Socio-Economic Factors and Intra-Family Communication for Health of the Adolescent Girls: A Study in the NCT (National Capital Territory) of Delhi

A Thesis submitted to Jawaharlal Nehru University
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DOCTOR OF PHILOSOPHY

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CERTIFICATE

This is to certify that this thesis entitled "**Socio-Economic Factors and Intra-Family Communication for Health of the Adolescent Girls: A Study in the NCT (National Capital Territory) of Delhi"** is submitted for the award of the degree of **Doctor of Philosophy** of Jawaharlal Nehru University**.** This thesis has not been previously submitted for the award of any other degree of this university or any other university and is my own work.

RASHMI KUMARI

We recommend that this thesis be placed before the examiners for evaluation for the award of the degree og Doctor of philosophy.

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Abbreviations

- WHO
- UNICEF
- RCH
- UNESCO
- KGBV
- ARSH
- RKSK
- AFHC
- ANC
- SDG
- BBBP
- AIDS
- ICPD
- WIFS
- MHS
- ICRW
- NCERT
- DDA
- IIT
- HBSC
- HSBC
- NRHM
- MoHFW
- AHD
- WIFS
- SRH
- BMI
- NFHS
- NDC
- UN-HABITAT
- AWC
- NIHFW
- AIIMS
- JNNURM
- NUSP
- OBC
- NSSO
- RBC
- NGO
- RWA
- NPAG
- NACP
- NCRB
- PCOD
- COVID-19

CHAPTER- 1

Adolescent Health Issues and Concerns in India: An Overview

I.1 Introduction

India is home to 253 million adolescents (10-19 years) constituting about one-fourth of the population, this represents an unprecedented opportunity that can transform the social and economic fortunes of the country (National Health Mission 2011-2014). Many adolescents are school dropouts, get married early, work in vulnerable situations, are sexually active, and are exposed to peer pressure (Rai et al. 2010). Adolescence is a phase of life that has recently gained recognition as a distinct phase of life with its own special needs. This special phase of life tremendously involves rapid physical growth, psychological and behavioral changes thus we can say a transformation from childhood to adulthood[1]. Therefore, at this specific phase of life, every adolescent needs special health attention from their family, teachers, relatives, community, and government-led policies and programs. But they receive less attention and care, lack of proper information regarding changes happening during this stage. Adolescent age needs proper communication, counsel, and guidance about their whole-body transformation so that they feel these are normal changes (Jejeebhoy et al. 2014). The present study is based on an inquiry of adolescent health in urban villages by examining how social, economic, and familial factors; and intra-family communication affect their health.

I.2 The Nature of Changes During Adolescence

Adolescence is an age where every girl and boy undergo various rapid transformations of their body from childhood to adulthood. The body undergoes different changes like strength, mind becoming more mature than before, sexual, and reproductive changes are felt by adolescents. However, these changes vary from family to family and society to society with their different socio and economic characteristics of home and surroundings. Girls in the urban villages will vary from their counterpart in non-urban village areas. Adolescents have many queries about self, others, and their future. Therefore, they need guidance and support from their family and friends. Adolescents are often shy and do not share their problems with their parents because the fear of being scolded remains. Adolescence can be divided into three early periods (10-14 years), middle (15-17 years),

[1] https://nhm.gujarat.gov.in/images/pdf/facilitators_guide_mo.pdf. accessed on 20-11-2019.

and late (18-19 Years). Adolescents undergo physical development, hormonal changes and socially adolescent changing from childhood and adulthood[2]. Educational attainment and planning a career are important during this period. Adolescent age needs to be handled with care.

1.3 Background of the Study

Around 20 percent of India's population is in the adolescent age group 10-19 years (UNICEF 2015). According to WHO "adolescence is the period in human growth and development that occurs after childhood and before adulthood, from ages between (10 -19 years)"[3]. Adolescence is a transition phase through which a child becomes an adult. Besides physical and sexual maturation of the body adolescent experiences include movement toward social and economic independence, and development of identity, the acquisition of skills needed to carry out adult relationships and roles. In the context of human health, health wellbeing covers the overall health status of an individual. And during adolescent age every individual has specific needs related to physical, mental, and social. Physical activity in adolescence may contribute to the development of healthy adult lifestyles. More chances to reduce chronic disease incidences and influences in adulthood morbidity[4]. Addressing Mental health problems in adolescent age can lead to decrease emotional, behavioral problems and leads to better well-being and socially developed adult. The quality of the parent-child relationship may be a powerful contributor to mental health as well (Wickrama and Bryant 2003). positive positive interaction with the community gives better outcomes in socially developed adolescents. Even the deficient iron status or anemia among adolescent girls is a major cause of growth retardation, impaired physical and mental development, delayed menarche, morbidity, and future poor reproductive outcomes (Bharati et al. 2009).

