational level providers can work to enhance trust through respectful communication, including a demonstrated interest in understanding patient concerns.

Optimizing Decision Making

Finally, a key component of relational communication that has received attention in the family planning literature is how providers and patients can and should interact when choosing the contraceptive method the patient will use. In this literature there is a tension between prioritizing patient autonomy in the choice of a method and the desire to encourage women to use highly effective methods. On one side, the recognition of contraceptive choice as a highly personal decision that relates to intimate issues such as sexuality and future fertility desires is the most important consideration. From this perspective, often termed the “informed choice” model,^{45,46} providers should focus on being objective and nonjudgmental, providing only information and not participating in the selection of the method itself, so as to ensure that women are not inappropriately influenced. The alternative perspective is a more directive approach, placing increased value on the role of the provider in promoting methods that are statistically best at preventing pregnancy, based on the assumption that it is valuable on both a population and individual level to prevent unintended births or abortions.⁴⁷

Empiric evidence to support either of these perspectives is scant, with most intervention studies informed by either perspective being unsuccessful.^{48–50} One finding that suggests that a directive approach may, in fact, be counterproductive came from a study of women using a contraceptive implant, which found that those who felt pressured to use this method during counseling were more likely to discontinue it.⁵¹ One family planning program in St Louis, Missouri, the CHOICE project, has taken elements of both approaches by combining an emphasis on the most highly effective methods with comprehensive provision of information on the range of reversible methods,⁵² but the published evaluation of this program found no

difference in uptake of highly effective methods, compared with usual care, and did not evaluate continuation. With respect to women’s preferences for decision making, 1 study found that although women desired more control over contraceptive decision making than over decisions about general health care, there was substantial variation in preferences, with 50% of women wishing to make the decision independently and the remaining 50% desiring to have some degree of provider involvement.⁵³

In the health communication literature more generally, there has been an increased focus on the concept of shared decision making, which lies between the 2 poles of informed choice and directive counseling (Fig. 1).⁵⁴ In this model, each party is recognized as having relevant expertise, with the health care provider having superior knowledge of the medical information and the patient being the expert regarding her own values and preferences.⁵⁵ As a result, the decision-making process is seen as a process of bringing these 2 areas of expertise together. The health care provider’s role includes provision of information, facilitating the identification of patient preferences, ensuring that preferences are not based on misinformation, helping patients to think about how their preferences relate to the available options, and coming to a mutually acceptable decision. This is in contrast with the promotion of a specific course of action seen with directive counseling or the abdication of involvement in the decision-making process that is inherent in the informed choice model.⁵⁴ In the contraceptive context, this approach would allow for both the focus on patient preferences and respect for autonomy that is prioritized in the informed choice model and a structure by which to explore whether efficacy is a priority for a given patient and to emphasize highly effective methods if this is in fact the case, while acknowledging that for some patients

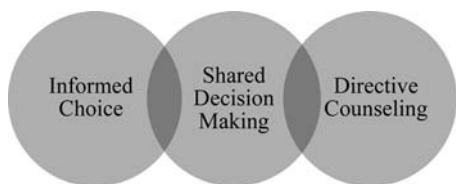


FIGURE 1. In the contraceptive counseling literature, there appears to be a tension between prioritizing patient autonomy in the choice of a method (informed choice) and the desire to encourage women to use highly effective methods (directive counseling). Shared decision making lies between these 2 poles.

other method characteristics may take priority.

This approach has not been discussed extensively in the context of family planning and is infrequently used: 1 study that used audio recordings of contraceptive counseling visits in the United States to determine the frequency in which shared decision making occurred found that this approach was used in less than a quarter of visits, with most patients being counseled with either the informed choice approach or, most commonly, a foreclosed approach. This latter approach, which had not been previously described, consisted of providers only giving information about a limited number of methods. However, a qualitative study found that women reported that counseling with features of shared decision making was consistent with their preferences for family planning care.³³ In addition, a few intervention studies, while not explicitly grounded in the shared decision-making approach, have used approaches that are consistent with this model. One study in Italy found that use of a patient-centered model of counseling, in which there was a structured and intensive dialog between the patient and both a psychologist and a gynecologist, did increase use of effective contraception.⁵⁶ Studies of the WHO's contraceptive flip chart, which is explicitly designed to

promote informed decision making grounded in women's values, have found evidence of improved counseling behaviors, although they have not documented improved contraceptive use.^{57,58}

TASK-ORIENTED COMMUNICATION

Studies of interventions designed to improve the provision of information about women's contraceptive options have been limited and largely unsuccessful. In the absence of strong evidence-based guidance, we offer some principles for contraceptive counseling based on the available literature.

