



CHAPTER II

REVIEW OF THE LITERATURE

This chapter presents a review of literature with respect to contraceptive usage and the determinants and the consequences of non-use of contraception. The review also consists of the selection of a suitable intervention for increasing contraceptive acceptance among the rural women.

2.1 Introduction

The process of family formation in terms of the timing and the number of births involves both natural and/or controlled fertility. In natural fertility, the couple does not interfere with the timing and/or the number of children. In natural fertility, a woman married at 15 and living a fertile life till 49 years of age can give birth to as many as 15 children (Weeks, 1996). In a controlled fertility, the timing and number of children are almost fully under the control of the couple.

The fertility i.e. the average number of children born to a couple is the outcome of various factors such as fecundity, age at marriage, duration of breast-feeding, child mortality, socio-economic conditions and motivation for fertility control. Generally the desired family size plays a key role in regulating fertility. As the number of children exceeds the desired family size, the tendency to limit fertility increases. A study done in Kuwait that the desire to stop child bearing had a significant effect on the reported contraceptive use (Shah, Shah and Redovanovic, 1998) supports the argument. Women who have reached or exceeded their ideal family size are more likely to use a method of contraception than those women who have not reached their ideal family size. Study in Kenya also found that a declining family size preference existed with the increase in the rate of contraceptive use. In order to cause a sustained demographic transition, the study recommended that family planning (FP) services should be made easily accessible and available especially in rural areas where most people of the developing

countries live and that FP services should respond to the needs of the people (Gwako, 1997).

The desire of creating a better future for children and perceived cost of raising children influence the number of children desired (Kuss, 1997). When the desire for children is reduced a transition from high to low fertility occurs. In the traditional patriarchal societies like in Nepal, however, a strong preference for male children affects the couple's desired fertility. The perception of children as a source of assistance to parents in their work and consideration of children as a boon in the traditional societies as revealed in the older people's blessing to the younger people by expressing the wish "May you have many children" (Thapa and Weber, 1989), also affects the desired fertility size with an adverse impact on the fertility control measures.

Sons are considered a must in traditional families and women who already have had many daughters still keep on having children in the hope of having a male child. Furthermore with high child mortality prevalent in the country, parents lack confidence that all the children born will survive. These factors predispose women to have excessive pregnancies, which weakens their already poor health and puts them at increased risk of maternal morbidity and mortality. In Nepal the actual fertility is higher than the desired fertility. For instance in 1996, the desired fertility in Nepal was 2.9 as against the actual fertility of 4.6 (Pradhan, Aryal, Regmi, Ban and Govindasamy, 1997).

Status of women in the society is another important factor in influencing the fertility. In Nepal particularly in rural areas, women have low educational status and more restrictions on their movement, both of, which deny them their access to information and ability to make decisions. Particularly in the hill areas women have to work and live in difficult social and ecological conditions (Thapa and Weber, 1989). Getting resources for day-to-day living, such as water, food and firewood necessitates that they walk long distances and work for long hours. In regards to the food consumption pattern of a family, women tend to take food the last and the least. Often

the available food is not sufficient for them to meet the energy demanded by their heavy workload.

In recent years however, even in developing countries, the desire for smaller families has emerged in many couples even among the less educated rural couples. Inspired by the concerns about the health and well being of children and the economic implications of child rearing, many couples have preferred to have fewer children than they are actually having (Bulatao, 1998). Thus it is believed that with the emerging desire for smaller families, couples will be more receptive to the use of contraceptives if the barriers could be eliminated.

2.2 Contraceptive Use and its Significance

Contraceptives are important methods that help couples to control fertility and for a country in reducing the speed of population growth. Contraceptives also serve as important preventive measure for maternal and infant mortality by helping women prevent unintended pregnancies and by reducing exposure to risks associated with each pregnancy and childbirth.

The contraceptive usage status of a country is determined by the contraceptive prevalence rate (CPR) which is defined as the proportion of currently married women of reproductive age group (CMWRAs) using a contraceptive method at a particular point in time (Weeks, 1996). In spite of the tremendous effects on fertility regulation, contraceptives however, have not gained wide acceptance in Nepal and less than one third of the CMWRAs are using a method of contraception (Pradhan, Aryal, Regmi et al., 1997).

The contraceptive methods include both (1) child spacing and (2) child limiting methods. Owing to high failure rate of traditional methods such as periodic abstinence and withdrawal (Ali and Cleland, 1995), the emphasis is placed more on the modern methods of contraception. These include mechanical (condom, and intra uterine device i.e. IUD), hormonal (oral contraceptive pills, injectables and sub-dermal implants), and

surgical methods (vasectomy and tubectomy), (FHD, 1995). In regards to contraceptive choices, more choices are available for women than for men

With the passage of time, the proportion of currently married women knowing the name of at least one method of contraception in Nepal has increased from 21% in 1976 to 92.7% in 1991 and 98% in 1996 (Pradhan, Aryal, Regmi et al., 1997). Contraceptive prevalence rate (CPR) has not increased at the same pace as the knowledge. CPR increased rather slowly from 3% in 1976 to 24% in 1991 to 29% in 1996 (Pradhan, Aryal, Regmi et al., 1997). It is probably because merely knowing the names of contraceptive was not adequate enough to facilitate them to use contraceptive. The comparative data on selected demographic indices of the South-East Asian countries (Table 2.1) shows that the CPR in Nepal is comparatively low and there is a much scope for its increment when compared to neighboring countries. The table also reveals that with an increase in CPR, the total fertility rate (TFR), population growth rate (PGR) and infant mortality rate (IMR) tends to decrease and life expectancy (LE) tends to increase.

Table 2.1 : Comparison of Selected Demographic Indices of South-East Asian Countries

Countries	CPR in % (1990-97)	TFR/ woman (1996)	PGR in % (1990-96)	IMR/1000 live births (1996)	LE (in years)
China	83	1.8	1.3	38	69
Thailand	74	1.8	1.4	31	69
Sri Lanka	66	2.1	1.3	17	73
Bangladesh	49	3.2	1.9	83	57
India	41	3.2	2.0	73	62
Nepal	29	4.6	2.6	82	56
Bhutan	19	5.9	2.1	90	52

Source: Bellamy, 1998

Probably because more choices of contraceptive methods are available to women or because the burden of child rearing is more on women or because of the male dominance (Boyle, 1996), women seem to use contraceptive methods more frequently than the men do. A study done in selected districts of Nepal found that two-thirds of the wives were using a method compared to only one-third of the husbands (WOREC, 1998). Focus group discussion with the women also revealed that they prefer to use contraceptive themselves instead of their husband. The reason given for their statement was that men have to carry out heavy and strenuous work and the family planning operation (vasectomy) would cause an adverse effect on their health (WOREC, 1998). Such misconceptions need to be corrected through adequate information to help couples to use a suitable method.

In regards to the first methods used among the ever users of contraceptives, more than one thirds waited until they needed no more children and, then, used permanent methods (25% used female sterilization and 12% male sterilization) as their first method. Among those who used the spacing methods, injectables was used as the first method by 21%, pills by 18%, condom by 11% and traditional methods such as periodic abstinence and withdrawal by the rest (Pradhan, Aryal, Regmi et al, 1997).

Women who desire to postpone or stop child bearing but who are not using a contraceptive are said to have an unmet need for contraception (Rubey, Ross and Bhushan, 1996). A certain proportion of the couples in many countries have an unmet need for contraception. A study, in Pakistan found that although 53% married women reported a desire to avoid the next pregnancy, fewer than 20% used a contraceptive (Population Council, 1997). In Nepal, almost one-third (31%) of the women have an unmet need for contraception (Pradhan, Aryal, Regmi et. al., 1997). Women who have an unmet need for contraception are characterized by low level of education, age above 30 years, living in rural areas and having more living children (Pradhan, Aryal, Regmi et. al., 1997). The other underlying factors identified for unmet need for contraception in rural areas were the problem in finding time and resources to travel long distances for family planning services (Population Council, 1997). Thus, by addressing the

underlying factors of unmet needs alone, CPR in Nepal can be increased considerably from that of the prevailing rate of 29 percent (Pradhan, Aryal, Regmi et. al., 1997).