Understanding physical, mental, reproductive, and psychological changes during adolescent age is important because these changes impact on the transition into youth and subsequently adult. It becomes especially important in the context of girls because of their dual roles in contributing to social and economic development and in family building

[2]http://hi.vikaspedia.in?health/women-health/orientation-programme-handouts. For medical Offices to Provide Adolescent-friendly Reproductive and Sexual Health Services.
[3]WHO Adolescent Development, http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/
[4]WHO Adolescent Development, http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/

process (Barua et al. 2007). The evidence from various research reveal that girls are more vulnerable because of social, cultural norms and, economic constraints like early marriage, gender-based discrimination and inaccessibility to health care services, which leads to health problems like under-nourishment, obesity, anemia, underweight, reproductive morbidity, including menstrual abnormalities and psychological problems (RCH-II 2005). Nearly 40 percent of child marriages in the world take place in India (UNICEF 2009). Girls face discrimination in education, "India has an estimated 11.9 million primary and lower secondary school-age children out of school, with the highest proportion of these children being girls", and very few girls can complete their secondary level school (UNICEF and UNESCO 2014).

Government of India launched Kasturba Gandhi Balika Vidyala (KGBV) program in 2004 for marginalized girls but the patriarchal mind set of Indian society discriminates girl child over boys (Shah 2011). Dropout rates at the primary level are more for the girls than the boys, the main reason for girls remaining behind is the attitude of the parents they always feel boys are a better option for future dependency (Maithly and Saxena 2008). There is strong belief in Indian society for the practice of son preference, especially in the northwest Indian region, is strong and manifests in great discrimination against daughters. Daughters are more involved in domestic therefore we can say the development of girl child through education is totally absent (Dasgupta 2009). India has experienced a steady increase in school enrollment over the last decade however it remains lower for the girl's child. For reasons such as financial and socio- cultural they are often not allowed to study and are required to do household work, not travel alone, infrastructure barriers, schools are far away and often may not have toilets. All this influences adolescent girl's education[5].

Adolescence is a period of life with specific health and developmental needs and rights. It is also a time to develop knowledge and skills, learn to manage emotions and relationships, and acquire attributes and abilities that will be important for enjoying the adolescent years and assuming adult roles. All societies recognize that there is a difference between being a child and becoming an adult. How this transition from childhood to adulthood is defined and recognized differs between cultures and over time. In the past it

[5] https://aif.org/the-3-biggest-reasons-that-indias-girls-drop-out-of-school/. (THE 3 BIGGEST REASONS THAT INDIA'S GIRLS DROP OUT OF SCHOOL. AUGUST 21, 2014)

has often been relatively rapid, and in some societies it still is. In many countries, however, this is changing.

Adolescent development drives the changes in the disease burden between childhoods to adulthood. With age, there is an increase in sexual and reproductive health problems, mental illness, and injuries. Certain health problems in adolescence, including substance use, mental disorders, and injuries, reflect both the biological changes of puberty and the social context in which young people are growing up. Other conditions, such as the increased incidence of certain infectious diseases, like schistosomiasis, may result from adolescents' daily activities during this period of their lives. Many of the health-related behaviours that arise during adolescence have implications for both present and future health and development. For example, alcohol use and obesity in early adolescence not only compromise adolescent development, but also predict health-compromising alcohol use and obesity in later life, with serious implications for public health. The changes that take place during adolescence suggest the following observations with implications for health policies and programs: Adolescents need explicit attention, and they are not all the same. Some adolescents are particularly vulnerable. Adolescent development has implications for adolescent health and during later life too. The changes during adolescence affect how adolescents think and act. They need to understand the processes taking place during adolescence. Public health and human rights converge around concepts of adolescent development.

1.4. Adolescent Health

Adolescent health is important to study because India has 243 million adolescent people constituting about 21.4 percent of the country's total population (Paul 2015). It is very important phase of life, during this phase, they acquire knowledge and prepare to contribute to the country's labour force in future. Adolescents are understood as the "social structure, economic productivity, well-being of India, and their experiences influence the goal of achieving population stabilization as mentioned in the National population policy, 2000" (Ibid). However, many of them drop out of school, may get married early, weak in vulnerable conditions become sexually active, or are exposed to peer pressure of various kinds. Adolescence is a time when sexuality is discovered. This phase is characterized by acceleration of physical growth and psychological and behavioral changes thus bringing about transformation from childhood to adulthood for

both girls and boys (Acharya and Dasgupta 2005). During this period, the body develops in size, strength and reproductive capabilities, and the mind becomes capable of more abstract thinking (Anand and Anuradha 2016). The social relationship moves from being centered on the family base to a wider horizon in which peers and other adults come to play significant roles in the adolescent's life. It is also a time when new skills and knowledge are acquired, and new attitudes are formed. These factors have serious social, economic, and public health implications (Sivagurunathan et al. 2015).

Adolescents are not a homogenous group. They vary by age, sex, marital status, class, region, and cultural context. It is therefore important to address issues influencing their multifaceted needs and health-seeking behavior is one such aspect, as their health condition will be central in determining India's health, mortality, and morbidity; and the population growth (Rai et al. 2010). The use of services by adolescent is limited in term of reaching its target population (Joshi et al. 2017). Ministry of Health, Government of India launched Adolescent Reproductive and Sexual Health (ARSH) strategy in 2005 under National Rural Health Mission which was extended program for Reproductive and Child Health (RCH-II). Necessary intervention was to promote adolescent-friendly clinics, preventive, promotive, curative, referral system, iron folic acid tablets, and special counseling for them. However, poor knowledge and a lack of awareness are the main underlying factors. Pregnancy is associated with significantly higher obstetric risk in adolescent girls and yet they are no more likely than older women to obtain antenatal care or experienced institutional or skilled attendance at delivery. Few understand the importance of prompt pregnancy related care (Hallfors et al. 2011). In 2014 Rashtriya Kishori Swasthya Karyakram (RKSK) was launched for a comprehensive approach to adolescent health for their specific need vis a vis nutrition, *Poshan Aahar*[6] explicit health counseling for sexual and reproductive health. Even Adolescent Friendly Health Clinics (AFHC) were established but they have limited knowledge of how these policies and programs function to increase the access to quality approach across nation (Hoopes et al. 2016).

