# CHAPTER II

# LITERATURE REVIEW

## 2.1 Contraception

### Definition

Contraceptive methods are, by definition, preventive methods to help women avoid unwanted pregnancy (Park, 2005). According to Park, contraception methods can be broadly grouped into two classes- spacing methods and terminal methods, as shown below:

I. Spacing methods

1. Barrier methods
    (a) Physical methods
    (b) Chemical methods
    (c) Combined methods
2. Intrauterine devices
3. Hormonal methods
4. Post-Contraceptive methods
5. Miscellaneous

II. Terminal methods

1. Male sterilization
2. Female sterilization

According to WHO (1999), contraceptive methods can be divided into permanent (male and female sterilization) and temporary methods (barriers, hormonal, etc). And it can also be divided into modern, traditional and emergency method. Modern methods consist of oral pills, injection, condom, diaphragm, intrauterine device, and permanent tubal ligation and vasectomy. A traditional method includes abstinence, withdrawal, fertility awareness method and rhythm. Emergency contraception refers to methods used to prevent pregnancy after unprotected intercourse when no method was used or the method failed at intercourse, e.g. breakage of condom. In order to be effective, each of the emergency method of contraception has to be used within 72 hours of the act of unprotected sexual intercourse.

Using of contraception can provide benefits at many levels. To individuals, improved maternal and infant health; expanded opportunities for women's education, employment and social participation; reduced exposure to health risks regarding repeated pregnancy; and reduced recourse to abortion. To families, reduced competition and dilution of resources; reductions in household poverty; and more possibility for shared decision making. To the society, accelerated demographic transition and the opportunity to use the demographic bonus to speed economic development (United Nations Population Fund [UNFPA], 2004).

**2.2 Contraceptive Used in Myanmar**

Birth spacing methods have been available in the public sector in Myanmar since 1991. Before the introduction of any public sector birth spacing service, the contraceptive prevalence rate is as low as 16.8 per cent of all married couples. By

1995, the government's birth spacing project covered 33 townships of the Myanmar's 320 townships. By 2001, the use of contraceptive methods had increased to 117 townships of the Myanmar's 320 townships (WHO, 2007). In 2001, the contraceptive prevalence rate for any method including traditional methods is 37 per cent (UN, 2005).

**Contraceptive Method Used by Married Women in Myanmar, 2001**

| | |
|---|---|
| Not using any method | 63.0% |
| Pill | 8.6% |
| Injectables | 14.9% |
| IUD | 1.8% |
| Female sterilization | 4.7% |
| Other modern methods | 1.2% |
| Male sterilization | 1.3% |
| Any traditional or natural method | 4.2% |
| Condom | 0.3% |

Source – World Health Organization, 2007

Despite of increasing use of contraception, the unmet need for birth spacing remains significant with the total 20% of married women wants to use contraception for either to limit their births or to delay their next pregnancy (WHO, 2007). This suggests at the lack of acceptable long-term methods of contraception. The main constraints are lack of information about reproductive health, limited resources and social and cultural barriers (Country Profile Myanmar, 2000).

In 2005, total population in Myanmar is 50.5 millions and the population growth rate is 1.14 per cent. Total population in Myanmar is projected to become 63.7 millions in 2050 (United Nations Population Funds, Myanmar, 2007). Maternal mortality rate is decreased from 580 per 100,000 live births in 1990 to 360 per 100,000 live births in 2000 (WHO, 2006). But it is still higher in Myanmar compared to the neighboring countries in South-East Asia. The leading cause of maternal mortality is abortion which is illegal in Myanmar and 50 per cent of maternal death and 20 per cent of hospital admission resulting from complications of unsafe abortion (WHO, 2007).

One study done in Myanmar found that the smaller the health institution in an area, the higher the abortion rate in the surrounding area due to lack of access to contraceptive methods. It is estimated that 1 in 3 pregnancies ends in abortion. This would also indicate that approximately 750,000 abortions are carried out each year, or about 2,000 per day through out Myanmar (Country Profile Myanmar, 2000). There are several underlying causes of high maternal mortality such as lack of knowledge and awareness, difficult access to the health care facilities and family planning service, unsatisfactory care and lack of proper referral (WHO, 2007).

