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Motivation is Necessary for the Using of any Method of Contraception

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Abstract

The concept of contraception includes all methods that prevent pregnancy. There are different types of contraception available, and each has its advantages and disadvantages. They differ in terms of efficiency, safety, affordability and use. Of course, they depend on the needs and desires of the woman, but also on her health. Choosing the most appropriate method is sometimes not easy, and women often lack accurate and relevant information to help her make that decision.

Keywords: Contraception; sexual activity; reproductive health.

Introduction

It has been a little less than 100 years since the words birth control first appeared in print, but birth control, as a social practice, is as old as human history [1]. Since the beginning of civilization, women were expected to produce children from marriage to menopause, in a constant battle to birth more children than died in utero, in infancy, or of childhood disease. Yet women in every era and culture, acting alone or with their husbands or lovers, sought ways to delay childbearing or reduce the odds of pregnancy. They did so in spite of cultural and religious prohibitions or societal pressures to increase the size of the tribe. Couples attempted family limitation for reasons that included their own health and sanity and the well-being of their existing children, economic benefits of a smaller family, to reduce the population in times of disease or famine, and because of particular circumstances of time and place.

Besides contraception, two other deliberate methods of family limitation, abortion and infanticide, have also been practiced throughout history, sometimes rarely and at other times with far greater frequency than contraception. However, neither act, occurring after fertilization and birth respectively, is considered a form of birth control in the context of this narrative. While infanticide is usually viewed as a most extreme form of population control and is universally condemned in the modern era, perceptions about abortion have changed repeatedly over time. Abortion has been conflated with contraception in the past, and strong debate continues as to whether it should be considered an acceptable and legal form of reproductive control. It is worth noting that the birth control movement of the early 20th century, which evolved into a reproductive rights movement that vowed to make and keep abortion legal, set out initially to end the practice of abortion, which was then illegal.

Adolescents

If the shortest and post parsimonious definition of mental health is the capacity to love and to work, adolescence is the period of life during which those capacities are being forged [2]. If young adulthood provides the opportunity for the fine tuning of these capacities and skills, the gross tuning of these capacities takes place during adolescence. The ability to love includes being able to function fully as a sexual being.

Sexual pressures, internal and external, create a good deal of the discomfort for the adolescent. Likewise, adolescent sexual problems are apt to cause feelings of discomfort in the physician, at least until he or she has acquired sufficient experience. It is, however, a time of opportunity for both adolescent and physician; the adolescent has the opportunity to forge his or her own personality in a healthy direction, and the physician has the chance to intervene effectively and to practice preventive medicine as well as provide therapy.

Adolescents who begin sexual intercourse are at high risk for unintended pregnancy, and this risk is higher for the younger adolescents, presumably because the younger women are less likely to use contraception during the early months after beginning sexual activity [3]. Forty percent of women who began sexual activity before age 16 had not used contraception at first intercourse, while only 25% of 18- to 19-year-olds had

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not used contraceptives at first intercourse.

Of women with premarital pregnancies who began sexual activity at age 15 or younger, 9% became pregnant within the first month of sexual activity and 20% had become pregnant within 6 months. For those women who waited until age 18-19 to begin sexual intercourse, these figures were approximately 5 and 11%, respectively. Despite increased availability of non-prescription contraceptives and organized family planning programs, younger adolescents tend to delay seeking professional contraceptive help and use of effective contraception methods for more than a year after beginning sexual activity.

Providing contraceptives to adolescents apparently has little or no effect on the incidence of premarital or extramarital sex relations. Adolescents rarely seek contraceptive assistance from their physician or family planning clinic until long after a pattern of sexual behavior has been established.

Sexual Activity

It is estimated that 95% of sexually active women use contraception at some time during their life and that each woman uses up to three different methods [4]. The typical US woman wants only two children and to achieve this goal she and her partner must use a contraceptive method for about 30 years. Although most contraceptive methods have side effects and potential adverse effects, the morbidity and mortality associated with pregnancy and childbirth are higher than for any single contraceptive method.

