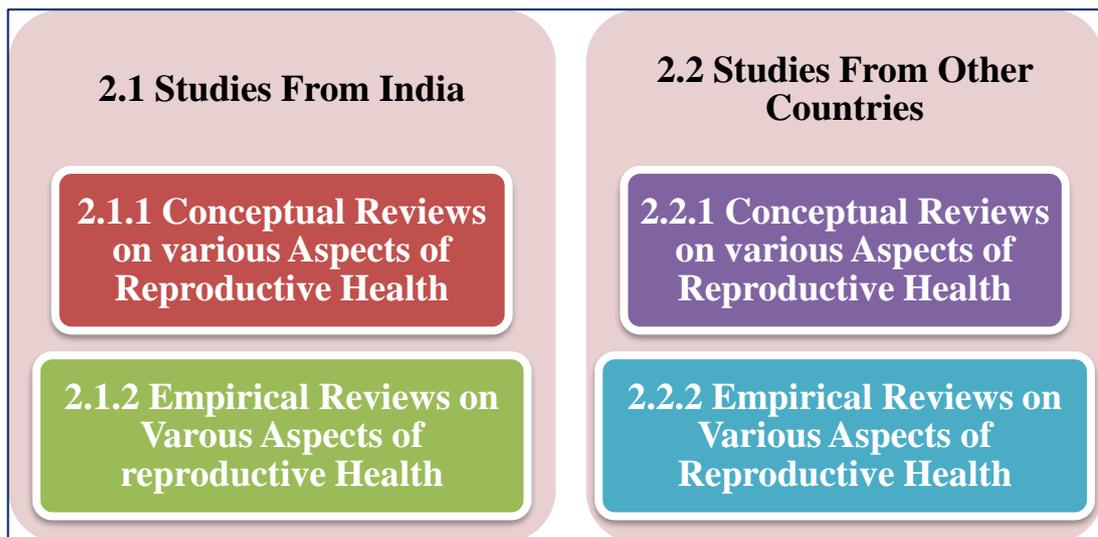


## CHAPTER – 2

### REVIEW OF LITERATURE

The review of literature is the backbone of any research study. The data gives researcher a view or the path for conducting research. This section consists of the studies conducted in the past, literature whichever available and the data related to the present research.

According to Webster Dictionary, the review of literature is an elected area gives us a long back retrospective view of that area as subsumed by recognized authorities and previous researches to discern what has been already known and what is still unknown and required to be investigated. Hence, the investigator reviewed the available literature from various resources. In the present investigation reviews collected on basis of the following categories:



**Figure 1: Review of Literature Studied for the Present Study**

## **2.1. Studies from India**

### **2.1.1 Conceptual Reviews on Reproductive Health**

Menstruation plays an important role to decide the health status of women as it is the beginning of a milestone of woman's reproductive life. It is decisive that a woman obtains precise knowledge of menstruation and learns to accept menstruation as a positive and natural part of her life.

Anjum et al. (2010) reported that attitudes towards menstruation may adversely affect women's body image, perception of disease causation, diet, willingness to take medication, contraceptive use, and the ability to plan pregnancies.

In addition, Adinma and Adinma (2008) felt that faulty perceptions or misconceptions on menstruation and menstrual cycle maximum time lead to faulty menstrual practices, which dominates the people of any particular area. Either of these may engender reproductive health problems in the adolescent, such as dysmenorrheal, gastrointestinal manifestations; depression; and reproductive tract infections which may in turn cause congestive dysmenorrhoea.

Research shows that worldwide millions of adolescents are married, and South Asia has one of the highest rates. Nearly one-third of girls (ages 15 to 19) in South Asia are married (Mathur et al. 2003).

In India, marriage is early and nearly universal. The median age at marriage among women (ages 20 to 24) is 16.7 years. Almost all young women ages 25 to 29 (95 percent) are married (Indian Institute of Population Sciences and ORC Macro, 2000). The majority of men (72 percent) ages 25 to 29 are married. However, men are typically older than women when they marry. In rural India, fully 40 percent of girls (ages 15 to 19) are married, compared to 8 percent of boys of the same age.

Childbearing for women in India is also early. Among married women in their reproductive years (ages 20 to 49), the median age at which they first gave birth is 19.6 years. Nearly half of married women (ages 15 to 19) have had at least one child (Indian Institute of Population Sciences and ORC Macro, 2000).

Antenatal care is an essential safety net for healthy motherhood and childbirth, where the well-being of both the prospective mother and her offspring can be monitored (United Nations, 2008).

The proportion of pregnant women in the developing countries who had at least one antenatal care visit increased from slightly more than half at the beginning of the 1990s to almost three- fourths a decade later. While that is an improvement, the World Health Organization and UNICEF recommend a minimum of four antenatal care visits (United Nations, 2008).

Bacterial vaginosis is a common cause of vaginitis in women who are sexually active during childbearing age. The pH changes and change in normal vaginal flora allow organisms like *Gardnerella vaginalis*, *Peptostreptococci*, Anaerobic gram-negative bacilli, *Mobiluncus* and *Mycoplasma hominis* to overgrow and cause chronic infection and discharge (Rao et al. 2004).

Even armed with this information, girls likely would be denied access to safe motherhood, contraceptive and disease prevention services due to social norms and restrictions that limit girls' and women's mobility, access to information, and resources in the marital home (Jejeebhoy, 1998; Mathur, Greene et al. 2003).

Social barriers are even greater for unmarried girls. Many girls in some parts of India face "eve teasing," the practice of men singling out unmarried girls for public cat-calls, whistling, some physical contact, and in extreme cases, sexual assault. Girls are denied access to information about reproductive and sexual health, and are expected not to ask questions about such issues, because they are unmarried and female. Little is known about the situation for boys and men, but research suggests that it is hard even for young men to access accurate, timely and good quality reproductive and sexual health information and services (Jejeebhoy, 1998; Mathur, Greene et al. 2003).

Sexually transmitted infections continue to present a major health, social and economic problem in the developing world (Thakor et al. 2004). There is a dearth of information regarding the epidemiology of RTI in India for many reasons (Desai et al. 2003).

Many women and men suffer from reproductive tract infections (RTIs), including sexually transmitted infections (STIs). An estimated 340 million new cases of curable STIs occur each year, with 151 million of them in South and Southeast Asia (WHO, 2001).

Sexually Transmitted Infections are widely spread and consider among the top five disease categories for which sufferers in developing countries seek health care, and about one-third of STIs globally occur among people younger than 25 years of age. RTIs often cause discomfort and lost economic productivity. The most serious long-term sequel arises in women: Pelvic Inflammatory Disease (PID), cervical cancer, infertility, spontaneous abortion and ectopic pregnancy, the latter of which may lead to maternal death (WHO, 1997).

### **2.1.2 Empirical Reviews on Reproductive Health**

This section of present study provides empirical data available on various aspects of Reproductive Health.

Randhawa (2016) conducted a comparative study to assess the knowledge of married women regarding contraceptive methods in selected rural and urban community of Raikot, Ludhiana, and Punjab. The objectives of the study were to assess the knowledge of rural and urban married women regarding contraceptive methods, to find out the relationship between the knowledge of married women with selected variables such as age, education of the women, occupation of the women, type of family, Duration of marriage, number of children, monthly income of the family, health agency facilities, source of the information. The conceptual framework of the study was based on Orem's self-care deficit (1991) theory. A comparative approach was adopted for the study. Non-probability convenience sampling was used and 100 samples (rural 50 and urban 50) were selected. Demography Performa was used to obtain background information of the women. The structured knowledge questionnaire was used to assess the knowledge on contraceptive methods. Descriptive and inferential statistics was used to analyze the data. Frequency and percentage, chi-square, t test, ANOVA were used for the analysis. Following results were drawn based on the finding of the study that urban women had better knowledge than the rural women. This study has identified that the comparison of the rural and urban women

knowledge statistically significant at ( $p < 0.05$ ) was found with demographic variables such as age, education of the women, occupation of the women, type of family, Duration of marriage, number of children, monthly income of the family, health agency facilities, source of the information on knowledge regarding contraceptive methods. Maximum mean knowledge score percentage of urban married women was found in the area of introduction and rural women high knowledge score was found in the area of permanent methods and the least in introduction. Pamphlets on contraceptive methods were prepared by the investigator to improve knowledge of married women regarding contraceptive methods. Conclusions were drawn based on findings of the study that equal attention is needed on both rural and urban women to improve their existing knowledge of contraceptive methods. Based on the experience gained during the periods of study and from the results of the study, these recommendation were made that the study can be replicated on large sample to validate and generalize its finding; similar study can be conducted in a different setting like two different cities ; An experimental study can be done to assess the effectiveness of hand book on the knowledge among married and unmarried women/men Regarding contraceptive methods in selected area; A cross sectional study can be carried out to assess the knowledge and attitude of eligible couples regarding contraceptive methods.