**2.3 Women Status in Myanmar**

Gender equality is relatively high in Myanmar and there is relatively little discrimination against women in comparison to some neighbouring country. For centuries, women have participated in the affairs of everyday life – in agriculture, commerce and social affairs facing little of the rigid, formalized discrimination that

women have faced in other countries. After marriage, consistent with local traditions, women keep their names and often control family finance.

Birth spacing IEC and service delivery is largely targeted towards women. Male methods are not widely available and vasectomy is illegal in most situations in Myanmar. The decision making processes for contraceptive used are usually made by both partners or sometimes the wife makes the decision (WHO, 1997).

## 2.4 Related Studies

### 2.4.1 Socio-demographic Factors

**Age** is the important factor which can influence the contraceptive use. Differences in contraception used by age reflect changes in the need for contraception over the life cycles. The study done among Myanmar migrant women in Samut Sakorn Province, Thailand showed that the prevalence of contraceptive use was decreased with increasing age. The contraceptive use was highest in younger age 15-19 group (85.7%) and was decreased to 33.3% in 40-49 years age group (Khaing, 2002).

This finding is controversy with the study done in Philippine (Jamie, 2006) and in India (Yethenpa, 1999) in which increasing age increased the likelihood of contraception usage though the probability decreased at age 45-54 years with significant p-value=0.000. The study done in Vietnam also revealed that there was significant difference between age groups and using contraceptives among respondents with p-value<0.001. Proportion of contraceptive use was increasing with increased age though the prevalence decreased in age from 45-49 years (Nguyen, 2003).

In Nepal, the prevalence of contraceptive use was highest in age group of 35-49 years and lowest in 15-24 year women because younger women had desire to complete family size, coupled with less awareness about the family planning methods. There was significant linear association between age and contraceptive practice (Dhananjay Narsingh, 1997).

But the study done in Indonesia showed that the probability of modern contraceptive use declines significantly with increasing of age. Women at the oldest age 45-49 were less likely to use modern contraceptives than those aged 15-19 years (Helweldery, 2004).

The study done among the women of child bearing age in Ethiopia (Beekle & Mccabe, 2006) and in Nepal (Tamang, 2001) revealed that age was not found to have a significant association with the contraception use.

The contraceptive usage was increasing with the increased in age but the older women were less likely to use contraception when compared to younger age group.

**Religion** is one of the important factors that can influence the acceptance and usage of contraception especially in Muslim countries. The study conducted in Thailand showed that the religion is the key role in causing the differences in the use of contraceptive between Thai-Muslims and Thai-Buddhists. Among the Thai-Buddhists, the contraceptive use was nearly twice as high as among Thai-Muslims and they were also using more permanent methods than Thai-Muslims. There is the feeling that Muslims influence is strongly conservative and the religion and the way of life are not separated. This could be an important factor favoring high birth rates in Muslim communities (Martin-Cupid, 1990).

The study conducted among Myanmar migrant women in Thailand showed that 67% of women currently using contraceptives were Buddhists and there was no difference with the other religion (Khaing, 2002). In Bhutan, the most practiced religion was Buddhism, it accounted up to 83.9%, far less was Hinduism with 13.5% and the least were the Christians with 2.6% (Lhamu, 2004). In conclusion, Buddhist women were more likely to use contraception when compared to other religions.

**Education** level of the women has a highly significant effect on the contraceptive use and it is expected that the better educated women may delay to marry and freely discuss about family planning with their partners or spouses. They have more awareness and opportunities to have information about the contraception in order to have birth control. Women with primary and secondary education are less likely to use contraception than the women with high school or higher education, 64.3% and 81.2% respectively in the study done among Myanmar migrant women in Thailand (Khaing, 2002). Similarly, the study in Philippine revealed that an increase in the education raises the likelihood to use contraception than did those without education (Jamie, 2006).