Available data from Nepal (Table 2.2) reveal that there is a higher potential for raising contraceptive usage among the rural women than in urban women. Although the knowledge level (i.e. knowing the name of at least one method of contraception) is much the same in the urban and rural areas, the practice level is quite low in the rural areas. The result is that fertility rate and unmet needs are higher in rural areas. In order to bring about equity in the use of FP services, rural women should receive higher priority in undertaking measures for promoting contraceptive usage.

Table 2.2 : Comparison of the Contraceptive Indices of the Urban and Rural CMWRA in Nepal

Contraceptive indices	Rural CMWRAs	Urban CMWRAs
Knowledge of FP method (%)	98.3	99.1
Use of a method (%)	27.0	50.0
Total fertility rate (Mean)	4.8	2.9
Desired no. of children (Mean)	3.0	2.4
Unmet needs (%)	32.3	21.7

Source: Pradhan, Aryal, Regmi et al., 1997

The level of unmet need for contraception is dynamic and not static. It fluctuates depending upon two factors: the desire to control fertility and the use of contraception. It increases with an increased proportion of women desiring to control fertility and decreases with the increasing use of contraception. Thus, raising the awareness of contraception through education along with increasing the access to FP service can increase contraceptive use.

From the preceding review, it is revealed that in spite of the increased knowledge of contraception, practice level is low and a large unmet need exists. It is also revealed that by meeting the unmet need alone CPR can be increased to a

considerable level. In regards to setting, the scope for increasing contraceptive is higher among the rural women than among the urban women.

2.3 Consequences of Nonuse of Contraceptive

2.3.1 Unintended pregnancies

Nonuse of contraceptive leads to unintended pregnancies that may be mistimed or unwanted. In Peru, analysis of data from “1991-1992 Peru and Demographic and Health Survey” and “1994 Follow-up Survey” revealed that 20% of the pregnancies were unintended and that the incidence of unintended pregnancies was higher in rural areas (32%) than in urban areas (24%), (Mensch Arends-Kuenning, Jain and Garate, 1997). In Nepal 1.7 children per woman are unintended (Parham, Arial, Reaml et al. 1997)

Unintended pregnancy is an indicator of non-use of contraception. WHO (1998) estimated that each year about 75 million unintended pregnancies occur around the world. One in four to five births, in developing countries excluding China are unwanted (Bongaarts, 1997: Mensch, Arends-Kuenning, Jain and Garate, 1997). Some of these are due to contraceptive failure while the majority are due to non-use of contraceptive (WHO, 1998). A study in Matlab, Bangladesh found that the cumulative probability of contraceptive failure in a one year period of use to be 1 percent for injectables, 3 percent for IUD and 15 percent for the pills and other temporary methods and that the cumulative probability of conception among the women not using a contraceptive method was 38 percent in a 12 months time frame (Bairagi and Rahman, 1996). Higher failure rate in pills was attributed to irregular intake (not taking daily or serially as prescribed) at least partly.

Table 2.3 : Pregnancy Rate with Different Contraceptive Methods Over a Period of One Year*

Family planning method	Pregnancies/ 100 women \year	
	With common use	With correct and consistent use
Norplant implants	0.10	0.1
Vasectomy	0.15	0.1
Depo provera	0.30	0.3
Female sterilization	0.50	0.5
Tcu-380A IUD	0.80	0.6
LAM for 6 months	2.00	0.5
Combined oral contraceptives	6-8	0.1
Condoms	14.00	3.0
Diaphragm with spermicide	20.00	6.0
Spermicides	26.00	6.0
No method	85.00	85.0

*Source: Hatcher, Rinehart, Blackburn, and Geller, 1997

The pregnancy rates among the users and non-users of contraceptives in another study (setting not mentioned) by Hatcher, Rinehart, Blackburn, and Geller, (1997) over a period of one year of use (Table 2.3) revealed that if contraceptives were used correctly and consistently their effectiveness ranged from very effective to effective, the surgical and hormonal method and IUD being very effective with a failure rate of less than 1 pregnancy per 100 women per year and condom, diaphragm and spermicide being the effective methods with failure rate of 3-6 pregnancies per 100 women per year. If no method used, 85 % women would have conceived within a year.

The cost of unintended pregnancies is tremendous when one considers the cost effectiveness of preventing pregnancy by using contraceptive methods. WHO (1994) estimates that one-fourth to one-sixth of the total maternal deaths could have been avoided if contraceptive methods were available and correctly used. Unintended

pregnancies contribute to maternal mortality by increasing either the total number of pregnancies per woman, or the number of high-risk pregnancies, which are more likely to end up into induced unsafe abortion. It is estimated that about 28 million unsafe abortions take place each year in the globe (WHO, 1998).

In Nepal where CPR is low and abortion is not legal, women are compelled to seek illegal and unsafe abortion privately to terminate unintended pregnancies. A study in rural Nepal found that about 1.7% of the pregnancies were terminated intentionally (Thapa, Thapa, and Shrestha, 1994). Complications from unsafe abortion occur frequently. The most serious complications are sepsis, haemorrhage, genital and intra-abdominal injury and toxic reactions. The worst outcome of such an abortion is the death of the woman, thereby leaving her existing children orphans. According to Mujer (1992) unsafe abortion resulting in complications are the fourth leading cause of maternal mortality rate in Latin America and Mexico (Cited by Langer, Garcia-Barrios, Heimburger, Stein, Winikoff, Barahona, Casas, and Ramirez, 1997). Abortion is a leading cause of maternal death in Nepal and is responsible for 25% of the total maternal deaths (UNDP, 1998)

Women with unintended pregnancies are at increased risk for adverse pregnancy outcomes than those with intended pregnancies. Women with unintended pregnancies are less likely to care for themselves and to attend antenatal care and unintended children are more likely to be neglected, malnourished and abused (Zuravin, 1991). Unintended childbirths also disrupt the lives of siblings particularly in families with low socio-economic status (Sable and Libbus, 1998). For such families an additional child would mean an additional economic burden. Thus, it is essential that the occurrence of unintended pregnancies be prevented to promote the health of mothers and children

2.3.2 Maternal Mortality

In developing countries, complications of pregnancy and childbirth represent a major cause of death among women of reproductive age group (Barnett, 1996; Royston, and Armstrong, 1989). In Nepal a household survey of 8429 women from 8082

households using a two-stage proportional stratified sampling from the 75 districts of the country including Urban Municipalities and Village Development Committees revealed that due to lack of access to trained health personnel only 24 percent of pregnant women receive antenatal care and only 1 out of 10 deliveries is conducted by trained personnel (Pradhan, Aryal, Regmi et al., 1997). Under such conditions, each time a woman becomes pregnant she is at an increased risk to maternal mortality and morbidity. The reported maternal mortality rate (MMR) of 1500 per 100,000 live births is among the highest in comparison to other developing countries like Bangladesh, India and Sri Lanka who have the MMR of 850, 570 and 140 per 100,000 live births respectively (Bellamy, 1998).