Chanu and Arunkumar (2015) conducted a study on the traditional knowledge regarding reproductive health care among the Thadou, a tribe of Manipur. Thadous strongly believe in traditional method of health care and treatment for reproductive sickness like vaginal discharge and other “diseases” during pregnancy and post-partum. Certain eatable items are also restricted during pregnancy and breast-feeding period. Various plants and plant products are used for treating certain reproductive health problems. Many elderly persons of the village and experienced women have and still guard their knowledge, transmitted orally down through ages. They still believe in such traditional practices. It is found that, though the modern reproductive health services are generally affordable and easy to access, the traditional practices are still in vogue. Due to the process of urbanization and culture contact, wide spread western medicine services available in the State, a threat to the indigenous knowledge emerges gradually, giving rise to a situation of medical pluralism.

Jose et al. (2013) conducted a study and stated that the coverage of maternal care services among the tribal women in Kerala is better as compared to other states in India. The Aim of this study was to identify the factors contributing to better coverage of maternal care services among the tribal women in Kerala and to study the reasons for remaining differences that exists in utilization of services between tribal and non-tribal pregnant women. The study was a descriptive cum qualitative study conducted in Thariode Gram panchayat in the Wayanad district of Kerala. Materials and Methods for the study was among all women who had registered their pregnancies in the 5 sub-centres under CHC Thariode and had delivered between September 2009 and October 2010, equal numbers of tribal and non-tribal ante-natal women, 35 each were interviewed in-depth using a semi-structured questionnaire. Quantitative data was analysed using SPSS Version 16.0. Content analysis was done for qualitative data. The results and conclusion of the study was the determinants of utilization in tribal women were general awareness, affordability, accessibility and quality of services along with motivation by health workers. Among tribal antenatal women, 85% utilized maternal health care facilities fully compared to 100% among non-tribal women. Lower levels of education and lack of transport facilities were prime factors contributing to underutilization by tribal women. Hence affordable, accessible and good quality of services in the public health system in Kerala and motivation by health workers were important contributing factors for better utilization of maternal care services.

Kotwal et al. (2014) assessed adolescent reproductive health interventions in different developing countries. Twenty-one studies were included. The specific objective of these studies was to improve the knowledge on sexual and reproductive health issues among the adolescent girls aged 10-19 years. The review assessed interventions of the school-based and community programmes. Educational material was delivered using lectures, discussions, and demonstration by posters, flip charts, printed material, overhead projectors, black board, booklets, discussion, etc. by community and peer educators. Different SPSS Version and Excel software were used for analysis. Univariate, multivariate analysis, Paired - t test and Chi-square test were applied. Results showed that the knowledge of girls regarding health aspects improved significantly after intervention. There was a considerable increase in the awareness levels of girls with regard to knowledge of health problems, environmental health,

nutritional awareness and reproductive and child health. Thus, informative and educable interventions seem to have a positive effect on awareness levels which would eventually encourage expansion of knowledge and positive health habits. The article makes no attempt to systematically review all the relevant literature.

Pushti (2014) carried out a study on Use of Contraceptives and Unmet Need for Family Planning among Tribal Women in India and Selected Hilly States. This study was an attempt made to know how far scheduled tribes differ from non-tribes in the states, namely Jharkhand, Madhya Pradesh, and Chhattisgarh, using information collected in the third round of District-level Household Survey (DLHS-RCH III: 2007-2008). Bivariate analysis was used for understanding the level of knowledge, use of and unmet need for contraception among different tribal and non-tribal groups. Binary logistic regression was used for understanding the factors associated with the use of contraception and unmet need for family planning among tribal women.

Knowledge and use of temporary contraceptive methods are considerably lower among tribal women compared to their non-tribal counterparts in the three states under study. Low acceptance due to phobia of adverse health consequences, accessibility to and lack of sound knowledge of contraception are the leading reasons for not using contraceptives. The unmet need for family planning among them was quite high, especially in the state of Jharkhand. Multivariate analysis substantiated the role of women and husbands' education, age of women, and number of surviving boys in the use of any modern method of contraception. Educating women and their respective husbands about proper use and benefits of modern contraceptives is important to solve the problem of high unmet need for family planning among these tribal women. A simultaneous attention to the health systems strengthening component is crucial for ensuring sustained delivery of good-quality family planning services.

D'souza et al. (2013) conducted a qualitative study on women's well-being and reproductive health status among the married women working in mining communities in India. An exploratory qualitative research design was conducted using purposive sampling among 40 selected married women in a rural Indian mining community. Ethical permission was obtained from Goa University. A semi-structured in-depth interview guide was used to gather women's experiences and perceptions regarding

well-being and reproductive health in 2010. These interviews were audiotaped, transcribed, verified, coded and then analysed using qualitative content analysis. Early marriage, increased fertility, less birth intervals, son preference and lack of decision-making regarding reproductive health choices were found to affect women's reproductive health. Domestic violence, gender preference, husbands drinking behaviours, and low spousal communication were common experiences considered by women as factors leading to poor quality of marital relationship. Four main themes in confronting women's well-being are poor literacy and mobility, low employment and income generating opportunities, poor reproductive health choices and preferences and poor quality of marital relationships and communication. These determinants of physical, psychological and cultural well-being should be an essential part of nursing assessment in the primary care settings for informed actions. Nursing interventions should be directed towards participatory approach, informed decision making and empowering women towards better health and well-being in the mining community.

Sanneving et al. (2013) conducted a study on 'Inequality in India: the case of Maternal and Reproductive Health' with the objective to summarize the evidence on structural and social determinants that generate and sustain health inequity in India to contribute to a more nuanced discussion around achievement of MDG-5 in India and how to achieve it equitably. A review of peer-reviewed, published literature was conducted using the electronic databases, PubMed and Popline. The search was conducted by the first author using a carefully developed list of search terms that was designed to capture published papers on: 1) maternal and reproductive health and 2) equity, including possible categories of disadvantaged populations such as place of residence, race/ethnicity, occupation, gender, religion, education, socioeconomic status, and age, amongst others. Five main structural determinants emerged from the search as important in understanding equity in the context of India: economic status, gender, education, social status (registered caste or tribe), and age (adolescents). These five determinants are closely interlinked, which is reflected in the literature. In a majority of the articles, economic status is the primary focus; where it is not the main focus, it is often brought up in the discussion. Social status, which in the context of India can be measured with the proxy of 'caste', is often discussed in terms of economic status. There is also an overlap between how gender and adolescence generates and sustains inequity and between economic status and education. Income, occupation, ethnicity,

and religion are all determinants of equity that are reported in a few of the retrieved articles but no articles were found where these determinants were the primary focus or were discussed in-depth. As context is essential in understanding the underlying determinants of health inequity, each of these determinants will be preceded by a short description of the current situation in India, including at the sub national level where possible. To determine extent of awareness regarding contraception among married women and to estimate proportion of couples using contraceptive methods, identify reasons for their adoption and non-adoption and to assess unmet needs for contraception.

Prateek and Saurabh (2012) conducted A cross sectional descriptive study of four months duration was conducted among married women in reproductive age group (15 - 49 years) attending general out-patient department in Urban Health Centre (UHC) employing universal sampling method. Participants not willing to respond and pregnant women were excluded. Total of 180 women were selected as study participants. Every woman was interviewed face to face with pre-tested questionnaire after taking informed consent. The data was analyzed by SPSS version 16.the results of the study revealed that 94 (52.2%) were in age group of 20 - 24 years. 52.4% of women were aware about contraceptive practices, of which only 32.2% of subjects were using contraceptive methods. Out of these subjects, 89.66% used temporary methods and 10.34% used permanent methods. Cu-T (41.37%) was most preferred method. 93 subjects (51.6%) had unmet need for contraception. Religion, education status and age at marriage were significantly associated with contraceptive usage. The results suggest a significant Knowledge - Application Gap with regards to contraceptives knowledge and their actual usage in study participants. Almost fifty percent of the subjects had unmet need for contraception. This shows the need for more intense awareness campaigns for promoting contraceptive usage.

Verma (2012) carried out a survey of 337 married women aged between 15-45 years in Bastar district of Chhattisgarh, India to examine the contraceptive use and the factors associated with ever using family planning method. The cross-sectional descriptive study was conducted in various tribal villages of Bastar district and 337 married women and their husbands were interviewed with pre-tested schedule. Knowledge of different family planning methods was almost universal (80.12%),

although knowledge of three methods was more than 40% only. About 35.31% married Bhatra women ever used different family planning method and female sterilizations found to be 20.77% among them. However traditional method prevalence was only 3.26% among Bhatra women. Oral contraceptive pill and condom were found to be more popular method of family planning among literate, service-class women and the women having two surviving children. Contraceptive prevalence is found to be in lower rate as compared to national and State level survey (NFHS-III).

