

Contraceptive Care and Access

INTRODUCTION

Choosing a method of contraception is an important decision. A method that is not effective can lead to an unintended pregnancy. A method that is not safe can create unfortunate medical consequences. A method that does not fit the user's personal lifestyle is not likely to be used correctly or consistently. The best method of contraception for an individual or couple is one that is effective, safe, and used correctly and consistently. Individuals must make choices about their contraceptive methods in the context of their own needs, attitudes, social, and cultural circumstances.¹

The Context of Contraceptive Care

Although the stereotypical contraceptive visit may consist of history taking, screening for contraindications, and dispensing or prescribing a method of contraception, contraceptive care and adherence takes place in the broader context of an individual's own social circumstances, belief systems, health, sexual behaviour, and reproductive health needs.

WHAT IS THE SPECIFIC NATURE OF THE WOMAN'S CURRENT CONTRACEPTIVE NEEDS?

While many women will directly request a particular method of contraception (e.g., "I'd like to go on birth control," with "birth control" commonly referring to the oral contraceptive pill), it may be valuable to clarify the nature of the woman's current contraceptive need. The clinical inquiries "What are you doing to prevent pregnancy?" and "What are you looking for in a contraceptive?" may provide important guidance for contraceptive care. The contraceptive care implications of "I'm going off to university" (after brief counselling, the woman decides on a supply of condoms and to begin hormonal contraception later if appropriate) differ from the contraceptive care implications of "My periods are terrible" (after brief counselling, the woman decides on hormonal contraception for cycle control). These may differ from the contraceptive care implications of "I sort of drank too much last night and had a one night stand with a guy I just met" (after counselling that addresses possible sexual coercion and choices for EC,

the woman decides on the emergency contraceptive pill, STI testing, and the "quick start" of a hormonal vaginal ring). The contraceptive care implications of "I'm moving in with my boyfriend and we want to stop using condoms" (after counselling, the woman decides to talk with her partner about mutual STI testing and then have an IUD inserted or start hormonal contraception) may differ from the contraceptive care implications of "I would like an abortion" (after counselling, the woman decides on a Cu-IUD inserted immediately after abortion).

Explore Contraceptive User-Method "Fit"

Contraceptive effectiveness requires adherence to a contraceptive method regimen.^{1,2} If it is problematic for the woman or her partner(s) to adhere to a specific contraceptive method because of its complexity or acceptability, effectiveness may be in peril. Pre-existing positive attitudes towards a contraceptive method and partner support may help to enhance adherence and ensure a better user-partner-method fit. Exploring a woman's needs, attitudes, and concerns as well as those of her partner, will favour adherence and thereby effectiveness. If a woman requests an oral contraceptive pill because she thinks her partner dislikes condoms but she believes that the pill causes weight gain, it is important to counsel her that studies have not found that the pill causes weight gain,^{3,4} to explore whether or why her partner dislikes condoms, and to present contraceptive options that may provide a better user-partner-method fit. In women presenting for abortions with repeated contraceptive failures, health professionals may offer intrauterine contraception immediately post-abortion; this provides effective long-acting reversible contraception without the discomfort of insertion.⁵⁻⁸

Contraceptive Methods Are Diverse but Contraceptive Choices Are Narrow

Although there are many hormonal and non-hormonal contraceptive options in Canada, only a very narrow range of contraceptive methods are chosen and employed by those of reproductive age. Although contraceptive method choice is not monitored by government organizations in Canada, many studies have indicated that the most commonly used contraceptive methods by Canadians, by a wide margin, are the oral contraceptive pill and condoms.^{9,10} In women over

the age of 40, permanent contraception is the second most common method of contraception after condom use, with male sterilization more frequent than female sterilization.^{9,10} Use of other hormonal contraceptives (injectable: 2.4%; patch: 1.2%; ring: 0.6%), intrauterine contraception (4.3%), and diaphragm/sponge (1.0%) is considerably lower.⁹ In contrast, withdrawal is the third most commonly used method (11.6%).⁹ The dominance of the oral contraceptive pill, condoms, and sterilization may be due to their acceptability and effectiveness at particular points in the reproductive life cycle; however, it may be that more education and counselling is needed to emphasize a greater range of contraceptive options to determine the best user-method fit.