About 7% of all office visits by women of reproductive age are for contraception. Despite the variety of contraceptive methods available, about 50% of all pregnancies in the United States are unintended, regardless of a woman's age. Teenagers are a high-risk group for unintended pregnancy; 25% of women and 18% of men use no method of contraception at first intercourse. Use of contraceptives dramatically reduces the likelihood of pregnancy.

Of sexually active women not using a contraceptive method, approximately 85% will become pregnant over 1 year. The probability of conception is 15% to 33% per cycle depending on the frequency of sexual intercourse. The ovum is able to be fertilized for only 12 to 24 hours after ovulation. Sperm usually remain viable for 3 days after intercourse. The most fertile period for women is the several days before ovulation and ends 24 hours after ovulation. After the egg is fertilized, it is transported to the uterine cavity in about 2 to 3 days. Implantation occurs approximately 6 to 7 days after fertilization following cell division that forms a blastocyst. Pregnancy, as defined by the National Institutes of Health, the American College of Obstetricians and Gynecologists, and the Food and Drug Administration (FDA) is implantation of the blastocyst in the endometrium.

Reproductive Health

There is a very real concern that the field of sexual and reproductive health, as tenuous as gains have been, will substantively regress, something as true within the borders of the USA as outside [5]. More constrained national spaces, let alone the larger geopolitical space, may lead (either deliberately or inadvertently) to reductionist approaches to sexual and reproductive health. Truly important issues will be dropped or de-emphasized, alongside a loss of attention and support for ensuring the sexual and reproductive health of the most difficult to reach and most marginalized populations in each of our societies. There is a very real risk that sexual and reproductive health will be reduced to simply ensuring that X many millions of women and girls use contraceptives, without a strong focus on free and informed choice and all of the various aspects of our sexual and reproductive health and rights that are necessary not only for services to work but for us to fully live our lives. We may end up back where we were decades ago with target-driven programs that will reduce choice and restrict rights—with almost no attention to understanding the specifics of the populations who most need contraception and other sexual and reproductive services nor what it takes to support people's ability to use them. Contraceptive services are clearly necessary but not sufficient to reduce the unmet need for family planning and for sexual and reproductive health services more broadly. As stated in 1994 by the governments of the world in the International Conference on Population and Development Program of Action, and recognized in research and policy and programmatic efforts many times since, contraception is most effectively delivered as a key element of a package of mutually reinforcing sexual and reproductive health services which includes attention to human rights.

Contraceptives

Throughout history, men and women have attempted to control their fertility [6]. The oldest method of contraception in the world is coitus interruptus which, while not being specifically recommended as a method by health professionals, nevertheless remains 'better than nothing' in situations where religious objections or unavailability of other methods of contraception is the only alternative. Apart from coitus interruptus, barrier methods of contraception have been around longest. There is evidence for the use of a form of male condom dating back at least to Roman times, although it is thought that early use of condoms was primarily as a protection against sexually transmitted diseases (STDs) rather than for the prevention of pregnancy. There is also evidence for the use of female barrier methods as long ago as prehistoric Egypt.

In the middle and latter part of the twentieth century, the condom was somewhat eclipsed by the advent of the combined oral contraceptive (COC) pill, but with the spread of HIV infection condoms are once again one of the most widely used methods in the developed world. The great advances of the late twentieth century in terms of human fertility control have been in the development of improved hormonal delivery systems and intrauterine devices (IUDs). Psychosocial factors not only influence the decision of whether to prevent pregnancy but also play a role in deciding on the type of contraception

[7]. Beyond the obvious considerations of medical safety and the avoidance of methods that would be contraindicated or apt to exacerbate existing medical conditions, most women have a variety of both pharmaceutical and nonpharmaceutical options available to them. High efficacy is often a concern, but even this issue may be influenced by psychological factors.

