CHAPTER II

REVIEW OF RELATED LITERATURE
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II.1 Introduction

The study of related literature implies identifying reading and evaluating reports of research as well as reports of casual observations and options that are related to the research project. A review of the related literature gives the scholar an understanding of the previous work that has been done.

It enables the scholar to know the means of getting to the frontier in the field of his problem. Until the scholar has learnt what others have done and what still remains to be done in his area the scholar can not develop a research project that will contribute to further knowledge in his field.

The importance of the review is quite obvious in delimiting the research problem and in doing it better. It will give the insight he needs to convert his tentative research problem to a specific and concise one and can also help the researcher by making him alert in finding out research approaches in his area that have been overlooked.

The review of literature provides us an opportunity of gaining insight into the methods, measures, subjects and approaches employed by other research works. This will have a significant influence on the improvement of the research design. A careful consideration of the studies motivates one towards further research, and guide one regarding the suitability of the problem and in assisting in delimiting our problems.

According to Water R.Borg, "the literature in any field forms the foundation upon which all future work will be built". The author further observes that if we fail to build this foundation of knowledge provided by the review of related literature, our work is likely to be shallow and naive and will often duplicate the work that has already been done better by someone else.

Without a proper review of literature the researcher can not proceed with the research on firm ground and justification. Hence an attempt has been made by the researcher to review some of the earlier studies related to the
present study. From the previous studies, the relevant area of the present study were collected and reviewed by the researcher and are presented in this chapter.

II.2 Adolescent Reproductive Behavior

Sexual activity commences at an early age for majority of Indian women. Unlike other countries, the onset of sexual activity occurs largely within the context of marriage; is consistent with the strong emphasis placed on female ‘purity’ and chastity, and is sanctioned by family elders. Early marriage constitutes to be the norm in India even today. Despite laws stipulating the legal age at marriage as 18 for females and 21 for males, the median age at marriage for women is 16 years and as many as 40% of all women aged 15-19 are already married (IIPS, 1995). In rural areas, almost two in three females aged 20-24 are married by age 18, in fact, a third are married by the time they were 15, and 15% even before they were 13, moreover, cohabitation (ganna) also occurs early. Among women aged 20-24 as many as 22% of rural women 8% of urban women cohabited by the age of 15. On the whole, about 18, half of all young women in India are thought to be sexually active by the time they are and almost one in five by 15 years.

Some studies reveal that, nationally, there is evidence that adolescent marriages are declining. Even so, there appears to have been not more than a modest change over the last decade.

Pathak and Ram (1962) say that as many as 70% of all adolescent females aged 15-19 were married. This proportion declined to 44% in 1981 and to 39% in (1992-93). In the northern states of Bihar, Madhya Pradesh, Uttar Pradesh and especially Rajasthan, adolescent marriage was widespread and the median age at marriage was 15 or less.

Family planning Association of India (1993-94) conducted a study on adolescent sexual and reproductive behavior in India, among educated urban youth which revealed that the average age of first sexual experience among 15-19 year old was at 14.8 years for males and at 16 years for females. Jejeeb hoy 1998 found that only 38% young men and 63% of young women disapproved of premarital sexual relationships.
II.3 Sexual Activity

Given the highly conservative attitude to sexual behaviour in India, few studies have attempted to elicit information on the subject. Those that do cover premarital rather than marital sexual activity, males rather than females, and both the current experience of adolescents and college-going youth and the retrospective experience of the adult population. The results are not, by and large, representative of the general population rather than the poor, rural or slum population. Most surveys are conducted in English rather than in the local language and hence exclude the large majority of Indians who do not read English.

The majority of studies dealing with adolescent sexual behaviour rely on similar designs and methodologies. Typically, for example, data are drawn from surveys with self-administered questionnaires. Some are based on magazine surveys with entirely self-selected samples. While these ensure privacy, they exclude by definition the illiterate population (Goparju, 1993, Sehgal, Sharma and Bhattacharya, 1992, Watsa, 1993)

II.4 Premarital Sexual Behavior among Adolescents

Studies on the premarital sexual behavior among male adolescents have been conducted by many researchers.

Bang et al (1989) studied issues relating to adolescent sexual activity among unmarried poor rural and urban slum adolescent girls in Maharastra. Nearly half of unmarried girls in this tribal setting were already sexually active. Although such high levels of activity are probably typical of rural India as a whole, the findings suggest that sexual activity among unmarried adolescents may not be as rare as is often believed in rural areas.

Bansal (1992), had a face to face interview with adolescent male truck cleaners at Indore that reveals that 25% reported sexual activity in adolescence and the exact age of sexual initiation was not ascertained and high percentage of sexual active male reported that they had relation with Commercial Sex Workers and 6% of them used condom.
Sengal et al., (1992) in their study conducted in Delhi with school boys regarding premarital sexual activity of males during adolescent period, found that 25% reported sexual activity in adolescence and age at sexual initiation relation with CSWS and condom usage was not ascertained.

Savera and Sridhar (1993), in All India magazine study with its self selected sample, however reports that while 7% of all female respondents had experienced premarital sex by age 19 this proportion increased to 39% by age 21.

