

**KNOWLEDGE, ATTITUDE AND PRACTICE OF
HUSBANDS TOWARDS MODERN FAMILY PLANNING IN
MUKALLA, YEMEN**

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TOWARDS MODERN FAMILY PLANNING IN MUKALLA,
YEMEN**

by

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Mukalla (Yemen)

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LIST OF ABBREVIATIONS

WHO	World Health Organization
SD	Standard deviation
IUCD	Intra Uterine Contraceptive Device
95% CI:	95% Confidence Interval
SPSS	Statistical Package for Social Sciences
UN	United Nations.
KAP	Knowledge, attitudes and practices

YDMCHS	Yemen Demographic and Maternal and Child Health Survey
CSOY	Central Statistical Organization Yemen
UNDP	United Nations Development Program
DFID: UK	Department for international development, United Kingdom
UNFPA	United Nations Population Fund
USM	Universiti Sains Malaysia
UNICEF	United Nations Children Fund
WB	World Bank
CDC	Center For Disease Control , United States of America
PHC	Primary Health Care
NPFPP	National Population and Family Planning Program
STD	Sexual Transmitted Diseases
IPPF	International Planned Parenthood Federation
ICPD	International Conference on Population and Development

**PENGETAHUAN, SIKAP DAN AMALAN SUAMI TERHADAP PERANCANGAN
KELUARGA MODEN DI MUKALLA, YEMEN**

ABSTRAK

Tujuan kajian ini adalah untuk menilai tahap pengetahuan, sikap dan amalan kaedah perancang keluarga moden di kalangan suami di Mukalla, Yemen. Kajian keratan rentas ini melibatkan 400 orang suami yang menetap di kuarters Alamol

dan Almustagbal di Mukalla. Golongan suami telah dipilih secara rawak daripada isirumah di dua buah kuaters tersebut. Suami yang tidak memenuhi beberapa kriteria yang ditetapkan telah digantikan dengan jiran yang berhampiran. Mereka yang dipilih telah ditemuduga menggunakan soalselidik berstruktur. Prevalens amalan kaedah perancang keluarga di kalangan suami adalah sebanyak 39.0% and 44.3% di kalangan isteri. Hanya 44 orang suami (11.0%) dan 83 orang isteri (20.8%) sahaja yang mengamalkan kaedah moden perancang keluarga. Terdapat 77 pasangan (19.3%) dimana masing-masing suami dan isteri telah mengamalkan kaedah perancang keluarga, 79 pasangan lagi (19.8%) dimana hanya suami sahaja yang mengamalkannya tapi tidak bagi isteri, 100 pasangan (25.0%) dimana hanya isteri sahaja yang mengamalkannya tapi tidak bagi suami dan 144 pasangan (36.0%) dimana kedua-dua suami dan isteri tidak mengamalkan apa-apa kaedah perancang keluarga. Di kalangan pengguna kaedah moden perancang keluarga, kondom merupakan kaedah yang biasa digunakan oleh suami (88.6%), manakala pil (54.2%) diikuti alat-alat intra-uterine (43.4%) bagi isteri. Lebih daripada 90% suami mengetahui tentang pil-pil, alat-alat intra-uterine dan kondom. Kebanyakan suami (89%) mempunyai sikap yang positif terhadap kaedah perancang keluarga dan bersetuju bahawa kaedah moden perancang keluarga lebih efektif daripada kaedah tradisional. Majoriti suami (51.3%) bersetuju bahawa golongan suami juga perlu mengamalkan kaedah perancang keluarga. Walau bagaimanapun, terdapat 172 orang suami (43.0%) merasakan bahawa kaedah perancang keluarga hanya sesuai diamalkan oleh golongan isteri sahaja. Lebih kurang 282 orang suami (70.5%)

percaya bahawa keputusan untuk mengamalkan kaedah perancang keluarga perlu diputuskan oleh suami dan 225 orang lagi (56.3%) merasakan hanya wanita sahaja yang sepatutnya memutuskan penggunaan kaedah tersebut. Hasil kajian menunjukkan tidak semua suami bersetuju bahawa golongan suami sebagai pembuat keputusan utama bagi amalan perancang keluarga.

Hampir semua suami (>90%) menyedari akan kewujudan pelbagai jenis kaedah perancang keluarga kecuali kaedah pemandulan lelaki (51.0%). Dari segi sikap, kaedah pemandulan lelaki merupakan kaedah yang tidak popular di dalam kajian ini berbanding kaedah pemandulan perempuan, menggambarkan kurangnya kesedaran penggunaan kaedah ini. Amat sedikit suami (2.0%) yang mempunyai skor sikap yang rendah terhadap kaedah perancang keluarga. Di kalangan suami yang bersikap positif, 132 (33.0%) orang mempunyai skor yang sederhana manakala 247 (61.8%) orang mempunyai skor yang baik dan hanya 13 (3.3%) daripada suami yang mempunyai skor yang sangat baik, menunjukkan golongan suami secara umumnya mempunyai sikap yang positif terhadap kaedah perancang keluarga.