Even those seeking highly effective forms of contraception have many options. Hormonal and intrauterine contraceptives are the most effective in preventing pregnancy, with failure rates with ideal use of less than 1%. Actual failure rates, however, are often higher due to issues surrounding compliance, with typical use failure rates anywhere from 9% for oral contraceptives that require daily use to 6% for injectable contraceptives requiring recurrent visits to a health care provider. For methods such as implants and intrauterine devices that do not rely on patient behaviors for compliance, typical use rates are much closer to perfect use rates. One reason that so many hormonal contraceptives are available is to offer choices for women who may have difficulty meeting the demands of use, often for psychosocial reasons.

Choice of contraception may also be influenced by the degree to which use is affected by sexual behavior and functioning. Hormonal and intrauterine contraceptives have the advantages of not requiring administration with each act of intercourse and not relying on partner involvement to maintain efficacy. Barrier methods such as the diaphragm or condom, on the other hand, may be perceived as being more of a hindrance to spontaneous sexual behavior because they require application with each act of coitus. Condoms may also be avoided by individuals who perceive them as interfering with sexual pleasure. On the other hand, condoms are the recommended method for couples in whom one or both partners are not monogamous, in order to serve the added purpose of preventing sexually transmitted disease.

The typical woman spends about 5 years of her reproductive life trying to get pregnant, and the other three decades trying to avoid it [8]. Nearly half of all pregnancies are unintended, and 40 % of these end in abortion. Fortunately, the medical community has acknowledged the importance of contraception over the last few decades as contraceptive innovations such as novel intrauterine devices, implants, and sterilization methods have been introduced. As long-term data have been amassed on the use of contraceptive methods among women with chronic medical conditions, guidance on contraceptive use has also blossomed, which has benefited both patients and clinicians.

Certain populations have not fully benefited from this contraceptive evolution. With the development of novel contraceptive methods has come uncertainty regarding the safety of these methods for women with coexisting medical conditions. Historically, clinicians did not give much consideration to contraception for these women, citing that they may not survive to sexual maturity, or their medical problems may preclude sexual intercourse or cause infertility. However, as medical care in the USA continues to improve, the population of women with medical comorbidities who reach and retain their fertility, and who are fully realized sexual beings, is growing. Pregnancy and contraceptive methods can have important health implications for women with medical conditions. Thus, reproductive health and access to safe and effective contraception should be of vital importance to these women and their clinicians.

Pearl Formula

Many factors contribute to overall effectiveness including the fecundity of both partners, the timing of intercourse in relation to the timing of ovulation, the method of contraception used, the intrinsic effectiveness of the contraceptive method, and the correct and continuous use of the method [9]. The Pearl formula is one way to estimate pregnancy risk. This formula calculates a pregnancy rate per 100 women per year by dividing the number of pregnancies by the total number of months contributed by all couples, and then multiplying the quotient by 1200. Because with most methods pregnancy rates decrease with time as the more fertile or less careful couples become pregnant and drop out of the calculations, the Pearl formula does not reflect actual use. More commonly, rates of pregnancy among different methods are best calculated by reporting two different rates derived from multiple studies (i.e. the lowest rate) and the usual or typical rate.

Perfect use is the percentage of couples who have an unintended pregnancy during the first year of use despite using a method perfectly (both consistently and correctly). Among average couples (may not use a method consistently or correctly), typical use refers to the percentage who experience an unintended pregnancy during the first year of use. Typical use is a practical way to look at overall effectiveness when counseling patients as it more accurately reflects practice than perfect use. Continuation at one year is another important component in assessing a method's overall effectiveness.