Watsa (1993), conducted a study on adolescents and young adults in 16 cities regarding premarital sexual behavior for male adolescents using self reported questionnaire in the English. The findings revealed that 28% adolescent reported sexual activity and the age of sexual initiation was not ascertained, 19% of sexual active males reported that they had relation with CSWs and not assured the condom use. Similar studies are conducted by various researchers with different samples and places. Goparaju (1993), conducted a study in Hyderabad with male college students aged 19-23 using self reported questionnaire and FGDS. He says 25% reported sexual activity in adolescence i.e (17-18 years) as age of sexual initiation, and 25% of sexual active males reported that they had relation with CSWS and very rarely used condoms. Savara and Sridhar conducted a magazine survey in all India with male readers regarding premarital sexual activity of males. Forty one percent reported initiation of sexual activity in adolescent i.e (17-19 years) and 37% sexual active male reported that they have relation with CSWS and condom usage was not ascertained. Savara and Sridhar (1993), in their study at Nashik and Thane with relatively poor women reveal that age of sexual initiation was higher among females than males, averaging 20 years.

Savara and Sridhar, (1994) had a face to face interview with unmarried males (at Nasik /Thane) college students (mean age 18) migrants white collar and blue collar workers at Nasik/Thane and reported that 19% indulged in sexual activity and 17 year as age at sexual initiation and 2% of students
reported that they had sexual initiation with CSWS and 67% usage of condom while having premarital sex.

Bhende (1994, 1995) conducted an in depth study among poor, educated, low income adolescents in the slum of Mumbai. The study included a focus group discussion with adolescent boys and girls and their mothers and key informants as medical practitioners and community leaders. The adolescents girls and their mothers, say that sexual activity is extremely limited. But key informants such as medical practitioners and community leaders reported that they were occasionally approached for abortion services and oral contraceptions by adolescent girls and for STI treatment by adolescent males.

Similar studies conducted by Sharma and Sharma 1995, with adolescent boys aged 16-19 years at rural Gujarat and college going adolescent males aged 16-19 years at urban Gujarat through face to face interview stated that 16% reported sexual activity during adolescence in rural Gujarat, whereas 9% reported the same in Urban Gujarat, and rural Gujarat 17-18 years is the age of sexual initiation and age of sexual initiation was not ascertained in urban Gujarat. In rural Gujarat 78% of sexual active male reported that they have relation with CSWS and among them 20% used condom whereas in urban Gujarat, male had sexual relation with CSWS and usage of condom was not ascertained. Jejeebhoy (1995) found that 38% of young men and 63% of young women disapproved of pre marital sexual relationships in Mumbai.

Abraham (1998), conducted a study on premarital sexual activity of adolescent male college students in Mumbai. The results revealed that 27.5% reported sexual activity during adolescence and ascertained 17-19 years as age of sexual initiation and 18% sexually active male reported that they had relation with the CSWs and condom use was not ascertained. 5.3% of female students reported engaging in sexual relations during adolescence. A slightly larger proportion, engaged in physical contact, for instance kissing 12%, hugging 9% etc.,


II.5 Non consensual Sexual Activity

Although data are sparse there is evidence that large number of adolescent girls are subjected to rape and forced prostitution. Government of India, (1990), estimated that almost 25% of rape victims are young adolescents under 16 years and 20% of all commercial sex workers are adolescents. George and Jaswal, (1995) conducted retrospective study in Mumbai on older women on their experiences as married adolescents. Their study highlights the sexual vulnerability of newly married women who are usually adolescents. The results suggest that most of these women were totally unprepared for and ignorant about sexual intercourse. The first sexual experience with their husband was typically described as traumatic, distasteful and painful and the use of force was frequently mentioned. Apte (1997) conducted a study among adolescents in rural Maharashtra. The research revealed that 86% of married adolescent females were frightened during their first sexual and for 8% it was very painful. Joshi et. al., (1998) conducted a study in rural Gujarat that revealed that, for 61 out of 69 women, the first sexual experience was traumatic.

Singh, 1998, in his study points to alarming rates of sexual abuse against female children and adolescents on consensual sexual activity.

Sodhi and Verma (1998), conducted a study in a low income slum area in Delhi. The result says that females were forced to engage in sex against their will sometimes with multiple partners. Instances of sexual coercion and rape were reported by both male and females.

II.6 Health Risks of Early Marriage and Child Bearing

Pregnancy and motherhood before adolescent age expose girls to acute health risks during pregnancy and child birth.

Pachauri and Jamshedji 1983, conducted a hospital based study in Mumbai and observe that maternal mortality ratio among women aged 20-29 was 138 per 1,00,000 live births, adolescents experienced considerably higher ratios 206 per 1,00,000 live births.
Spontaneous abortion rates are as high as 158 per 1000 pregnant among adolescents compared to 77 among women aged 20-29; comparative still birth rates are 35 and 29 per 1000 pregnant women respectively. NFHS (1992-93) reports that 10% of all adolescent pregnancies end in miscarriage or still birth compared to 7% among older women. Pachauri and Jamshedji (1983), and Ramachandran (1989), in their study on obstetric morbidity among adolescents reported that the levels of anemia and complications of pregnancy are considerably higher among adolescents than among older women.

Mishra and Dawn, (1986), conducted a hospital based study in rural West Bengal and report high rates of morbidity, particularly anemia, eclampsia and premature labour, among adolescents compared to older women.