CONTRACEPTION AND SEXUAL BEHAVIOURAL PATTERNS

Contraceptive counselling must consider the relationship between patterns of sexual behaviour and appropriate contraceptive choice. Contraceptive care in the setting of unpredictable or intermittent sexual activity may differ from contraceptive care in the case of predictable and ongoing sexual activity, with respect to both of contraceptive method and prevention of STIs. In the case of unpredictable or intermittent sexual activity, condoms in dual use with a hormonal contraceptive method or IUD might address contraception and STI prevention, while in the case of ongoing and predictable sexual activity recommending a highly effective reversible contraceptive choice might be more appropriate.¹ The health care provider should also be aware of the potential for contraceptive methods to influence sexual function, including the potentially liberating effect of freedom from concern about pregnancy, the potential for condom use to improve or impair sexual function, and the potential effect of hormonal contraception on a woman's libido.¹¹

Contraception and Sexually Transmitted Infection

It is necessary to consider contraceptive care in the context of vulnerability to STIs.¹²⁻¹⁴ Contraceptive care should include discussion of STIs as appropriate, including recommendations for condom use and dual protection (condoms together with a non-barrier contraceptive such as the oral contraceptive pill or intrauterine contraception) and STI screening and its limitations. Several studies have shown that condom use decreases with longer relationship tenure and when the sexual partner is considered to be the main partner,¹⁵⁻¹⁸ likely due to a lower perceived risk of STI in that relationship.¹⁶ Given these findings, health care providers should highlight the use of condoms not only for STI protection but also as a back-up method when adherence to a hormonal contraceptive may be suboptimal.¹⁷ Health

care providers should also be aware that coital onset in Canada often occurs during adolescence and that the age of first birth in Canada averages 30 years.¹⁹ A lengthy interval of serial monogamy and risk of unintended pregnancy and STI often extends between the two.²⁰ The number of sexual partners a woman has or has had in her lifetime is not necessarily diagnostic of STI risk. It is very common for women to have one sexual partner at present, but a history of several serially monogamous sexual partners, presenting an underappreciated risk of STIs and their sequelae. Health care providers should consider visits for contraceptive care as an opportunity to address STI prevention and screening at the level of method choice (e.g., dual protection), recommendations for vaccination (hepatitis B and human papillomavirus), recommendations for screening (e.g., Pap tests, STI screening), and post-exposure prophylaxis for secondary prevention of sequelae of STIs.

Long-Term Contraceptive Needs and Method Transitions

A woman's contraceptive needs may change throughout her reproductive years and thus consultations for contraception require sensitivity to her longer term family planning needs and the likelihood that she and her partner(s) will likely transition from one contraceptive method to another across time.^{9,10} Common contraceptive transitions in response to changing contraceptive needs over time might involve movement from barrier methods or dual protection (for women in less stable and less predictable relationships), to transition to sole reliance on hormonal contraception or intrauterine contraception (for women in more stable and predictable relationships). Contraception may be stopped when pregnancy is desired, followed by a transition to appropriate methods during breastfeeding, and then hormonal contraception, condoms, or IUD use can be continued until menopause. Alternatively, permanent contraceptive methods (male or female) may be chosen once childbearing is complete.

Contraception and the Media

The media can influence women's reproductive health practices and acceptance of contraceptives. Whether in relation to third and fourth-generation progestin-containing oral contraception,^{21,22} human papillomavirus vaccination,^{23,24} or postmenopausal hormone replacement therapy,²⁵ the media may accurately inform, partially inform, or misinform women in a fashion that can directly impair adherence or lead to abandonment of a chosen contraceptive method or reproductive health practice. Health care providers must be aware of current media controversies in this area, arm themselves with evidence-based facts from reliable sources, and be able to briefly and directly communicate the correct

information so that women are appropriately informed about media controversies concerning reproductive health. Clinicians should also provide assistance for women seeking to switch methods in the wake of media controversy should she decide to do so.