Offer Adequate Counseling Regarding Side Effects and Risks

Ensuring that women have all necessary information about side effects can assist them both with method selection and method continuation. From a method selection perspective, as intolerance of contraceptive side effects is a common reason for discontinuation of contraceptive methods, assessment of the acceptability of contraceptive side effects along with the relative value placed on these is an important component of task-oriented communication.⁵⁹ In addition, providing information about risks associated with methods is essential in order for women to make informed decisions about their method. Once a woman has selected a method, ensuring that she receives further anticipatory guidance regarding side effects can facilitate method continuation, as shown in multiple studies regarding the contraceptive injection and its associated menstrual changes.^{25,60} In addition, 1 study of the levonorgestrel intrauterine system found that anticipatory guidance about menstrual changes with this method was associated with subsequent satisfaction with the method.²⁴ When counseling about side effects and risks, family planning providers should ensure that they are providing evidence-based information about side effects and risks for which there are adequate data to support an association

with a given method.⁶¹ Providers must also be prepared to respectfully address specific concerns that women may have about side effects and risks of contraceptive methods, including those related to the often unfounded or overblown controversies they may be aware of through media coverage, such as issues related to the contraceptive injection and bone density^{62,63} and combined hormonal contraceptive methods and blood clots.⁶⁴

In communicating risk, providers should be careful when communicating numerical figures. When using figures such as single-event probabilities or conditional probabilities the reference group should be explicitly clarified, as a failure to do so can lead to misinterpretation.⁶⁵ For example, the statement “the levonorgestrel IUD has a 0.2% failure rate” may be unclear, as it may refer to failure rate per day, per sexual act, or per person. However, the statement “2 out of 1000 typical users of the levonorgestrel IUD will become pregnant over the course of a year” more clearly communicates this risk. Providers should also be cautious when reporting relative, rather than absolute, risk due to the potential for relative numbers to be misinterpreted. For example, the absolute risk of VTE in both users and nonusers of combined hormonal contraception is extremely rare; however, stating that the relative risk of VTE is 3 times higher among users of combined hormonal contraception can lead to a disproportionate level of concern.⁶⁶

Communicate About Contraceptive Efficacy in a Meaningful Way

Although it is important to note that efficacy is not always the most important factor driving method selection—with issues such as side effects, duration of action, and privacy also playing prominent roles—it commonly is one of the most important factors.⁶⁷ Thus, communicating about contraceptive effectiveness in a way that is informative and meaningful for patients is critical. In doing so, it is essential to take

into account issues related to health numeracy.⁶⁸ Several basic strategies have been suggested to effectively communicate about risk including using plain language, using clear reference groups, as described above, presenting both absolute and comparative risks.^{69,70}

With regard to specific tools to help ensure understanding of contraceptive efficacy, a systematic review of strategies identified 7 trials with varied interventions, including visual aids, oral communication, and audiovisual aids.⁷¹ This review concluded that audiovisual aids were more effective than oral communication, and that presenting contraceptive efficacy with respect to categories of effectiveness, rather than exact numbers, was preferable. We suggest the WHO tiered counseling chart as a model, which has been shown to effectively improve knowledge of relative contraceptive efficacy.^{72,73} For an image of the WHO tiered counseling chart, please refer to figure 1 in Lathrop and Jatloui’s article in this issue.

Anticipate and Address Barriers to Consistent and Correct Contraceptive Use

Given the high discontinuation rate of many contraceptive methods and the frequency of contraceptive failure, suggesting inconsistent or incorrect use, strategies to promote improved contraceptive use following method selection are essential. One general strategy, called “contingency counseling,” which provides additional attention to problems that might arise with use of a particular contraceptive method, can empower patients to troubleshoot any issues that may arise without the added barrier of additional provider visits. Contingencies may include general financial or logistic barriers as well as method-specific side effects. One study found a 15% reduction in pregnancy testing and emergency contraception services when “if-then” contingency planning was used.⁷⁴ A second study found a reduction in the 6-month

pregnancy rate, but not the 12-month pregnancy rate following contingency counseling that included general and method-specific planning.⁷⁵