Geerkani and Jayashree (1988), conducted a community based study on poor adolescent and adult women in Andhra Pradesh. They found that adolescents gain more weight during pregnancy (2.7 Kg) compared to adult women (4.8 Kg). Similarly weight loss during lactation was higher among adolescents than among adult women (2.9 and 1.9 Kg respectively) and birth weight and subsequent weight gain were substantially lower among infants born to adolescents compared to adult women. Sharma and Sharma (1992), conducted a study in tribal Rajasthan. The study reveals moderate or severe anemia was observed among almost the entire sample of pregnant adolescents (94% and, 85%) weighed less than 42Kg and one in three had vitamin -A deficiency and one in three experiences symptoms associated with health risks in the third trimester. Swain et al (1993) conducted a hospital based study in urban Uttar Pradesh and observe that eclampsia is more common in adolescent mothers than older mothers (5.2% and 1.6% respectively). IIPS (1992-93) says that 10 million pregnant adolescents and adolescent mother are there in our country. 17.1% share of births occurring to women aged 15-19 years. Spontaneous abortion 9.7% of pregnancies resulting in miscarriage or still births in 15-19 years. Induced abortions 1.7%, pregnancies resulting induced abortion in 15-19 year olds.
Acharya’s (1998), study in rural Maharastra reported that 64%, 47% and 24% of females aged 14, 15 and 18 years respectively are at obstetric risk. (are less than 145 CM in Height and weight less than 38 KG)

Chhabra et al, (1988) reveal that large proportions of adolescents who seek abortions are unmarried in both rural and urban areas.

II.7 Induced Abortion

While abortion has been legal in India since 1972, limited availability and poor quality have kept safe abortion beyond the reach of most poor women. Bhat (1978) and Purandane and Krishna (1974), in their studies at Vadodara and Mumbai respectively estimated that more than four in five adolescent abortion seekers (81% and 90% respectively) came for an abortion in the second trimester of pregnancy, unmarried adolescents were the worst.

Divekar et al., (1979), conducted a Mumbai study observe that at least half the unmarried women seeking abortions are adolescents and a disturbing number are below 15. 16% of unmarried women, mostly adolescents, sought abortion at 20 weeks of pregnancy or later. Twenty percent of all pregnancies among adolescent abortion seekers occurred as a result of involuntary contact, of which 10% resulted from male domestic servants raping their employer’s daughters, about 6% from incest or involvement with relations and 4% from rape generally. Solapurkar and Sangam (1985) conducted a study in an urban hospital and say that 30% of the 1684 abortions conducted were among adolescents.

Aras Pai and Jain, (1987) revealed that in Mumbai three in five unmarried adolescents (59%) sought second trimester abortions and a quarter (26%) of all married adolescents did so. Even in rural areas as many as 72% of unmarried abortion seekers were mostly adolescent. One in four adolescents who sought second trimester abortion suffered complications compared to 1% who underwent abortion in the first trimester and 11% of all adolescents.

Unmarried adolescents are considerably more likely than older women to delay seeking abortion service and hence undergo second trimester abortion.

II.7.1 Unsafe Abortion

In India, the incidence of induced abortion in women less than 15 years was 0.5% and between 15-19 it was 6.6% (Govt. of India, 1990-91) Data from a Government medical college from the south states that out of 110 abortions done every month almost 12% were unmarried teenagers. Ministry of Health figures from Maharashtra in 1997 show that girls younger than 15 accounted for 21.7% of all abortions

According to ‘WHO’ over 20,000 Indian women die of unsafe abortions every year. Global studies estimate 15 million illegal abortions worldwide. 4 million, the highest for any country takes place in India. In 1995 the Ford Foundation study puts the figure for India at a million Abortion is one of the most neglected health issues in India and women are paying a terrible price. Abortion as a cause of maternal death which was 5% in mid 1980’s is at present 15% (Ford Foundation Study, Chhabra 1995). Reasons for high mortality include shortage of adequately trained personnel and surgical facilities as well as highly dangerous methods of abortion.

II.8 Reproductive Tract Infections and STD’s

Only a few studies cover RTIs and STIs among adolescents in India. Adolescents and young people constitute a neglected but high risk group. Based on the experience of the FPAI’s Sex Education, Counseling, Research and Training (SECRT) countries Watsa, observes that STIs in the age group 15-25 years have doubled over the 1980s. Hiramani, Srivastava and Misra (1985) on health education for STD patients in a New Delhi hospital, in their studies indicated that the typical male patient is young barely out of adolescence (age 20-25) and of relatively low socio-economic status. Bansal 1992, in his study stated that in sexual behaviour and substance use pattern amongst the adolescent truck cleaners and risk of HIV/AIDS aged 15-19 (median age 17) 4% had a history of an STI and had been treated by a general practitioner.
Gogate et al 1998 in their study on risk factors for laproscopy confirmed PID disease, reported that RTIs among adolescents are also attributed to iatrogenic factors. Eg. Pelvic Inflammatory disease in India has been attributed to such iatrogenic factors as unhygienic condition at delivery, abortion, sterilization and IUD insertion. Prasad et al (1999) conducted a study among 451 young married women aged 16-22 in rural Tamilnadu. This study reports high levels of morbidity. It highlights that young married women are exposed to unsafe sexual behaviour and unsafe reproductive health procedures. The study also shows that as many as 49% of women suffered from one or more RTIs. In addition 9% reported infertility, 8% menorrhia, 7% UTI, and 1% prolapse and 6% of adolescent women had pelvic inflammatory disease and women whose husbands were truck drivers or army personnel appeared considerably more likely than other women to experience a sexually transmitted morbidity. The study also states that unsafe sexual behavior on the part of the husband translates into transmission of disease to their younger wives. This is an alarming trend given that many women are asymptomatic and unlikely even when symptoms are observed to seek care. The study also reports that two thirds of women with symptoms did not seek care and as many as 78% of symptomatic women who sought care sought treatment from unqualified sources (21% sought treatment at home or from traditional medicine and 57% from unqualified private practitioners).