I.4.a. Malnutrition and Anaemia among Adolescents

Early pregnancy at adolescent age is associated with an adverse effect on maternal nutrition, birth weight and survival of the offspring. In addition to the psychological

[6] Nutritional diet.

immaturity of an adolescent bride very often her body is not prepared to accommodate the early onset of childbearing (Ghosh 2011). Many adolescents suffer from malnutrition and anemia. Many may not have received tetanus immunization. Anaemia during adolescence has profound implications for maternal perinatal, neonatal, and infant mortality. Many serious diseases in adulthood have their roots in adolescence. Also, many adolescents do die prematurely due to various reasons that are either preventable or treatable and many more suffer from chronic ill-health and disability. We can categorize the health needs of adolescents broadly into three categories physical, psychological, and social (Sivagurunathan et al. 2015). Poor knowledge and lack of awareness are the main underlying factors for these conditions. For example, at the level of health system, lack of adequate privacy and confidentiality and judgmental attitudes of service providers, who often lack counseling skills, are barriers that limit access to services.

I.4.b. Physical Development

There is rapid and dramatic physical development including sexual characteristics such as coarse pubic hair, facial hair, and voice changes. In adolescent girls, development of breasts, broadening of hips, growth of heights, about two and half years before menarche[7]. "The Hormonal changes are largely influenced by hormonal activity. Hormones play an *organizational role when puberty begins* and an *activation role which consist of rapid* behavioral and physical changes in the body. Hormonal balance shifts strongly towards an adult state; the process is triggered by the pituitary gland, which secretes a surge of hormonal agents into the blood stream and initiates a chain reaction which further goes to sexual maturation[8]." These sexual developments of the body may also be linked with the identity and moral development of being mature. This is somewhat natural, but some changes adapt by the cultural norms of sexuality in this regard which are communicated by parents and relatives or neighborhoods (Halpern 2010). Body changes may differ from one another such as in height, weight, and breast enlargement. They are often embarrassed due to their body changes or early or late maturation.[9]

[7] http://hi.vikaspedia.in?health/women-health/orientation-programme-handouts. For medical Offices to Provide Adolescent-friendly Reproductive and Sexual Health Services.
[8] http://oer2go.org/mods/en-boundless/www.boundless.com/psychology/textbooks/boundless-psychology-textbook/human-development-14/adolescence-73/physical-development-in-adolescence-282-12817/index.html. Accessed on 01-12-2019.
[9] https://www.gracepointwellness.org/1310-child-development-theory-adolescence-12-24/article/41153-adolescent-physical-development. Accessed on 01-12-2019.

I.4.c. Psychological Development

Adolescent is an age when not just body transforms from childhood to adulthood but mentally developments are taking place which sometimes seems confusing characters because of sudden temperaments. About one in five adolescents are found to be depressed, have anxiety order, and are diagnosed with a mental disorder. These changes are mostly seen in those adolescents who are facing domestic violence at home or abuse in the family. In this regard, proper health counseling, access to education, health care access and need of family security and social security helps (Murthy 2015). In this transition phase, adolescents take a central role to understand their daily activity and social life. They are always concerned about what others think of them. So, the social sensitivity directly links with the overall brain development of the adolescent. Thus, we can say everyday socio-cultural, gender norm and social status with multidirectional interaction shaping the brain of the adolescents (Somerville 2013).

I.4.d. Social Development

Adolescence found them to shift in nature from dependency to autonomy and social maturity. Like family they also need peer grouping, they want to participate in group discussions and large group of peers is replaced with a fewer and selected person where they feel comfortable and make long friendship[10]. In the development process of an adolescent, neighborhood plays a very important role in the influence of social behavior. Immediate surrounding zones for adolescent also influences them like performance on school and relationship achievements (Jason 2005). Adolescents develop socialization process at family level and community level. Here socio-economic factors and adolescents' behavior and sudden reaction differ from income of the family (Wickrama and Bryant 2003). Parental knowledge and available resources have a positive impact on social development of the adolescents for example, if parents are well educated and mature, they provide better education, preventive care, and healthy nutrition to their children. If parents are unable to provide good education, diet, good quality of housing, and access to health care then it can impact their trust in their parents. This becomes a higher possibility of stress and may lead to several difficulties for adolescents in future (Wickrama et al. 1998).

[10]http://hi.vikaspedia.in?health/women-health/orientation-programme-handouts. For medical Offices to Provide Adolescent-friendly Reproductive and Sexual Health Services.