Promotion of the contraceptive use can reduce maternal mortality by influencing pregnancies in three main ways: First, it reduces the proportion of high-risk pregnancies i.e. teenage pregnancies (before 18 years of age), elderly pregnancy (after 35 years of age) and frequent pregnancies (with an interval of less than 2 years). Second, it minimizes the incidence of unintended pregnancies, which may terminate in unsafe abortion or in unwanted children. Third, it reduces the total number of pregnancies thereby reducing exposure to risks associated with each pregnancy and childbirth (Sharma, 1991). In St. Petersburg in the Russian Federation the improved FP services and communication to increase contraceptive use was successful in bringing down maternal mortality ratio from 70/100,000 to 51/100,000 within a four year time period from 1991 to 1995 (Stephenson, Chalmers, Kirichenko, Repina and Wagner, 1997)

2.3.3 Child Mortality

Fertility control is also a child survival strategy. By regulating the number and timing of births, contraceptives prevent high-risk pregnancies (i.e. too early, too late, too frequent, and too many pregnancies) and reduce the incidence of peri-natal mortality and low birth weight babies (DaVanzo and Adamson, 1998). With low contraceptive prevalence rate, the incidence of low birth weight babies becomes high. Hospital based studies in Nepal revealed the incidence of low birth weight babies to be 21% (Malla, 1990) and 23% (Dali, Shrestha, Rizal and Koirala, 1989). Consequently

the infant and under five child mortality rates were also high with 82 per 1000 live births and 116 per 1000 live births respectively in 1996 (Bellamy, 1998).

It is estimated that about 20% of the child mortality in Nepal can be reduced if all the first births take place after the mother reaches 20 years of age and another 20 percent child mortality could be reduced if all births have inter-birth interval of more than 2 years (Thapa, 1991). Birth order also influences child survival. Children beyond the 6th birth order are at an increased risk of mortality (Bulatao, 1998). Similarly, children born to mothers over the age of 35 are at 10 to 25 percent higher risk of dying than those born to younger (20-30 years) age group mothers (Sullivan, Rutstein and Bicego, 1994).

2.3.4 Quality of Life

Rapid growth of population influences the health and socio-economic development of the people by increasing the pressure on the limited land resources. In response, people look for other options such as out-migration to solve the problem of livelihood (Thapa and Weber, 1989). The rapid migration of people to urban areas disproportionately increases the population density in the urban areas and adds to overcrowding and pollution of the environment and to an increase in vehicle traffic accident rates. In addition to it, other psycho-social problems like poverty, depression drug addiction and prostitution may result from lack of job opportunities (WHO, 1997)

Use of contraception enables couples to control fertility according to their desire. Having fewer children means they will have more time to care for each child. Their children will have better access to resources including food, education and health care (Bulatao, 1998). The use of contraceptives thus, improves the quality of life and raises the life expectancy of people.

2.4 Determinants of the Non-use of Contraception

Fertility of a couple is usually determined by two factors: the biological and social. The biological factor, also known as fecundity, is the ability of the couple to reproduce. Fecundity is usually determined by measuring the fertility level. Couples

who are not able to conceive for at least 12 months are considered infecund or infertile. Fecundity also decreases with woman's age (Wood, 1994). In United States where couples postpone marriage and delay childbearing for education and career development have a higher infertility rate of 10-20 percent (Jaffe and Jewelewicz, 1991). In Nepal due to early marriage and long reproductive period the infertility rate is low. Nepal Family Health Survey (1996) reported that about 5% of couples with wives in the age group of 15 to 49 years are infertile (Pradhan, Aryal, Regmi et al, 1997). While the biological component is the primary determinant, the social component is equally important in determining fertility among the fecund women. Given the ability to reproduce, how many children will actually be born to a couple is largely determined by the social environment in which the couple lives. The social component provides motivation to the couple for deciding how many children to have. The subsequent review focuses on the social component.

In the present study, unintended pregnancy is identified as the problem needing consideration because of its enormous impact on the life of mothers and children as well as on the family. Another reason is the availability of effective preventive measures. The behavioral component of unintended pregnancy is the non-use of contraceptive. Contraceptive use is a preventive health behavior, the goal of which is to minimize the risk of developing unintended pregnancy. Preventive health behavior is generally not easy to achieve. This probably accounts for the large discrepancy that existed between the knowledge and practice of contraception in the country.

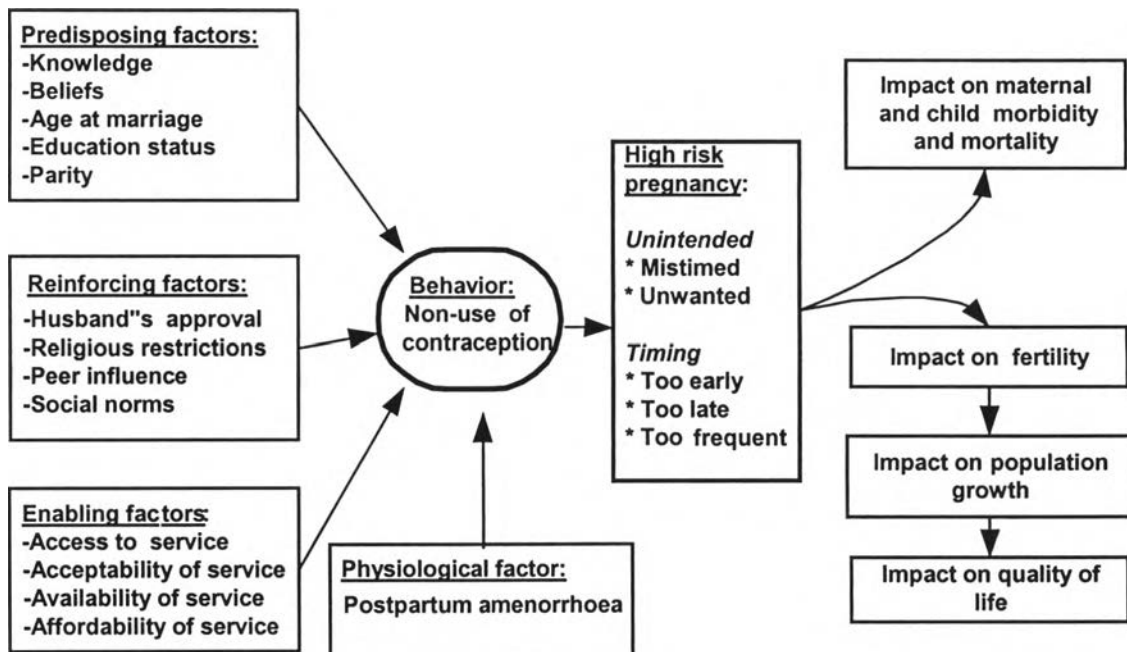
The Precede-Proceed model is a systematic planning model that considers health behaviour to be a complex, multi-factorial phenomenon. The model facilitates the consideration of both the individual and environmental factors that influence health and health behaviour. The planning process outlined in the model offers a guideline for priority setting and effective use of resources and is based on the principles of participation that active participation of people is essential in defining the problem and goals and in developing and implementing the solution. The proceed component of the model highlights the environmental factors as the determinant of health behaviour (Green and Kreuter, 1991).

Using the Precede-Proceed model (Figure 2.1), the various individual and environmental factors influencing contraceptive use among CMWRAs are analyzed in terms of predisposing, reinforcing and enabling factors (Green and Kruter, 1991). The predisposing factors are the women's personal factors such as their knowledge, attitude, age, parity and education that influence contraceptive use. The reinforcing factors are the familial and social influences that facilitate or hinder a woman's contraceptive usage. These include family pressure particularly husband's approval, social and religious norms and peer influences. The enabling factors are the service related factors and includes the physical aspect of the services (such as the accessibility and availability), affordability of the services in terms of the cost of the service and the acceptability of the service in terms of the quality of the care received. The quality of care will include the efficacy in contraception, availability of the contraceptive supplies and attitudes and behaviors of the health personnel, (Mensch, Arends-Kuenning, Jain and Garate, 1997). These are important factors influencing the use of FP services. Also included is the physiological factor, the lactational amenorrhoea, which plays an important role in controlling fertility in the absence of contraceptive use and which has particularly been proved to be effective in the first 6 months after childbirth (FHD, 1995). Analysis of these factors are essential in order to identify the factors that have the more significant effect on the contraceptive use and that are more amenable to change.