CONTRACEPTION IN THE BROADER CONTEXT OF WOMEN'S HEALTH CARE

The contraception visit provides an opportunity for screening, discussion, and management of a broad range of women's health concerns, including BMI, blood pressure, and smoking cessation. Family planning counselling may naturally segue into screening for sexual function concerns and intimate partner violence. For example, given that 38% of abortions in Canada are second or subsequent abortions, clinicians should be sensitive to the fact that women who have had more than one therapeutic abortion may be twice as likely to have a history of intimate partner violence and twice as likely to have a history of sexual coercion.²⁶⁻²⁹

Contraceptive Care Access

Counselling regarding the nature of women's contraceptive needs and determining a good user-method fit, often assumes that women have access to care, but this is far from uniformly the case. Young women may prefer to receive contraceptive care from dedicated contraception clinics (i.e. youth clinics, Planned Parenthood), a school-based clinic, or a walk-in clinic; however, such access may or may not exist in their community, these clinics may or may not have after school hours, and there may or may not be rural satellite clinics to serve the needs of women who live outside of urban areas.³⁰ Women may not have access to contraceptive methods due to barriers of cost, immigration status, language, lack of knowledge of options, partner or peer pressures/coercion, or lack of understanding of the health care system. Health care providers may also be barriers to contraceptive access, either intentionally or unintentionally, through lack of appropriate counselling, by applying inappropriate contraindications, by delaying initiation for menses or investigations, through selective prescribing practices, due to lack of training or comfort in contraceptive provision (including IUD insertion), or by applying their own personal beliefs and values to their patients.³¹ Slow regulatory approval of contraceptive and reproductive health formulations due to several factors such as pharmaceutical concerns about lack of profitability can further limit access to contraception in Canada.³²

Available Contraceptive Methods, Effectiveness, Side Effects and Risks, and Contraindications

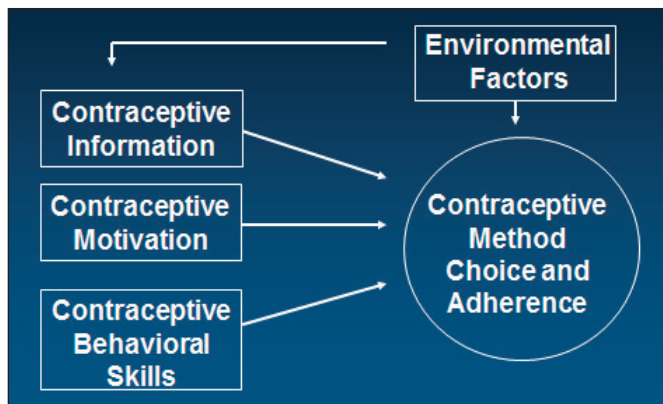
With sensitivity to the broader context of family planning issues that range from the nature of the woman's

contraceptive needs to her sexual behaviour patterns, STI risk, and aging and fertility, health care providers can review and discuss contraceptive options with a woman to determine which would be most appropriate for her. Contraceptive methods include intrauterine contraceptives, hormonal contraceptives, barrier methods, natural family planning, and permanent methods. Intrauterine devices are the most effective reversible contraceptives available. They vary in composition (copper or LNG), possible side effects, length of use, and cost. Hormonal methods vary in compliance requirements (e.g., daily oral contraceptive pill, weekly transdermal patch, monthly vaginal contraceptive ring, quarterly injectable progestins), in hormonal composition (e.g., combined estrogen-progestin, progestin-only), in possible side effects, and in cost. Most hormonal contraceptive methods are highly effective with perfect use but less effective with typical use. Permanent contraceptive methods for women and men are also highly effective. Barrier methods are coitally-dependent and must be used consistently if chosen. Discussion on barrier methods should include their additional role for STI protection, particularly when non-barrier contraception is chosen. Natural family planning, although much less effective, may suit specific needs such as spacing children. Emphasis on LARC and on highly effective methods to avoid unintended pregnancy is appropriate and must take into consideration the nature of the woman's need for contraception and STI protection and her personal preferences, circumstances, and beliefs. The challenge of contraceptive counselling is to craft brief and informative clinical contacts that can identify a woman's priorities and situation and match them to method characteristics to achieve optimum fit while taking into consideration relative and absolute contraindications.

TOWARDS AN INTEGRATED APPROACH TO CONTRACEPTIVE CARE IN THE CONTEXT OF WOMEN'S HEALTH

A woman's knowledge about contraception, her motivation to act on this knowledge, and her ability to act on it effectively will influence contraceptive choice and adherence over time. Supportive environmental factors such as knowledge of potential choices, access to contraceptive care, affordable contraception, and a supportive partner or family are also critical to a person's ability to use contraception effectively (Figure 2). Well-informed and well-motivated individuals who have the necessary skills to negotiate the occasionally complex social and sexual challenges of contraceptive adherence are more likely to choose and adhere to safe and effective contraception.³³ An integrated approach to contraceptive counselling informs, motivates, and enhances an individual's skills to successfully use contraception.