I.4.e. Low self-esteem

Lack of self-esteem among adolescent girls is often an obstacle in her achievements. Compared to adolescent boys, low self-esteem is more common in adolescent girls (Mahaffy 2004). The development of physiological risk factors depends largely on the initiation of health compromising behaviors such as poor eating and physical activity habits. Other problems like say no to arrange marriage and lack of confidence observed among girls is normal phenomena in our society. Decision over studies and domestic violence also impacts these girls making it difficult for them to live on their own norms[11]. Adolescent weight and depression problems are directly related to physiological health of the adolescent. Therefore, at the age of adolescence it is necessary to track health behavior for future adults because it is one of the serious health concerns (Kelder et al. 1994).

Adolescent girls often suffer from problems like anemia and menstrual complications leading to higher risk of reproductive morbidity and mortality (Joseph et al. 1997). About 53.0 percent of all women aged 15-49 percent including adolescents suffer from anemia, 22.9 percent of all reproductive age women have Body Mass Index (BMI) is below normal, only 57.6 percent of women aged between 15-49 use hygienic methods during their menstrual cycle and 42 percent use sanitary napkins whereas 62 percent use cloth. Miscarriages are also high in adolescent age 10.0 percent among all age groups. Nearly 8 percent of adolescent girls have begun childbearing and it is worst in rural and tribal areas (NFHS-4). In a developing country like India, risk of dying from a pregnancy-related cause during a female's lifetime is about 36 times higher compared with a woman living in a developed country[12]. Mortality in female adolescents of (15-19) years is higher than adolescents of (10-14) years. More than 70 percent girls in the age group of (10-19) years suffer from severe or moderate anaemia which can cause early death, therefore above complications, which are necessary to address (RCH-II 2004). Only 66.2 percent of pregnant adolescent girls were given iron and folic acid tablets as part of the ANC. If they can use their right to delay childbirth, gap in childbirth it will reduce economic burden of the family and will build healthy family. Thus, exposure to early marriage and consequent childbearing put married adolescents at the risk of pregnancy related complications. "There are 6000 deaths of adolescent mothers every year in India due to anemia" (Ibid).

[11] https://www.educatenepal.com/news/detail/school-dropout-rate-among-girls-higher-survey. Accessed on 29-11-2019.

[12] "Maternal Health and Maternal Mortality", Reproductive Health Matters, Vol. 18, No. 36, 2010, pp. 197-205.

Many adolescent mothers have low educational attainment, poor dietary intake in family. They are often not allowed to go out and take part in family decision-making (Mehrotra 2006).

I.5. Health of Adolescent Girls

To understand adolescent health, it is important to understand early intervention and prevention-oriented programs to identify family, community, and psychological variables that are influenced by programs; and which promote adolescent's development initiation; and reduce health risk behaviors (McCubbin 1985). In terms of early pregnancy of adolescent girls or early intervention, it is necessary to understand the cause behind it (Stock et al. 1997). Hence, the adolescent is a vital stage of physical growth as well as social and mental development. It is a period, which requires attention, protection and special needs of adolescent girls which further positively affects the individual, family, and nation at large.

Adolescent girls constitute about one-tenth of Indian population. Adolescence phase is marked by special characters like rapid physical growth, social and psychological maturity, beginning of menstrual cycle in girls and onset of reproductive cycle, and development of adult mental processes and adult identity (Lal et al. 2011). The nutritional status of adolescent girls, the future mothers, contributes significantly to the nutritional status of the community (Anand and Anuradha, 2016). Freedom from morbidities is a basic human right and their alleviation is a fundamental prerequisite for human and national development. Poor health among adolescent girls who survive various hazards of infancy and childhood, continue to suffer from the after-effects of poor nutrition and adverse socio-economic conditions including unhygienic practices and insanitary facilities. Anthropometry revealed stunting, possibly the result of chronic malnutrition among them (Jain 1995). Adolescent girls are more vulnerable, particularly in countries like India. Where they are traditionally married at an early age and exposed to greater risk of reproductive morbidity and mortality (Joseph et al. 1997). India still found anaemic women is about 43 percent, “anaemia varies by maternity status 58 percent of women who are breastfeeding are anaemic, compared with 50percent of women who are pregnant and 52 percent of women who are neither pregnant nor breastfeeding” (NFHS-4). Hence, Adolescence is the last chance to correct the physical growth lag and malnutrition.

During the process of transition to adulthood adolescents face the risk of acquiring reproductive and sexual health problems, psychiatric disorders, and nutritional maladjustments. Malnourished girls become malnourished adolescents who marry early and have children during adolescence. Their children in turn become malnourished, and so the cycle continues (Sethuraman and Duvvury 2007). Most adolescent married girls do not have a say in decisions related to childbearing or birth spacing. They often do not receive maternal healthcare at right time (Rani et al. 2007). Early marriage of girls is still a scourge in India. A study by Action Aid shows that the marriage age for girls in urban slums is decreasing and the girls are married before the marriageable age, the reason being lack of safety in society (Action Aid 2012). Married adolescent girls have little decision-making power in the family and are socially isolated and so less likely to access the services (Paul 2015). Adolescent girls have higher school dropout rates as compared to boys. For girls it is more difficult to re- enter school after dropping out[13].