The outcome of the contraceptive usage status is presented in the right-hand side of the figure in terms of the incidence of high-risk pregnancies. The impact of the high-risk pregnancies is on the maternal and infant health outcome, on the fertility and population growth rate of the country and the quality of life of its people. The various factors leading to non-use of contraceptive are discussed below.

2.4.1 Predisposing Factors

The predisposing factors are the individual's personal factors that affect contraceptive use. The important predisposing factors that can influence the contraceptive use among the CMWRAs are discussed below.



Source: Green and Kreuter, 1991

Figure 2.1: Causes and Consequences of Contraceptive Non-Use

2.4.1.1 Knowledge:

Lack of knowledge is the most immediate reason for non-use of contraceptive. Knowledge is the key for bringing change in any behavior. In a demographic survey a CMWRA is said to have knowledge of contraception if she can state the name of at least one modern method of contraception. Using this definition, the knowledge about contraception in Nepal is almost universal (98%), (Pradhan, Aryal, Regmi et al., 1997). But it has not necessarily led to an increase in CPR in the same proportion, suggesting that knowledge alone does not always bring change in behavior and other factors also play important roles. Moreover, just knowing the name of a method does not confirm that the woman has adequate information about the method i.e. about how it should be used, how it works, from where it can be obtained and what are its possible side effects (WHO, 1998a; Robey, Ross and Bhushan, 1996; Bongaarts and Bruce, 1995). For instance, in the Nepal Family Health Survey, 1996, about 15 percent of women stated

that the reason for non-use of contraception was a desire for more children (Pradhan, Aryal, Regmi et al. 1997). This reveals a lack of knowledge among women that contraception can be used for both spacing and limiting births. Another 3.9 percent of women who were not using contraceptive stated the reason as lack of knowledge about the methods or the sources of contraceptives (Pradhan, Aryal, Regmi et al.1997). Based on the analysis of national demographic and health surveys in developing countries, Bongaarts and Bruce (1995) conclude that on an average, lack of adequate information contributes to more than two-thirds of the unmet needs for contraception

2.4.1.2 Attitude/Beliefs

The attitude or intention towards contraceptive use is an important predisposing factor in translating knowledge of contraception into practice. An individual's intention to use a contraceptive can be explained using "Health Belief Model" (HBM), (Strecher and Rosenstock, 1997). HBM is a value expectancy theory. According to this theory the two important factors that determine the personal readiness to take action are the perceived value of the expected outcome and subjective expectation that the particular action will lead to the expected outcome (Dignan & Carr, 1992).

According to HBM, the CMWRA's intention to use a contraceptive depends upon her readiness to avoid unintended pregnancy and her readiness to use a contraceptive. Her readiness to avoid an unintended pregnancy depends upon two underlying beliefs: how susceptible she perceives herself to become pregnant unintentionally and how serious she perceives the outcome of an unintended pregnancy to be. Similarly her readiness to use a contraceptive depends upon her perceived effectiveness of contraception in avoiding unintended pregnancy, and the perceived barriers to using it such as the side effects and costs. If the perceived effectiveness outweighs the perceived barriers, the person's readiness to use contraception will be high. The study intervention would need to emphasize these components because side effects are the major factors in discouraging the use of contraception. These beliefs can be strengthened or weakened by the influence of significant others in the woman's environment, such as husband and peers.

Fear of side effects and concerns for health are the frequently stated reasons for not using contraception among women (Pradhan, Aryal, Regmi et al., 1997; Robey, Ross and Bhushan, 1996; Bongaarts and Bruce, 1995). It is also a common reason for discontinuation of contraceptive use (Ali and Cleland, 1995). The fears can result from various sources including women's own experience with using contraceptive, experience of a friend, relative or neighbor and rumors that are spread through the community (Robey, Ross and Bhushan, 1996). How serious the women perceive the side effect of the contraceptives to be depends upon different factors, including the perceived seriousness of the consequence of its non-use. Women in general consider the safety of any contraceptive method in terms of whether the side effects limit their day-to-day routines or their earning abilities; whether there is need for medical treatment involving cost, and whether the contraceptive method hampers the marital relationship and subsequent fertility (Ravindran, 1994). The possibility of life threatening complications although not common, such as the cardiovascular complications among pill users, and pelvic inflammatory diseases and uterine perforation among the IUD users, can largely be prevented by careful screening prior to use of these contraceptives (Hatcher, Rinehart, Blackburn, and Geller, 1997). Other common but less serious side effects include the menstrual changes such as menorrhagia, metrorrhagia, dysmenorrhagia and other systemic problems like nausea, vomiting, headache, weight gain and mood changes

Fears and misconceptions related to side effects of contraception are the major obstacles to the promotion of FP service. Although many women express fear of side effects, contraception is comparatively safe if properly used. For instance, it has been reported that fear of side effects is more frequently expressed by the contraceptive non-user women than by the user women (Casterline, Perez and Biddlecom, 1997). It is estimated that the risk associated with unintended pregnancy is 20 times higher than the health risk of any modern contraceptive method (Ross and Frankenberg, 1993). It is essential however, that the proper selection as well as the proper use of contraceptive be maximized to reduce the chances of side effects.

The use of contraceptives is also influenced by misconceptions. For example, people believe that if a woman uses contraceptives before obtaining the desired family size, she may not conceive later. In communities where childbearing is highly valued and linked with woman's status in the family, such misconceptions can greatly influence the woman's contraceptive behavior (Varusay, 1998). As a result, young women who have not begun childbearing and women who plan to have more children may not use a contraceptive method. They may rather prefer to face unintended pregnancies. Therefore, the ignorance and misconceptions related to contraception need to be corrected through proper education (Majupuria, 1996).

2.4.1.3 Age at Marriage:

Marriage is a landmark event for women for the initiation of reproductive life (Majupuria, 1996). In Nepal too, child bearing is socially sanctioned only after marriage. So unmarried pregnancies are uncommon or unreported. However, early marriage is a social norm particularly in rural areas. It is believed that women are married early because they mature mentally and physically at a younger age than men. Moreover traditional communities believe in women's virginity and to avoid indulging into premarital sex, girls are married at a younger age.

Women who bear their first children at younger ages are more likely to become pregnant again sooner and have more children than women who bear their first children during their twenties (WHO. 1993). When women become pregnant at a younger age the risk of maternal mortality and infant mortality is higher in comparison to women who become pregnant at a later age. In Nepal, the median age at marriage has increased from 15.5 years in 1971 to 17.1 years in 1996 (Pradhan, Aryal, Regmi et al, 1997). Although the age at marriage has slightly increased, women tend to have children soon after marriage because very few women (2.1 percent) use a contraceptive before their first childbirth (Pradhan, Aryal, Regmi et al., 1997).

2.4.1.4 Educational Status:

Education is a strong force in influencing women's control over their fertility (Ullah and Chakraborti, 1993). There are many reasons to believe this. Firstly,

education reduces reproductive period of the women by delaying the age at marriage. Secondly, educated women tend to be more aware of fertility control than uneducated women. Thirdly, educated women are more likely to be employed in income generation activities with less time for child rearing thus reducing the desired number of children. Consequently, the use of contraceptives is higher in educated women than in uneducated women i.e. 38.7 percent and 25.7 percent respectively (Pradhan, Aryal, Regmi et al, 1997).

In rural Nepal the majority of women (75%) are illiterate and most of them are engaged in domestic work or agriculture (CBS, 1993). This could be an important factor for ignorance and subsequent low CPR in rural areas revealing a need for additional effort in raising CPR in these groups.