Emergency Contraception

Emergency contraception (EC) has also been referred to as postcoital contraception or the "morning-after" contraception [10]. Emergency contraception is the initiation of a reversible family planning method after coitus has taken place. Some couples, for a variety of reasons, are unable to anticipate the need for adequate contraception until after coitus has occurred. This may be the result of the failure of a contraceptive method (a condom breaks), the misuse or misming of a method, sexual assault or both partners neglect to practice contraception. Pregnancy may result from a single sexual encounter if the coital experience was either unprotected or inadequately protected. The risk of pregnancy from one coital exposure at any time during the menstrual cycle, irrespective of the regularity of the woman's cycles and at any age in the reproductive years, has been estimated at 3%. The risk of pregnancy from one coital exposure at mid-cycle has been estimated to be 9%. Thus, there is a need for reversible pregnancy prevention that can be administered after coitus has occurred.

Emergency contraception, also known as postcoital contraception, is widely used to prevent unintended pregnancy after an unprotected or inadequately protected act of sexual intercourse [11]. It is sometimes confused with medical abortion which is the term used to terminate an existing pregnancy. Emergency contraception can only prevent a pregnancy and is completely ineffective after implantation. The most commonly used regimen is the progestin-only pill (Plan B) that can be purchased over the counter and is available without any

age restriction. The pill contains 1.5 mg of levonorgestrel and can be used for up to 72 h after unprotected intercourse. This has largely replaced the two-dose regimen of 0.75 mg and is equally as effective. A second emergency contraceptive contains 30 mg of ulipristal acetate and requires a prescription. It can be used up to 120 h after unprotected intercourse.

Future

As stated in the Cairo Declaration, safe, acceptable, and effective methods for contraception and abortion are fundamental to sexual and reproductive health and rights (SRHR) [12]. The leading cause of maternal mortality continues to be lack of access to SRHR. Unrestricted access to effective contraception is also a prerequisite for gender equality and the empowerment of women, especially as long as most methods are to be used by women.

New contraceptive methods are also needed, including improved emergency contraception, new mechanisms of action, and modes of delivery. Additional health benefts of contraceptive methods such as protection against various cancers and a wide range of other benefts should be better recognized.

Until recently, contraceptive development with a few exceptions has focused on the progestogen component of the pill or the dose of ethinylestradiol (EE). New options include exploring other estrogens like E2 and even E4. New delivery systems may not only reduce the risk for complications and side effects but may also offer long-acting reversible and self-controlled methods for women and men, as well as new possibilities for dual protection from unwanted pregnancies and STDs.

Based on mechanisms of action, progesterone receptor modulators (PRMs) might offer notable advantages for many women. PRMs can be used for emergency contraception as well as for regular contraception by various modes of delivery including intrauterine. PRMs have been shown to be effective when used orally as daily pills, once weekly, or monthly and are a well-established method for medical frst-trimester abortion as well as throughout pregnancy.

The use of PRMs for contraception and their positive health benefts, such as possible protection against breast cancer and prevention of uterine leiomyomas and endometriosis, deserves to be further explored. Progesterone receptor modulators have also been studied for “late emergency contraception” and for menstrual induction. Very early medical abortion (VEMA)—before an intrauterine pregnancy can be visualized by ultrasound—has been shown to be acceptable, safe, and effective. Thus, PRMs provide a model for a woman-centered contraceptive continuum with added health benefts.

Conclusion

When using any method of contraception, it is important to know body, desires and attitudes and choose the appropriate method based on general health and gynecological condition, medical findings, laboratory values and lifestyle. It is best to consult a gynecologist and after receiving all the important information about each method so opt for the one that proves optimal. Motivation is needed to use any contraceptive method. A sexually active woman at the age when she can give birth, and for whatever reason she does not want to, should use one of the contraceptive methods. Adolescents who are about to start or are already sexually active and women who no longer want to give birth should be specially educated about contraception. Of course, knowledge about contraception is also a matter of general culture, from which men are not exempt. The use of contraception also depends on the cooperation of partners and a number of factors related to their interpersonal relationships and interactions. The view that only women must take care of preventing unwanted pregnancies is wrong.

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