I.6. Socio Economic Conditions of Family and Adolescent Girls

Socioeconomic conditions influence and demographic behavior determines utilization of health care services (Goli et al. 2008). Socioeconomically poor sections of the society suffer from ill health often due to illness among children and child survival, or due to better nutrition. The degree of health inequalities escalates when the rising average income levels of the population are accompanied by rising income inequalities (William et al. 2008). Socioeconomic and demographic conditions affect behavior and household environment, which collectively influence social beliefs, family planning practices, food habits, dressing, household location and amenities, demographic behavior, health practices and health care seeking behavior. Social and health beliefs, family building strategies and health care purchasing power largely controls the utilization of health services (Shek 2005). Sometimes it is also seen that immense financial problem leads to early marriage of adolescent girls which later damages their lives and further poses risk to their reproductive life. This does not end with physical stress only, but also mentally adolescent girls witness stress full condition in their in-law's houses with several married responsibilities. Thus, we can say that socio-economic problems have a direct influence on adolescent health physically and mentally (Teti and Lamb 1989). Another study which says that adolescent health can be better cared for by families with higher socio- economic status. There are

[13]https://www.educatenepal.com/news/detail/school-dropout-rate-among-girls-higher-survey. 28-11-2019.

always unsatisfactory adjustments that adolescents must make according to family income education, nutrition, personal hygiene, and care (Nye 1951). There are many risks factor studies have been identified among adolescent where low-income family associates with physical and psychological and mental disturbance because they undergo early marriage and early responsibilities of childbearing. The early parenthood leads to marital instability with stress and adjustment in family which further leads to socio economic disturbance in future (Teti and Lamb 1989).

South Asian developing countries like India consider menstruation as a sexual readiness, fertility, and marriage ability however in developed countries onset of menstruation is taken as pubertal development of a girl serving as a biological and social transition from childhood to adulthood. At this age girls need extra care and guidance in her nutritional as well as her sexual and reproductive life. Thus, we can say that, not just family's income status is important but globally implication of adolescent health varies from country to country (Sommer 2013). Pregnancy related mortality is double in adolescent age. Issues like "hypertension, nutritional anaemia, spontaneous abortion, obstructed labour, preterm birth, postpartum infections and obstetric fistulae, are more common among adolescent girls than older women in lower income countries like India[14]". According to UNICEFF data 344 million adolescent's lives in South Asian country and they are lagging the target of Sustainable Development Goals which is the most serious and challenging issue globally[15].

I.6.a. Sustainable Development Goals and Adolescents Health

In 1989 United Nation Convention on Child health and rights included children up to 18 years but was not prioritized and focused on adolescent health. Much later after 25 years in 2016 general comments on adolescents issued with SDGs target that, adolescence is a specific life stage and government needs to recognize and invest in it separately by 2030[16]. Sustainable Development Goals (SDGs) for adolescent girls need to look at the issues of early pregnancy, education, gender equality, water, sanitation, early childbearing, post-natal care finds out the issue related to adolescents who may be disadvantaged in

[14] International Center for Research on Women (ICRW). New insights on preventing child marriage: a global analysis of factors and program. Goonewardene IM, DeeyagahaWaduge RP. Adverse effects of teenage pregnancy. Ceylon Med J 2005; 50:116

[15] https://www.unicef.org/media/58171/file. Accessed on 28-11-2019.

[16] UN Committee on the Rights of the Child (CRC), General comment No. 20 (2016) on the implementation of the rights of the child during adolescence, 6 December 2016, CRC/C/ GC/20. Available at: http://www.refworld.org/docid/589dad3d4. html. Accessed on 28-11-2019.

maintaining a healthy pregnancy, through poorer health education, inadequate access to antenatal care, skilled birth attendance or other healthcare services, or the inability to afford the financial costs of pregnancy. Thus, "Sustainable Development Goal aims to build stronger health systems to promote universal health coverage addressing emerging issues in child and adolescent health[17]." It was also found that, inequities exist in the use of reproductive health services by adolescents' girls. Adolescents also lack proper nutrition to fuel their rapidly growing bodies and brains, which leads to anaemia. The onset of puberty brings additional threats. Poverty and discriminatory cultural norms can restrict girls' life choices and exclude them from educational, social, and economic opportunities. Each year, an estimated 23 million adolescent girls become pregnant. Maternal mortality cases due to early marriages are leading to unnatural death of girls aged 15–19[18]. Other major issues like, "Many pregnancies occur in the context of human rights violations such as child marriage, early pregnancy and multiple miscarriages. The "broader socioeconomic factors, such as poverty, lack of education and limited economic opportunities for girls may also contribute to adolescent pregnancy rates" (Vogel et al. 2015). At present SDGs in India are still lagging on its targets in terms of literacy, gender equality, employment, and empowerment women.

