# Contraception and health of women

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## Introduction

Contraceptive use has a tremendous impact on women's health. The ability to regulate and control fertility is a basic component of health which is defined as a state of physical, mental and social well being. Contraception is one of the essential elements of reproductive health. Great potential exists for family planning via the use of contraceptives or other pregnancy prevention strategies to improve women's reproductive health. The demand for quality is substituting the desire for quantity in human reproduction. Access to good quality family planning services enables women to exercise a basic human right in deciding freely the number and spacing of their children. Women are central to development process. They are also among the most vulnerable groups of the society. They have limited or no access to health care in many developing countries. The relationship between contraception and women's health needs to be viewed in this context.

More and more women all over the world are opting for fertility by choice and not by chance. Contraception is saving the lives of millions of women around the globe from hazards of unwanted pregnancy. Contraceptive safety is a major public health concern. The risk/benefit assessment will differ for different populations, for different individuals and even for the same individual at different periods of life (Fathalla, 1993). In general, contraception poses few serious health risks to users. Moreover, it is much safer than the many pregnancy related complications. In assessment of contraceptive safety, both the benefits and risk associated with the use of individual methods should be considered and a balanced view presented to the prospective client to assist her in making a choice.

## Effect on Women's Health

Apart from limiting population growth, family planning through contraception has the potential to substantially prevent and reduce maternal mortality and morbidity. Family planning addresses the two most common and serious health problems in developing countries, namely high maternal and infant mortality. Contraception contributes significantly towards improving the health and status of women. Family planning not only saves lives, but also improves the quality of life by preventing exposure of women to the risks of unwanted pregnancies (Mehta, 1994).

Most of the premature maternal deaths are directly attributable to patterns of reproduction and family size. Four groups of women face the highest risk of pregnancy related deaths --those who bear children too early, too close, too many and too late. These unfavourable patterns of

child bearing account for about half of all pregnancies in developig countries. one cannot die a maternal death without first being pregnant. Thus, any measure that prevents pregnancy or reduces fertility will help in reducing maternal deaths in the population.

As per World Health Organisation estimates, out of more than 150 million women who become pregnant every year, there are at least 25 million unsafe abortions each year with their complications of bleeding and infection (WHO, 1991, 1994). Thousands of deaths from unsafe abortions serve as a painful indicator of prevalence of unwanted pregnancy and the short comings of our existing family welfare and medical termination of pregnancy (MTP) services. Though many women do not want any more children or an unwanted pregnancy, they have limited or no access to quality family planning counselling and services. In many countries, reproductive health services do not actively include post abortion family planning services for women who are treated for complications of unsafe abortions. This greatly increases the risk of further unintended pregnancies and unsafe abortions. A strong plea is made for bridging the gap and dealing more realistically with this urgent need (Mclaurin et al, 1995). The importance of providing post abortion family planning counselling and services cannot be over emphasized while caring for women's health.

Perhaps the greatest health challenge confronting us in the last decade of this century is the challenge posed by the HIV/AIDS pandemic (Sadik, 1995). Among the hardest hit are women and children who are increasingly exposed to the risk of HIV infection and have less opportunity to protect themselves. Family planing programmes offer a unique opportunity for integration of STDs and HIV/AIDS prevention and control activities. Awareness of the effects that birth control methods or contraceptives have on the enhancement or protection against risk of STDs and HIV is very important. Health care providers must be aware of these effects and should ensure that they advise clients about the effective use of contraceptives / birth control measures (O'Connell, 1996)

**Contraceptive Safety, Health Risks and Benefits**

Safe contraception contributes to good health -- when women avoid unwanted pregnancy, they avoid the risks of childbearing or abortion. Use of contraception can improve women's emotional health by providing more reproductive control and greater choice about childbearing. For women, bearing fewer children means better health for themselves and their offspring. Women practising contraception, enjoy better sex-life as there is no fear or apprehension of unwanted pregnancy.

In general, contraception is mostly safe and rarely poses a serious health risk to users. It is much safer than the risks of many pregnancy-related complications. The risk of death is extraordinarily low for most women. Few methods are infrequently associated with temporary side-effects, pain, infections, hospitalization and surgery. Another possible risk is accidental pregnancy from contraceptive failure. Future fertility or reproductive capacity also may be influenced by contraceptive choice.

Voluntary surgical sterilization (VSS), intrauterine devices (IUDs) and oral contraceptives (OCs) are the most commonly used methods accounting for 70% of worldwide contraceptive use. The proportion of couples using these methods in the developing countries is almost twice more than those in the developed countries, 81% and 43% respectively (UNFPA, 1991).

**Voluntary Female Sterilization (VFS)**

VFS is the word's most widely used family planning method and one of the fastest growing. An estimated 138 million. women of reproductive age use this method today i.e. 43 million. more than in 1984. Millions more are expected to ask for the method in the next decade (Pop. Reports, 1990). Minilaparotomy and laparoscopy procedures are both very effective and safe. Most complications are minor, such as wound infection or slight bleeding, occur in less than 5% of cases and resolve easily and quickly. Major complications like anaesthesia

related problems, injuries, infection, haemorrhage and cardiovascular complications are reported to be usually less than 1% (Ross et al, 1985). Deaths due to VFS are very rare. Sterilization is much safer than childbirth in developing countries. In Bangladesh, for example, it is estimated that 1,000 maternal deaths are prevented by every 100,000 VFS. In other words, VFS saves the life of one in every 100 women who choose this method (Pop. Reports, 1985).