Figure 2. Individual and environmental determinants of contraceptive choice and adherence.



Contraceptive Information

Contraceptive information that is relevant, practical, and easy to act upon is central to a woman's ability to choose a contraceptive method that meets her needs and to adhere to it over time. Canadians continue to have limited awareness of their contraceptive options and have suboptimal adherence to contraceptive methods.^{9,10} Health care providers can help address these challenges by providing accurate, non-judgemental information about:

- the range of birth control options and each method's effectiveness, health benefits, and possible side effects and risks
- how to use a chosen method
- strategies to assist an individual's or couple's correct and consistent use of a chosen method
- what to do if problems occur with using the chosen method
- back-up strategies such as EC and/or condoms
- information on preventing STIs in conjunction with using the chosen method

To provide information that is relevant to an individual's needs and lifestyle, health care providers must elicit information about their sexual activity, family planning intentions, and personal preferences. A two-way flow of contraceptive information is essential to achieving an optimal user-method fit that will promote appropriate choice, satisfaction, and adherence.

Motivation

Motivation is an additional critical determinant of effective contraceptive use. Ambivalence about pregnancy is common and is associated with a decreased likelihood of using an effective method of contraception.^{34,35} Personal motivation (attitudes towards specific contraceptive

practices) strongly influences contraceptive choice. People with negative attitudes about contraception or who are uncomfortable with their sexuality are unlikely to anticipate the need for contraception in advance, to calmly choose an appropriate method, or to carefully adhere to a method.^{36–42} They are also unlikely to be able to discuss this matter with their partner(s) or with their health care provider.^{41,43–45} A health care provider can seek to moderate negative attitudes that may interfere with a woman's choice of and adherence to a contraceptive method and work with her to determine which method would be most acceptable and appropriate for her. A woman's perceptions about what is accepted or rejected by a partner, a parent, an ethno-cultural community, or the health care provider him/herself can also influence contraceptive choice and adherence.^{33,43} By considering the characteristics of a range of contraceptive methods, individuals can tailor the method they choose to their own attitudes and set of social expectations. Perceived vulnerability to and perceived costs of unwanted pregnancy may also play a role in the decision to use contraception.^{46–49} Motivational interviewing techniques⁵⁰ or structured counselling⁵¹ may help women to choose the most appropriate method of contraception and increase contraceptive adherence.

Behavioural Skills

Specific behavioural skills are needed to acquire contraception and use it correctly and consistently. The individual must acknowledge the fact that she is (or soon will be) sexually active. She then must formulate a contraceptive health agenda that may involve acquiring and using a method of birth control, practicing safer sex, and seeking reproductive health care. Once this agenda is set, the individual must actively seek information about contraception and related reproductive health issues, choose and obtain a method of contraception, negotiate its use with a partner, and use it correctly and consistently over time. By being aware that contraception is a complex matter involving a number of tasks, health care providers may be proactive and assist women to develop the skills required to acquire and adhere to a method over time. Health care providers should review with individuals how they might use these skills in situations when sexual activity is likely. For example, discussing how to bring up condom use with a partner can help build skills essential for practicing safer sex ("Tell him: I want to have sex. Go get a condom."). Simple information about routines in one's life ("A lot of my patients take their pill every morning or every evening when they brush their teeth.") can identify naturally occurring adherence-boosting cues.

Environmental Factors

Environmental factors may lessen the ability of even well-informed and well-motivated women to use contraception effectively. Those who are in abusive or disempowered relationships, who cannot afford contraception, who have limited access to care, who are chemically dependent, and who have major competing life demands are less likely to use adherence-dependent contraception effectively, unless such environmental barriers are addressed.^{26,33} Environmental factors can also facilitate the provision of contraceptive care. Health care providers can provide environmental cues in the clinical care setting that signal to women that they are an approachable, non-judgemental, and knowledgeable resource for contraceptive and reproductive health care (e.g., a poster advertising sexandu.ca, the SOGC supported sexual health education website). Proactive creation of a referral network for specialized care allows family planning providers to have confidence in the availability of referral resources for issues of intimate partner violence, STIs, sexual dysfunction, induced abortion services, child protection services, and other challenges that the clinician may uncover while providing contraceptive care in the broader context of women's health.