Gaps in contraceptive coverage are known to contribute to unintended pregnancy,⁷⁶ hence making follow-up visits, including telephone visits, easily available may help patients switch between methods without exposing themselves to pregnancy risk.⁶ Providers can help patients who choose a non-LARC method succeed by ensuring that multiple packs (ideally up to a 12mo supply) are dispensed at 1 time, and helping patients strategize about remembering refills or appointments, for example, by utilizing free online or text reminder services.^{77,78} Lastly, advance provision of emergency contraception should be standard, as this has been shown to increase its use.⁷⁹

Address (Mis)Perceptions of Low Susceptibility to Pregnancy

Recent data have suggested that perceived low susceptibility is a common reason for contraceptive nonuse or inconsistent use.^{80,81} In 1 study of women presenting to family planning clinics, 92% of women overestimated the chance of pregnancy from a single act of unprotected intercourse, yet 24% underestimated the pregnancy risk of unprotected intercourse at 1 year, suggesting a lack of understanding of the high cumulative risk of repeating a low-risk activity.⁸² Furthermore, nearly half of women in the same sample engaged in unprotected intercourse because of perceived infertility.⁸³ Women's perceptions of infertility may result from having had previous episodes of unprotected intercourse in which conception did not occur, especially in light of gross overestimations of the expected chance of pregnancy from a single act of unprotected intercourse. More research is needed to determine how best to communicate this complex topic that involves both reproductive biology and advanced numeracy.

Counsel About Dual Protection for Women at Risk for STIs

When reviewing the efficacy of various methods of contraception for pregnancy prevention, it is important that condoms not be dismissed altogether given their relatively poor effectiveness in preventing pregnancies compared with other methods. Although there is little evidence to guide the provision of this counseling, the concept of dual protection for women at risk of sexually transmitted infections should be reinforced during counseling, including discussing women's self-efficacy for negotiating condom use with their partner(s).⁸⁴

Consider Screening for Reproductive Coercion and Offer Harm Reduction Strategies

Recent reports have illuminated that women commonly report experiences with reproductive coercion—defined as behavior by a partner intended to maintain power or control in a relationship through coercion to become pregnant or interference with contraceptive methods.⁸⁵ Reproductive coercion has been linked to unintended pregnancy,⁸⁶ and women with abuse histories seem to have differences with regard to contraceptive method selection and have higher rates of contraceptive discontinuation.⁸⁷ Asking more directed questions regarding a woman's agency in choosing her contraceptive method or using contraception at all may illuminate partner dynamics that put women at risk for unintended pregnancy. A brief family planning clinic-based intervention in which providers asked about reproductive coercion, prompted by cards distributed throughout the clinic, was shown to decrease the odds of pregnancy coercion by 71% at 12- and 24-week follow-up, and is feasible to implement in practice, as the screening took less than a minute to perform.⁸⁸ Harm reduction strategies may include provision of “hidden” or discreet methods of contraception, including IUDs (without strings), subdermal

implants, or injections to help women ensure privacy and autonomy and avoid conception in the interim between identification of a dangerous or unhealthy relationship and a woman's ability to safely exit it.

Disparities in Contraceptive Counseling

Given observed racial and ethnic differences in contraceptive use and profound disparities in rates of unintended pregnancy, it is critical that we consider how to optimize patient-provider communication and contraceptive counseling across diverse populations. In health care generally, studies have shown that health care providers communicate with patients differently based on their race/ethnicity. Compared with white patients, black patients experience less patient-centered communication, receive less information, experience shorter clinic visits, and are less likely to report understanding everything their doctor said.^{89–94} Such differences are thought to contribute to disparities in health outcomes.^{91,95–97} In the family planning context, there is evidence that minority women perceive lower quality interactions. Black and Hispanic women have rated their family planning visits less positively than white women^{19,80} and are also more likely to report feeling pressured to use contraception and limit their family size.^{35,98} In addition, in 1 survey of black women, 67% reported that they had experienced race-based discrimination when obtaining family planning services, and 52% reported experiences that reflect stereotypes of black women (eg, provider assumed they had multiple sexual partners).⁹⁹

Such patient perceptions, and particularly perceptions of discrimination, are important irrespective of provider intentions as patients' subjective experiences can affect their interactions within the health care system and can fuel their documented distrust of family planning methods.^{44,100}