2.4.1.5 Parity

Parity also plays an important role in the use of contraceptive. In developing countries almost all married women desire to have children and they hardly use a contraceptive method before their first childbirth, as childlessness is a social stigma. Among the ever-married women in Nepal, only 2.1 % of them used contraceptive before the first pregnancy, 6% used after they had the first child birth, 8% used contraception after the second childbirth and 21% used a method after having 3 or more children (Pradhan, Aryal, Regmi, et al., 1997). The contraceptive user pattern reveals that the women use contraceptives more frequently for limiting births than for spacing births. This reveals the possibility of many reasons such as the general ignorance about the spacing methods, or the misconceptions related to later conceptions or the fears related to side effects of the spacing methods. Therefore to prevent early-age child bearing and closely spaced childbirth, it is essential that people's misconception that "contraception is only for limiting births" be corrected and that the use of spacing methods be promoted by educating them using a suitable approach.

2.4.2 Reinforcing Factors

The reinforcing factors although important in determining the possibility of the particular behavior, they are often difficult to investigate and generalize because they vary from culture to culture. They are presented below.

2.4.2.1 Husband's Approval

Promotion of contraceptive method use can not be successful without a mutual understanding between the husband and wife. In a patriarchal society like in Nepal, husbands have more decisive power than wives do, in all matters including the use of contraceptives. It is particularly true when there is a disagreement between the views of husband and wife regarding the contraceptive use. In some settings like the Philippines and Bangladesh the desire of husbands make a major contribution in unmet need for contraception (Casterline, Perez and Biddlecom, 1997; Ullah and Chakraborti, 1993). In more conservative and traditional societies, women may not use contraceptive just because of the real or feared disapproval of their husbands. When the husband desires to have more children than the wife does, the husbands' preference will be usually considered despite the wife's preference for fewer children (Dharmalingam, 1995).

Therefore, the husband's preference is likely to be an important factor for unmet need. Husbands' reasons for opposing the use of contraceptive by their wives may vary from wanting more children to religious objections, fear of side effects and even to the extent of suspicions about their wives possible unfaithfulness (Robey, Ross and Bhushan, 1996; Dharmalingam, 1995).

2.4.2.2 Social Norm

Norms are socially accepted informal rules that guide the behavior of its members. Social norms also prescribe how many children a couple should have. In a society the family size norms are affected by various factors such as the occupational, educational and employment status of people, and by the value and survival status of children.

Families consciously or unconsciously desire sons for economic, socio-cultural and religious reasons. Studies have revealed association between the preference for a son and contraceptive use in Bangladesh (Khan, 1996), in Nepal (Niraula and Morgan, 1995), in India (Rajretnam and Deshpande, 1994) and in Sri Lanka (de Silva, 1993). In Nepalese societies sons are valued as old age security and as the extender of the family lineage. It is believed that sons are necessary to send parents to heaven through performing rituals after death. Cultural preference for a son is still predominant in almost all the ethnic groups in Nepal. This is a strong factor for having more children than desired in Nepal both in urban and rural areas (Karki, 1988). Preference for more children is also due to the predominance of labor demanding occupations i.e. agriculture

Social norm is also determined by the survival of children. If the couples are convinced that their children will survive, they are less likely to need more children and will be more receptive to contraception. Infant mortality rate in Nepal has decreased by almost one half from 140 in 1974 to 79 in 1996. Consequently the desired family size declined from 3.1 children in 1991 to 2.9 children in 1996 (Pradhan Aryal, Regmi et al., 1997).

The perceived cost of raising children may be an important factor in promoting contraceptive use as children keep women away from working for wages. The desire of parents to create a better future for their children also facilitates contraceptive use (Kuss, 1997). There is a gradual trend among both urban and rural women towards preferring quality of children rather than quantity. The perception of children as old age security has also changed gradually (Razzaque, 1996).

2.4.2.3 Religious norms

Hinduism and Buddhism are two major religions in Nepal with 86.5% and 7.8% of the population observing these religions respectively (Pradhan, Aryal, Regmi et al., 1997). These religions consider children as the blessing of god. Destroying human life by abortion or avoiding conception through contraception is believed to be sinful and against the law of procreation particularly in the traditional communities.

Religious prohibition was stated as the reason for non-use of contraception by about 9 percent of CMWRAs (Pradhan, Aryal, Regmi et al., 1997). For couples whom religion is the major reason for non-use of contraception, the promotion of the use of injectable depo provera (Hatcher, Rinehart, Blackburn et al., 1997) or traditional method can be of benefit to some extent despite its higher failure rate. These methods are considered to be the least prohibited method (Kuss, 1997).

2.4.2.4 Peer Influence

Peers are friends, neighbors, co-workers or people of the same age group, who share a similar lifestyle, education, and socio-economic status and whom the person trusts and believes. Peer interaction can be a powerful force in increasing the pace of fertility transition (Bongaarts and Watkins, 1996). Peers can influence in a positive or negative way the attitudes and intentions of CMWRA to use contraception. If a peer had a bad experience or side effects from contraceptive use, such information is likely to discourage CMWRA from use of that method. CMWRA will be freer to discuss about her FP related queries with a peer than that with other persons

2.4.3 Enabling Factors:

The enabling factors are the service related factors that include the availability and accessibility (the physical aspects of the service), the acceptability (quality of service) and the affordability (the cost of the service). The following are the service-related factors that make the use of contraceptives possible or impossible in practice.

2.4.3.1 Availability and Accessibility of FP Services

Availability of health service means the presence of health service facility where as accessibility means the extent to which the services can actually be obtained when needed i.e. the service is available within the reach of the women who need it. These two terms are so closely related to each other that it would be appropriate to discuss them together. Access to FP service is vital to promote contraceptive use. For instance, in Nepal, health posts or sub-health posts are available in most village development committees (VDCs) but still the services may not be accessible to all people because of the distance factor.

The distance factor is especially important in the hilly and mountain areas where the availability of modern health facility is low with one health facility for 4,000 to 29,000 population (MOH, 1991) and where the majority of the houses are scattered around and people have to make journey on foot. In addition, the difficult terrain and heavy domestic and fieldwork, make it difficult for people to get access to health information and services (Niraula, 1994). Distance may be a less significant factor in urban areas because of the availability of many public as well as private health facilities and the easy transportation facilities.

It has generally been observed that people do not travel far to get health service. This is particularly true with the use of preventive health services. People are less willing to travel long distance for preventive services than for curative services (Leslie and Gupta, 1989). Focus group discussions with women in rural Nepal revealed lack of physical access as one of the main reasons hindering the use of contraceptive (World Education Inc., 1989). Another study reported that only one-fourth of the women have access to a health facility within an hour of walking distance from their place of residence whereas one-half of the women have to travel 3 hours or more to reach the nearest health facility (Thapa and Pandey, 1994).

2.4.3.2 Acceptability of FP Services

Acceptability of service is concerned with the appropriateness of service in quality and in manner that is congruent with the values of the target population (Stanhope and Lancaster, 1996). The term acceptability is seen in terms of benefits and satisfaction with a method.

Acceptance of the contraceptive service may be hampered by the differences in the cultural orientation and preferences of the service provider and the recipient. Service provider's attitudes, insights and knowledge about rural population also may play important role in the acceptance of the service. A negative attitude towards recipients, lack of accurate knowledge about the rural life and insensitivity to their needs can affect adversely in the acceptability of the service among the rural clients.

Unless the FP services are acceptable to people, a realistic solution to non-use of contraception is not possible (Hughes and McIntosh, 1997).

Owing to cultural congruence and easy access, people have more faith in local persons than in health workers. Furthermore, in many communities women are not allowed to move freely and a family member must accompany them in order to visit to a health facility. If there is no family member to accompany her, she is usually denied the chance of visiting the health facility. Similarly, if there is no female staff at the health facility women may be denied access to the health service.