Kumar and Srivastava (2011) conducted a study to find out the existing social and cultural practices regarding menstruation, awareness levels, and the behavioural changes that come about in adolescent girls during menstruation, their perception about menarche, how do they treat it, and the various taboos, norms, and cultural practices associated with menarche. The study was conducted on 117 adolescent girls (age 11 to 20 years) and 41 mothers from various communities and classes in Ranchi comprising residential colonies and urban slums. The findings unfold many practices: cultural and social restrictions associated with menstruation, myth, and misconception; the adaptability of the adolescent girls toward it; their reaction, reaction of the family; realization of the importance of menstruation; and the changes that have come in their life after menarche and their resistance to such changes. The article also suggests the strategies to improve menstrual health and hygiene among adolescent girls. The study concludes that cultural and social practices regarding menstruation depend on girls' education, attitude, family environment, culture, and belief.

Chandraker et al. (2009) conducted a cross sectional study to understand the pregnancy related women reproductive health, infant and child mortality and also to assess the nutritional status of mother and under five children among Dhur Gond tribal community of Mahasamund district of Chhattisgarh, India. 174 ever married women and 68 under five children were selected for the present study. Pre-structured schedule was used to collect socio-economic, demographic, reproductive health including ante-natal care, delivery practices etc. Weight of under five children and height and weight of mother were measured by standard techniques. Weight for age was calculated for assessing child nutritional status using NCHS standard, body mass index (BMI) was used to assess for mother nutritional status. Results revealed that high percentages of mother had not taken ante-natal checkup (51.72%), tetanus injection (41.38%) and iron

and folic acid tablets (56.32%) during pregnancies. 94.83 percent deliveries performed at home and 57.47 percent birth were done mainly by untrained *dai* (traditional birth attendant's). Infant and child mortality rate was 5.92 and 4.28 per 100 live births respectively. 47.12 percent of mothers were undernourished (BMI <18.5 kg/m<sup>2</sup>) and all the children were suffered from malnutrition. Grades II and III malnutrition were higher among girls compared to boys. Poor health status during child bearing period, low ante-natal care, high deliveries at home along with high prevalence of under nutrition of under-five children and mothers. These are mainly due to low socio-economic condition, high illiteracy, lack of awareness among Dhur Gond tribal community.

Shrama and Rani (2009), tried to know how far scheduled tribes differ from non-tribes using District Level Health Survey (DLHS-RCH II, 2002-04) round II data. The knowledge of family planning method was almost universal and most of the tribal women were aware of at least one modern method. However, only forty two percent of them was using family planning methods as compared to fifty eight percent non-tribal women. Out of forty percent current users of family planning methods, 32.7 percent were using female sterilization and 1.8 percent male sterilization. This shows that about eight two percent of current users in tribal population were sterilization users only. Bi-variate results show that use of sterilization increases with age of women, marital duration, female literacy, and number of surviving male child.

In a report of a study done by Population Council of India (2008) in various parts of India explored that the extent to which young women and the wives of young men sought routine maternal health services during the antenatal, delivery and postpartum period for their first and most recent births, as applicable. Data were also gathered on the extent to which treatment was sought for pregnancy-related complications for these births. This analysis is restricted to those respondents who reported at least one live or still birth (i.e., 74% and 71% of the female and male samples in Guntur, and 71% and 69% in Dhar and Guna, respectively). The following analysis reports primarily on health care seeking for the first birth, that is, the birth most likely to pose health risks to the woman. Findings related to the second or higher order births are discussed briefly, as appropriate.

Maternal health care seeking during pregnancy, delivery and the postpartum period for the first birth. Significant setting-specific differences were evident with regard to maternal health care seeking for the first birth. For example, while almost all married young women in Guntur had received at least some antenatal care, no more than 63 percent of women and 45 percent of men in Dhar and Guna reported that they/their wives had obtained some antenatal care at the time of the first pregnancy. Similarly, setting-specific differences were evident with regard to the quality of antenatal check-ups received. For example, while no less than 74 percent of respondents in Guntur reported that they/their wives received at least three antenatal check-ups, only 26 percent or fewer respondents in Dhar and Guna reported so. Likewise, while 58 percent and 46 percent of women and men in Guntur reported that they/ their wives had received comprehensive antenatal check-ups, only 17 percent and 12 percent, respectively, from Dhar and Guna did so. Similar setting-specific differences were noted with regard to the practice of institutional delivery and skilled attendance at birth. For example, while nearly three-fourths of young women and men in Guntur reported that the first delivery took place in a health facility, only a little over one-third in Dhar and Guna reported so. In both settings, particularly in Dhar and Guna, postpartum care seeking after the first birth was limited among those who had a non-institutional delivery. In Guntur, about one-third of young women who had a non-institutional delivery, and one-half of young men whose wives had a non-institutional delivery, reported that they/ their wives had received a health check-up within 40 days of delivery. In comparison, fewer than 10 percent of respondents in Dhar and Guna reported so.

If we move to the reproductive health of adolescent girls, they are also the future mothers. Looking forward to this Parikh (2008) surveyed a project conducted by Baroda Citizen Council (BCC) on reproductive health of women. This study was conducted in the selected areas of Baroda city. The major objective of this study was to study the perception of young women and adolescent girls regarding adolescent reproductive health issues. To achieve the research goals, various qualitative and participatory research methods were used in this study. The results of that study revealed that 78 percent reported that they attained menarche between the age of 13 to 15 years of age and remain reported it at 13 years. Regarding perception about

marriage and family planning, only few girls responded. More than half of the girls reported that ideal age of marriage is 18-20 years of age. Regarding gap between marriage and birth of first child more than one third mentioned it should be either one year or 2-3 years. Majority of girls reported to have some knowledge about contraceptives, which, they receive mainly through the mass media (TV/Radio), school or relatives. Most of the girls (88 percent) did not have any knowledge about Sexually Transmitted Diseases and Acquired Immuno Deficiency Syndrome (AIDS). Among the girls who could respond, the major cause of AIDS was believed to be having sexual relationship with an AIDS Patient, followed by vertical transmission from mother to child.

Bhasin (2007) conducted a study deals with human settlements and amenities available among six tribal groups of Rajasthan in relation to its population structure and health status. Cultural processes play explicit part in sickness and health. The four main areas of human settlements: dwelling units, essential services, community's facilities and public utilities, and some major groups of factors affecting the health status of the community like Medical systems; Health services; Health and Development; and Development and Health have been identified. Other factors affecting the health of the tribals are historical, socio-cultural, economic and developmental. Traditional medical knowledge is coded into household cooking practices, home remedies; ill health prevention and health maintenance beliefs and routines. The tribal response to health problems reveal a multiple and simultaneous usage of home remedies and multiple therapy. The various practitioners whose services are sought are spiritist (*Bhopa, Devala*) traditional herbalists (*Jaankar/Jaangar*) and public health practitioners. In view of lack of communication facilities and distance of health institutions from the villages, medical aid is not availed by tribals except in serious cases. Despite opening up of Public Health Centres and massive propaganda, traditional ideas of disease and health prevail. The indigenous medical system has sustained in society's social cultural complexes through deeply rooted processes. The study at hand corroborates the theory that social development level and availability of various facilities leads to lower mortality rates. This study is one of many that show that traditional medical practices as well as biomedicine co-exist. The state health programmes are well intended but lacks anthropological consultation.

The level of knowledge about causes of illness and its treatment is of low order among tribals. The network of public health services that is in reality obtainable to tribals is decidedly lacking in terms of infrastructure and personnel. The fact that even the poor tribals use private health facilities in preference to Primary Health Centre is an indication of the failure of the public health delivery system. However, until health awareness at the household and community level improves, success in upgrading health services, though necessary will be of little service. Cultural and social factors erect the barriers to the utilization of health care. Health and education should be paired and developed side by side. While designing a health strategy for these tribals economic and social issues need to be tackled. In addition, distinction between supply of and access to health care should abide by. Access implies locational, economic and social access; access also implies access to quality health care as opposed to the mere physical presence of a health care facility. Among tribals of Rajasthan even locational access, let alone economic and social access, is beyond the majority of the population as is evidenced by the data on the distribution of health care facilities. The most important need among tribals is to bring about changes in the social attitude to biomedicine and health care. Given the social environment of the tribal areas, this could be achieved by social intervention to overcome social or psychological resistance. In these areas caste rigidities and social stratification are still rampant and social access is still a critical factor in access to health.