However, additional studies that have documented actual differences in family planning care by race/ethnicity indicate that these perceptions are, at least to some degree, based on reality. In 1 recent study, providers more often recommended IUDs to black and Hispanic women of low socioeconomic status.¹⁰¹ In an older study from 1988, physicians were more willing to sterilize black and poor women than white and higher income women.¹⁰²

These findings are not surprising, given that providers, like everyone else, hold stereotypes (often subconsciously) based on a patient's race, sex, and class, and these stereotypes can affect health-related communication and clinical decisions.^{96,103–105} It is also important to recognize that stereotyping is not simply a product of the individual provider but may also be heightened by features of the health care setting that decrease cognitive capacity, such as fatigue, work overload, and time pressure, which can lead to heuristic thinking or mental short cuts and the application of stereotypes to guide clinical decisions.¹⁰⁶ Fortunately, these biases can be corrected. One line of research suggests that if providers are made aware of particular scenarios in which racial and ethnic minority group members are subjected to discriminatory and biased care, they may be motivated to reexamine their behaviors for possibility of biases and correct for these.^{97,104,106} Thus, recognizing that there are racial and ethnic differences in family planning care and attending to our own complicity and the system characteristics that contribute to them can ultimately help to advance equity, improve quality, and attenuate disparities.

Future Areas for Research

Clearly, more research is needed to guide evidence-based strategies for effective contraceptive counseling. This research must take into account the context in which contraceptive counseling occurs, including the limited time available to providers and

the complexity of the decision, in which patients have a diverse array of methods with varying characteristics from which to choose. In addition, it is essential to consider the unique historical and social context of family planning care, including the intimate nature of decisions related to fertility and sexuality and the need for sensitivity to avoid recreating or appearing to recreate a dynamic in which women are pressured to use specific methods, when designing future research.

Particular areas of research that deserve attention include those for which there is a lack of evidence identified in this review, including how to communicate risk of pregnancy from unprotected sex, how to optimally support women during the process of selecting a contraceptive method, and how to encourage appropriate use of dual protection for prevention of sexually transmitted infections. In addition, the development and/or testing of products designed to enhance contraceptive counseling that can be widely implemented (eg, decision support tools, reproductive life plans, or online patient-facing tools such as “Bed-sider.org”) could improve both the quality and the efficiency of contraceptive counseling. Finally, understanding how to best leverage men’s interest in contraceptive decision making could allow them to further support women’s contraceptive use.

Conclusions

Contraceptive counseling has great potential as a strategy to empower women who do not desire pregnancy to choose a method of birth control that she can use correctly and consistently over time, thereby reducing her individual risk of unintended pregnancy. Although the research on which to base specific recommendations is limited, our review highlights the potential value of a shared decision-making approach that focuses on eliciting and responding to patient preferences and of specific task-oriented communication strategies to enhance the

process of method selection, facilitate correct use of a chosen method, and meet women’s overall reproductive health needs.

References

1. Finer LB, Zolna MR. Unintended pregnancy in the United States: incidence and disparities, 2006. *Contraception*. 2011;84:478–485.
2. Gipson JD, Koenig MA, Hindin MJ. The effects of unintended pregnancy on infant, child, and parental health: a review of the literature. *Stud Fam Plann*. 2008;39:18–38.
3. Trussell J, Henry N, Hassan F, et al. Burden of unintended pregnancy in the United States: potential savings with increased use of long-acting reversible contraception. *Contraception*. 2013; 87:154–161.
4. Mosher W, Jones J. Use of contraception in the United States: 1982–2008. *Vital Health Stat*. 2010;23:1–44.
5. Kost K, Singh S, Vaughan B, et al. Estimates of contraceptive failure from the 2002 National Survey of Family Growth. *Contraception*. 2008;77:10–21.
6. Vaughan B, Trussell J, Kost K, et al. Discontinuation and resumption of contraceptive use: results from the 2002 National Survey of Family Growth. *Contraception*. 2008;78:271–283.
7. Dehlendorf C, Park SY, Emeremni CA, et al. Racial/ethnic disparities in contraceptive use: Variation by age and women’s reproductive experiences. *Am J Obstet Gynecol*. 2014;24: e281–e289.
8. Yee L, Simon M. The role of the social network in contraceptive decision-making among young, African American and Latina women. *J Adolesc Health*. 2010;47:374–380.
9. Stern AM. Sterilized in the name of public health: race, immigration, and reproductive control in modern California. *Am J Public Health*. 2005;95:1128–1138.
10. Roberts D. *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*. New York, NY: Pantheon Books; 1997.
11. Duffy FD, Gordon GH, Whelan G, et al. Assessing competence in communication and interpersonal skills: the Kalamazoo II report. *Acad Med*. 2004;79:495–507.
12. Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open*. 2013;3.
13. Bull SA, Hu XH, Hunkeler EM, et al. Discontinuation of use and switching of antidepressants: influence of patient-physician communication. *JAMA*. 2002;288:1403–1409.