Summary Statements

8. Although there are many contraceptive options in Canada, only a narrow range of contraceptive methods are commonly used by those of reproductive age. (II-3)
9. Condom use decreases with longer relationship tenure and the perception of one sexual partner as primary, likely due to a lower perceived risk of sexually transmitted infection in that relationship. Condom use may also decrease markedly as an unintended consequence when an effective non-barrier method, such as hormonal contraception or intrauterine contraception, is initiated. (II-3)
10. Family planning counselling provides a natural segue into screening for concerns about sexual function or intimate partner violence. (III)
11. Well-informed and well-motivated individuals who have developed skills to practise safer sex behaviours are more likely to use contraceptive and safer sex methods effectively and consistently. (II-2)

Recommendations

8. Comprehensive family planning services, including abortion services, should be accessible to all Canadians regardless of geographic location. These services should be confidential, non-judgemental, and respectful of individuals' privacy and cultural contexts. (III-A)

9. A contraceptive visit should include history taking, screening for contraindications, dispensing or prescribing a method of contraception, and exploring contraceptive choice and adherence in the broader context of the individual's sexual behaviour, reproductive health risk, social circumstances, and relevant belief systems. (III-B)
10. Health care providers should provide practical information on the wide range of contraceptive options and their potential non-contraceptive benefits and assist women and their partners in determining the best user-method fit. (III-B)
11. Health care providers should assist women and men in developing the skills necessary to negotiate the use of contraception and the correct and consistent use of a chosen method. (III-B)
12. Contraceptive care should include discussion and management of the risk of sexually transmitted infection, including appropriate recommendations for condom use and dual protection, STI screening, post-exposure prophylaxis, and Hepatitis B and human papillomavirus vaccination. (III-B)
13. Health care providers should emphasize the use of condoms not only for protection against sexually transmitted infection, but also as a back-up method when adherence to a hormonal contraceptive may be suboptimal. (I-A)
14. Health care providers should be aware of current media controversies in reproductive health and acquire relevant evidence-based information that can be briefly and directly communicated to their patients. (III-B)
15. Referral resources for intimate partner violence, sexually transmitted infections, sexual dysfunction, induced abortion services, and child protection services should be available to help clinicians provide contraceptive care in the broader context of women's health. (III-B)

REFERENCES

1. Trussell J, Guthrie KA. Contraceptive technology, 20th rev ed. New York (NY): Ardent Media; 2011.
2. Fisher WA, Black A. Contraception in Canada: a review of method choices, characteristics, adherence and approaches to counselling. *CMAJ* 2007;176:953–61.
3. Lindh I, Ellstrom AA, Milsom I. The long-term influence of combined oral contraceptives on body weight. *Hum Reprod* 2011;26:1917–24.
4. Gallo MF, Lopez LM, Grimes DA, Carayon F, Schulz KF, Helmerhorst FM. Combination contraceptives: effects on weight. *Cochrane Database Syst Rev*. 2014;1:CD003987.