II.9 Awareness of Contraceptives and Sexual and Reproductive Health among Adolescents

Adolescents tend to be extremely poorly informed regarding their own sexuality and physical well being, their health and their bodies. Moreover this knowledge is incomplete and confused. Rasheed, Khan Zaheer (1978) in their study reported that the awareness among female adolescents about menstruation and other changes at puberty tends to be limited. This is particularly true among younger adolescents. Those aged 12-15 (50%) did not know about menstruation.
A study conducted by Vlassoff (1978) in rural Maharastra stats that two in five post menarche girls said they knew nothing about menstruation until its onset. Even fewer were aware of the physical changes that occur in the body. Vlassoff 1978 in his study indicate that knowledge of sex and reproduction is also limited among both educated and uneducated adolescents.

Sharma and Sharma’s (1978) study revealed that the average college going girl in the age group of 17-18 years could answer only six of 25 questions on human sexuality reproduction and contraception. Rasheedkhan and Zaheer (1978), Taylor (1973) in their study revealed that few adolescents moreover were aware of the correct use of various contraceptives. Even so males were more likely to know how to use both male and female contraceptive methods than females. National Survey of Fertility (1988), and Family Planning practices in India, observed that 89% of adolescents compared to 95% of the entire sample were aware of female sterilization, 59% of adolescents compared to 66% of the entire sample were aware of condoms 49% and 60% respectively know about IUDs. Accurate knowledge of contraceptive methods was even more limited. Chabra (1992) conducted a study which revealed that as many as 88% of unmarried girls, mostly from rural areas, who sought abortion were unaware of the link between sexual relations and pregnancy.

Chitale and Das (1992), conducted a study among urban college students, 66% in Solapur and 95% in Mumbai were aware of AIDS. Less than 5 percent college students aware that AIDS could be transmitted through infected blood, fewer than 11% mentioned that sexual relations with sex workers could be the mode of transmission and as many as 13-19% thought AIDS was curable.

George (1993). George and Jaswal (1995) in a retrospective investigation of poor women residing in Mumbai observed, most women admitted that they had little knowledge of the sexual implications of marriage. Knowledge is limited to the mechanics of menstruation and associated behavioural norms. Women are not permitted to cook or go near the idols, of
gods during menstruation) according to Bhende (1994, 1995). Bhende’s (1994, 1995) study conducted in the slums of Mumbai, revealed that, majority of the girls (67%) and less than half of the boys and pregnancy was the result of sexual intercourse not know. Only 16% girls and 54% of the boys aware that pregnancy is the result of sexual intercourse. There was little general awareness of STIs than AIDS awareness. One in four girls (25%) and one in three boys (32%) indicated that they had heard of AIDS from TV and other mass media campaigns. When asked about STIs, only about 10% of both girls and boys (8 of 85 girls and 13 of 125 boys) had heard of STIs. Whereas more than half these boys. Ignorance among adolescents about sexual and reproductive behavior is compounded by reluctance among parents and teachers to impart relevant information. In both rural areas and urban slums mothers expect their adolescent children, particularly daughters to remain uninformed about sex and reproduction. Sex and puberty are considered to be embarrassing distasteful and dirty subjects not to be discussed with their adolescent daughters. One woman in Mumbai said “who will tell this dirty thing to young girls and frighten them with this knowledge”. Focus group discussions, with mothers of adolescent girls highlight their reluctance to inform their daughters. (Bhende. 1994, 1995, George and Jaswal 1995 Vlassoff 1978). College going females in Mumbai also report that their mothers are reluctant to reveal information relating to sexuality in response to questions on physiological differences between females and males. (Abraham 1998)

Sharma (1996) in his study, reported that in Gujarat among girls the major concern in classes 7-8 is menstruation and in classes 9-12 it is physical appearance. Only among females college students do issues of sexual relations become important. Among boys, interests shift from questions regarding normal sexual behavior, nocturnal emission, and male and female anatomy in classes 7-8 to more specific and personal questions on masturbation body size and condoms in classes 9-12. Among older boys questions on mature adult sexual behavior and sexual satisfaction become important. Barge and Mukherjee (1997) in their study in Vadodara suggest that female and male
university students were equally poorly informed about knowledge of pregnancy. Not more than one in four could correctly state when the cycle of pregnancy occurs. Apte (1997), in a study of female and male adolescents both married and unmarried reports that many adolescents were of the view that there were different bags for babies and for the storage of menstrual blood. Condoms and intra uterine contraceptive devices (IUDS) could move upward in a woman’s body and conception occurred around the time of menstruation because at that time the mouth of the uterus was open. As many as 56% of married males and 71% of unmarried males reported that there was a common opening for urine and menstrual blood, and 51% of unmarried females were unaware of how delivery occurred.