I.6.b Intra-Family Communication and Adolescent Girls

"Sociologists and psychologists have considered the family to be an important variable in the explanation of an individual's delinquent behavior. Over the years family has been the subject of both empirical and theoretical analyses; family has been employed as the independent, dependent, intervening variable" (Kathleen 1970). Communication forms the web of human society. The flow of communication in society determines the direction of development of new generation. Every communication carries important information in it which can destroy or build a society (Sabharwal 1994). The Intra-family relationship is important for the health of the young people behavior related to adolescent help-seeking behavior. Intra family relationship especially between mother and adolescent daughters reflects on good communication within family (Jessop 1981). Family and neighborhood surroundings play important part in the formation of adolescent development. Parental behavior should change according to their children age after coming to adolescent age parents should develop a friendly and communicable relationship with their children

[17]https://www.unicef.org/health/child-and-adolescent-health-and-well-being. Accessed on 27-11-2019.
[18]https://www.unicef.org/health/child-and-adolescent-health-and-well-being. Accessed on 28-11-2019

because interpersonal communication is the greatest influence on socialization of skills, values, attitudes, behaviors which are necessary parts for the development of children that they acquire from their parents (Moschis 1985).

Therefore, healthy environment keeps a human healthier for their life course. Similarly at the adolescent age good guidance always starts from family for their healthy life. "The development of familial, interpersonal, and institutional relationships at this critical stage in life may have lasting influences throughout the life-course (Wheaton and Clarke 2003)". Another study says that interpersonal communication and in assessing adolescents' capacity for autonomous decision-making (future adults), with a broad understanding of developmental and contextual aspects, including adolescents' stage of development, the role of parents or guardians is very important[19]. So, in same age groups of (10-19) years we can differentiate adolescents according to their moods and different emotional family security based on their family settings. There is a sense of security that every child needs and for that stability relationship with parents and relatives is necessary here. Scholars have also found that there is different type of communication with mother and with father. So, it is very important to know about the comfort level of every adolescent where they can share and ask freely. Parents can develop a friendly communication with their growing child for secure representation of their family (Winter et al. 2010). Another study talks about supportive communication and self-disclosure which brings a sense of satisfaction for children by their parents. In adolescent age when they get strong support from both of their parents it gives them more positive outcomes. They realize the importance of family and their support which makes a strong connection. There is lack of union and identity of family found when parents get separated. However, if parents are together and say bad about each other in front of their children it gives them negative outcomes which makes them confused in judging right and wrong (Soliz et al. 2009).

I.7. Government Programme and Policies for Adolescent Girls

There are many government programmes and policies which are focused on adolescent issues. And the objective of these programmes is to delay age of marriage and enhance girl education and empowerment. Such as *Ladli, Beti Bacho Beti padhao, Sabla* for

[19]W.H.O. Building an adolescent-competent workforce. Policy Brief. 2015. Available at: http://apps.who.int/iris/bitstream/ handle/10665/183151/WHO_FWC_MCA_15.05_eng. pdf?sequence=1. Accessed on 28-11-2019.

empowering girl child, *Sukanya Samridhi Yojna, Rashtriya Kishori Swathya Karyakram, Kishor Shakti Yojna, Balika Samridhi Yojna, Mahila Samakhya Programme*, School AIDS education and Reproductive and Child Health Programs. These programs attempt to change negative attitudes towards girls, for their education, employment, marriage, and overall empowerment. They also create awareness on sexual health, hygiene, delay age of marriage and health to improve their skill and knowledge. Also, these programmes aim to ensure that all adolescents in India can realize their full potential by making informed and responsible decisions related to their health and well-being[20]. There is evidence that early childhood and adolescent intervention programs can have positive cost-benefit ratios, indicating the value of prevention and early intervention (Vimpani et al. 2004). Adolescent Reproductive Sexual Health (ARSH) was popularized in India after the International Conference on Population and Development (ICPD) in 1994 laid emphasis on young populations. The ICPD emphasized on the need to focus on the reproductive health of adolescents as a separate group (Gupta et al. 2012). However, having planned focus on ARSH under National Health Mission, several programmes for the adolescents were launched. These are Adolescent Friendly Health Clinics (AFHCs), Peer Education Programme or 'Sathiya', Weekly Iron Folic Acid Supplements (WIFS), Menstrual Hygiene Scheme (MHS), Supportive Supervision Checklists for Rastriya Kishori Swasthya Karyakaram (RKSK)[21]. These programs were launched across nation for the current demand and situation for the health of adolescent girls (school dropout/ school going). However, the services have not reached the young people adequately due to number of factors. Adolescent health services are not comprehensive on the demand of universal health coverage. The delivery of services mainly targets reproductive and sexual health and other issues related to health are not adequately focused upon. There is no significant decrease in adolescent pregnancy (Sivagurunathan et al. 2015). The programa should be initiated with AFHCs because school is the right age for adolescent care about their health, diet, MHS, health counseling. Thus, there is a need to strengthen and create awareness about health needs of the adolescent among all. Appropriate interventions through various Government programme, policies and awareness are expected to improve the adolescent health. Improved coordination of policy implementation among different

[20] Launch of Rashtriya Kishori Swasthya Karyakram and National Consultation on Adolescent Health. Ministry of Health and Family Welfare [Internet] 2014. [cited 2014 September 8]. Available from: http://rksklaunch.in/rkskl-strategy.html. Accessed on 25-04-2017.
[21] https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=818&lid=221. Accessed on 29-11-2019.

departments and different states are necessary[22]. The Adolescent reproductive sexual health programme is devastated by many complications and buried in complexity prove to be the major drawbacks in coordination and steering them. (Gupta et al. 2012). Today's adolescents will determine the social structure, economic productivity, well-being of India (Paul 2015). Rastriya Kishori Swathya Karyakaram has not achieved its goals till date. Even the limited Adolescent Reproductive Sexual Health shows slow performance in India. According to UNICEFF adolescents are underweight, anaemic, school attendance is getting low, they are victim of child marriage, physical and mental abuse and no programmes are reaching them, and they are still not healthy and safe[23].