Analisis regresi berganda terhadap skor pengetahuan mendapati wujudnya hubungan yang bererti di antara tahap skor pengetahuan dengan jumlah tahun pengajian suami, jumlah tahun pengajian isteri dan anak-anak. Bagi skor sikap, analisis regresi berganda mendapati wujudnya hubungan yang bererti diantara

skor sikap dengan jumlah tahun pengajian suami, jumlah anak-anak yang tinggal bersama dan gaji bulanan isteri.

Program perancang keluarga di Yemen perlu memfokuskan golongan suami supaya terlibat bersama sebagai pembuat keputusan dalam pengamalan kaedah perancang keluarga. Usaha ini boleh tercapai melalui penumpuan program promosi dan pendidikan perancang keluarga terhadap golongan suami. Ketua agama mesti melibatkan diri dalam mengenalpasti dan mengupas isu-isu agama berkaitan perancang keluarga.

**KNOWLEDGE, ATTITUDE AND PRACTICE OF HUSBANDS TOWARDS
MODERN FAMILY PLANNING IN MUKALLA, YEMEN**

ABSTRACT

The aim of this study is to assess the knowledge, attitude and practice of modern family planning among husbands in Mukalla, Yemen. This study was a cross-

sectional study involving 400 husbands living in Alamol and Almustagbal quarters in Mukalla. These husbands were selected from households randomly selected from the two quarters. Husbands who do not meet pre-determined criteria were replaced with those from the nearest house. The selected husbands were interviewed using a structured questionnaire. The prevalence of family planning practice among the husbands were 39.0% and 44.3% among their wives. Only 44 (11.0%) of the husbands and 83 (20.8%) of the wives were currently practicing modern family planning. There were only 77 couples (19.3%) where both husbands and wives have practiced family planning, 79 (19.8%) of couples where husbands practice but their wives do not, 100 (25.0%) of couples where husbands do not practice but wives do and 144 (36.0%) where both husbands and wives do not practice any family planning. Among users, the condom was the most common method used by the husbands (88.6%), while the pill was the most common method used by wives (54.2%) followed closely by intra-uterine devices (43.4%). More than 90% of husbands knew about pills, intra-uterine devices and condoms. Most of the husbands (89.3%) have positive attitudes towards family planning and agreed that modern methods are more effective than traditional methods. The majority of husbands (51.3%) agree that husbands should also practice family planning. However, 172 husbands (43.0%) felt that family planning should be practiced only by the wife. About 282 husbands (70.5%) believed that the decision regarding practice of family planning should be decided by husbands and 225 (56.3%) felt the wife only should decide on

practicing family planning. The results indicate ambivalence by some husbands on the main decision maker for family planning practice.

Nearly all husbands (>90%) were aware of the common types of family planning except for male sterilization (51.0%). Male sterilization is uncommon in this study compared to female sterilization, which may explain the lower level of awareness. Very few husbands (2.0%) had poor attitude scores towards family planning. Among the positive attitude husbands, 132 (33.0%) had moderate scores while 247 (61.8%) had good scores and only 13 (3.3%) of the husbands had very good scores indicating that the husbands generally have positive attitudes towards family planning.

Multiple regression analysis of the total knowledge score revealed significant association with years completed education of husband, years completed education of wife and the number of living children. For the attitude score, multiple linear regression analysis revealed a significant association with years completed education of husbands, the number of living children and monthly income of the wives.

Family planning programs in Yemen should also focus on Yemeni husbands to participate as joint decision makers in modern family planning practice. This can be achieved through targeted family planning education and promotion programs

to Yemeni husbands. Religious leaders must be involved in clarifying religious issues regarding family planning.

CHAPTER 1

INTRODUCTION

A rapid population growth is a burden on the resources of many developing countries. Unregulated fertility, which contributes to such situations, compromise the economic development and political stability of these countries. Therefore, many countries consider limiting population growth as an important component of their overall developmental goal to improve living standards and the quality of life of the people. This strategy is now enhanced by the availability of effective modern contraceptive methods since the 1960s. Many international institutions and organisations such as the World Health Organisation (WHO), World Bank (WB), United Nations Population Fund (UNFPA) and United Nations Children's Fund (UNICEF) have strongly advocated family planning as a means to space children and limit family size and should be one of the essential primary health care services provided. Family planning has also been a key component of the WHO-UNICEF Child Survival Strategy which goes under the acronym – GOBI-FFF (growth monitoring, oral rehydrating salts, breastfeeding, immunization, female education, supplementary feeding and fertility control).