Because of large number of sterilized adults in the world and the expectation that the popularity of sterilization will continue to increase, the long-term health consequences of sterilization are of vital concern to health care providers. Specific concerns related to long term health consequences of VFS include post tubal ligation syndrome, method failure, regret, and behaviour related to risk of HIV. A likely health benefit of VFS, in addition to the benefits devised from pregnancy prevention, is protection against ovarian cancer (Pollack, 1993).

**Post Tubal Ligation Syndrome (PTLS)**

PTLS has been used to describe a group of signs and symptoms reported to occur after VFS. These have included menstral disturbances, pelvic pain, change in sexual behaviour and abnormal endocrine manifestations. PTLS may include exacerbation of premenstrual complaints including changes in mental health. But the problem is that many of the symptoms in PTLS may occur also as part of the normal aging process in women. The most popular hypothesis about PTLS etiology is that it results from vascular damage done during sterilization which leads to a functional change of the ovary. Though presence of pelvic varicosities after sterilization have been recorded, it is presently not known whether these vascular changes lead to meaningful changes in ovarian function. According to several studies, it is unlikely that all the symptoms referred to as PTLS occur as a result of tubal sterilization.

**Method Failure**

Pregnancy due to sterilization failure is usually attributed to either fistula formation or recanalization of the severed ends of the fallopian tube. Most failures occur within 2 years of sterilization. Failure rates vary with the techniques used. Preliminary analysis of long-term studies indicates that higher cumulative failure rates, 1-3%, may be documented in bipolar electrocoagulation cases when followed for 10 years after surgery. It is not clear whether long-term follow-up of women strerilized by other occlusion methods will reveal the same high rate of failures.

**Ectopic Pregnancy**

The absolute risk of ectopic pregnancy decreases with effective tubal occlusion. But, recent literatures indicate that over half of all pregnancies that occur following sterilization would be ectopic pregnancies. It is not yet clear whether risk of ectopic pregnancy varies with the occlusion method used. Women undergoing sterilizations should be counselled about the importance of seeking immediate medical advice once they think they might be pregnant.

**Regret**

Sterilization should be considered a permanent contraceptive option. Post operative regret about sterilization decision is a serious concern. The U.S. study involving more than 5,000 women choosing VFS documented several presterilization characteristics such as young age, change in marital status etc. which were most often associated with post sterilization regret (Wilcox et al, 1991). A total of 6.2% of women reported regret at least once on an annual survey. A study of 587 women in Bangladesh revealed that women who had fewer than 3 living children or who had lost a child were most likely to regret sterilisation (Cleland et al, 1991). Thus, it is very important to counsel the women, considering sterilization, adequately about the permanent nature of the method and possibility of regret.

**HIV Risk Behaviour**

In general, women undergoing VFS are less likely to use condoms for prevention of HIV and STDs than non-sterilized women (Pollack, 1993). Women who undergo sterilization need more targeted preventive efforts to reduce high risk behaviour than women choosing other contraceptive methods.

**Protection Against Ovarian Cancer**

A reduced risk of epithelial ovarian cancer in sterilized women has been reported in several studies (Hankinson et al, 1992; Irwin et al, 1991). The first hypothesis is that sterilization may reduce circulating levels of estrogen resulting a decrease in the frequency of ovulation, which in turn is associated with a reduced risk of ovarian cancer. The above two studies also report a lower incidence of ovarian cancer in women sterilized before age 35 than in women sterilized after 40 years of age. The second possible mechanism involves preventing foreign matter from reaching the ovaries through the vagina and fallopian tubes. This hypothesis is supported by the evidence of a higher relative risk of ovarian cancer in women who are not sterilized and frequently use talcum powder (chemically related to asbestos and potentially carcinogenic) on the perineum (Whittlemore et al, 1988).

**Intrauterine Device (IUD)**

More than 106 million women worldwide are using IUDs for fertility control (Pop. Reports 1997). The IUD is the second most commonly used family planning method, after VFS and the most commonly used reversible method. The safety, effectiveness and acceptability of the currently available IUDs depend partly on the IUD itself, but even more on the quality of IUD services. The TCu - 380A is now the most widely available IUD and one of the most effective methods of contraception.

Increased menstural bleeding, often with pain, is the most common problem of IUD use and the most common medical reason for removing IUDs. Risk of anaemia, uterine perforation, IUD expulsion, pregnancy complications and pelvic inflammatory disease (PID) are the other problems encountered with IUD use. WHO and US researchers have estimated about 1-2 deaths per 100,000 IUD users per year from infection, ectopic pregnancy and 2nd trimester septic abortion (Pop. Reports, 1997).