Barge and Mukherjee, (1997), conducted a study among University students in Vadodara, state that males were far more likely to have seen a condom (75%) and oral contraceptives (32%) than females (28% and 22% respectively). Twenty percent of females knew how to use condom and boys were also more likely to know about the correct use of oral pills (29%) than females (19%) and 21% of males and 13% of females thought AIDS was curable. Most common sources of information on contraceptives were: Television (58% and 50% of males and females respectively), newspaper and magazines (38% and 25% respectively) and friends (27% and 17% respectively); and 7% and 9% of males and female cited parents as their source of information while 12% of both cited their teachers. (Bharge and Mukherjee 1997) Abraham (1998) conducted a study of college students in Mumbai and found that young people did indeed recognize the inadequacies of the media as an appropriate source of information and were interested in sex education programmes that would address their questions. The study underscores the interest of youth in learning more about sexuality risk and protective behaviour. The study argues for greater focus on sex education programmes with a high degree of student involvement while at the same time reorienting educators and parents to better understand young people’s need for sex education.
Attitudes towards marriage and sex among adolescents in India are conservative. Traditional norms oppose love marriages and social interaction between adolescent boys and girls and premarital sex is prohibited. Those in the forefront of changing attitudes are boys, urban and educated adolescents. Kumari (1985) stated that most adolescent girls accept marriage in adolescents, whereas later ages of marriage was favoured by well educated, and working adolescents. A study conducted at Mumbai, on attitudes and perceptions of educated, urban youth to marriage and sex stated that one quarter of all males and one third of (23% and 30% respectively) female were of the view that premarital sex was a sin (FPAI - SECRT, 1990). Sridhar and Savara (1992) in a magazine survey in savvy suggest that even educated, liberated and self selected women did not overwhelmingly favour premarital sexual relations: as many as half disapproved of such behaviour under any circumstances. FPAI, (1993) conducted a study on socialization among Indian teenagers. From 22 districts and 251 schools, revealed that in U.P, Rajasthan Haryana and Delhi young adolescents appear least likely to approve of premarital sexual activity, while older adolescents seem more tolerant as many as 87% of females and 72% of males disapprove of premarital sex.


According to Bhende, (1995), revealed, in Mumbai large majority of adolescent girls favoured arranged marriages and disapproved of love marriages, two in three boys favoured love marriages and the results also showed that parents were likely to consult their sons when approving a prospective match but rarely their daughters. Expectations of marriage remain traditional among both adolescents girls and boys, reflecting the kind of double
standards that exist in gender relations. Barge and Mukherjee, (1997) observes gender disparity in attitudes towards premarital sex 38% of males and 16% of females approve to premarital sex for males but only 30% of males and 6% of females have the same attitude towards females engaging in pre marital sex. More over 49% of males and 69% of females disapprove premarital sexual relations even if the couple was engaged. In Mumbai poorly educated youth, male college students had liberal attitudes to pre marital sex. Even among students who were not sexually active the majority approved of premarital sex. Abraham (1998), Bhende (1995). Goparaja (1993) found differences in attitudes between males and females and between college were educated and poorly educate youth towards sex. While aware of kissing and hugging, college females consider sex “dirty”.

11.11. Sexual and Reproductive Decision Making

Mandal (1982) found that contraceptive decision making is almost never made by the women but left to male partners; a large proportion 40 percent were apathetic to contraception.

George (1993) George and Jaswal, (1995) conducted few studies regarding sexual and reproductive decision making by adolescents. The sexual negotiations among women in India, Highlights young women’s, decision making authority in matters relating to sex was very less. Focus group discussions reveal that young women were routinely told that they were married to provide sexual services and hence were obliged to fulfill the sexual needs of their husbands. Barge and Mukherjee, (1997) conducted a study among university students in Vadodara, and report that three fourths college students, (males 78% and females 79%) agree that women have the right to refuse sex. Almost the same number (75%) felt that husband cannot force his wife to engage in sexual relations against her will. International Centre of Research on Women (ICRW) (1997) observed that in rural Maharastra when a married adolescent female and her husband like to delay their pregnancy the decision was usually taken by the mother in law.

Barge and Mukherjee , (1997) found that university students were more equalitarian about initiating discussions on contraception and family size
in four male and female college students report that such a discussion can be initiated either by the male or by the female. Abraham (1998) conducted a study of college students in Mumbai and reports that when sexual debut occurs with a commercial sex worker or an older woman, males report that they are relatively powerless and intimidated, subsequently, males gain more negotiating power in their relations with sex workers but not with ‘aunties’.

II.12 Use of Reproductive and Family Planning Services

Watsa, (1987) reported that school going adolescents have access to school health services but slightly better in getting their reproductive health service. All the school health services do not necessarily address the reproductive health concerns of its students. Finally counselling services have rarely been available to adolescents, making them vulnerable to quacks and “sex specialists” who exploit their concerns and misconceptions.

Srikantia, (1989) observed that a woman did not qualify for maternal health services until she was pregnant. As a result conditions like anemia, which are rampant among adolescents girls, have not been addressed by the health service network until pregnancy.

Watsa, (1991) identified that the demand for information and counselling services is huge, and has resulted in the expansion of the association’s counselling services to eight cities. Moreover, the trainees of Family Life Education Programmes, who initially tended to be shy and hesitant have succeeded in overcoming their reticence and routinely express their confusions about true issues in particular; physical and biological growth, conception and emotional relationships.