14. Kaplan SH, Greenfield S, Ware JE Jr. Assessing the effects of physician-patient interactions on the outcomes of chronic disease. *Med Care*. 1989;27:S110-S127.
15. Carcaise-Edinboro P, Bradley CJ. Influence of patient-provider communication on colorectal cancer screening. *Med Care*. 2008;46:738-745.
16. Harper CC, Brown BA, Foster-Rosales A, et al. Hormonal contraceptive method choice among young, low-income women: how important is the provider? *Patient Educ Couns*. 2010;81:349-354.
17. Bitzer J, Cupanik V, Fait T, et al. Factors influencing women's selection of combined hormonal contraceptive methods after counselling in 11 countries: results from a subanalysis of the CHOICE study. *Eur J Contracept Reprod Health Care*. 2013;18:372-380.
18. Rosenberg MJ, Waugh MS, Burnhill MS. Compliance, counseling and satisfaction with oral contraceptives: a prospective evaluation. *Fam Plann Perspect*. 1998;30:89-92. 104.
19. Forrest JD, Frost JJ. The family planning attitudes and experiences of low-income women. *Fam Plann Perspect*. 1996;28:246-255, 77.
20. Abdel-Tawab N, Roter D. The relevance of client-centered communication to family planning settings in developing countries: lessons from the Egyptian experience. *Soc Sci Med*. 2002;54:1357-1368.
21. Koenig MA, Hossain MB, Whittaker M. The influence of quality of care upon contraceptive use in rural Bangladesh. *Stud Fam Plann*. 1997;28:278-289.
22. RamaRao S, Lacuesta M, Costello M, et al. The link between quality of care and contraceptive use. *Int Fam Plan Perspect*. 2003;29:76-83.
23. Sanogo D, RamaRao S, Jones H, et al. Improving quality of care and use of contraceptives in Senegal. *Afr J Reprod Health*. 2003;7:57-73.
24. Backman T, Huhtala S, Luoto R, et al. Advance information improves user satisfaction with the levonorgestrel intrauterine system. *Obstet Gynecol*. 2002;99:608-613.
25. Canto De Cetina TE, Canto P, Ordóñez Luna M. Effect of counseling to improve compliance in Mexican women receiving depot-medroxyprogesterone acetate. *Contraception*. 2001;63:143-146.
26. Kim YM, Kols A, Bonnin C, et al. Client communication behaviors with health care providers in Indonesia. *Patient Educ Couns*. 2001;45:59-68.
27. Dehlendorf C, Kimport K, Levy K, et al. A qualitative analysis of approaches to contraceptive counseling. *Perspect Sex Reprod Health*. 2014; DOI 19.1363/46e2114. (In press).
28. Kim YM, Kols A, Mueche S. Informed choice and decision-making in family planning counseling in Kenya. *Int Fam Plann Persp*. 1998;24:4-11. 42.
29. Peremans L, Rethans JJ, Verhoeven V, et al. Adolescents demanding a good contraceptive: a study with standardized patients in general practices. *Contraception*. 2005;71:421-425.
30. Dehlendorf C, Tharayil M, Anderson N, et al. Counseling about IUDs: a mixed-methods analysis. *Perspect Sex Reprod Health*. 2014;. [Epub ahead of print].
31. Guendelman S, Denny C, Mauldon J, et al. Perceptions of hormonal contraceptive safety and side effects among low-income Latina and non-Latina women. *Matern Child Health J*. 2000;4:233-239.
32. 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;22:1387-1400.
33. Dehlendorf C, Levy K, Kelley A, et al. Women's preferences for contraceptive counseling and decision making. *Contraception*. 2013;88:250-256.
34. Becker D, Koenig MA, Kim YM, et al. The quality of family planning services in the United States: findings from a literature review. *Perspect Sex Reprod Health*. 2007;39:206-215.
35. Becker D, Tsui AO. Reproductive health service preferences and perceptions of quality among low-income women: racial, ethnic and language group differences. *Perspect Sex Reprod Health*. 2008;40:202-211.
36. Dehlendorf C, Levy K, Ruskin R, et al. Health care providers' knowledge about contraceptive evidence: a barrier to quality family planning care? *Contraception*. 2010;81:292-298.
37. Harper CC, Blum M, de Bocanegra HT, et al. Challenges in translating evidence to practice: the provision of intrauterine contraception. *Obstet Gynecol*. 2008;111:1359-1369.
38. Schreiber CA, Harwood BJ, Switzer GE, et al. Training and attitudes about contraceptive management across primary care specialties: a survey of graduating residents. *Contraception*. 2006;73:618-622.
39. Stubbs E, Schamp A. The evidence is in. Why are IUDs still out?: family physicians' perceptions of risk and indications. *Can Fam Physician*. 2008;54:560-566.
40. Henderson JT, Raine T, Schalet A, et al. "I wouldn't be this firm if I didn't care": preventive clinical counseling for reproductive health. *Patient Educ Couns*. 2011;82:254-259.
41. Gilliam ML, Hernandez M. Providing contraceptive care to low-income, African American teens: the experience of urban community health centers. *J Community Health*. 2007;32:231-244.