Between the mid-1960s and 1990, the percentage of couples in the developing world using contraception went up from an average of 9% to 53% (Hamilton, 1997). Still, disparities occur between developed and developing countries and within countries. Scarcity of resources and information, falling donor support,

cultural and political barriers, societal attitudes or misconceptions still contribute to the high level of unmet needs for contraception in many developing countries. In 1996, the number of women in the world with unmet need for contraception was estimated to be around 100 million, or about one in every five married women (Robey *et al*, 1996).

The unmet need for contraception is often translated into a heavy health burden for many developing countries. There are about 30 million unwanted pregnancies each year in developing countries (Kumar, 2001). About 19 million unsafe abortions take place worldwide each year, where approximately one in ten pregnancies ended in an unsafe abortion (Ahman & Shah, 2002). Nearly 80,000 women are estimated to die each year from unsafe abortions (Hwang *et al*, 2004). Although maternal deaths are rare events in developed countries, they remain common events in many developing countries. Estimates of maternal mortality indicates that every year, about 515,000 women die from causes related to pregnancy and childbirth, a rate of over 1,400 maternal deaths each day, and a little short of one death every minute (WHO, 2001). Another estimated 62,000,000 acute morbidities per year occur during pregnancy, childbirth or in the postpartum period worldwide, and these estimates might well be twice as high (Varkevisser, 1995).

Various strategies and initiatives have been carried out to reduce many of these burdens. The Safe Motherhood Initiative started in 1987 focused on decreasing pregnancy related morbidity and mortality. The International Conference on Population and Development (ICPD), Cairo, 1994 expanded maternal health to a broader scope of reproductive health and endorsed a range of major goals for countries to achieve. Two of the goals are a 75% reduction in the maternal mortality ratios by 2015 and that all couples and individuals should have the full opportunity to exercise their right to have children by choice (Tangcharoensathien, 2002; Rosenfield & Schwartz, 2005). The Millenium Development Goals, adopted by the United Nations in 2000 require member countries to achieve a set of goals, of which Goal 5 is to improve maternal health by reducing three quarters of the ratio of women dying in childbirth by 2015. In all these programs, contraception and family planning play a central role in the strategies to achieve the goals set.

Studies on family planning in developing countries have long focused on women as the subject of interest. Very little work in this area has focused on men. It is now increasingly recognized that the actions required to achieve improvements in reproductive health outcomes in general and maternal health in particular should also encourage men's active participation (Roth & Mbizva, 2001). The biological and social interdependence between husbands and wives in their plan for the family and practice of contraception makes the importance of including men in this area of research (Edwards, 1994). Exploring the role of husbands in their and their spouse contraceptive practices is particularly important in

countries such as Yemen, where women have relatively limited personal control over their lives and are dependent on their husbands for many decisions.

In Yemen, poverty, illiteracy, high mortality, beliefs, low women empowerment and poor health services together with the high population growth rate of around 3.5% poses great challenges in promoting the practice of family planning. The contraceptive prevalence rate in Yemen was only about 10% in the 1991-92 survey compared to 42% in Morocco and 46 % in Egypt. Maternal mortality rate is still very high at 114 maternal deaths per 10,000 live births and the infant mortality rate at 75 per 1000 in 1991. The total fertility rate in Yemen is still high as well, despite a decrease from 7.7 births per women in 1991-1992 to 6.5 in the 1994 census, and reached 8.4 births per women which was considered to be the highest in world (CSOY,1998).

Since the introduction of National Family Population and Planning Program in Yemen in 1984, no provision has been made to include men in the motivation campaign or to involve them in the program. In 1997, a study conducted by the Central Statistical Organization Yemen (CSOY), found that family planning prevalence in Sana'a was 22% when both husband and wife approved of it, and in 12% of couples when the wife approves but the husband does not and in 4% when the husband approve but the wife doesn't (CSOY, 1998). There are many Yemeni women with unmet needs for family planning because the husband is still a significant barrier to family planning practice (CSOY 1998). A study on the knowledge, attitudes and practices of Yemeni husbands in family planning will be

useful for policy makers to improve family planning services and practices in Yemen.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview of Family Planning

Family planning is defined as birth spacing, preventing unwanted pregnancies or secure wanted pregnancy (WHO, 1995). Family planning is adopted voluntarily through the practice of contraception or other methods of birth control on the basis of knowledge, attitude and responsible decision by individuals and couples, in order to promote the health welfare of the family and contribute to the social and economic development of the country.