Sing, (1998) in a study stated that only few services were available to address the information needs of adolescents and young adults. A formal population education programme should exist and activities should be conducted in schools, colleges, universities, vocational training, institutions as well as in non formal and adults education programmes. In practice there was a glaring lack of responsiveness to the sexual information needs of young people in the official programme. At the university level, population education
programme are expected to provide information on human sexuality reproductive health and related issues including HIV/AIDS.

According to Singh, (1998) a peer based programme is designed to build awareness of sexual and reproductive health issues among unmarried youth in school and out of school.

Prema conducted similar programmes in villages near Delhi. A telephone help line project in Delhi providing counseling services reports that a significance proportion of its callers are young.

II.13 Nutritional Anemia in Adolescent Pregnancy

Iron deficiency anemia is the most prevalent micro nutrient deficiency in the world today. It is especially common in women of reproductive age particularly during pregnancy. By some estimates levels among pregnant women reach 70% in South Asia. In sub Saharan Africa outside of South Africa, levels exceed 40%, yet anemia can easily be treated with oral iron supplements.

In addition, iron deficiency in adolescents as well as in non pregnant women adversely affects their health cognitive function and ability to work.

The micronutrients intake from several countrywide surveys conducted by The National Nutrition Monitoring Bureau of India, the pregnant and lactating women show low intakes of several nutrients especially iron, vitamin A, riboflavin, calcium and iodine (Banji and Lakshmi, 1998)

In India various diet surveys have been conducted that indicate low intakes of micronutrients are common in many poor areas. The poor diets among women in developing countries result on insufficient intake of several nutrients. In conjunction with infections and infestation that increase the demand for nutrients, deficiencies occur that impair women’s health. The outcome of their pregnancies and the growth and development and health of their breast fed infants.

The prevalence of anemia among pregnant women declined from 87.5% in 1989 to 74.3% in 2003. The prevalence of anemia among lactating mother is
currently at 77% (2003) adolescent girls (12-14 years) at 68.6% and adolescent girls (15-17 years) at 69.7%

There has been a significant decline in prevalence of iodine deficiency disorders (IDD) as a result salt iodization. The goitre prevalence has reduced from 21% in 1989 to about 10% in 2001. Prevalence of IDD among old children has shown significant improvement and is only 3.9% during 2003.

II.13.1 Adolescent Girls

NFHS II (1996) the study indicated that anemia among women below 20 years was about 52%. The other major and individual community based studies (1991 onwards) indicated an overall prevalence of 88.6%. The high prevalence was generally in the eastern and northern regions. There are a couple of studies on adolescent girls from south India which indicates vitamin A deficiencies as 0.8% to 1%.

II.14 Growth and Development of Adolescents

According to Ray (2002) the amount of biological cognitive and socio cultural work that is being accomplished during adolescence creates a life stage, where in the health behavior of individuals is most vulnerable, Spear (2002) maintains that adolescence is considered as especially nutritionally vulnerable period of life for several reasons. The first is the greater demand for nutrients because of the dramatic increase in physical growth and development. The second is the change of life style and food habits of adolescents that affect both nutrient intake and needs.

Adolescence is the only period in which growth accelerates. This growth depends on nutrition which in turn depends on availability of food for sufficient quantity and quality and on prevalence of diseases and metabolism(WHO,1997)

II.14.1 Physiologic Growth

According to the WHO (1989), adolescence is a crucial phase to catch up with growth in the life cycle. There are many physical changes that occur at this stage.
Rapid physical growth creates an increased demand for energy and other nutrients. The total nutrient needs during adolescence are higher than those at any other time in the life cycle (Story, 1992).

Adolescents of a given chronological age may vary widely in physiological development. Because of this variability among individuals, age is a poor indicator of physiological maturity and nutrition needs (Spear, 2000). For the majority of young person’s, the period of adolescence is the most eventful one of their lives so far as their growth and development is concerned.

II.14.2 Height Attainment

During the pubertal process, teenagers attain approximately 15% of their final adult height and about 45% of the maximal skeletal mass compared with girls, boys have a longer period of childhood growth before the adolescent growth spurt and a higher peak velocity in Ht growth, resulting in an average final height difference between boys and girls of 5.2 inches says Spear (1996).

In girls stature growth ceases at a median of 4.8 year as after the onset of menarche and at a median age of 17.3 years. In boys, stature growth stops at a median age of 21.2 years. However there is a great variability. The total increment in height achieved after menarche varies inversely with age at menarche. Most girls will gain not more than 2 to 3 inches (5.1 to 7.6cm) after the onset of menses. Girls who have early menses grow much more after menarche and for a longer period than girls with later menarche, says Stran Burger (1991).

II.14.3 Weight Gain and Body Composition Changes

According to Gong and Heald (1998), the rate of weight gain during adolescence depends on the height spurt. In boys - peak height velocity coincides with peak weight velocity. In contrast, peak weight, velocity in girls occurs 6 to 9 months before height, rate increases.

Weight gain during this period accounts for approximately 50% of the ideal adult weight. Because the peak weight occurs before the peak height in girls many parents and teens become concerned about teenage girls' weight. Any weight loss during this period may affect ultimate adult height (Spear...
For boys and girls elevated androgen levels have a growth promoting effect. However, the female sex hormones estrogens and progesterone promote the deposition of proportionately more fat than muscle tissue in girls (Spear, 1996).