It is also possible that the nonuse of contraception is related to the poor quality of services at the health facility. Poor quality of service refers to lack of supplies, unskilled staff, and poor communication technique of health workers. Along with these, lack of privacy, and inconvenient working time of the health facility also influence the acceptability of services. Attitudes of health workers who are too bossy, unresponsive, unsympathetic make the people believe that the service is unacceptable (Islam and Islam, 1993; Leslie and Gupta, 1989).

2.4.3.3 Affordability of FP Services

This is another important factor affecting the use of FP services. Affordability means the ability to purchase the health services when needed. So the cost of FP service will involve the cost for transportation, cost for medicines and supplies and cost incurred through loss of wages owing to travel to health facility. The cost is considered in terms of money and time.

In rural areas monetary cost for travel may not be much as the travel is done mostly on foot. The limitation of this mode of transportation is that it is possible only for a relatively short distance. When the distance to health facility increases, the access and use of health facility is likely to be reduced because of the need for monetary cost or time cost in transportation (Bulatao, 1998). Since, FP supplies in the country are provided free of cost through public health services, the main monetary cost faced by the CMWRA will be in transportation, purchasing other medicines and supplies and

cost involved in repeated visits and lab tests. However, it often happens that modern drugs and FP supplies at the health post are inadequate and out of stock. As a result, the women will have to make several visits to the health facility in order to obtain the supplies or else they will have to purchase these from the private pharmacies. Also it is also not uncommon that in many occasions the health worker is absent from the health facility. So unnecessary waiting and additional visit causes not only an increase in the monetary costs but also in time costs.

Time-cost means the time spent in obtaining the service that includes both travel time and waiting time. Such time-cost may be unbearable to women who earn their living through working for wages or who have heavy fieldwork or domestic work.

In Nepal, the cost of a FP method itself does not seem to be the common reason for non-use of contraception as only 0.2% women stated the cost of FP devices as a reason for non-use of contraception (Pradhan, Aryal, Regmi et. al., 1997). Even when the cost of service or supplies is non-existent, the indirect cost involved in transportation, loss of wages and perceived economic cost of side effects can hamper women from using the available FP services.

2.4.4 Physiological Factor: Postpartum Amenorrhoea

The duration of postpartum amenorrhoea is the period from birth of a child until the resumption of menstruation. This is also the period, which closely coincides with the duration of anovulatory period, following childbirth. Nepal Fertility, Family Planning and Health Survey done in 1991, revealed that the period of postpartum amenorrhoea is longer in breast-feeding women than among non-breast feeding women (NIV, 1993).

The traditional belief that women remain infecund following childbirth during the breast-feeding period has been well proved under certain conditions. Study has shown that exclusive breast-feeding during the early months of postpartum period (up to 6 months), gives effective protection against conception provided that the menstruation has not resumed during the period (UNICEF, WHO, UNESCO, and

UNFPA, 1993). The contraceptive effect of breast-feeding, however, is reduced after the initiation of weaning the child. Once menstruation resumes and sometimes even before the menstruation returns, the woman may become pregnant particularly if the frequency of breast-feeding is reduced. In such cases along with breast-feeding, contraceptive methods must be started

In Nepal breast-feeding was almost a universal practice in the past. But now, because more women have started taking jobs outside the home where there is no crèche (baby keeping) system, exclusive breast-feeding becomes impractical. Subsequently, almost one-fifth (17%) babies in Nepal do not receive exclusive breast-feeding even up to 3 months postnatal period (Bellamy, 1998). Failure to provide exclusive breast-feeding added with overestimation of contraceptive effect of breast-feeding may lead to non-use of contraception and unintended pregnancy. It is therefore necessary that the CMWRA have the correct information about when to start a contraceptive method for spacing or limiting pregnancies. Also exclusive breast-feeding should be promoted where possible up to 6 months postpartum to have its dual advantages i.e. infant health and contraception. Helping them choose appropriate contraceptive is also important because some contraceptive (e.g. combined oral pills) can suppress milk secretion.

2.4.5 Summary of the Analysis of the Determinants

With the prevailing slowly increasing age of marriage and gradually declining breast-feeding practices, the promotion of the use of contraceptives will play a dominant role in reducing fertility in rural Nepal. Irrespective of the socio-economic status, women readily would use contraceptives, if they get access to adequate information, and to contraceptive choices, and if the services are provided in a culturally acceptable way.

Analysis of the determinants of non-use of contraception revealed the predisposing, enabling as well as the reinforcing factors as important in increasing the usage of contraceptives. It is also realized that the effect of removal of a single factor of the nonuse of contraceptives can be as high as the proportion of all women for whom

that is the contributing factor. So, in order to bring considerable increase in contraceptive use, multiplicity of the interlined factors for nonuse of contraceptive among women not seeking to become pregnant need to be considered.

2.5 Possible Strategies to increase Contraceptive Acceptance

In developing strategies to deal with a sensitive topic like “non-use of contraception” it is crucial that individual needs and preferences are considered. This is important for increasing the acceptance and sustainability of the program. The International Conference of Population and Development, 1994 was also supportive of voluntary FP programs and it emphasized improving the access to quality FP service for the people (Alcala, 1994). Due to difficult terrain and poor communication system, however, reaching the unreached population with health and FP messages is a major challenge to the health program in rural Nepal.

Robey, Ross and Bhushan (1996) suggest the use of the unmet-need approach for increasing contraceptive acceptance in the country. Bongaarts and Bruce (1995) add to it saying that in order to close the knowledge, attitude and practice (KAP) gap in non-use of contraception, services should be made explicit and purposeful to the group and should focus on addressing the low informational needs and the health concerns of the target group. FP service should also be expanded from the formal setting to the community to influence and alter people’s socio-cultural and familial factors that hinder voluntary contraceptive use (Bongaarts and Bruce, 1995).

The existing multi-factorial nature of non-use of contraception calls for a combination of strategies that would need to be geared towards improving access to contraceptive services and empowering the non-user CMWRA by increasing their awareness towards contraceptives. The possible strategies for addressing the problem of non-use of contraception could include improving the quality of service, increasing access to service, making provision of FP information and involving men and women in FP decision making (Robey, Ross and Bhushan, 1996). These are discussed below:

2.5.1 Improving the Quality of FP Services

Improving the quality of FP service in the existing health care facilities should be one of the important goals of a contraceptive promotion program. Quality of service means that FP service is provided on the basis of informed choice, is safe and appropriate in content and mode of delivery, and is effective in addressing the social causes of unmet need (Bongaarts and Bruce, 1995; Dharmalangam, 1995)). Access to quality service is important in order to promote acceptance and continuation of contraceptive usage.

Increasing the quality of FP services can motivate users to continue FP methods and non-users to use a method. Use of proper screening of women as well as the use of safe technique and infection control measures, can greatly reduce the incidence of side effects and complications. Quality of service can be promoted and maintained through in-service education, regular system of supervision and monitoring the activities of the health workers (Mensch, Arends-Kuenning, Jain and Garate, 1997).

2.5.2 Increasing Access to Contraceptive Services

Many women, especially in rural areas, do not have easy access to health facilities for FP services because of the lack of time. These women are more likely to benefit from outreach, door to door FP services.

Katz, West, Dumbia and Kané (1998) assessed the effect of increased access to FP services through a community-based contraceptive distribution program (CBCD) in rural Mali using a quasi-experimental non-equivalent control group design. The findings revealed that FP education alone would not be adequate to maximize the uptake of FP among men and women. Improved access to FP services, along with FP education, can bring a better impact on contraceptive use. Findings also revealed that regular supervision and monitoring, as well as retraining of the contraceptive distributors, is essential in order to maintain their efficiency.