Family planning has been identified by the World Health Organisation (WHO) as one of the six essential health interventions needed to achieve safe motherhood and by United Nations Children Fund (UNICEF) as one of seven strategies for child survival. Both women and men's use of contraception have been going on for centuries. Traditional methods such as coitus interruptus is described in Bible, periodic abstinence was used in ancient India and the precursor to the condom was used by the Egyptians back in 1350 BC (Edwards, 1994).

The practices of modern contraceptive methods offer many advantages in health and economy of the couple and the country. The primary aim of family planning enables women and men to plan their families and space their children through

the use of modern contraceptives. However, family planning also embraces activities such as infertility and genetic counseling, contraception, abortion and sterilization. Family planning programs, policies and methods have become increasingly important in the last decade as a result of the socio-economic problems influencing rapid population growth, as well as public health problems, especially control of sexually transmitted diseases (STDs) such as AIDS (UN, 1994). There is evidence based on many studies which show that these programs are jointly responsible for improvement in the quality of family life, directly benefiting the health of women and children and is the most cost effective intervention to lowering fertility (Maguire, 1994).

2.2 Situation of family planning in the world

The era of modern contraception began in 1960s, when both the birth control pill and intrauterine contraceptive device (IUCD) became available. These effective and convenient contraceptive methods resulted in widespread changes in birth, fertility and demography in the United States. Between 1800 and 1900, the family size in the United States declined from 7.0 to 3.5 children, and by 1933, the average family size had declined to 2.3 children (CDC, 2000). Since 1972, the average family size had leveled off at approximately two children, with increasing safety, efficacy, diversity, accessibility and use of contraceptive methods (Forrest, 1994).

Between 1990 and 1994, the global average contraceptive use by married women of reproductive age rose from 57% to 60% (Hamilton, 1997). The

introduction of combined oral contraceptive pill also brought about the sexual revolution in the West, where it was possible for sex without any fear of pregnancy. Worldwide, however, there are still unmet needs especially in developing countries, where a scarcity of resources and information, cultural and political barriers, and societal attitudes or misconceptions, conspire to exact a heavy toll on all women's health, with unwanted pregnancies, unsafe abortions, maternal mortality and HIV-1 infection still leading causes of death in women. Even in developed countries, the situation is far from ideal and policies and provision of services vary considerably within each country. Unwanted side effects, inconvenience of the chosen method, and media scares about safety of modern contraceptives are some of the issues that limit their acceptability. Poor contraceptive use is further compounded by ignorance among users and providers of wide range of methods available now and likely to be so in the future. Giving women reproductive autonomy through comprehensive and up-to-date information about all methods is vital for successful and long-term use of contraception (Kubba *et al*, 2000).

2.3 Family planning in the Arab region

The region's population growth rate currently stands at about 3% per year, and the population of the Arab world is expected to reach 400 million by 2010. The mean age at first marriage ranges from 17 years in Yemen to 24 years in Tunisia and has been slowly rising in all eight countries in the region (Egypt, Jordan, Mauritania, Morocco, Sudan, Syria, Tunisia, and Yemen). The current fertility level in the Arab region is 2-3 times those required for generational replacement. Completed fertility of ever-married women 45-49 years of age ranges from over six children in Mauritania and Sudan, about seven children in Egypt, Morocco, Tunisia and Yemen: and about eight children in Syria to almost nine in Jordan. Examination of total fertility rate trends reveals little change in Mauritania, the Sudan, and Syria, and decline in total fertility of about one child per woman in Jordan, 1.5-1.8 children per woman in Egypt, Morocco, and Tunisia, and an increase in Yemen (Farid S,1986).

The percentage of ever-married women who have ever used contraception ranges from only 2-3% in Mauritania and Yemen to 40-46% in Egypt, Jordan, and Tunisia. Current contraceptive use is highest (36%) in Tunisia. The following factors seem to be associated with greater use of contraception: urban residence, higher educational level, three or more children already in the family, and more sons than daughters. Only 32-38% of women in Egypt, Jordan and Tunisia indicated they would never use contraception compared to 92-97% in

Yemen and Mauritania. An increasing age at marriage and decreasing child mortality have promoted the transition from a high to a moderate fertility level in the Arab world (Farid S, 1986).