The study conducted in Indonesia also revealed that the women who have higher education used modern contraception than less educated women with the significant p-value=0.000 because low education level leading lack of awareness and acceptability of family planning and these affects on the usage of contraceptives (Helweldery, 2004). The study done in Ethiopia showed that a lack of formal education was identified as a key factor in use of contraceptives (Beekle & Mccabe, 2006).

Moreover, the study done in Tehran showed that the risk of not using contraception methods will decrease by increasing the women's education level, so the odds ration for non use of contraception in illiterate women was 3 which declined to 1.3 in women who had diploma in comparison with those who had a university student (Tehrani et al., 2001). The similar significant association between education and contraception practice was also found in the studies done in Indonesia (Schoemaker, 2005), in India (Yethenpa, 1999), in Lao PDR (Vanhnolrath, 2003) and in Bangladesh because the education aware women regarding the benefit of contraceptive use (Parveen, 2000).

But the study in Vietnam (Ngyuen, 2003) and in Bhutan (Lhamu, 2004) revealed that there was no difference in contraceptive usage between the literate and illiterate groups of respondents use and non-use of contraceptives was almost equal.

Level of education is significantly associated with the contraceptive usage among women. Women with higher education were more likely to use contraception than less educated women.

**Marital duration** is one of the important factors that can influence the contraceptive use among women. The study done in Nepal showed that there was significant relationship between modern contraceptive used and marital duration. The contraceptive usage was increased with increasing duration of marriage and peak in 15 to 19 years and it decreased as longer duration more than 20 years. It is because as time goes by, women have reduced sexual activity and some may face early menopause (Dhananjay Narsingh, 1997).

The study done among currently married women in Myanmar revealed that contraception usage was more pronounced for shorter marital duration group compared to longer marital union (Wai, 1995).

However, the finding from the study done in Laos revealed that the relationship between the duration and the contraceptive use was not significant (Vanhnolrath, 2003).

In conclusion, contraceptive usage was increased with increasing duration of marriage but it decreased in women whose duration of marriage is longer.

**Marital status** is one of the factors which can affect the contraceptive use. The study done among Myanmar migrant women in Thailand revealed that the prevalence of contraceptive use is higher in married women than widowed, divorced and separated women (Khaing, 2002).

Moreover, the likelihood of nonuse was higher among women not currently in a relation than among those in a relation for more than four years duration in the result of the study done in United States. Cohabiting women and those who were not currently in relationship had higher odds of having an at-risk gap than married women (Frost et al., 2004).

The study done in Mexico showed that the marital status may affect the contraceptive use and the odds of using contraceptive were positively associated with being married (Barber, 2007).

Marital status had significant affect on contraceptive usage and the married women and women who are in current relation more likely to use were more likely to use contraception.

**Occupation** often influences the decision making for practicing contraceptives among women. The employment factor increases the status of women and gives them a higher sense of independence. Women who were working exhibit a higher probability of using modern contraceptives than women with no work was found in study done in Indonesia (Helweldery, 2004). In Ethiopia, occupation had a significant association with the number of family planning methods known by women which promotes the contraceptives use (Beekle & Mccabe, 2006). In Bhutan, the contraceptives use was higher among the women who were working outside than women working inside because those women working outside have easy access and more time available to attend services and also it is difficult to take care of many children (Lhamu, 2004).

The study done among Myanmar migrant in Thailand also revealed that the prevalence of contraceptive use was 66.9% among sea food processing workers and 68.4% among other job indicating the influence of the occupation on contraceptive use is dissipating among the respondents (Khaing, 2002).

In the related studies done in Bangladesh (Parveen, 2000), in Nepal (Dhananjay Narsingh, 1997)and in Philippines (Jamie, 2006) revealed that there was significant association between occupation and contraceptives use although the women engaged in non-agricultural sector are more likely to use than women who were not working and working in the agricultural workers.

However, the study done in Vietnam showed that there was no significant difference between women who were working and not working and the contraceptives use (Nguyen, 2003). Similar finding was showed in the study done in India and this

may be due to the small proportion of working women among the respondents (Yethenpa, 1999).