In the prepubertal period, the proportion of fat and muscles in boys and girls tends to be similar in body fat (approximately 15% and 19% respectively) and lean body mass is equal for both sexes. But, under the influence of testosterone, the anabolic adrenal androgens, boys gain proportionately more muscle mass than fat, experience increased linear growth to produce a heavier skeleton, and develop greater red blood cell mass than girls. Boys have more lean body mass per unit height than girls according to Gong and Spear (1988).

As adults, the normal percentage of body fat is about 23% for women and about 15% for men. This striking difference in adolescence growth between boys and girls influences nutrition needs. Because adolescent boys experience greater gain in the bone and lean tissue than adolescent girls do, teenage boys often require more protein, iron, zinc and calcium than teenage girls for development of these tissues. Another reason for boy’s larger requirements of these nutrients is their greater rate of growth says Spear (2000).

II.14.4 Psychosocial Development

In the past, the word adolescence was used synonymously with puberty and now it is used to refer to the physiological changes associated with puberty says Devasdas (2001). Sturd Evant et al. (2002) describe adolescence as a time of rapid physical and psychological change, which begins with puberty and ends with attainment of an adult life cycle. The psychosocial tasks of adolescence are complex and include attainment of cognitive maturity, development of moral values and establishment of a separate identity.

There are marked psychological changes during adolescence. The main change is the development of an integrated and internalized sense of identity. This means to some degree, drawing apart from older members of the family, developing more intense relationships with peers and taking major decisions.
II.14.5 Sexual Abuse and Risk Behavior

Vikram Patel et. al., (2000) conducted a study on gender, sexual abuse and risk behaviors in adolescent as a cross sectional survey in schools in Goa, opened, one third of the students (266) had experienced at least one type of sexual abuse in the previous 12 months. The major findings of this study indicate that sexual abuse and violence are common among this population. Many adolescents experienced multiple types of sexual abuse, and there was a strong association between experience of sexual abuse and experience of other forms of violence. The study findings suggest that there is a constellation of risk behaviors and poor mental health outcomes associated with sexual abuse. Those who experienced forced sexual intercourse had poorer educational performance and physical and mental health. They also had greater levels of suicidal tendencies, higher rates of substance abuse and gambling behavior. They had poorer relationships with their parents especially girls, and more active consensual sexual behavior.

II.15 Foreign Studies on Adolescence

Ramesh K. Adhikari (1996 and 1994) indicates physical and social consequences of early marriage and child bearing among women aged 15-24 year. Fetal loss and abnormal deliveries were higher among teen mothers. Neonatal mortality among children of adolescent mothers was 73% higher than children of older mothers. 25-66% and higher incidence of low birth weight was among children of adolescent mothers In 1996-2000, most of the studies from Nepal, India Bangladesh, Srilanka, Ethiopia and Nigeria show that pregnancy in adolescents results in poorer obstetric outcomes compared to pregnancy during adulthood. Few studies reported that pregnant adolescents continue to grow during their pregnancy. And apparently their growth completes with the fetus for nutrients (Scholl et al. 1994). Thus continued growth during pregnancy due to stunting may be one reason there is a higher incidence of low birth weight and pre term birth occurring among adolescent mothers. The low gynecological age (defined as conception within two completed years of menarche) in particular has been reported as an important
factor responsible for almost double the risk of having a pre term birth and low birth weight babies scholl et al (1989)

Yasmeen Sabeen Qazi, (2000) conducted a pilot survey on Adolescent reproductive health in Pakistan, using face to face interviews among 310 unmarried young people aged 13 to 21 years, using structured questionnaire, about their perception of adolescents behaviour. The study findings show that both male and female adolescents in Pakistan often lack knowledge about sexuality and reproduction, and are unprepared for the physical or emotional changes that takes place during their period of life. In the vulnerable transition period many young people experience physical and sexual abuse. Ideally, parents should provide information and guidance about sexual matters. Parents are often reluctant to discuss “Sensitive “ issues with their children. Regarding the sex education in the schools was that many young people (43% of girls and 30% of girls) perceived teachers to be the least informative about sex.

Saroj Pachauri and K.G.Santhya (1990) conducted study on contraceptive behaviours of adolescents in Asia. The research findings indicate that the knowledge of contraception is almost universal among married adolescents; understanding of specific needs and their sources is limited. There has been a significant increase in contraceptive use among married adolescents but a large unmet need for contraceptive remains. Data on contraceptive use by unmarried adolescents are rare, but suggest lower rates of use than among their married counter parts. Unmarried adolescent boys and girls are becoming sexually active. The contraceptive behaviours of unmarried adolescents are grossly inadequate and much less is known about the behaviour of adolescent boys than girls. In Nepal casual sex is common in border towns of Nepal. Alcohol consumption is associated with increased involvement in casual sex. There is a large gap between knowledge, attitudes and practice regarding condom use among young men. Most young men surveyed who reported having casual sex did not perceive themselves to be at risk of contracting STIS including HIV (Tamang and Binod, 1997, 1999).
Bela Ganatra and S.S.Hirve, 2001 community based research study conducted on induced abortions decision making provider choice and morbidity experience among rural adolescents in India, indicated that spacing between children was the main reason for adolescent underwent abortion (53.3%), of all abortions sex selection to avert the birth of a girl child accounted high for nearly are of every eight abortions among adolescents. Post abortion morbidity was higher among adolescents. Unmarried adolescent abortion seekers reported a markedly higher use of traditional providers than married women. Abortion related mortality accounted for only four of the 140 pregnancy related deaths identified during a 35 month reference period. However, three of these four deaths were among adolescents.