2.4 Family planning methods

About 85% of couples will become pregnant within one year without contraception (Cleland *et al*,2006). Thus, even the least effective form of contraception is considerably better than using nothing. There are a number of family planning methods available to the couple. These methods can be divided based on several criteria such as natural/artificial, traditional/modern, temporary/permanent, male/female and oral/injectables/IUCDs. Natural family planning means abstinence from sexual intercourse during fertile period to prevent pregnancy. This includes the rhythm method (the calendar method), mucus method, basal body temperature method or a combination of these methods. This method has no systemic or long-term side-effects. However, these methods are based on the timing of the women's fertile period, which can be highly unpredictable, even if their cycles are regular. The timing is even less predictable for women with irregular menstrual cycles. The fertile period occurred during a broad range of days in the menstrual cycle. On every day between day 6 and 21, women have at minimum a 10% probability of being in their fertile period. Only about 30% of women had their fertile period entirely within the days of the menstrual cycle identified by the clinical guidelines, which is between day 10 and 17 and only 10 percent of women ovulate exactly 14 days before the next

menses. Most women reach their fertile period earlier and others much later (Wilcox *et al*, 2000).

In Malaysia, abstinence during fertile period is the third most popular contraceptive methods used among all ethnic groups (Rohani, 1988). Some couples find that abstinence during the fertile period is difficult to practice consistently as it produce undesirable tension in their relationship. Other traditional methods include coitus interruptus or male withdrawal, which is one the oldest method of contraception. The husband withdraws the penis just before ejaculation to ensure that all sperms are deposited outside the vagina. It is a simple method, moderately effective, widely acceptable by well-adjusted and motivated couples and does not require any professional supervision. It is the commonest traditional method used among all three ethnic groups in Malaysia (Rohani, 1988).

Lactational amenorrhea method (LAM) is a contraceptive method that relies on, or uses, the state of infertility which results from exclusive breastfeeding. Other criteria necessary are that the woman is still having lactational amenorrhea and up to six months post partum. When these criteria are met, LAM can be more than 98% effective in preventing pregnancy (Hight-Laukaran V *et al*, 1996). As presently defined, the method is effective for a maximum of six months, yet a large proportion of women remain protected from pregnancy beyond this time. Only about 5% (3-10%) of breastfeeding women have been known to conceive during amenorrhoea during the first year postpartum.

Barrier methods of contraception prevent sperm in the ejaculate from entering either the vagina or the cervical os, by either mechanical or chemical means, or both. It includes male condoms, female condoms, diaphragms and cervical caps. It creates a barrier that prevents sperm from reaching the ovum. Male condoms are one of the most commonly used contraceptives. It is one of the oldest methods used to prevent pregnancy and sexual transmission of diseases. They were initially made from animal skins but most modern condoms are made from latex or polyurethane. Use of condoms is advocated as an effective primary prevention for HIV/AIDS in the fight to control of the current epidemic.

Spermicides can be used as a primary birth control method or, more commonly, as an adjunct to the barrier methods. They are chemical barriers that kill or inactivate sperm in the vagina before they can move in to the upper genital tract. The spermicides are surfactants – surface – active compounds that can destroy sperm – cell membranes. These barrier methods are safe and fairly effective if used consistently and correctly. It also can be used as a back up method in cases of failure by the barrier methods.

Hormonal methods are the most popular family planning methods used worldwide. Ludwig Haber Landt, a physiologist in 1921, suggested that extracts of ovaries could be used as oral contraceptive. There are several types of hormonal contraception available. These include oral contraceptive pills, which include combined oral contraceptive pills, progestogen only pills and post coital contraceptive pills, injectables and implants

The first oral contraceptive, Enovid was marketed in the USA in 1960. Since then, many different steroidal contraceptives have been developed, progressively containing lower doses of estrogen and progestogen/progestin. More than 200 million women have used these preparations world wide since 1960. By 1965, the pill had become the most popular birth control method used in the United States. Combined oral contraceptive pills contain two hormones, an estrogen and a progestin that come in packets of either 21 or 28 pills. The 21 pills pack contains only active pills and requires women to take a seven days break in between packs. The 28- pills pack contains 21 active pills and 7 inactive or hormone free pills. There are three types of combined pills, which are monophasic pill, where the hormone content is constant in all 21 active pills, biphasic pills and triphasic pills, where the ratio of estrogen to progestin varies among the active pills. Progestogen only pills contain only progestin and no estrogen. They are especially suitable for women who are breastfeeding since this type of pills does not affect milk supply and quality.

The oral contraceptive pill is the best – known modern method and the commonest family planning method used in Yemen (CSOY, 1998). The Yemen Demographic, Maternal and Child Health Survey (1997) reported that 84% of currently married women have heard of at least one family planning method and slightly less than 80% reported knowing a modern method and oral contraceptive pill was the most widely known modern method at more than 75% of currently married women (CSOY, 1998).