Occupation had significant association with the contraceptive usage and the women who work outside were more likely to use contraception when compared to the women who were working inside as house wives.

**Income** which is in term of economic factor also influences on the decision making to use contraceptives. The prevalence of contraceptive use was high in highest family income women to the low in lowest one. The prevalence increased in accordance with increased in total family income (Khaing, 2002). The study conducted in Indonesia showed that moderately poor women and better-off women had higher odds of using contraceptives than did extremely poor women (Schoemaker, 2005).

In Bhutan, non-use of contraceptives was higher among the medium income group (72.2%) and there was significant difference between income and contraceptive use with p-value<0.001 (Lhamu, 2004). Similarly, in Ethiopia, a higher family income was observed to promote spousal discussion of family planning which in turn increases usage of contraceptives with significant p-value=0.015 and also there was significant association between monthly family income and the number of family planning methods known (Beekle & Mccabe, 2006).

But theses findings are controversy with the finding from study in Vietnam in which there were no significant differences in contraception use among various income groups although the usage of contraceptives was higher in the middle income group (Nguyen, 2003). Also the finding from the study conducted in Lao PDR

showed that the percentage of contraceptive use did not show much difference between the diverse monthly income levels of married women (Vanhnolrath, 2003).

Income had significant affect on decision making to use contraception among women and the contraceptive used was increased with the increasing family income.

For **migrant status**, the study done among immigrant women in Thailand showed that the contraceptive prevalence for over all methods was lower for immigrant women than for natives. There was small percentage of unmet need for contraception among immigrant women. Overall, natives women tend to limit their family size two children while immigrants desire larger family (Peailueang, 2002)

**Inter-spousal communication** about family planning is main mediating variable that can enhance the decision making of women using contraceptives. The study done in Nepal showed that inter-spousal communication was found to be significant predictor of contraceptive non-use among married adolescents (Tamang, 2001). The result of the study done in Lao PDR showed that inter-spousal communication was positively associated with contraceptive use among married women and the probability of using contraception who discuss about family planning with their husband was 1.6 times higher than women who did not discuss (Khoangvichit, 2002).

The study done in China among never married young women revealed that discussion of contraception with their boy friends was important indicator of young women's contraceptive use behavior (Jiuling, 2000). Similarly, the study conducted among married couples in Philippines showed that spousal communication on family planning matters had positive effects on contraceptive use. In this study, husbands and

wives who reported family planning discussion with their spouses were 2 times more likely to use contraception compared to those who did not discuss (Jaime, 2006).

Inter-spousal communication has significant impact on decision making to use contraception. In conclusion, the women who discussed with their husbands about family planning were more likely to use contraception when compared to the women who did not discuss.

**The number of living children** is the important factor in contraceptive use. It provides information on actual family size and influences on the decision to use contraception and the intention to have additional births. The related study done among Myanmar migrant in Thailand showed that contraception is more likely to be used by women with less than two or equal to two children and the prevalence is decreased to among the women who had more than two children (Khaing, 2002).

The number of living children strongly influenced women's contraceptive use and the another study conducted in Indonesia showed that women who had three or four children had higher odds of using contraceptives than did women with two or fewer children with odds ratio 2.2 although the odds for women with five or more children was lower because they were older, less fertile or more likely to have secondary fertility (Schoemaker, 2005). The study done in Bangladesh revealed that contraceptive use increases with the increases of the number of living children and the contraceptive use rate is the lowest among the married female adolescent with no living children due to prevailing social norms or family pressure to have child after marriage (Parveen, 2000).

Similarly, the significant positive association between the number of living children and contraceptive use was also found in the studies done in Nepal

(Dhananjay Narsingh, 1997), in India (Yethenpa, 1999) in Lao PDR (Khouangvichit, 2002) and in Indonesia (Helweldery, 2004).In Vietnam, there were 100% contraceptive use among women who had more than 4 children (Nguyen, 2003). Moreover, the number of living children had positive effect on contraceptive use was found in the study done among married women in Myanmar (Panitchpakdi et al., 1993)

The desire for more children strongly affects the use of contraceptives. The contraceptive use rate was high when the women had desired for one additional children and it decreases with the increase in desire number of additional children (Parveen, 2000; Vanhnolrath, 2003). Furthermore, the study done in Bangladesh showed that desire for more children was influential determinant of lower contraceptive prevalence among the non-working women (Laskar et al., 20006).