The Gandhi Manav Kalyan Samiti, an NGO that works in tribal regions of Udaipur district, conducted an intervention programme (2007) with the goals and objective were to control total Fertility Rate (TFR), the Infant Mortality Rate (IMR) and the Maternal Mortality Rate (IMR) of the reproductive health of over 315 women in Jhadol and Kotra blocks. *Gharasiya* and *Bheel* are the main tribes of the region. Study revealed the poor level of health care among women in the region. According to the findings, around 94 percent of pregnant women deliver their children at home with the help of unskilled midwives. Women in Rajasthan's tribal areas still consider home to be the safest place for deliveries. There is a common myth that home is the safest place to conduct deliveries. Skilled health professionals handled only 6 percent of deliveries last year,' the NGO said in its report.

NGO also reported that they were afraid of using contraceptives. Only 3 percent women of these tribes use modern methods of contraception and around 15 percent firmly believe in using traditional methods for avoiding pregnancy. The study revealed that the main reason behind this was lack of easy availability of modern contraceptives, traditional myths and misconception, fear of side effects and opposition by husband and other family members, especially mother in laws.

The traditional health care system of the region also does not allow early initiation of breastfeeding and exclusive breastfeeding for six months, which is compulsory for overall growth of the infant. The rate of early initiation of breastfeeding is as low as 15 percent in the tribal areas. Around 80 percent mothers do not give first breast milk to newly born infants. Their traditional belief is that first breast milk or colostrum causes indigestion problems in infants. Instead, the tribal people prefer to give goat's milk to newborn infants for three to five days. The rate of early initiation of breastfeeding is as low as 15 percent in the tribal areas. Around 80 percent mothers do not give first breast milk to newly born infants.

Kaul and Sawhney (2007) conducted a research paper, to know the AIDS knowledge and information needs of the adolescent girls (16-18 years) of East Zone of Jammu. Two Governments and two Private Institutions was the sample. It was an attempt to study the knowledge level and information needs regarding HIV/AIDS among adolescent girls. Systematic random sampling was adopted. Sample comprised of 100 respondents. The tool used was close ended questionnaire. The finding reveals that there was significant difference regarding knowledge level of HIV/AIDS between respondents of Government and private school. Private school respondents had better knowledge as compared to Government school. Majority of the respondent from both the categories had knowledge about the affected section and affected age group of society but were ignorant about the most vulnerable group and the level of risk for adolescents.

TV News, Newspaper articles and conversation with friends/peers were found to be most preferred strategy for receiving information. Majority of the respondents from both (Government and private) schools emphasized on imparting AIDS education. 50% of the sample of both categories preferred 'Group Approach' and in a mixed group for imparting AIDS education. Whereas 50 percent respondents preferred

separate Group Approach for both boys and girls. A lot more still to be done for combating a campaign against this devastating disease. Political parties, religious leaders and NGO's should join hands for this purpose.

Chaudhary and Mehta (2007) arranged a life skills intervention programme for adolescent girls from low – income context. One of the major objectives behind this study was: to inculcate gender awareness and sensitivity. Sample was taken from an identified school of Vadodara city, which included 33 adolescent girls in the age group of 16 to 17 years, studying in the IX<sup>th</sup> standard of Gujarati medium school. These students belonged to low socio-economic strata. For data collection, a self-administered questionnaire was prepared. Pre-test – post-test method was used for this study. One of the major aspects which was studied under this study was gender and HIV/AIDS. Awareness about HIV/AIDS was measured in the present study. Findings of the study reported that there was no significance difference found regarding awareness on HIV/AIDS amongst respondents. Respondents were aware about the three major known causes, that is, unprotected sex (87.87 % pre-test and 96.96 % post-test), by having unsafe blood transfusion (93.93% pre-test and 96.96% post-test), and by having multiple sex partners (96.96% both for pre-test and post-test). The percentage for the same increased from the pre-test and post-test. On the other hand, it was also found that some of them responded that HIV/AIDS spreads “by kissing an infected person”, which was observed from 9.09% on the pre-test to 18.18% in the post-test. Majority of the respondents were aware of the fact that a person affected with AIDS can lead normal life (69.69% pre-test). However, it was increased after the intervention programme (78.78% post-test).

Kishori Shakti Yojna (2007-08) was a multi-sectoral pilot initiative addressing felt and unmet needs of adolescent's reproductive and sexual health. It addresses issues such as gender roles and equity, early marriage, early pregnancy, poor personal hygiene, malnutrition and anemia, issues in general health and common ailments including RTI/STDs; besides enhancing knowledge, inculcating appropriate attitude and practices among adolescents through an integrated approach. The project also imparts need based skill on risk behavior management, survival and livelihood. The primary goal of the project is to "Empower Adolescents girls through health, nutrition and overall development. Till now, more than 9 Lakh adolescents in the districts of Tehri

Garhwal, Uttarkashi and Chamoli have been covered under this project and the achievements are:

- Reorganization of KSY Adolescent groups
- Study of adolescent health and livelihood needs
- Development of manuals, Training of trainers was undertaken in the areas of:
  - Health:** Adolescent Reproductive and Sexual Health issues and needs including those of General Health, Hygiene, RTI/STD-HIV/AIDS, Common ailments
  - Nutrition:** Sources of Nutrients, Balanced Diet, Recommended Allowances, Prevention and Management of Nutritional Deficiency Disorders including Anemia.
  - Life Skill and Livelihood:** Self-love, confidence building, goal setting, risk situation management, career planning and entrepreneurship development including marketing skill.
- The Master trainers in turn trained adolescent girls in groups at village level on a weekly basis.
- A user friendly, simple but comprehensive MIS was developed for effective data management and decision making at all levels
- Adolescent Resource Centers were opened at block/cluster level as low-cost initiative to serve as nodal centers for adolescent activities, organization of events, advocacy of community issues and concerns etcetera. ensuring accessibility of adolescents
- Facilitation of adolescent friendly services either through fixed day clinics or other field service delivery interventions by the public health system was one key aspect of the initiative.
- An adolescent “Jamboree” (Balika Sammelan) meet was organized at Hill campus, Ranichauri with an adolescent-friendly agenda for exposure, recreation, education, career counselling.
- Liaison and linkages with other stakeholders involved sectors like Health, ICDS, WFP, Education, DWECD, Entrepreneurship and Livelihood

etcetera were made optimizing resources and ensuring a multilateral initiative

- Operational research was undertaken in the areas of:  
Consumption Pattern in Nutrition:
- Follow up study on prevalence of Malnutrition
- Midterm Review of the parameters of the project “Kishori Utthan” to measure changes and trend (both quantitative and qualitative) in project log frame achievable and elicit intermediate results.

On the basis of the above outcomes it can be concluded the picture of HIV/AIDS is clear to an extent amongst the students of a city area but of low Socio-economic status. So, any such kind of programme could create better understanding about the sessions like gender and HIV/AIDS, general practices of socialization influencing individual roles and responsibilities and restricting progress/self-growth. Also help them to understand the vulnerability of women contracting HIV, and the same time it also dispelled certain myths related to the same, especially among tribal women.

If we talk about importance of diet among pregnant women and how it affects the new born then one another study has been done by Srivastava and Mishra (2007), with the aim: to study the effects of diet of pregnant women on birth weight of new born baby. The study subjects were gathered as type of foods (either animal origin or plant origin) consumed by pregnant women. For this researcher selected four hospitals of Allahabad city randomly. The study was carried out by taking 200 pregnant women going for delivery and their babies deliver either of first, second or third order of pregnancy. The women chosen were free from disease except pregnancy related complications. These women were also grouped on the basis of foods (animal origin and plant origin) consumed during pregnancy. They were further grouped into lacto-vegetarian (LV), less frequent (< 3 times a week) non-vegetarian and more frequent (= 3 times a week) non-vegetarian. Data were collected with the help of questionnaire, anthropometric measurement and dietary recall method.

Results showed that a significant relation between dietary intake and birth weight of the new born was found. It was also concluded that significantly higher proportion of nutrients were found among respondents who consumed animal origin foods more

frequently (= 3 times a week) than who consumed foods of plant origin and the birth weight of their new born babies were significantly associated with food intake.