Post-coital contraceptive pills are intended for emergency use and must be taken within 72 hours of a single episode of unprotected coitus and repeated exactly 12 hours later to prevent pregnancy. This method is indicated in a woman who is exposed to unexpected and / or unprotected sexual intercourse such as cases of rape. World wide, this emergency post-coital contraception has been used extensively for over two decades. The options currently available include progestin alone (levonorgestrel, 750 mcg (Prostinor), an estrogen -progestin combination, which comprises of combination of 100 mcg ethinyl oestradiol and 500 mcg levonorgestrel, which is called yuzpe regimen. The pregnancy rate in these treated women varies from 1 % to 4 %, depending on the stage in the cycle when coitus occurred and also depends on the timing of the pill used. A recent analysis of the timing of pill use suggests an inverse linear relationship between efficacy and the time from intercourse to treatment. The earlier the pills were used, the more effective they were during the 72 hours period studied. Delaying the first dose by 12 hours increased the odds of pregnancy by almost 50 % (Piaggio *et al*, 1999).

Injectable forms of hormonal contraception are considered safe, very effective, simple to use and easy to administer. Injectable contraceptives are among the most effective reversible contraceptive available, with a failure rate less than one percent after a year of use. It is particularly suited to the needs of young women, providing very high efficacy rate and less complication. The disadvantages include irregular bleeding, weight gain and delayed return to fertility. Injectable

contraceptives work in several ways to prevent pregnancy. The primary action is the inhibition of ovulation. Besides that, it also increases the viscosity or thickness of the cervical mucus, making it less permeable to sperm penetration to the uterine cavity.

Another type of hormonal contraception is the contraceptive implant. It is an effective, long acting, reversible, low dose progestogen-only product, suitable for use in family planning programs along with other currently available contraceptive preparations and devices. It offers long term contraception and is an alternative to the irreversible methods of contraception. Implant is inserted subdermally in the first seven days of menstrual cycle and once in place, it requires no further attention by the user. However, it must be inserted or removed by a specially trained health professional. The mode of actions includes inhibitions of ovulation, suppression of endometrium and increase the viscosity or thickness of the cervical mucus. The effectiveness of this method is comparable to combined oral contraceptive pills and intrauterine device. Amenorrhea is common after insertion of implants, reported by 20% of users at any time in the first two years (Kubba *et al*, 2000).

Intrauterine contraceptive devices (IUCDs) are small plastic devices that come in different sizes and shapes and have a life span ranging from one to five years. It prevents pregnancy primarily by preventing fertilization. Fertilisation is prevented by a foreign body sterile inflammatory reaction in the endometrium that prevents sperm from reaching the fallopian tubes. In the past, there were objections to

IUCDs as it believed to function primarily as an abortifacient, preventing implantation of the fertilized egg. The IUCD is inserted in to the uterus through the cervix by a trained health professional at any time convenient to the user, normally within the first seven days after normal menses, or within the first seven days post abortion, or six to eight weeks post delivery, or within five days of unprotected sexual intercourse. Grimes *et al* (2000) noted that the insertion of an IUCD immediately after abortion, either induced or spontaneous abortion was both safe and practical. O' Hanley & Huber (1992) also found that insertion of an IUCD in the post-menstrual and immediate post-partum periods was convenient, efficient, safe and have a low incidence of infection.

Sterilization is a permanent contraceptive option available to couples that have decided to end bearing child. Female sterilization involves occlusion or transaction of the fallopian tubes, commonly referred to as 'tubal ligation'. Male sterilization is performed by vasectomy. In many developed countries, this remains the most popular method in couples over 35 years. Female sterilization is the most common birth control method at 30% worldwide for married couples, followed by intrauterine devices at 20% and contraceptive pills at 14% (Hamilton, 1997).

Despite calls for increased involvement of men in contraception, only the traditional methods of withdrawal and condoms are available (Kubba *et al*, 2000). The male condom is a essentially a sheath worn over the penis during intercourse. It is the most harmless form of modern contraceptives with a failure

rate of about 12%. It prevents pregnancy by acting as a barrier preventing the sperm from reaching the ovum. The use of condom allows males to have an active part in preventing pregnancy. It is suitable in couples who have infrequent sexual relationship and is only delaying pregnancy. Condoms also protect males and females from contracting a sexually transmitted disease, including AIDS. They act as a barrier to organisms transmitting sexually transmitted disease. Some condom contain spermicidal to improve their effectiveness. Side effects are mainly allergy to latex rubber or to the lubricant. However, non rubber-based condoms are available for such situations.