5. Goodman S, Hendlish SK, Reeves MF, Foster-Rosales A. Impact of immediate postabortal insertion of intrauterine contraception on repeat abortion. *Contraception* 2008;78:143–8.
6. Bednarek PH, Creinin MD, Reeves MF, Cwiak C, Espey E, Jensen JT. Immediate versus delayed IUD insertion after uterine aspiration. *N Engl J Med* 2011;364:2208–17.
7. Cremer M, Bullard KA, Mosley RM, Weiselberg C, Molaei M, Lerner V, et al. Immediate vs. delayed post-abortion copper T 380A IUD insertion in cases over 12 weeks of gestation. *Contraception* 2011;83:522–7.
8. Hohmann HL, Reeves MF, Chen BA, Perriera LK, Hayes JL, Creinin MD. Immediate versus delayed insertion of the levonorgestrel-releasing intrauterine device following dilation and evacuation: a randomized controlled trial. *Contraception* 2012;85:240–5.
9. Black A, Yang Q, Wen SW, Lalonde A, Guilbert E, Fisher W. Contraceptive use by Canadian women of reproductive age: results of a national survey. *J Obstet Gynaecol Can* 2009;31:627–40.
10. Fisher W, Boroditsky R, Morris B. The 2002 Canadian Contraception Study: part 1. *J Obstet Gynaecol Can* 2004;26:580–90.
11. Smith NK, Jozkowski KN, Sanders SA. Hormonal contraception and female pain, orgasm and sexual pleasure. *J Sex Med* 2014;11:462–70.
12. Fisher WA, Holtzapfel S. Suppose they gave an epidemic and sex therapy didn't attend? Sexually transmitted infection concerns in the sex therapy context. In: Binik I, ed. *Principles and practice of sex therapy*, 5th ed. New York (NY): Guilford; 2014.
13. MacDonald NE, Wells GA, Fisher WA, Warren WK, King MA, Doherty JA, et al. High-risk STD/HIV behavior among college students. *JAMA* 1990;263:3155–9.
14. Health Canada. Canadian guidelines on sexually transmitted infections. Ottawa (ON): Health Canada; 2014. Available at: <http://www.phac-aspc.gc.ca/std-mts/sti-its/index-eng.php>. Accessed on January 8, 2015.
15. Ott MA, Adler NE, Millstein SG, Tschann JM, Ellen JM. The trade-off between hormonal contraceptives and condoms among adolescents. *Perspect Sex Reprod Health* 2002;34:6–14.
16. Hood JE, Hogben M, Chartier M, Bolan G, Bauer H. Dual contraceptive use among adolescents and young adults: correlates and implications for condom use and sexually transmitted infection outcomes. *J Fam Plann Reprod Health Care* 2014;40:200–7.
17. Goldstein RL, Upadhyay UD, Raine TR. With pills, patches, rings, and shots: who still uses condoms? A longitudinal cohort study. *J Adolesc Health* 2013;52:77–82.
18. Morroni C, Heartwell S, Edwards S, Ziemann M, Westhoff C. The impact of oral contraceptive initiation on young women's condom use in 3 American cities: missed opportunities for intervention. *PLoS One* 2014;9:e101804.
19. Statistics Canada. Fertility: overview, 2009 to 2011. Component of Statistics Canada Catalogue no. 91-209-X. Report on the demographic situation in Canada. Ottawa (ON): Statistics Canada; 2013. Available at: <http://www.statcan.gc.ca/pub/91-209-x/2013001/article/11784-eng.pdf>. Accessed on June 25, 2015.
20. Fisher W, Boroditsky R, Morris B. The 2002 Canadian Contraception Study: part 2. *J Obstet Gynaecol Can* 2004;26:646–56.
21. Dinger J, Bardenheuer K, Heinemann K. Cardiovascular and general safety of a 24-day regimen of drospirenone-containing combined oral contraceptives: final results from the International Active Surveillance Study of Women Taking Oral Contraceptives. *Contraception* 2014;89:253–63.
22. Reid RL. Oral hormonal contraception and venous thromboembolism (VTE). *Contraception* 2014;89:235–6.
23. Fisher WA, Kohut T, Salisbury CM, Salvadori MI. Understanding human papillomavirus vaccination intentions: comparative utility of the theory of reasoned action and the theory of planned behavior in vaccine target age women and men. *J Sex Med* 2013;10:2455–64.
24. Zimet GD, Rosberger Z, Fisher WA, Perez S, Stupiansky NW. Beliefs, behaviors and HPV vaccine: correcting the myths and the misinformation. *Prev Med* 2013;57:414–8.
25. Rossouw JE, Anderson GL, Prentice RL, LaCroix AZ, Kooperberg C, Stefanick ML, et al. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results from the Women's Health Initiative randomized controlled trial. *JAMA* 2002;288:321–33.
26. Fisher WA, Singh SS, Shuper PA, Carey M, Otchet F, MacLean-Brine D, et al. Characteristics of women undergoing repeat induced abortion. *CMAJ* 2005;172:637–41.
27. Silverman JG, Decker MR, McCauley HL, Gupta J, Miller E, Raj A, et al. Male perpetration of intimate partner violence and involvement in abortions and abortion-related conflict. *Am J Public Health* 2010;100:1415–7.
28. Laanpere M, Ringmets I, Part K, Karro H. Intimate partner violence and sexual health outcomes: a population-based study among 16–44-year-old women in Estonia. *Eur J Public Health* 2013;23:688–93.
29. Pallitto CC, Garcia-Moreno C, Jansen HA, Heise L, Ellsberg M, Watts C. Intimate partner violence, abortion, and unintended pregnancy: results from the WHO Multi-country Study on Women's Health and Domestic Violence. *Int J Gynaecol Obstet* 2013;120:3–9.
30. Hulme J, Dunn S, Guilbert E, Soon J, Norman W. Barriers and facilitators to family planning access in Canada. *Healthc Policy* 2015;10:48–63.
31. Leeman L. Medical barriers to effective contraception. *Obstet Gynecol Clin North Am* 2007;34:19–29, vii.
32. Dunn S, Cook R. Medical abortion in Canada: behind the times. *CMAJ* 2014;186:13–4.
33. Fisher WA, Fisher JD. Understanding and promoting sexual and reproductive health behavior. In: Rosen R, Davis C, Ruppel H, eds. *Annual review of sex research*. Mason City: Society for the Scientific Study of Sex; 1999: pp. 39–76.
34. Schwarz EB, Lohr PA, Gold MA, Gerbert B. Prevalence and correlates of ambivalence towards pregnancy among nonpregnant women. *Contraception* 2007;75:305–10.
35. Higgins JA, Popkin RA, Santelli JS. Pregnancy ambivalence and contraceptive use among young adults in the United States. *Perspect Sex Reprod Health* 2012;44:236–43.
36. Fisher WA, Byrne D, White LA. Emotional barriers to contraception. In: Byrne D, Fisher WA, eds. *Adolescents, sex, and contraception*. Hillsdale (NJ): Erlbaum; 1983: pp. 207–42.
37. Fisher WA. Adolescent contraception: summary and recommendations. In: Byrne D, Fisher WA, eds. *Adolescents, sex, and contraception*. Hillsdale (NJ): Erlbaum; 1983.
38. Sable MR, Libbus MK, Chiu JE. Factors affecting contraceptive use in women seeking pregnancy tests: Missouri, 1997. *Fam Plann Perspect* 2000;32:124–31.
39. Molloy GJ, Graham H, McGuinness H. Adherence to the oral contraceptive pill: a cross-sectional survey of modifiable behavioural determinants. *BMC Public Health* 2012;12:838.
40. Forrest JD, Frost JJ. The family planning attitudes and experiences of low-income women. *Fam Plann Perspect* 1996;28:246–55, 77.
41. Higgins JA, Hirsch JS. The pleasure deficit: revisiting the “sexuality connection” in reproductive health. *Int Fam Plan Perspect* 2007;33:133–9.
42. Manlove J, Ryan S, Franzetta K. Contraceptive use patterns across teens' sexual relationships: the role of relationships, partners, and sexual histories. *Demography* 2007;44:603–21.