42. Evans M, Chan P, Dehlendorf C. Provider self-disclosure during contraceptive counseling. *Contraception*. 2013;88:464.
43. Benson LS, Perrucci A, Drey EA, et al. Effect of shared contraceptive experiences on IUD use at an urban abortion clinic. *Contraception*. 2012; 85:198–203.
44. Thorburn S, Bogart LM. Conspiracy beliefs about birth control: barriers to pregnancy prevention among African Americans of reproductive age. *Health Educ Behav*. 2005;32:474–487.
45. Upadhyay U. *Informed Choice in Family Planning: Helping People Decide*. Baltimore: Johns Hopkins University Bloomberg School of Public Health, Population Information Program.
46. Program guidelines for project grants for family planning services, 2001. Available at: <http://www.hhs.gov/opa/pdfs/2001-ofp-guidelines-complete.pdf>.
47. Moskowitz E, Jennings B. Directive counseling on long-acting contraception. *Am J Public Health*. 1996;86:787–790.
48. Halpern V, Lopez LM, Grimes DA, et al. Strategies to improve adherence and acceptability of hormonal methods of contraception. *Cochrane Database Syst Rev*. 2011;13:CD004317.
49. Petersen R, Albright J, Garrett JM, et al. Pregnancy and STD prevention counseling using an adaptation of motivational interviewing: a randomized controlled trial. *Perspect Sex Reprod Health*. 2007;39:21–28.
50. Peipert JF, Redding CA, Blume JD, et al. Tailored intervention to increase dual-contraceptive method use: a randomized trial to reduce unintended pregnancies and sexually transmitted infections. *Am J Obstet Gynecol*. 2008;198: 630.e1–630.e8.
51. Kalmuss D, Davidson AR, Cushman LF, et al. Determinants of early implant discontinuation among low-income women. *Fam Plann Perspect*. 1996;28:256–260.
52. Madden T, Mullersman JL, Omvig KJ, et al. Structured contraceptive counseling provided by the Contraceptive CHOICE Project. *Contraception*. 2013;88:243–249.
53. Dehlendorf C, Diedrich J, Drey E, et al. Preferences for decision-making about contraception and general health care among reproductive age women at an abortion clinic. *Patient Educ Couns*. 2010;81:343–348.
54. Charles C, Gafni A, Whelan T. Shared decision-making in the medical encounter: what does it mean? (or it takes at least two to tango). *Soc Sci Med*. 1997;44:681–692.
55. Makoul G, Clayman ML. An integrative model of shared decision making in medical encounters. *Patient Educ Couns*. 2006;60: 301–312.
56. Nobili MP, Piergrossi S, Brusati V, et al. The effect of patient-centered contraceptive counseling in women who undergo a voluntary termination of pregnancy. *Patient Educ Couns*. 2007;65:361–368.
57. Johnson SL, Kim YM, Church K. Towards client-centered counseling: development and testing of the WHO Decision-Making Tool. *Patient Educ Couns*. 2010;81:355–361.
58. Langston AM, Rosario L, Westhoff CL. Structured contraceptive counseling—a randomized controlled trial. *Patient Educ Couns*. 2010;81: 362–367.
59. Lee J, Jezewski MA. Attitudes toward oral contraceptive use among women of reproductive age: a systematic review. *ANS Adv Nurs Sci*. 2007;30:E85–E103.
60. Lei ZW, Wu SC, Garceau RJ, et al. Effect of pretreatment counseling on discontinuation rates in Chinese women given depo-medroxyprogesterone acetate for contraception. *Contraception*. 1996;53:357–361.
61. Grimes DA, Schulz KF. Nonspecific side effects of oral contraceptives: nocebo or noise? *Contraception*. 2011;83:5–9.
62. Kaunitz AM, Grimes DA. Removing the black box warning for depot medroxyprogesterone acetate. *Contraception*. 2011;84:212–213.
63. ACOG. ACOG Committee Opinion No. 415: depot medroxyprogesterone acetate and bone effects. *Obstet Gynecol*. 2008;112:727–730.
64. Dinger J, Mohner S, Heinemann K. Cardiovascular risk associated with the use of an etonogestrel-containing vaginal ring. *Obstet Gynecol*. 2013;122:800–808.
65. Gigerenzer G, Edwards A. Simple tools for understanding risks: from innumeracy to insight. *BMJ*. 2003;327:741–744.
66. Farley TM, Collins J, Schlesselman JJ. Hormonal contraception and risk of cardiovascular disease. An international perspective. *Contraception*. 1998;57:211–230.
67. Lessard LN, Karasek D, Ma S, et al. Contraceptive features preferred by women at high risk of unintended pregnancy. *Perspect Sex Reprod Health*. 2012;44:194–200.
68. Yee LM, Simon MA. The role of health literacy and numeracy in contraceptive decision-making for urban Chicago women. *J Community Health*. 2013;2014:552–557.
69. Fagerlin A, Zikmund-Fisher BJ, Ubel PA. Helping patients decide: ten steps to better risk communication. *J Natl Cancer Inst*. 2011;103: 1436–1443.
70. Steiner MJ, Dalebout S, Condon S, et al. Understanding risk: a randomized controlled trial of communicating contraceptive effectiveness. *Obstet Gynecol*. 2003;102:709–717.