Studies on family planning programs, policies and methods have increased drastically in the last decade as a result of the socio-economic problems influencing population growth, as well as public health problems, especially STD (sexually transmitted diseases) such as AIDS, using contraception as one of the means for family planning (United Nations, 1994).

2.5 Family planning services in Yemen

Yemen adopted the primary health care (PHC) approach in 1978, the year of the Alma Ata Conference. This approach emphasizes preventive and promotive health programs and first level curative care. To implement this approach, Yemen has utilized a traditional three-tier system consisting of health units, health centers, and hospitals. Ideally, within this system, health units provide the most basic curative and preventive care to all villages within their catchment areas, with each area consisting of a population of 3,000 – 5,000. These units

are backed up by PHC centers staffed by a physician and equipped with a laboratory and x-ray facilities. At the secondary level are district and governorate hospitals providing inpatient care and offer more sophisticated diagnostic and curative services.

The National Population and Family Planning Program, Yemen (NPFPP) was established in 1984 to strengthen the government's capacity to implement population policy in North Yemen. After the unification of North and South Yemen in May 1990, the government established the National Population Council (NPC) to oversee implementation of a national population and family planning policy adopted in October 1991.

The stated objectives of the family planning program in Yemen are to:

- i. increase the use of contraception to 35% among women of reproductive age, and expand family planning services to men, and
- ii. Make family planning a free choice for couples, a basic human right as well as a factor for social change. Family planning must also include the treatment for Infertility.

There are several methods of family planning available in Yemen. The methods include natural family planning methods or fertility awareness-based method, traditional methods, barrier methods, hormonal methods, intrauterine device and permanent methods. In Yemen family planning services are provided by several sources such as:

A. Public sector

- 1- Central hospitals
- 2- MCH clinics
- 3- Primary health care centers
- 4- Mobile clinics
- 5- Yemen family care association clinics

B. Private sector

- 1- Private dispensaries
- 2- Private hospital
- 3- Private doctor
- 4- Public field worker clinics
- 5- Private Pharmacies

Family planning services by the Ministry of Health are provided through its extensive network of facilities available throughout the country. Most Yemeni women go alone to the health centers and MCH clinics to seek family planning. Occasionally, some of them are accompanied by their husbands or other family members with permission from their husbands. Family planning is usually prescribed by midwives to the people at a nominal price in the centers and clinics.

2.6 Factors associated with family planning practice

The factors associated with family planning practice can be divided into personal, demographic, socio-cultural, religion, economic, and health services. Among the personal factors associated with family planning practice are knowledge of family planning methods and influence of family members and friends, especially those who have experience in family planning methods. Demographic factors such as parity, age, marital status, religion, husband's education, husband's occupation, monthly family income, and woman's occupation are also known to be associated with family planning practice. However, a study in Mexico by Romero-Gutierrez

et al (2003) found that many of these factors which have previously been considered to affect family planning acceptance were not significant. He found the reasons were the women accepted family planning mainly for personal reasons and their decision was only influenced by the family size desired. Al-Riyami *et al* (2004) found that Oman women's autonomy, education and employment were influential in their contraceptive practice. Approval of husbands was an important factor for women noted in many studies in developing countries (Kamal, 2000; Sahin & Sahin, 2003; Al-Riyami, 2004)

In Yemen, about 42% of women said they had not talked to their husbands about family planning in the year preceding the survey while 26% had discussed it once or twice and 32% had discussed it more often (CSOY, 1998). Women in the oldest and youngest cohorts were least likely to have discussed family planning with their husbands. In 40% of couples, both husband and wife approved of family planning; in 22% both disapprove. In 12% of couples, the wife approved but the husbands did not, while in 4%, the husband approved but the wife did not. There were marked differential by level of education: the higher the wife's level of education, the more likely it is the couple approves family planning. Partly for this reason, couples in urban areas are twice as likely to approve of family planning as those in rural areas. Couples' approval of family planning is highest in the Plateau and Desert region (48%) and lowest in the Mountainous region (29%) (CSOY, 1998)

A national survey of men conducted in the United States 1991 found that about 12% of married men aged 20-39 years have had a vasectomy and about 13%

were married to a woman who is sterilized. Sterilization rises with the husband's age, wife's age, duration of marriage and number of children. Black couples were significantly less likely than white couples to rely on sterilization, and interracial couples were less likely than same-race couples to be sterilized. Use of male sterilization is also strongly associated with having had recent contraceptive failure while using a male method (Tanfer *et al.* , 1995).