I.8. The Research Setting

The present research is set in the National Capital Territory of Delhi. The following sections discuss the study areas like urban village and slums which form the core of the study sites where the field work has been conducted.

I.8.a. Urban village of Delhi

According to Census 2011 Delhi is the second most populous metro city in India. The term urban village first came to existence in Master Plan of Delhi in 1962. In 1981 Delhi had 369 villages of which 111 villages were urban and 258 were rural villages then gradual expansion of settlements of urban villages (Census 2011). "The second half of the 20th century saw a great deal of urbanization across the developing world. In Delhi, where the percentage of urban areas increased from 22 percent to 75 percent between 1961 and 2011, the intersection and conflict between the rural and urban spaces has been starker than in most other parts of India[24]." Earlier Delhi was agricultural land but there has been urbanization, decreasing irrigation land and decrease in actual forest area in Delhi. All urban villages have their own portable water, sewage disposal, electricity, *baarat ghar*, parks, open space, community hall, environmental sanitation, roads, bus stops and so on (Soni 2011). Bring the capital of the country; Delhi has always attracted people from all around the country. As a result, the population has increased since independence and urban areas kept growing. As demand to stay in the city increased as urban area grew the

[22]https://everylifecounts.ndtv.com/understanding-adolescence-in-india-616. 28-11-2019.
[23]https://www.deccanherald.com/content/141057/condition-adolescents-india-among-worst: UNICEF.Accessed on 30.11-2019.
[24]https://www.governancenow.com/news/regular-story/anatomy-urban-village-india-move. 25-11-2019.

farmers here started selling their fertile land and this is how the construction of the city started. At that time, all the farmers slowly started selling their land and building houses wherever they wanted without any city development guidelines therefore, today we get to see urban villages in Delhi which is a result of unplanned or unauthorized constructed buildings (Soni 2011). The selected study site situated in Southwest of Delhi (Figure I.1) urban villages like Munirka village, Katwaria Sarai and Ber Sarai which are surrounded by the colonies developed by the Delhi Development Authority (Mehra 2005). Other than residential, these villages engage in commercial and industrial activities also such as printing press, cloth dying, bakery, restaurants, nursery plants, school, play schools, music-arts classes, banks, and ATM (Automated Teller Machine), gyms, saloons, hospitals, clinics, dispensaries, shops, markets and so on.

Figure I.1: Southwest District of Delhi Where Study Sites are located

Source: indiamapsonline.com

Villages located along the highways provided rest houses and inns for travelers and hence the suffix *'Sarai'* at the end or beginning of their names, e.g., Ber Sarai, Katwaria Sarai etc.

In other words, we can say urban village is like half settled and half unsettled area where land was captured by villagers without any plan, they just came here and started making buildings on their own[25]. This is the main reason behind suffocation in the houses around urban villages as all houses are attached with others with unplanned housing structure.

Urban villages have mixed population from all over the world with expanded local communities which defined them as half migrated and half local villagers having different cultures and living styles. With the help of examples, we can better illustrate above statement i.e., for instance, the urban village of *Shahpur Jaat* is specifically known for dominantly being occupied by caste group- jaat[26] population whereas *Chittaranjan* Park in Delhi is specifically known for Bengali dominant caste group. Regarding education pattern in urban villages, local communities largely rely on the income from the rental money received from their tenants. Education is not a priority. They seem to be least bothered about education as a factor for enhancing opportunities for a bright future. However, the migrant population has come to these urban villages for better employment opportunities, so they seem to be more concerned about the resources which will enhance employability, education, especially of their children.

I.8. b. Munirka Village

Munirka is one of the oldest urban villages in Delhi "complete with a smattering of Lodi era monuments now absorbed by the relentless expansion of Delhi, which has both changed and threatened the very culture of the pre-urban communities of the Delhi region[27]". Munirka is one of the demanding residential urban villages in South Delhi**.** It has become more popular as it is in demand among students around universities. Munirka is in South Delhi. Situated on the outer ring road, the village was once the outer fringe of Metropolitan Delhi in the south. The southern boundary of Metropolitan Delhi has now extended several kilometers beyond the outer ring road. This has left Munirka surrounded, rather engulfed, by urban sprawl. The core of the village is now occupied by residential colonies like Rama Krishna Puram, Vasant Vihar and various clusters of multistoried Delhi development Authority flats and institutions such as Jawaharlal Nehru University,

[25]https://www.hindustantimes.com/delhi-news/how-delhi-s-urban-villages-turned-into-no-plan-land/story-wI6PqbrcETuM3eqnZ59xWP.html. Accessed on 21-9-2019.
[26]https://en.wikipedia.org/wiki/Jat_people. Accessed on 19-09-2019.
[27]https://en.m.wikipedia.org/wiki/Munirka. Accessed on 24-11-2019.