71. Lopez LM, Steiner M, Grimes DA, et al. Strategies for communicating contraceptive effectiveness. *Cochrane Database Syst Rev*. 2013;4: CD006964.
72. Steiner MJ, Trussell J, Mehta N, et al. Communicating contraceptive effectiveness: a randomized controlled trial to inform a World Health Organization family planning handbook. *Am J Obstet Gynecol*. 2006;195:85–91.
73. Steiner MJ, Trussell J, Johnson S. Communicating contraceptive effectiveness: an updated counseling chart. *Am J Obstet Gynecol*. 2007; 197:118.
74. Martin J, Slade P, Sheeran P, et al. 'If-then' planning in one-to-one behaviour change counselling is effective in promoting contraceptive adherence in teenagers. *J Fam Plann Reprod Health Care*. 2011;37:85–88.
75. Namerow PB, Weatherby N, Williams-Kaye J. The effectiveness of contingency-planning counseling. *Fam Plann Perspect*. 1989;21: 115–119.
76. Frost JJ, Darroch JE, Remez L. Improving contraceptive use in the United States. *Issues Brief (Alan Guttmacher Inst)*. 2008;1–8.
77. Foster DG, Parvataneni R, de Bocanegra HT, et al. Number of oral contraceptive pill packages dispensed, method continuation, and costs. *Obstet Gynecol*. 2006;108:1107–1114.
78. Castano PM, Bynum JY, Andres R, et al. Effect of daily text messages on oral contraceptive continuation: a randomized controlled trial. *Obstet Gynecol*. 2012;119:14–20.
79. Rodriguez MI, Curtis KM, Gaffield ML, et al. Advance supply of emergency contraception: a systematic review. *Contraception*. 2013;87: 590–601.
80. Nettleman MD, Chung H, Brewer J, et al. Reasons for unprotected intercourse: analysis of the PRAMS survey. *Contraception*. 2007;75: 361–366.
81. Polis CB, Zabin LS. Missed conceptions or misconceptions: perceived infertility among unmarried young adults in the United States. *Perspect Sex Reprod Health*. 2012;44:30–38.
82. Biggs MA, Foster DG. Misunderstanding the risk of conception from unprotected and protected sex. *Womens Health Issues*. 2013;23: e47–e53.
83. Biggs MA, Karasek D, Foster DG. Unprotected intercourse among women wanting to avoid pregnancy: attitudes, behaviors, and beliefs. *Womens Health Issues*. 2012;22:e311–e318.
84. Lopez LM, Otterness C, Chen M, et al. Behavioral interventions for improving condom use for dual protection. *Cochrane Database Syst Rev*. 2013;10:CD010662.
85. ACOG. ACOG Committee opinion no. 554: reproductive and sexual coercion. Practice Guidelines; 2013 February. Report No.: 1873-233X (electronic) 0029-7844 (linking).
86. Miller E, McCauley HL, Tancredi DJ, et al. Recent reproductive coercion and unintended pregnancy among female family planning clients. *Contraception*. 2014;89:122–128.
87. Allsworth JE, Secura GM, Zhao Q, et al. The impact of emotional, physical, and sexual abuse on contraceptive method selection and discontinuation. *Am J Public Health*. 2013;103:1857–1864.
88. Miller E, Decker MR, McCauley HL, et al. A family planning clinic partner violence intervention to reduce risk associated with reproductive coercion. *Contraception*. 2011;83:274–280.
89. Street RL Jr, Gordon HS, Ward MM, et al. Patient participation in medical consultations: why some patients are more involved than others. *Med Care*. 2005;43:960–969.
90. Johnson RL, Roter D, Powe NR, et al. Patient race/ethnicity and quality of patient-physician communication during medical visits. *Am J Public Health*. 2004;94:2084–2090.
91. Ashton CM, Haidet P, Paterniti DA, et al. Racial and ethnic disparities in the use of health services: bias, preferences, or poor communication? *J Gen Intern Med*. 2003;18:146–152.
92. Gordon HS, Street RL Jr, Sharf BF, et al. Racial differences in trust and lung cancer patients' perceptions of physician communication. *J Clin Oncol*. 2006;24:904–909.
93. Cooper-Patrick L, Gallo JJ, Gonzales JJ, et al. Race, gender, and partnership in the patient-physician relationship. *JAMA*. 1999;282: 583–589.
94. Gordon HS, Street RL Jr, Sharf BF, et al. Racial differences in doctors' information-giving and patients' participation. *Cancer*. 2006;107:1313–1320.
95. Smedley BD, Stith AY, Nelson AR. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: National Academies Press; 2003.
96. van Ryn M. Research on the provider contribution to race/ethnicity disparities in medical care. *Med Care*. 2002;40:1140–1151.
97. van Ryn M, Fu SS. Paved with good intentions: do public health and human service providers contribute to racial/ethnic disparities in health? *Am J Public Health*. 2003;93:248–255.
98. Downing RA, LaVeist TA, Bullock HE. Intersections of ethnicity and social class in provider advice regarding reproductive health. *Am J Public Health*. 2007;97:1803–1807.
99. Thorburn S, Bogart LM. African American women and family planning services: perceptions of discrimination. *Women Health*. 2005;42:23–39.