Rao et al. (2006) conducted a study in the tribal villages of Jabalpur District of Madhya Pradesh entitled “Reproductive Tract Infections in Tribal Women of Central India” The objective of the present study was to know the prevalence of reproductive tract infections in tribal women of Madhya Pradesh state in central India. This population based cross sectional study was conducted in tribal villages of Madhya Pradesh. Women having symptom/s of RTI were clinically examined for the presence of RTI. Appropriate specimens were collected and processed for different pathogens like Gardnerella vaginalis, Neisseria gonorrhoeae, Trichomonas vaginalis, Candida sp, Chlamydia, HSV-2, HBV, and HIV. Of the 2206 women of age group of 15 to 49 years were studied, 172 had symptomatic reproductive tract infections giving a community prevalence of 7.8%. Bacterial vaginosis was the commonest RTI, followed by trichomoniasis, gonorrhoea and candidiasis. The study highlights a need to strengthen the RTI/STI control programme particularly in tribal areas.

Srivastava et al. (2006) conducted a cross sectional study in with the objective, to study the perception about reproductive tract infection among married women among the village of Sainya block Agra, urban slum areas of Lohamandi, Agra and urban area of Lohamandi, Agra. Respondents were married women in the reproductive age group of 15 to 45 years. Researchers conducted this study on total 345 women in which 115 women taken from each rural, urban and urban slum area. The variables of the study were Age, Marital status and parity and outcome variable was Perception about reproductive tract infection and occurrence of vaginal discharge. The statistical measures used were Test of significance, Z test.

Results of the study revealed Perception about Reproductive Tract Infection was responded correctly by 28.69 % rural, 74.78% urban and 45.22% urban slum women. Perception about vaginal discharge was correct 78.26% in urban women while 26.09% in rural and 30.43% in urban slum women, perception about side effect of vaginal discharge was correct 100% rural and urban while 97.39% in urban slum women. Occurrence of vaginal discharge was found with an average of 24% in all three areas.

Barua et al. (2003) planned an intervention for Community Based Approach to Married Adolescent Girls' Reproductive Health.

This intervention, implemented in Parner block of Ahmednagar district in Maharashtra, consisted of reaching married adolescent girls, their husbands and mothers-in-law through Community Based Organisations (CBOs) for providing them reproductive health education and counselling (SM strategy). This strategy was compared with another strategy of providing these services through specially trained regular government health staff (GS strategy). A 2X2 experimental design was used to compare these two strategies.

The study found that though both strategies were effective, the Social Mobilization (SM) strategy yielded better results than the government service strategy (GS). The project demonstrated that though involvement of the government partner ensured ownership and sustainability of the strategy, its weakness was the biomedical models that the government system subscribed to. That model stressed on making knowledge and facilities available but was not effective in tackling the traditional belief systems. Both strategies were effective largely because their implementation was flexible enough to continuously adapt to the changing needs of the community. Use of well-trained community-level staff and improved capacities of local government health systems were the key to the success of the intervention.

Dave et al. (2002) reported in an exploratory study in Arid Zone of Rajasthan, that the death of neonates and mothers during delivery occurring with alarming rate. Therefore, to assess its graph, college of Home Science Bikaner, took the opportunity to explore the traditional delivery practices of child birth, under the research project in the arid zone of Rajasthan with the assistance of UNICEF, Jaipur. The study was undertaken in 45 villages of Bikaner District. Focused Group Discussion method was used to collect the data, and sample was traditional birth attendants, lactating mothers and influential members of the community. This exploratory study has been presented data showing complete process of delivery including preparation for delivery, delivery process, post delivery process and problems during delivery. The main aim behind the study was to focus the role of Home Scientists to approach the unreached areas of arid zone and their efforts to improve the state of home deliveries.

Arora and Kapilashrami (2001) conducted a study on “Knowledge and Attitude and Practices of Senior Secondary school students about Selected Components of Reproductive Health”. The objectives were: To assess the knowledge level of Senior Secondary School Students about selected components of reproductive health, To identify the various sources of their knowledge about selected components of reproductive health; To study the attitude of students towards selected components of reproductive health; To study the prevailing reproductive health practices among students; and To suggest content areas for health education on selected components of reproductive health. Study revealed that overall knowledge of students about selected components of reproductive health was fair. Students had a fair knowledge of certain terms in reproductive health but masturbation was known to only 35 per cent of students and menarche was known to only 6.5 per cent of students. Knowledge of reproductive anatomy and physiology was fair but only 33.8 per cent of students knew about ovulation. Students had a fair knowledge of legal age for marriage in India. Students lacked knowledge of medical termination of pregnancy. Students identified media, friends, school books, mother, teacher, doctor/ nurse, brother/ sister, relatives and father in that order as their existing sources of knowledge about reproductive health. They preferred print media, health professionals, schoolteachers, mass media, friends/ peer group, telephone help line and relatives/family members in that order as most appropriate sources of information regarding reproductive health. Students agreed that adolescents being tomorrow's parents, they should have relevant information about pregnancy, maternal and child health, contraception, etcetera. and parents should guide them in matters related sex and reproductive health. Students agreed that family life education should be a part of their school curriculum. Generally, it was thus observed that students had a favorable attitude towards reproductive health. 55.2 per cent of boys and 41.9 per cent of girls admitted to have kissed a friend of the opposite sex. 23.8 per cent of boys and 4.1 per cent of girls had experienced fondling. Masturbation was common among 58.6 per cent of the boys and 7 per cent of girls. 14.1 per cent of boys and 4.4 per cent of girls had experienced sexual intercourse. Kissing was more popular among biology students than other. 46.1 per cent of students were of the view that boys and girls of their age indulge in pre-marital sex and 23.2 per cent thought that when they indulge in sex, they use contraceptives.

Bajaj and Anand (2001) conducted a study entitled “reproductive health needs of adolescent girls: an intervention study”, It was an attempt to find out knowledge level of adolescent girls regarding selected aspects of reproductive health. The study was conducted into two major phases. One was for identification of IEC material, and second one was to assess the existing knowledge level than filling up the knowledge gap by conducting an intervention session, using the identified IEC material. A sample of 30 unmarried adolescent girls in the age group of 15-19 years from urban slums was purposively selected. A semi – structured interview schedule was used to collect data. The techniques used were focus group discussions then it was analyzed. The study revealed that existing knowledge of various aspects of reproductive health was low, Low level of knowledge regarding reproductive organs of male and female, low level of knowledge regarding pregnancy and related aspects, misconceptions regarding various modes of transmissions of HIV / AIDS etcetera. The post intervention analysis provided 100% gain in knowledge on almost all aspects of reproductive health however reinforcement of information through similar intervention session would help in better retention. Thus, post intervention analysis of data supported the view that “intervention is the need of the hour”. The study helped in gaining inputs on what can be the solution for erasing misconceptions, myths regarding issues related to reproductive health, as supported by the gain in knowledge of this particular study.

Deka and Phukan (2001) completed a study and published a research paper, whose objective was to study the knowledge content of college girls about reproductive health. This study was conducted on 250 girls belonging to first year and second year students of Jorhat district of Assam. Questionnaire method was used to collect the knowledge, validity of which was judged in terms of clarity/ ambiguity and relevant/ irrelevant. Analysis of collected data revealed that majority of the respondents’ possessed good knowledge about reproductive health. But, a sizeable per cent of respondents were found to have poor knowledge pertaining to different aspects of reproductive health.

Regarding conception majority of the respondents possessed poor knowledge in rural college while majority respondents of urban college possessed good knowledge. Majority respondents of non-co-educational college were found to have poor knowledge regarding care during Pregnancy. While majority respondents of urban

college were found to have good knowledge regarding it. Regarding family planning programme majority respondents of non-residential college possessed poor knowledge while majority respondents of residential college possessed good knowledge. However, there was no significant difference in knowledge content about reproductive health between the girls of co-educational and non-co-educational colleges.

Usha and Sreedevi (2001) mentioned in a paper published that rights of reproductive health are the most basic right of human being. But the reproductive health status of women in India, in general, present a gloomy picture, the major cause of which was poor knowledge of and about reproductive health. This study was undertaken within the rural areas of Chittoor district of South Central Andhra Pradesh. 200 married women the age group of 15-45 years. With at-least one living child was randomly selected with the objective of assessing their reproductive health status. An interview schedule coupled with informal discussions was used for collection of data. The study highlighted that more than three fourth (77%) of the respondent were married at a young age. Only thirty six per cent of respondents had adopted family planning of this thirty two per cent were tubectomies. Ninety two per cent of the women reported that they had no freedom to say no to the husband regarding sex. Eighty five per cent of the women were aware of prenatal and post-natal care that should be taken. Sixty per cent of them had not gone for regular medical check-ups. The women stated that the PHC was very far away and transportation was a problem. Further, there was no guarantee that doctor would be available. The reproductive health status of the women in the sample area was poor, male discriminating and violation of woman's right to would health. Low level of awareness, male domination and poor outreach of primary health care services were the main causes. Empowerment of women and early accessibility to health care coupled with intensive efforts and innovative strategies have to be adopted to fulfil the current need.