Even in countries where FP service points are easily accessible, outreach services can have important implication in increasing contraceptive usage and

continuation. For instance, in Bangladesh, household distribution of non-clinical contraceptives revealed that the program was effective in increasing contraceptive usage (Phillips, Hossain and Arends-Kuenning, 1996). Due to difficult terrain and poor communication system, as in the hilly and mountain areas of Nepal, reaching the unreached population with health and FP messages is a major challenge to health programs.

The female community health (FCHV) program was started in Nepal, in the fiscal year 1988/89 with the aim of increasing community's access to basic health care including FP/MCH through the participation of rural women. Initially, FCHVs were selected on the basis of wards and later; on the basis of population size i.e. 1 FCHV for every 150 population in mountain region, 250 in hilly region and 400 in Tarai region. At least one FCHV in each of the 9 wards of a VDC has been trained, irrespective of population size (DHS, 1998). The village health worker (VHW) from the health post /sub-health post is the immediate supervisor of FCHVs.

FCHVs are accessible to the community in terms of the distance to be traveled, language used and cultural convenience. Being a member of the community, they are more acceptable to the women. Since they have already been trained in basic health care components, they require less training than other women for a peer education program too. They can visit CMWRAs at convenient time or call CMWRAs to them. They can provide FP services along with other basic health care services to the community.

An assessment study of FCHVs found that the majority (71.5%) of them were willing to perform additional work and that community people preferred their services. In terms of prescribed training duration, however, the training was inadequate (VRG, 1997). Pradhan, Aryal, Regmi et al. (1997) found that 9 out of 10 contraceptive non-user women did not receive any information on FP from these volunteers during the previous year. Management problems have also been revealed in relation to sustainability of the FCHV program. The reasons given by VDC members for these threats were: no incentive for FCHVs (66.7%), lack of encouragement to continue their

work (33.3%) and no system of replenishment of drugs and supplies (33.3%), (VRG, 1997).

Another study indicated lack of knowledge of FCHVs in relation to use, side effects, and ways of dealing with such side effects as well as the advantages of different contraceptives. This study recommended the need to improve FCHV training (FPAN, 1994). If these grass-root volunteers are well prepared, they can be an important human health resource to the country at the peripheral level, particularly in increasing service utilization rates and in developing self-help mechanisms in basic health matters (FHD, 1994)

With additional training, FCHVs can play important role in preliminary screening of CMWRA as well as in suggesting appropriate contraceptive methods. This can greatly reduce the incidence of the side effects and complications, and increase contraceptive acceptance. FCHVs can educate CMWRA regarding contraceptive methods in a culturally suitable way and assist CMWRA to select a better-suited method for their health and fertility control. They can refer the CMWRA to appropriate health institutes as all contraceptive methods are not available at all the peripheral health facilities, e.g. Primary Health Center, Health Post and Sub-Health Post and clients have to go to the district or central hospitals for such methods like sub-dermal implant (norplant), and male and female sterilization operations. FCHVs can distribute non-clinical contraceptives such as condoms and re-supply oral pills. Thus, FCHVs can play an important role in increasing community's access to FP information and service.

2.5.3 Provision of Information on Fertility Regulation

Communication is identified as an important component in closing the KAP gaps in any health promotion program particularly in FP in: a) increasing awareness/knowledge regarding fertility regulation, b) changing or reinforcing attitudes, and c) demonstrating simple skills (McKenzie and Smeltzer, 1997). For bringing such changes, information provided should be adequate and appropriate to the group.

Adequate information on contraceptive can decrease the fear of side effects and reduce opposition to contraceptive use.

Likewise, the means of communication should also be acceptable to the community. Often the top-down method of provider-initiated education is not successful in bringing change in the behavior of the individual. For instance, a randomized controlled trial in Nepal on the provider initiated postnatal education to mothers regarding infant care and FP revealed no significant impact on mother's knowledge and practice of child-care and in the uptake of FP in a 6 months follow-up (Bolam, Manandhar and Shrestha, 1998). Another study on the assessment of the failures of primary health care (PHC) program in Malawi revealed management shortcomings. Some of these shortcomings which could have been corrected were top-down planning, lack of involvement of local people, lack of relevance of curriculum to local conditions and lack of resources and back up system (Klouda, 1993) there by revealing the importance of bottom-up planning and involvement of local people for the successful outcome of a community health intervention.

Sable and Libbus (1998) in their study of low-income women found that many women desire to prevent pregnancy for a better life but they fear to use a contraceptive. The study revealed a need for educating women about contraception and that the providers should enable women to understand the real risks and benefits of contraceptive methods and assist them in analyzing the long-term advantages (avoiding pregnancy) as opposed to the short-term disadvantages (Sable and Libbus, 1998). Women's fear of the health risks with one method (e.g. hormonal contraceptives) can be reduced by informing them about other alternative methods (e.g. condom, diaphragm, foam or IUD). Information on contraceptive can be disseminated to rural women through mass media or peer education.

2.5.3.1 Mass Media

Mass media can inform as well as encourage people in meeting their reproductive goals. Mass media has become increasingly useful in FP program. With

the result, much of the knowledge regarding contraception among women can be attributed as resulting from mass media.

Mass media includes various form of electronic and print material such as TV, radio, magazine, newspaper, pamphlets and posters. It is one of the main sources of information on health including FP. Mass media is advantageous in the sense the message can reach larger audiences; even to those whom formal health education are inaccessible (Mckenzie and Smeltzer, 1997). It is a cost-effective method of communicating with large number of people and stimulating behavior change. For instance, a study done in Kenya revealed a strong association between the women's reports of having heard or seen a FP message through various media, their reproductive preferences, and the use of contraceptives (Westoff and Rodriguer, 1995). The major limitations of mass media are that it requires substantial funding for preparation and it requires equipment such as radio, TV in order to reach the audience. This limits their scope particularly in countries like Nepal, where majority (62%) of the women have no access to media (Pradhan, Aryal, Regmi et. al., 1997). Furthermore, media does not permit two-way communications, so clarification of information is not possible. In rural settings where women have limited geographical movement and sharing of information and where they have limited access to media, person to person strategies is crucial in bringing behavior change (Bongaarts and Bruce, 1995)

2.5.3.2 Peer Education

Peer education is becoming popular particularly in confidential and sensitive issues. Peer education involves education, service and support by an experienced or trained individual to his or her peers in immediate contact, in daily living, or in the work environment. It can have profound implications in promoting contraceptive usage. The philosophy behind peer education is that, people feel closer and freer with peers and will be more willing to listen to peers. Therefore, peers can be effective in influencing the health knowledge, attitudes and behavior of the individuals. Peers can help individuals gain a sense of identity by reflecting, reinforcing and changing negative behaviors. Conversations among peers are more likely to be of understanding.

However to reveal details about the thoughts and experiences, individuals require close relationships and mutual trust with peers.

Women feel comfortable in talking with close friends, neighbors or health personnel and learning from them about fertility control (Kuss, 1997; Yoddumnern-Attig, Podhisita and Vong-ek, 1993; World Education Inc., 1989). Friends or peers are important sources of information and support to women. Use of “model mothers” as FP motivators in rural Thailand was found to increase the contraceptive acceptance rates among the non-users in the intervention village significantly when compared to the control village (Sirikulchayanonta, 1987) and revealed that peer education and motivation can influence FP non-user women to use a FP method.

In Indonesia, community based women acceptors played a vital role in making the country’s family planning program a success. Because of their similar socio-economic background they understood women’s problem better and were more responsive to the needs of their neighbors. More than half of all new acceptors were found to be recruited through them and the majority of the pill users and condom users were supplied by them. They had developed a sense of accountability and ownership towards their community that perhaps facilitated their commitment (Suyono, Hendrata and Rohde, 1993).

2.5.3.3 Involving Men and Women in FP Decision Making

Many of the FP methods such as condom, withdrawal, abstinence and male sterilization require cooperation from men. So it is unlikely that the contraceptive promotion program will succeed without the involvement of men. When men are involved in making decisions related to family size and use of FP, they are more likely to take the responsibility for their own sexual behavior and fertility and for the effect of that behavior on the health and wellbeing of their wives and children. They are also more likely to cooperate with and support their wives in using contraceptive (Omond-Odhiambo, 1997).