The number of living children can influence the decision making to use contraception and the contraceptive usage was increased with increased in number of living children.

### 2.4.2 Contraceptive knowledge

Bloom defined knowledge as cognizance specially or general in process or situation stressing use of memory. Bloom and Sowon divided cognitive domain into six levels as followed:

(1) Knowledge or recall, which means the first step of memory about method, process, structure that can be used to describe definition, detail and truth;

(2) Comprehension or understanding, which means practice or skill of translation, interpretations and extrapolation;

(3) Application is defined as practice or skill to understand and to correct problem by adaptation;

(4) Analysis is defined as procedure to break down components of problem, situation according to conversation, rules and structure;

(5) Synthesis means ability to rebuild conclusion for new process;

(6) Evaluation means ability to decide using given rule and standard.

Knowledge and use of contraceptives are the most fundamental indicators which are most frequently used by national and international organization to assess the success of family planning programs. Regarding the knowledge level of contraceptives, it indicated noticeably that women with a good or fair knowledge will participate in more practicing family planning than those who have poor knowledge. This is because they know well about the benefit of contraceptive use and understand the real information of side-effects of contraceptive method; they feel confidently and use more.

The result from the study done in Lao PDR revealed that the knowledge of married women on family planning was significantly associated with the contraceptive use. The prevalence was highest in women who had good knowledge and the lowest in women with poor knowledge (Vanhnolrath, 2003).

Moreover, the more family planning methods that women know, the more they were current users. The study done among currently married women in Indonesia showed that the women who knew 5-8 methods were more likely to use modern contraception though the women who knew 9 or more methods were less likely to use because the more family planning methods they know, the more side-

effects they know. Meanwhile, all women who have no knowledge, definitely, all of them did not use contraception (Helweldery, 2004).

The study conducted in Nepal revealed that regarding the knowledge on family planning methods, it was found that the married adolescent women who had high knowledge were less likely to be contraceptive non-users compared to the women who had medium or low knowledge (Tamang, 2001). The awareness to contraceptive methods, which is measured as the knowledge about contraception, is positively strong significant effect on contraceptive use and the study done in Lao PDR revealed that women who had heard at least one contraceptive method were predicted to use contraception more than five times higher than who did not hear any methods (Khouangvichit, 2002).

The use of contraceptives was highly correlated with knowledge of contraceptive methods and the study conducted in Nepal revealed that the more they know, the more they use and there was strong relationship between the current use and level of knowledge of married women (Dhananjay Narsingh, 1997). The result of the study done in Bangladesh showed that the effect of knowledge concerning contraception on contraceptive use was significant and 35 per cent of female married adolescent who had high knowledge used contraceptives while only 12 per cent of adolescent who had low level of knowledge (Parveen, 2000).

The use of contraceptives was higher among the currently married women having higher knowledge of methods and sources of family planning compared to those with no or less knowledge of the methods and sources was found in the study done in India (Yethenpa, 1999). The study done among the never-married young women in China revealed that the knowledge about contraception was

important indicators of young women's contraceptive use behaviour which can pursue them to become users (Jiuling, 2000).

Knowledge of contraceptive methods was significantly associated with the contraceptive use. The women with higher knowledge of contraceptive methods and sources of family planning were more likely to use compared with the women with lower level of knowledge.

### 2.4.3 Attitude towards contraception

Attitude has been defined as a relatively enduring organization of beliefs around an object, subject or concept which predispose one to respond in some preferential manner. An attitude includes three components:

(a) A cognitive or knowledge element

(b) An affective or feeling element, and

(c) A tendency to action

The attitude towards contraception is the important determinant of practicing contraception. The one who had positive attitude towards contraception was more likely to use contraception than the one who had negative attitude. The study done in Hong Kong revealed that the percentage of female who considered that the family planning was seen to be a joint responsibility of both husband and wife was increased from 51.4% in 1987 to 57.9% in 2002. The rate of using contraception was also increased from 72% in 1982 to 86% in 2002 (The family planning association of Hong Kong, 2002).