There are many factors which influence the knowledge, awareness and attitude of women regarding any health problems. In this regard Ramdevi and Indiramma (2001) studied which factors influence the knowledge, awareness and attitude about the AIDS. Aim of the researcher behind this study was to find out the effect of influential factors like age and gender in relation to knowledge, awareness and attitude towards AIDS. For this study researchers used a five-point rating scale with seventy five

positive and negative statements with sixty samples ranging from 15 to 60 years were drawn from Bangalore city and method used for sampling was random sampling.

Results of the study revealed that female were better on attitude and awareness of AIDS, whereas in case of males (their counterparts) were second high in knowledge. The respondents in the age group ranging from 21 to 40 years were superior in the scores of knowledge, awareness and attitude when compared to other groups. Attitude towards AIDS was found to be better with the increase in age. Scale showed good Reliability and Validity values. Hence, concluded that knowledge, awareness and attitude about AIDS should be imparted to all age groups of the fairer sex as a Basic Human Right.

Another study again conducted by Nagda (1999-2000) regarding reproductive and child health in southern villages of Rajasthan by framing following objectives To examine the Socio – Demographic background of the respondents and their families and to assess the role of women in decision making in the family, To find out the violence against women in the family and awareness about their legal rights and to examine the reproductive health of the respondents.

Four villages, each two from Udaipur and Chittorgarh district were selected for this study. The selection of the village was on the basis of domination of castes and tribes. In the Udaipur district Kadiya village is dominated by scheduled tribes whereas in Nauva village majority of person lived other than backward classes. In Chittorgarh district, Fachher village dominated by scheduled castes and Amarpura village has general caste category. According to findings, the knowledge of respondents was very little about legal rights of women. About thirty percent of the respondents had complete knowledge about antenatal care services. About eighty five percent respondents had knowledge of permanent methods and thirty one percent had knowledge of spacing methods of birth control. About thirty percent respondents had knowledge of the components of safe delivery. About fourteen percent respondents heard about AIDS but two percent had correct knowledge of the AIDS. About eighty five percent deliveries of the respondents were take place at home and twenty two percent availed antenatal care services during their pregnancy. About forty four percent of the respondents suffered from leucorrhoea. On the basis of the above findings

some policies have been made for the implications and to improve the health conditions of the targeted area are:

On the basis of above study, it is can be suggested that the five-point scale can be used in any related researches. The year 2001 designated as the year of Empowerment of Women by Government of India. Hence, concluded that knowledge, awareness and attitude about AIDS should be imparted to all age groups of the fairer sex as a Basic Human Right.

Mittal et al. (2001) conducted a case study with taking up the objective: - To assess the knowledge level of adolescent girls about their own body – role of sexual organs and menstruation. To study the existing information gaps in knowledge of the adolescent girls regarding – early sexual activity, safe sex practices, STDs and HIV/AIDS.

The sample taken for this study consisted of 30 adolescent girls of the age group of 14-19 years, studying in the classes 9<sup>th</sup> to 12<sup>th</sup> of co-educational NMDC school of Ansari Nagar, New Delhi. For data collection, a semi-structured questionnaire was used. It was found that respondents had less/inadequate knowledge about the functions of different reproductive health organs. Approximately one third of the respondents were aware about the reasons for menstruation and the process of child birth. Respondents were aware about the practices followed for menstrual hygiene but on the other hand some misconceptions regarding menstruation were also spread among all of them.

Fifty percent respondents were aware about one or more indices of safe sex and were also aware of at least one consequence of unprotected sex. Out of all the respondents a high percentage of respondents were well informed about AIDS (63%), but there was partially no knowledge about STD. The fact proves that the necessity for integrating adolescent reproductive health education with the school curriculum.

## **2.2. Studies from Other Countries**

### **2.2.1 Conceptual Reviews on Reproductive Health**

Madeni (2011) Sub-Saharan Africa is among the countries where 10% of girls become mothers by the age of 16 years old. The United Republic of Tanzania located in Sub-Saharan Africa is one country where teenage pregnancy is a problem facing adolescent girls. Adolescent pregnancy has been identified as one of the reasons for girls dropping out from school.

Quinn (2008) stated in an online article quoted that the incidence and prevalence of sexually transmitted infections (STIs) amongst women, contraception, safer sex practices and respectful relationships, sexualisation of women and girls in the media and popular culture, termination of pregnancy, at-risk and diverse populations of women, and education as a preventative strategy. Highlights the gendered nature of sexual and reproductive experience and behavior, which has implications for policy, practice, health education, promotion, and prevention strategies. It is very clear that when we discuss about reproductive health aspects the aspect of Sexually Transmitted Diseases (STDs) also comes from that. Various studies have also been conducted on STDs at the national as well as international level.

Family planning is a way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitude and responsible decisions by individuals and couples in order to promote the health and welfare of the family group, and this contributes effectively to the social development of a country (Isaiah, 2007).

Mushi (2007) stated that school children in the rural area of the Mtwara region in Tanzania lack credible knowledge about safe sex. The cause pretends the lack of orientation about family planning methods and various contraceptives.

Newton et al. (2005) given a statement (on international level) that recent research has indicated that the stigma surrounding Sexually Transmitted Infections (STIs) creates a psychological and emotional burden for individuals with these conditions. It would be expected that the stigma of having an STI would also alter the dynamics of an intimate relationship. This paper reviews the literature on the impact of STIs on intimate

relationships and considers the relevance of this research to both clinicians and researchers. In particular, the types of relationships in which the presence of STIs may have a varying degree of impact are examined. Since disclosure of an STI would also be expected to impact on relationship. An overview of the factors involved in the disclosure of an STI to a partner is also considered. Finally, the implications of this research for both clinicians and researchers are discussed.

Australian Medical Association (2002) stated that Education is a key component to acquiring information about safer sex practices, risk and respectful sexual and relationship behavior. Formal and informal sex education at schools and within families is generally the way heterosexual young people learn about safe sex practices and relationships.

Family planning is a step towards better living and development of individuals, family and the nation. This is also a means of handling one of the twenty-one problems in marriage (Nkwocha and Jossy, 2002).

Sexually Transmitted Disease (STDs) in rural Bangladesh is currently a topic of great concern. To date, little information is available in the literature regarding its prevalence. In 1994, the MCH-FP Extension Project (Rural) of ICDDR (International Centre for Diarrheal Disease Research), surveyed 8674 Married Women of Reproductive Age (MWRA) in 4 rural than as to examine their awareness of STDs. The researcher found that. Only 12% of the original group had even a basic understanding about STDs and how to protect themselves from them. Twenty-five per cent of the women surveyed had ever heard of either syphilis or gonorrhoea. Of these women, less than half could mention specific mechanisms involved in the transmission of these diseases. Seven per cent reported that syphilis and gonorrhoea are transmitted through sexual intercourse. Thirteen per cent reported that the infections are transmitted from spouses to their partners. Four per cent reported that STDs can be spread by having multiple sexual partners. Findings of Focus Group Discussions indicate that family planning and health care service providers have a moderate level of STD awareness. The results of logistic regression analysis indicate that awareness of STDs was higher among relatively older women than among younger women.

## 2.2.2 Empirical Reviews on Reproductive Health

Shahidul and Hasan (2016) conducted a study on women's knowledge attitude and use of contraceptives in Bangladesh. The general objective of this study was to know about effects of women knowledge, attitude, and approval of family planning on contraceptive use among the married women and to identify the effects of socio-demographics variable on women knowledge, attitude, and approval of family Planning.

The primary data was collected from Narsingdi municipality and the cluster sampling techniques had been adopted for collecting the data. Path analysis was used to determine the effects of factors that have influence on contraceptive use. The result showed that the attitude and knowledge on contraception, and family planning approval has significant effects on the use of contraceptive. The study also revealed that media exposure significantly effects on family planning approval, increase the positive attitude on contraceptive, and significantly increase the knowledge on contraception and STDs diseases. Women education and mass media can also be considered as potential factors to influence the contraceptive use.

Nansseu et al. in an online article published (2015) stated that Promotion of family planning has been shown to reduce poverty, hunger, maternal and infant mortality, and contribute to women's empowerment. But many resource-limited countries still have very low rates of contraceptive use. The present study aimed to assess the knowledge, attitude and practice of family planning among women living in a resource-poor rural setting. The authors conducted a cross-sectional study in January 2010 in the Mbouda Health District, Cameroon. After a multistage random selection, 120 households were selected. Participants were women aged at least 15 years old, sexually active, and who volunteered to participate in the study. Data were collected during an anonymous interview using a structured pre-tested questionnaire.