100. Rocca CH, Harper CC. Do racial and ethnic differences in contraceptive attitudes and knowledge explain disparities in method use? *Perspect Sex Reprod Health*. 2012;44:150–158.
101. Dehlendorf C, Ruskin R, Grumbach K, et al. Recommendations for intrauterine contraception: a randomized trial of the effects of patients' race/ethnicity and socioeconomic status. *Am J Obstet Gynecol*. 2010;203:319.e1–319.e8.
102. Harrison DD, Cooke CW. An elucidation of factors influencing physicians' willingness to perform elective female sterilization. *Obstet Gynecol*. 1988;72:565–570.
103. van Ryn M, Burke J. The effect of patient race and socio-economic status on physicians' perceptions of patients. *Soc Sci Med*. 2000;50: 813–828.
104. Burgess D, van Ryn M, Dovidio J, et al. Reducing racial bias among health care providers: lessons from social-cognitive psychology. *J Gen Intern Med*. 2007;22:882–887.
105. Schulman KA, Berlin JA, Harless W, et al. The effect of race and sex on physicians' recommendations for cardiac catheterization. *N Engl J Med*. 1999;340:618–626.
106. Burgess DJ, Fu SS, van Ryn M. Why do providers contribute to disparities and what can be done about it? *J Gen Intern Med*. 2004;19: 1154–1159.