43. Byrne D, Kelley K, Fisher WA. Unwanted teenage pregnancies: incidence, interpretation, and intervention. *Appl Prev Psychol* 1993;2:101–13.
44. Ryan S, Franzetta K, Manlove J, Holcombe E. Adolescents' discussions about contraception or STDs with partners before first sex. *Perspect Sex Reprod Health* 2007;39:149–57.
45. The Alan Guttmacher Institute. Reading on teenagers and sex education 1997-2003. New York (NY): The Alan Guttmacher Institute; 2004. Available at: http://www.guttmacher.org/pubs/compilations/2004/06/30/readings04-1.pdf?origin=publication_detail. Accessed on January 8, 2015.
46. Moreau C, Hall K, Trussell J, Barber J. Effect of prospectively measured pregnancy intentions on the consistency of contraceptive use among young women in Michigan. *Hum Reprod* 2013;28:642–50.
47. Bruckner H, Martin A, Bearman PS. Ambivalence and pregnancy: adolescents' attitudes, contraceptive use and pregnancy. *Perspect Sex Reprod Health* 2004;36:248–57.
48. Zabin LS. Ambivalent feelings about parenthood may lead to inconsistent contraceptive use—and pregnancy. *Fam Plann Perspect* 1999;31:250–1.
49. Public Health Agency of Canada. Canadian guidelines on sexually transmitted infections. Section 2, part 4: primary care and sexually transmitted infections: providing patient-centred education and counselling. Ottawa (ON): PHAC; 2013. Available at: <http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-lldcits/section-2-eng.php#a4>. Accessed on June 25, 2015.
50. Halpern V, Lopez LM, Grimes DA, Stockton LL, Gallo MF. Strategies to improve adherence and acceptability of hormonal methods of contraception. *Cochrane Database Syst Rev*. 2013;10:CD004317. doi: 10.1002/14651858.CD004317.pub4.
51. Madden T, Mullersman JL, Omvig KJ, Secura GM, Peipert JF. Structured contraceptive counseling provided by the Contraceptive CHOICE Project. *Contraception*. 2013;88(2):243–9.