Studies have revealed that involving men in FP decision making can increase the couple's contraceptive use, encourage women to use a contraceptive and improve continuation rates (Wang, Vittinghoff, Hua, Yun and Rong, 1998; Lasee and Becker, 1997; Finger, 1994). While men often have more say than women in the decision to use contraceptive, more women take responsibilities for FP decisions themselves than they do for other decisions. Sometimes women use contraceptive even without telling their husbands when the husbands are very restrictive and women are aware of the consequences of non-use of contraceptive (McCauley, Robey, Blanc and Geller, 1995)

Nepal Family Health Survey, 1996 revealed that more than half (55%) of the women had not discussed FP with their husbands in the past (Pradhan, Aryal and Regmi, 1997). The findings also revealed that some women even though they were desirous of using a contraceptive, their husbands' disapproval of the method denied them from using the method.

In increasing access of women to contraceptives in a patriarchal society, it is essential that men's supportive role in family survival strategies and the need for their willingness for women's participation in empowerment activities be realized. Men often do realize the importance of the healthful measures for their families and communities and help women to participate in family and community development activities (Small, 1990). Men's disapproval of FP can be reduced by facilitating husband-wife communication and by bringing them in contact with health workers and educating them.

2.6 Empowerment of FCHVs as the Strategy to Increase Contraceptive Acceptance

“While rapid population growth is a major concern, our first concern should be the lives of millions of people, most of them women, who are impoverished both materially and spiritually because they can not exercise their reproductive rights” (Sadik, 1998)

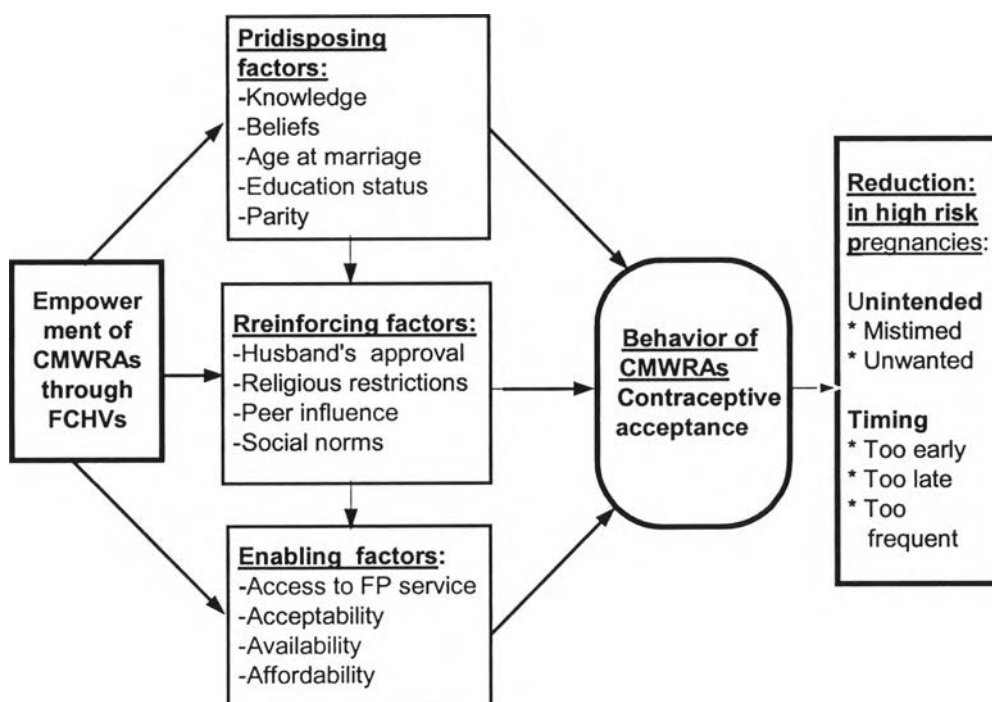
Female community health volunteers (FCHVs) who are the local women trained for volunteer health and FP services, are accessible to the community in terms of travel distance, language and cultural conveniences. Being members of their respective communities, they can fill the socio-cultural and experiential gap between the community and health care professionals. Their “insider” orientation make them unique in understanding the culture as well as the strengths and limitations of the community they serve (Love, Gardner and Legion, 1997). They can play an invaluable and cost effective role in the delivery of basic health and family planning services to the community.

There is a felt-need to improve FCHV training (VRG, 1997) particularly in increasing their service utilization rates and in developing a self-help mechanism in basic health matters (FHD, 1994). The empowerment of these FCHVs is, thus, likely to influence CMWRAs in the rural areas where people are more closely bound together than in urban areas. These FCHVs can provide FP education as well as basic FP services. With additional training, FCHVs can play important roles in preliminary screening of CMWRAs and in assisting them in selecting appropriate contraceptive methods. This can reduce the incidence of side effects and complications, and increase the acceptance and continuation of contraceptives.

FCHVs can educate CMWRAs regarding contraceptive methods and assist CMWRAs to select a better-suited method for fertility control. They can also refer the CMWRAs to appropriate health institutes, as all contraceptive methods are not available at the peripheral health facilities and clients will have to go to the district or central hospital for such methods particularly the sub-dermal implant, and male and female sterilization operations. FCHVs can also distribute non-clinical contraceptives such as condoms and re-supply oral contraceptive pills. Thus, strengthening of the role of FCHVs can contribute significantly in enhancing the health and wellbeing of the women at the community level.

Taking into consideration the complex nature of the causative factors of non-use of contraception, empowerment of FCHVs is selected in facilitating the empowerment of CMWRAs. Empowerment of FCHVs can be a cost-effective and sustainable strategy in empowering CMWRAs and in assisting them to resolve the barriers within themselves and within their social environment to use of contraceptives.

Figure 2.2 reveals that the predisposing as well as the enabling factors, particularly the knowledge and beliefs of women regarding contraceptives and their access and acceptability to service can be improved by empowering FCHV. FCHVs can plan strategies for dealing with the reinforcing factors.



Source: Green and Kreuter, 1991

Figure 2.2: Empowerment of FCHVs and Contraceptive Behavior of CMWRAs

2.7 Summary

This review examined the population situation and implications of controlling fertility. Increase in population growth from uncontrolled fertility is a pressing problem, having tremendous impact on the socio-economic progress and the quality of life of the people. The review also revealed the existence of a considerable level of unmet needs for contraception, which if met, would result in a considerable impact in CPR and fertility.

Analysis of the causes of non-use of contraception revealed the possibility of problems at different levels: the individual, the community and the service levels. In general, at the personal level, inadequate knowledge about contraception and concerns for the untoward effects of contraception seemed to be the main reasons. At the family and community level influence of husbands and peers seemed to be of considerable importance and at the service level, access, availability, acceptability and affordability are the important aspects needing consideration.

The multi-factorial nature of contraceptive usage calls for the intervention to be suited to the local context. Empowerment of FCHVs seems to be a suitable approach in identifying the root causes of the problem and at the same time building self-confidence and self-reliance in a community with socio-economic constraints and deficient human health resources. This intervention also fits well in the context of primary health care which is the policy being implemented in the country to promote the health of people in the rural areas and to reduce the inequality in the health status of the people through empowerment of the disadvantaged group of women who are not able to get access to fertility control. Empowerment of FCHVs in delivering FP education and service to CMWRAs through participatory approach will enable CMWRAs to deal with the barriers to contraception and facilitate the use of a contraceptive method. This model, if found effective, is more likely to be sustainable as FCHVs are the local residents of the area, and, is likely to contribute at length to the country's effort in reducing unwanted fertility.