Syeda Nahid M.Chiowdhury (1996-97) conducted a study on pregnancies and post partum experience among first time young parents in Bangladesh: The findings states that all the young women knew family planning methods but the practice level is very low. Their perception is that once they were married, they would have a baby (soon after marriage) Even those young women who expressed a desire to postpone child bearing did not necessarily delay pregnancy. They revolve around and practice some spiritual beliefs such as going to spiritual healers for driving evil spirit and during pregnancy, the young women were not allowed to go for walking either in the afternoons or evenings for fear that they might become possessed by evil spirits.

In Sri Lanka attitude towards premarital sexual activity differed significantly by gender even more widely than by class. Compared to female respondents, male respondents reported more favourable attitudes towards premarital sex and nearly half (46%) of male respondents agreed that it is acceptable to have sex if it does not destroy a girls virginity. (Silva and Schensul 1997).

Sodhi and Verma (1996-97) carried out a qualitative study on sexual coercion among unmarried adolescents of an urban slums called Shantibang in India. The study findings stated that prevailing patriarchal culture of family arranged marriage is the norm and families restrict girls’ mobility and limit
interactions with boys who are not part of the family. Boys and girls are at
counterpoles regarding what they want from relationships. Boys are
outspoken about the desire for sex, while girls speak about romantic
matrimonial aspirations in a relationship. Cinema plays a role in perpetuating
gender stereotypes by encouraging girls to idealize the notion of true love and
encouraging boys to seek sexual gratification. Society perpetuates abuse by
tolerating certain kinds of coercion, which emboldens boys to become even
more aggressive and violent. While boys have license from society to take
advantage of sexual opportunities, girls risk defamation.

Jayashree et al. (1999) carried out a study on “Experiences of Sexual
Coercion Among Street Boys in Bangladesh”. The study findings stated that
sexual coercion on the street was an exercise of power, a way to maintain status
and subdue and subordinate. Boys who have been forced, in turn want to be in
positions of command. Trust in sex may express power, it may also be
interpreted as an expression of affection and protection. Boys who are forced
may feel they will receive protection from hazards of street life. The nature of
street life including lack of food, shelter, protection and emotional support
combined with strong power structures sustain sexual coercive behaviour.

Akhter (1998, 2000) carried out a study on menstrual regulation among
adolescence in Bangladesh. This study suggests that adolescents lacked in
understanding about the mutation process, fertile periods and the risks of
unprotected sex. The majority do not use contraceptives to prevent unwanted
pregnancies. Adolescent lack knowledge about the risks and consequences of
pregnancy termination and many are unaware that menstrual regulation
services are available. Because they do not have the information needed to
recognize their pregnancy and seek menstrual regulation quickly, they are often
rejected by menstrual regulations clinics because their pregnancy is too far
advanced.
II.16 Conclusion and Research Gaps

The review of various research studies spell out and cautions that adolescents are rarely considered a distinct group with special needs apart from those of children and adults and that much of the available information is recent and exploratory. The situation depicted by available studies confirms the vulnerability of adolescents both male and female and married and unmarried. Unlike most other countries, adolescent fertility in India occurs mainly within context of marriage. As far as unmarried population is concerned sexual awareness and attitudes remain poorly explored topics and available findings are not entirely representative. Sexual awareness appears to be largely superficial and misconception around. This is compounded by reluctance among parents and teachers to impart relevant information. The most likely sources of information (or misinformation) are peers, who may not be fully informed, or the media which tends to focus on sexual and gender stereo types or extremes. Young people do indeed recognize the inadequacies of the media as appropriate sources of information, and are interested in sex education programmes that would address their questions. In egalitarian gender relations make young females particularly vulnerable. While there is evidence of change, behavioural norms remain largely traditional. Double standards persist adults and young females and males are likely to condone premarital sexual relations and insist on premarital chastity among young females. Young males, moreover have more opportunities to engage in sexual relations.

Evidence of changing attitude is reflected in studies of urban college youth. Sexual and reproductive decision making is particularly limited among adolescent females irrespective of their marital status. So, there is a research gaps found by the researcher to review the above mentioned related literature that there is a need of uniform holistic approach of Family Life Education on reproductive health to adolescent population in school situation. An all-out effort in the filed of adolescent education is particularly urgent in the context of policy swing towards reproductive and child health.
In short, the reproductive health needs of adolescents have not yet been seriously considered by either the government or related authorities or voluntary agencies. Even medical and health professionals are not well versed on the subject of reproductive and sexual health and how to deal with adolescents. Few materials exist that are suited to the needs of Indian adolescents. Adolescent and pre marital counseling services are also inadequate. Due to all these reasons, as well as social and cultural inhibitions surrounding the subject, few adolescent seek services for their reproductive and sexual health service, information or counselling needs.

On the basis of the review, the next chapter deals with designing the methodology adopted in the conduct of the research.