The results of the study revealed that total of 101 women were enrolled, their ages ranging from 18-58 years with a mean of  $31.7 \pm 8.8$  years. Ninety-six percent of these women had already heard about family planning. Almost all respondents (98 %) were aware of at least one contraceptive method, the most cited being the male condom (96 %), the safe period (86.1 %), injectable (76.2 %) and oral pills (75.2 %), Sixty-six

women (65.3 %) were currently practicing at least one contraceptive method, and the three prevailing methods used were: the safe period (50 %), the male condom (34.8 %), and injectable (12.1 %). The main reasons precluding women from practicing contraception were lack of knowledge (31.4 %), uselessness (31.4 %) and unbearable side effects (8.6 %). Fourteen of these women (42.4 %) expressed the willingness to start practicing contraception if they received more information about the subject. Decision on the number of children to have was made by both the man and the woman in 59.5 % of cases. The practice of contraception had been decided by the couple in 39.6 % of cases, and 9.4 % of men were not aware that their wives were currently practicing contraception. Concluded that the level of awareness about family planning and contraceptive methods is quite satisfactory, the level of contraceptive use is not optimal in our setting. Consequently, more adapted educational and counseling interventions should be undertaken among women, and family planning messages directed to men need to be included too.

Melaku et al. (2014) carried out a cross sectional study on Awareness about methods of contraception is an important step towards gaining access and using suitable contraceptive methods. However, studies assessing the relationship between sexual and reproductive health communication and awareness of contraceptive methods among secondary school female students are lacking. A cross sectional study was conducted among 807 female students in six secondary schools in Mekelle town, Ethiopia. Study participants were selected with a stratified cluster sampling technique. Data collection was carried out using a structured, self-administered questionnaire, and data entry was done using EPI Info Version 3.3.2 software. The data were then cleaned and analyzed using SPSS version 20. Bivariate and multivariate logistic regressions were used to determine factors associated with awareness of female students on methods of contraception.

Of all the students, 127(15.8%) reported ever had sex, of whom 109(85.8%) had ever used contraceptives. Twenty (16%) of the sexually active students reported having been pregnant, of whom 18(90%) terminated their pregnancies with induced abortion. Discussion on sexual and reproductive health matters with their parent/s and peer/s in the six months prior to the study was reported by 351(43.5%) and 493(61.1%) of the students respectively. 716(88%) students were aware of different methods of

contraception. Discussing sexual and reproductive health issues with parents (AOR=2.56(95% CI: 1.45, 4.50)) and peers (AOR=2.46(95% CI: 1.50, 4.03)) were found to be independent predictors for contraceptive awareness among students. Discussion on sexual and reproductive health issues with family and peers has a positive effect on contraceptive awareness of students. Therefore, strategies to improve open parent-child communication, and appropriate peer-to-peer communication in schools on sexual and reproductive health should be established and strengthened.

To determine extent of awareness regarding contraception among married women and to estimate proportion of couples using contraceptive methods, identify reasons for their adoption and non-adoption and to assess unmet needs for contraception

Eswi et al. (2012) conducted a study with the aim to assess the attitude and knowledge toward menstruation among Egyptian female adolescents. A descriptive cross-sectional design was utilized for the study. The study was conducted in three public schools in Alexandria Governorate in Egypt. A total of 200 female students were recruited randomly for the study. A self-administrated questionnaire was used as a tool for data collection, Menstruation attitude questionnaire (MAQ) was utilized as a valid and reliable tool for collecting the data. Results of the study indicated that more than half of the participants reported that menstruation is event that happens to the girl during puberty that occurs monthly and spoiled blood the body gets rid of.

Fifty percent of the participants reported that the girl must seek medical advice in case of severe bleeding while 25% of them reported that they should seek medical advice when menstruation is irregular and when menstruation associated with severe pain (21%). As regards to participants' attitude toward menstruation, the participants slightly agree that menstruation is a debilitating ( $4.22 \pm 0.83$ ), a bothersome ( $4.35 \pm 1.20$ ) and natural event ( $4.95 \pm 1.32$ ). Furthermore, they slightly agree that they can anticipate their menstruation ( $4.25 \pm 1.13$ ) and they denial the effect of it ( $4.28 \pm 1.02$ ). Results indicated that participants who have been informed about menarche before its onset have more positive attitude toward menstruation. The study concluded that Egyptian female adolescents were influenced by their mothers as they were the main source of information, followed by mass media, this may consequently have affected

their knowledge and attitude toward menstruation. Knowledge that preceded menstruation is one of the important factors that affected positively the Egyptian female adolescent's attitude toward menstruation.

Isife et al. (2012) carried out a study and examined the attitudes of farmers toward family planning programmes in Ehime Mbano Local Government Area of Imo State, Nigeria. A total of 50 married couples were purposively selected from five community health centers in the study area. Data were collected from the respondents using interview schedules. Mean scores and t-test were applied for data analysis. The study revealed that injectable contraceptives, condom, natural fertility awareness, lactational Amenorrhea, combined oral contraceptives and abstinence were the kinds of family planning programmes available to the people.

The use of condom was most adopted by the people. T-test results showed that the farmers' levels of awareness and adoption of the family planning methods were statistically insignificant ( $P>0.05$ ), respectively. Factors affecting the farmers' adoption of recommended family planning methods include: lack of awareness, religious belief and custom, reduction of sexual urge and inadequate health personnel. The study recommends, among others, that churches and other social organizations should educate and sensitize their members on the benefits of family planning as these measures stand a better chance of convincing their members.

Madeni et al. (2011) conducted this study with the purpose to evaluate a reproductive health awareness program for the improvement of reproductive health for adolescents in urban Tanzania. A quasi-experimental pre-test and post-test research design was conducted to evaluate adolescents' knowledge, attitude, and behaviour about reproductive health before and after the program. Data were collected from students aged 11-16 years, at Ilala Municipal, Dar es Salaam, Tanzania. An anonymous 23-item questionnaire provided the data. The program was conducted using a picture drama, reproductive health materials and group discussion. In total, 313 questionnaires were distributed and 305 (97.4%) were useable for the final analysis.

The mean age for girls was 12.5 years and 13.2 years for boys. A large minority of both girls (26.8%) and boys (41.4%) had experienced sex and among the girls who had

experienced sex, 51.2% reported that it was by force. The girls' mean score in the knowledge pre-test was 5.9, and 6.8 in post-test, which increased significantly ( $t = 7.9$ ,  $p = 0.000$ ). The mean behavior pre-test score was 25.8 and post-test was 26.6, which showed a significant increase ( $t = 3.0$ ,  $p = 0.003$ ). The boys' mean score in the knowledge pre-test was 6.4 and 7.0 for the post-test, which increased significantly ( $t = 4.5$ ,  $p = 0.000$ ). The mean behavior pre-test score was 25.6 and 26.4 in post-test, which showed a significant increase ( $t = 2.4$ ,  $p = 0.019$ ). However, the pre-test and post-test attitude scores showed no statistically significant difference for either girls or boys. The reproductive health program improved the students' knowledge and behavior about sexuality and decision-making after the program for both girls and boys. However, their attitudes about reproductive health were not likely to change based on the educational intervention as designed for this study.

Katherine et al. (2008) carried out a survey in India and New England Sixty-seven women students who were attending a university in southern India and 61 women students who were attending a liberal arts college in New England voluntarily participated in this study. The women supplied demographic information, information about their knowledge and levels of preparedness prior to menarche, and sources of their information about the menstrual cycle. They also completed the Menstrual Attitude Questionnaire (Indian version), the Menstrual Distress Questionnaire, and a test of knowledge about the menstrual cycle.

Women from New England scored significantly higher than Indian women on the knowledge test, and they also reported that they had better preparation for menarche than Indian women did. Indian women scored significantly higher than American women on the attitude subscales: Menstruation as a Natural Event and Denial of the Effects of Menstruation. Implications of these findings were discussed in light of cultural messages women receive.

An international NGO CDC (Centre for Disease Control and Prevention) developed a toolkit named The Reproductive Health Assessment Toolkit for Conflict-Affected Women (2006), in response to requests for technical assistance to assess reproductive health needs in conflict settings. Using the Toolkit, workers collect information about

Safe motherhood, Family planning, Sexual history, Sexually Transmitted Infections, HIV/AIDS, Gender-based violence, Female genital cutting and Emotional health.

The data collection and assessment tool was tested in 3 locations. Workers in one location collected data that showed there was a low level of knowledge about methods to prevent sexually transmitted infections (STIs) and HIV/AIDS yet there was a high prevalence of risky behaviors and disease. The assessment indicated a need to reinforce services that improve knowledge on STIs and HIV/AIDS.