The study conducted in Myanmar migrant in Thailand showed that 48.6% of the respondents had a moderate level of attitude towards contraceptive use.

There was not so different number of respondents between negative attitude and positive attitude, 25.3% and 26% respectively. In this study, 75.7% of women using contraception had negative attitude towards contraception and 71% of women using contraception had positive attitude. There was no significant association between current use and level of attitude with p-value 0.237 (Khaing, 2002).

The study done among women seeking pregnancy tests in Missouri revealed that negative attitudes towards contraception have been found to influence contraceptive use and infrequent contraceptive users are more likely to have negative attitudes toward contraception, to worry about side effects and to note that condom use may be problematic because of the need for the cooperation from the male partner (Sable et al., 1997).

The survey done in Maldives showed that adolescent girls generally support the idea of planned family size and most of the girl mentioned that the practicing of family planning is good for mother's health as well as the children's health. Apparently by no means all adolescent girls plan to use contraception after they marry (Pearson & Cockcroft, 1999).

Attitude is one behavioral factor that can influence the practice of contraception and the one with positive attitude towards contraception were more likely to use than the one with negative attitude towards contraception.

### 2.4.4 Accessibility

According to WHO (1998), accessibility to the family planning service means that the measure of the proportion of a population that reaches family planning service. WHO (2000) defined **"Accessibility to the health care services"** into 3

aspects such as financial accessibility, geographical accessibility and cultural accessibility.

Bertrand described the first issue raised under the access which is geographical or physical accessibility as "the extent to which family planning service delivery and supply points are located so that large proportion of the target population can reach them with an acceptable level of effort". The economic accessibility is described as "the extent to which the costs of reaching service delivery or supply points and obtaining contraceptive services and supplies are within the economic means of a large majority of the target population". Administrative accessibility refers to "the extent to which unnecessary rules and regulations that inhibit contraceptive choice and use are eliminated". Cognitive accessibility is described as "the extent to which potential clients are aware of the location of services or supply points and of the services available at these locations". Psychosocial accessibility refers to "the extent to which potential clients are unconstrained by psychological, attitudinal or social factors in seeking out family planning services" (Bertrand et al., 1995).

Accessibility is one of the important factors that influence to women in obtaining information about contraceptive, practicing the contraceptives and also can influence on decision making regarding use of contraceptives. There are barriers that limit women's access to care such as distance, time, cost and lack of decision making.

The study done in Lao PDR showed that the time taken in traveling from the residence to family planning service center is found strong associated with contraceptive use. The women who reside in the place where they can go to family planning service center by taking less than one hour were more likely to use the

contraception 1.4 times than the women who take more than one hour to travel to the service (Khouangvichit, 2002).

The study conducted in Indonesia revealed that there was no significant difference of using contraceptives between extremely poor women and moderately poor women because more or less the family planning methods provided in Indonesia is nearly free of charge (Schoemaker, 2005).

The another study done in Lao PDR showed that there was no significant association between distance to the service center, mode of traveling and contraceptive use. Moreover, the cost of contraceptive services was not significantly associated with contraceptive use according to those who paid for service. But it was noted that the convenience to come to the center and waiting time were highly significant associated with contraception use (Vanhnolrath, 2003).

Furthermore, the study done among married female adolescent in Bangladesh showed that the field worker's visitation was closely associated with the increase in contraceptive use. The odds of using contraceptive is 3 times higher who were visited by field workers during the last six months compared to the reference group who are not visited by the field workers in the last six months (Parveen, 2000).

In conclusion, the accessibility in terms of distance fro the service, transportation to get to the service, cost and affordability, acceptability of family planning service, sources of information about contraception methods and satisfaction to information provider were significant associated with contraception usage.