Mass media campaigns and advertisements and social marketing will influence both men and women to “legitimizing contraception in their minds”. In 1994, a study of Kenyan rural male attitudes to contraception showed that the most (93.2%) approved of family planning. Although 63.9% of the respondents felt that family size decision making should be a couple's responsibility and 78.6% of respondents preferred a husband and wife approach to the family planning counseling, 56.9% said that the women should be the one to actually use the contraceptive, and 88.7% approved of female sterilization while 64.5% disapproved of vasectomy (Were & Karanja, 1994). In a survey conducted in an inner city sexually transmitted disease clinic in Newton, Massachusetts, USA, men who were given coupons to redeem for condoms at a neighborhood pharmacy show that only 22% of the sample did so (O'Donnell L *et al.*, 1995). Gender, ethnicity, marital status and education were not significant predictors of whether study participants redeemed their coupons.

A multimedia communication campaign was conducted in Zimbabwe between 1988 and 1989 to promote family planning among men. Among married men, the

use of modern contraceptive methods increased from about 56% to 59% during the campaign, condom use increased from 5% to 10%. Men exposed to the campaign were significantly more likely than other men to make the decision to use family planning and to say that both spouses should decide how many children to have (Piotrow *et al.*, 1992). In Ethiopia, a study was undertaken from 1990 to 1991 to determine the relative efficacy of home visitation with and without husband participation on the use of modern contraception. The aim of the study was to initiate and sustain modern contraception use among married couple. A greater proportion of couples in the experimental group were practicing modern contraception at 2 months (25% vs15%) and 12 months (33% vs17%) following the home visit intervention. By 12 months following the home visit, experimental subjects were less likely to have defaulted and more likely to have started using modern contraception following an initial delay (Terefe & Larson,1993).

In Ghana, two plausible explanations for why individual's characteristics may affect partner's beliefs and behavior were provided. Spousal influence, rather than being mutual or reciprocal, is an exclusive right exercised only by the husbands. The study also attributed the limited impact of family planning programs in Ghana and most of Sub-Saharan Africa to the continued neglect of men as equal targets of such programs. It also showed that the wives of educated men behaved significantly different from the wives of uneducated men (Ezeh,1993). Involvement of men and women in using contraception is influenced by a number of factors, mostly lack of knowledge, cultural barriers,

education, socio-economic pressure, and service of family planning providers and economic pressures. The Bangladesh Demographic and Health Survey (BDHS) 1993-94 estimated 92% of husbands approve of family planning and in the BDHS 1996- 97 report, 96% of respondents (males and females) said their spouse approved of family planning (Kamal, 2000).

Religious and cultural pressures also influence the family planning programs in Arab countries. In Jordan, nearly 40% of married men do not believe in practicing contraception and more than half believe that family size should be left up to God. (Warren et al, 1990) According to the 1985 Jordan Husband's Fertility Survey (JHFS), the proportion that was illiterate to 20.8% these with at least secondary schooling and the proportion who said that both the husband and wife should decide on using family planning methods together increased from 12% to 57% respectively. These barriers should be overcome is by encouraging, providing on-site orientations to staff about family planning, posting sign, establishing committees, which pay attention to these issues, and providing more educational materials for husbands (Warren *et al.*, 1990).

2.7 Role of husbands towards family planning:

Women's roles in family planning are well known as they are the primary caregiver of the child during and after pregnancy. What is less clear is the role and level of husband's involvement. Birth control methods involving men such as coitus

interruptus, periodic abstinence and condoms cannot be used without the complete cooperation of men. With the availability of modern methods (the pill and IUCD) in the 1960s, women gained reliable control of their reproductive capability (Edwards, 1994). In many societies, men are the primary decision makers regarding the family and family planning practice (Kamal, 2000; Sahin & Sahin, 2003; Al-Riyami, 2004) However, decisions about family planning are sometimes not discussed or made without sufficient communication between husbands and wives. Efforts to improve couples' communication can help lead to decisions about family planning that reflect the needs of both women and men.

Husbands will need relevant information to participate responsibly in making decisions on family planning. The family planning services should also be relevant for husbands to participate. Husbands can learn more about family planning by accompanying their wives on clinic visits and by taking advantage of special clinics hours for men, where available. Husbands also can participate in family planning by helping their wives to remember to take a pill every day or to return to the clinic for regular injections. Husbands also can help their wives by organizing transportation to the clinic, paying for family planning methods and services, and taking care of children during clinic visits (WHO, 2004).

The aim of family planning is to enable couples to decide freely and responsibly the spacing of their children, to have the information and means to do so, to ensure informed choices and to make available a full range of and effective methods (UN, 1994). A survey done in United States in 1993 of publicly funded