In the same manner, the study was also conducted by Chemoff and Davison (2005) to evaluate the ability of 20-minutes self-administered intervention to increase HIV/AIDS risk reduction among sexually active college students. HIV risk behavior also measured under this study. Results of the intervention presented normative data on the relatively low prevalence of HIV risk behaviors among college students for the purpose of conveying the idea that risk reduction was prevailing social norm among their same age peers.

During the intervention researcher also invited students to select specific risk reduction goals to be implemented 30- day follow-up period. The respondents (n=155) were told to alternating order that either to receive intervention or to be in controlled condition that entailed regarding a general AIDS information pamphlet. It depended on gender or partially moderated with gender. The results of intervention group when compared with controlled men in the intervention group reported significantly higher condom use, whereas women in intervention group reported significantly fewer sexual partners.

Regarding family planning Smith et al. (2005) done a study on family planning. This study examined whether an assessment tool combining HIV-related risk behaviours and symptoms would increase HIV testing and return for post-test counseling among 466 adolescents attending family planning clinics. The results indicated that high – risk behaviours among these adolescents.

Findings of this study revealed that majority of the respondents (78.3%) identified themselves as not using condoms consistently. Almost one fourth (24.7%) reported a history of STDs, and 127 (27.7%) reported they had pierced their bodies. A total of

214 (45.9%) received testing. Two (0.4%) adolescents, one male and female, tested positive for HIV, out of them 214 adolescents who underwent testing. 183 (85.5%) returned to the clinic for post-test counseling. The results of this study of apparent contradictions in the response given by the individual participants (e.g. participants who stated that they were homosexual but that all of their fantasies involved members of the opposite sex).

Hence researchers suggested that the inconsistencies were largely due to random response error. Boosting the confidence level in post-hoc measures, researchers found that it exhibited slightly stronger links with several established childhood correlates of sexual orientation (such as enjoyment of collecting dolls and playing dress-up) than was true for the original self-identified sexual orientation.

So et al. (2005) conducted a survey on HIV risk and its prevention in American Colleges. This study has been done by taking the respondents of heterosexual Asian American college students. The aim of this study was to find out the awareness factors of HIV-risk. The study comprised of 248 college students, the method used for the study was a self-administered questionnaire.

The findings reported that HIV – risk: lifetime prevalence of unprotected sex (37%), alcohol before sex (23.8%). Most students have inadequate HIV knowledge. Acculturation is positively associated with the 30-day HIV sexual risk index and HIV knowledge score. American entertainment was associated with higher likelihood of unprotected and unsafe sex, which was latterly responsible for HIV risk. Alcohol use before sex was the general activity which was also found lifetime reliably predicted unprotected sex in the lifetime. Suggestion given for this study was students should be made aware about the pros and cons of the harmful measures. Also the entertainment should be made favourable to combat the above context.

Multiple factors are known to be important for reproductive health, including socio-economic status, social values, and accessibility and quality of health care. During a community based survey conducted by Van et al. (2005) among women who had recently delivered in rural western Kenya, surveyor examined the use of antenatal services and delivery care and reported that despite the high antenatal clinic attendance

(90% visited at least once), only seventeen percent of women delivered with a skilled attendant whereas 18% delivered completely on their own. A subsequent survey in July 2003 among pregnant women in the same area allowed surveyor to describe pre-pregnancy contraceptive use, reproductive history, pregnancy health and nutritional status, thus further complementing people's knowledge on reproductive health in rural western Kenya.

Shim (2002) studied the improved attitude of health behaviours on HIV/AIDS related knowledge through the use of distance education. The objective of the study was to investigate the effectiveness of technology-based delivery of HIV/AIDS related curriculum could change student's attitude. In the study, the groups were independently administered through pre-test and post-test non-equivalent continues gap design. For analysis of significant difference between two groups, a  $2 \times 2$  factorial design ANOVA was used. The major findings of the study were that after treatment, no significant difference in HIV/AIDS was found between groups.

### **2.3. Trend Analysis of Literature Reviewed**

The literature reviewed across the globe gives us the clear picture of the various studies conducted on various facets of Women's Reproductive Health.

- The period covered of review of literature was from the year 1999 to 2016. Maximum studies ranged from the year 2005 to 2016.
- Majority of the studies reviewed (from India) were conducted in various states like Rajasthan, Madhya Pradesh, Uttar Pradesh, Kerala, Goa and some of the studies were conducted in other states like Maharashtra, Sikkim etcetera.
- Regarding studies reviewed from other countries it was found that they were conducted in Ethiopia, Europe, Kenya, Egypt, England and Pakistan and Bangladesh.
- The specific and broad objectives of reviewed studies were
  1. To assess knowledge attitude and practices related to the various aspects of Reproductive Health of Women.
  2. To check male's involvement in use of contraception.
  3. To improve health behaviour of respondents regarding STDs and RTIs.
  4. To develop self care booklet on maternal care.
  5. To impart education and training on various facets of Reproductive Health of women.
  6. To compare the knowledge on various aspects of respondents from India and overseas countries.
  7. To assess the usage of various contraceptive and related services available for them.
  8. To assess the practices of tribal women regarding utilization healthcare services.
  9. To study the various reproductive health practices followed by the various people from the different areas.
  10. How the behavioural pattern and food pattern amongst tribal women and girls affects their nutritional status.

- The methodology followed in different studied reviewed were, cross sectional studies, pre-post experimental studies, surveys and longitudinal studies and comparative studies.
- It was also revealed from the literature reviewed that the maximum studies were conducted using questionnaire methods, semi structures and in-depth interview schedule.
- Majority of the studies conducted with either adolescents or with the school going teenagers. Some studies were also conducted with married women and unmarried girls. Very few were conducted with males also.
- Some of the studies were conducted in the rural areas i.e. villages across the globe, whereas some of them were conducted with tribal population.
- The comparison of the knowledge of the rural community and tribal community were also conducted in few of studies.
- In some of the literature reviewed that the programmes which were already run by the various agencies and government like District Level Survey, National Family Health Survey, and the facilities were accessible to the respondents and they were taking benefits of the same were also assessed.

## **Conclusion**

While reviewing the related literature on Reproductive Health, it was found that many researchers and scholars across India as well as other countries studied various aspects of Reproductive Health of women. More or less the studies had similar objectives.

A woman's reproductive health begins from puberty and menstruation and ends with menopause. The gathered literature further reveals that the lesser amount of studies was found on various foundational milestones of woman's life. For menstruation, it was found that knowledge, awareness and practices were assessed through the survey methods in the various regions of India and in other countries. From the available literature, it can be concluded that in the rural and tribal parts of India women having less or low knowledge on various reproductive health aspects, in relation to the practices it was again found that women were following faulty reproductive personal hygiene and menstrual hygiene practices.

It can also be concluded that the myths and beliefs were dominated among the women of some of the parts of India regarding menstrual practices.

In the same context, how the food practices affect the health status of tribal women was also studied in one of the studies and stated that the type of food consumption may lead to poor health status of any women. Similarly utilizing available healthcare services can improve the overall health of women.

As women can only contribute to produce the new creature in the form of human beings, the dietary practices and other necessary health practices significantly contribute to the good health of women. Some of the studies quote in this chapter dealt with the subjects namely, care during pregnancy and lactation etcetera.

Case studies were also conducted with some important aspects of reproductive health Sexually Transmitted Diseases and Reproductive Tract Infections and stated that women are more exposed to the above diseases and infections as she has to undergo the various stages of reproductive responsibilities. Even male involvements were also being studied by some researchers and empirically supported that either less access was there to the reproductive health services available or their knowledge or awareness was low in the same regards.

More number of studies have been conducted and quoted here in relation to HIV/AIDS and Family Planning. Some projects were also done in relation to the reproductive health of women. The approach and strategies followed in the available literature was different from each other but the aspects were almost same. Some of them conducted only surveys, whereas some of the researches also had comparative studies.

Conceptual as well as empirical data available in a global scenario depicts that lot of efforts have been made to combat the needs to improve Reproductive Health of Women. The researches have been conducted on various Reproductive Health aspects of women, some of the researchers conducted surveys, some of them imparted some training programmes. Not a single study has been conducted by covering all the aspects jointly as presently planned study. **The major lacuna found was very few studies have been carried out with the tribal women**

**especially in India. Hence there was a need felt to cover all the selected touching aspects of reproductive health of women and especially for tribal women. So, the quality and quantity both can be maintained.** As well as awareness can also create among the needy people. Keeping in mind the review of literature studied, it can be concluded that the complete “Reproductive Health Package” covering all the essential aspects of reproductive health of women can be a contributory effort for increasing awareness of the tribal women and to change their practices as well as attitude towards achievement of good reproductive health.