The association of PID with IUD use is an area of major concern. Most studies have shown that women using IUDs are about twice as likely to develop PID as women using no contracption. A WHO study found that in developing countries, IUD users with children were 2.3 times more likely to develop PID than women using no contraception. The relative risk for similar women in developed countries was 4.1 (WHO, 1984). Even a single infection can permanently damage the fallopian tubes resulting in increased risks of ectopic pregnancy and infertility. The greatest risk of PID associated with the use of IUD occurs at its insertion (Farley et al, 1992; Lee et al, 1988). This increased risk of infection may be associated with a microbiological contamination of the endometrial cavity at the time of insertion. Strict asepsis at insertion and leaving the IUD in place for its life span can reduce the chance of developing PID. The LNg IUD has been shown to provide a protective effect against PID as compared with a copper-releasing IUD (Toivonen et al, 1991). Women who have more than one sexual partner or whose partner has other sexual partners are at high risk for acquiring STDs and, in turn, more likely to develop PID if they use an IUD (Lee et al, 1988). Thus, careful screening of potential IUD users and meticulous infection prevention procedures during IUD insertion are very important.

IUDs can prevent and treat Asherman's syndrome. LNg IUD can decrease menstrual blood loss, intensity of dysmenorrhoea and the incidence of PID. IUDs also help to prevent ectopic pregnancies. Mounting evidence indicates that most IUDs help to protect against ectopic pregnancy while they are in use. In the WHO multicentre study, IUD users were half as likely to experience ectopic

pregnancies as women using no contraception (WHO, 1985).

**Oral Contraceptives (OCs)**

Over 90 million women around the world are now using oral contraceptives. About 60% of these OC users live in developing countries. This is a preferred method of contraception in many countries because of its efficacy, safety, reversibility and convenience of use. The most popular pill today is the low-dose estrogen-progestin pill. Low-dose pills seem to cause fewer unpleasant side effects, such as nausea and dizziness, and are thought to minimize the chances of developing certain circulatory system diseases. The biggest benefit of the pill is its effectiveness. By preventing high risk pregnancies, the pill has also saved a great many women's lives and avoided children's deaths.

Several studies over last few decades have shown that the pill has noncontraceptive risks and benefits. Some users experience headaches, nausea, cramps, irregular menstruation, breast tenderness or weight gain. These side effects are usually temporary and minor. Certain circulatory system diseases mainly thromboembolism, myocardial infarction and stroke, are the major established health risks of OCs. A recent review indicates that the increased risk of these conditions is largely limited to current OC users, and in case of myocardial infarction it is entirely limited to older users, above 35 years of age, who smoke (Mehta, 1994). Low dose OCs are not associated with an increased risk of myocardial infarction in women without cardiovascular risk factors (WHO, 1997). Other OC-related health risks include hypertension, gall bladder disease and hepatocellular adenomas.

The foremost controversies surrounding pill use are the questions concerning breast cancer and cervical cancer. No definite link between OC use and increased breast cancer risk has yet been established despite years of research. A large British case-control study found that risk of developing breast cancer before age 36 increased with duration of OC use both before and after full term pregnancy (Chilvers et al, 1989). But, the Cancer and Steroid Hormone (CASH) study, involving cases occuring upto age 54, found no duration of use trend (Stadel et al, 1989). The Oxford / FPA study reported no links between OC use and breast cancer among women who were mostly parous and over age 25 when they used OCs (Vessey et al, 1989). Epidemiologic studies of OC use and cervical cancer have been inconclusive. Five of 13 epidemiologic studies have found a significantly increased risk of cervical neoplasia in OC users, whereas 7 found no statistically increased risk (Rubin and Peterson 1985). The risk of cervical neoplasia increased with longer OC use. All 13 cases of invasive cancer occured in women using OCs -- nine of those women had used OCs for more than 6 years (Vessey et al, 1983). Although the sexually transmitted human papilloma virus (HPV) is probably the primary initiator of cervical cancer, OCs could conceivably play a secondary role.

Apart from providing protection from unwanted pregnancies, OCs offer several other noncontraceptive health benefits. The menstrual benefits of OCs include less iron-deficiency anaemia by reducing menstrual flow, less dysmenorrhoea and less premenstrual syndrome. OCs offer protection against PID, ectopic pregnancy, cancers of the ovary and endometrium. Because OCs prevent ovulation, they presumably protect against trophoblastic disease including molar pregnancy and choriocarcinoma (Pop. Reports, 1988). Additional non-contraceptive benefits of OCs include protection against endometriosis, benign breast disease and ovarian cysts.

**Conclusion**

Several threats to reproductive health such as, rapid spread of STDs, restricted range of contraceptive choices and the lack of access to safe abortion services are of major concern to every woman irrespective of her income or national origin. Vast potential exists for family planning, through the use of contraceptives or other pregnancy pre-

vention strategies, to improve women's reproductive health. Women want better lives for themselves, their children and families. Growing contraceptive use in nearly every developing country attests to women's desire for better health. Many women want new opportunities in life to make their own decisions and to have choices through family planning. Making choices on own life asserts a person's fundamental human dignity and family planning is a basic human right. To meet the growing needs of women, it should be the responsibility of policy makers and service providers to afford the users informed choice, adequate counselling, wider range of safe contraceptives and standard quality of service.

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