Institute of Family Welfare[28]". Therefore, this area became popular among migrant population due to various national institute and government offices nearby. Migration largely from metropolitan cities such as Bangalore, Kolkata, Mumbai, and villages of Bihar, Uttar Pradesh, and so on increased rapidly. Many people come here to try their employment opportunities in retail, some business, labour recruitments, education sector, many crimes also have occurred in this area because of insecurities for girls (Mcduie-Ra 2012).

"With a total area of 1527 acres, Munirka became more expansive in housing density. In 1961 the total number of houses in the village was 1161 and households 1170, which means nine households lived in shared, either as joint family, or as tenants due to increase in migrating population every year. According to the villagers, mostly the landlords, the total number of houses has increased to 2500 and it is increasing continuously. Some houses have beautifully carved ethnic wooden doors, reflecting its rich history. In 15th century, Munirka was named after Munim Khan, a rich and powerful zamindar of the then Munirka"[29].

I.8.c. Katwaria Sarai

Katwaria Sarai is a significant location in South Delhi[30]. It is spread over 40 acres and has a population of about 50,000 persons. It is surrounded by Indian Institute of Technology (IIT) and National Council for Educational Research and Training (NCERT). The road along its sides connects with Rama Krishna Puram, Mehrauli, two metro stations-Hauz Khas and Munirka. Nature of the development in Katwaria Sarai can be divided into two categories. One is being promoted by the Delhi Development Authority; and the other is organic in nature- low- and middle-income housing settlement[31]. Existence of the housing unit by the Delhi Development Authority as well as the unauthorized housing structures have led to inequality among population. There is evidence of sharp socio-economic differences in this urban village. Due to its proximity to educational institutions and informal coaching centre for the public service commission and other competitive examinations, it is high in demand among the students. Since much of it is outside the

[28]http://www.onefivenine.com/india/villages/South-West-Delhi/South-West-Delhi/Munirka. Accessed on 25-11-2019.
[29]https://en.m.wikipedia.org/wiki/Munirka. Accessed on 24-11-2019.
[30]https://en.wikipedia.org/wiki/South_Delhi. Accessed on 23-11-2019.
[31]https://www.slideshare.net/ChaitanyaKanuri/understanding-urbanism-in-katwaria-sarai. Accessed on 25-11-2019.

purview of the DDA, there are problems like water logging, closed, poorly ventilated small houses, and water shortage. Security issues are also present (Schindler 2015). Post 1990s, after liberalization, privatization and globalization of the economy was initiated under the New Economic Policy, the private sector in India began to expand and Delhi became a popular hub for exams preparations for students. Since then, Katwaria Sarai has become an important hub for such activities. It is in great demand by the aspiring students who comes to prepare for the entrance examinations of the institutions like Jawaharlal Nehru University, Indian Institute of Technology, and other top-level jobs in governments (Choudhary 2014).

I.8.d. Ber Sarai

Ber Sarai is one of the most famous urban villages in southwest of Delhi. It is known for purchase and sale of old and new books. It is a small neighborhood located between Jawaharlal Nehru University and Indian Institute of Technology. If we go back to its history, in Ber Sarai 300 years ago, "one man and his three sons came to Ber Sarai from Shahpur Jaat village in south Delhi and settled in the area". At present there are only Panwar jaats in this village. The agricultural land of this village was acquired by Delhi Government about 50 years ago. Ber Sarai village was founded by Choudhary Nain Sukh Panwar in 1715[32]. The Pawar Jaats community never attained good education because they were mainly involved in retail business, sweets, bakery product, transport, books, and stationary shops due to current demand of students from the institutions in the vicinity, and migrants in this area. "The farmlands of Ber Sarai village were acquired by the government at meager costs, without adequate compensation or *muavaza*[33] to the villagers"[34]. The village "comprises of two distinct sections Ber Sarai Village and Ber Sarai Delhi Development Authority flats. The village, which is comparatively much larger in area, is the home of wealthy Jaats that own the land and use it for rent purpose which makes them dominant caste in this area.[35]" When students came here to study and prepare for competitive examinations, and employment, the landlords realized the 'housing need' and started making one/two room housing units for this purpose. However, this is a relatively recent phenomenon evident since the early 1990s. It became a popular source of income for people who had houses for renting. Those who did not, they restructured their

[32]https://www.jatland.com/home/Ber_Sarai. Accessed on 25-11-2019.
[33]Reparation
[34]ttps://en.wikipedia.org/wiki/Ber_Sarai. Accessed on 25-11-2019.
[35]https://infogalactic.com/info/Ber_Sarai. Accessed on 27-11-2019.

old houses to accommodate multi-story structures for renting. Many of them constructed single or double-storied buildings with common toilets outside for common use. Subsequently, construction was modified to cater to the needs of different kinds of renters-students, small nuclear families etc. The landlords started making single room set with attached bathrooms. Therefore, the number of buildings increased and spaces between two buildings reduced (Pati 2015).

I.9. Conclusion

Therefore, based on the above discussion, the major issues in the urban villages covered the size of adolescent population in a broad way. The study needs to address health, education, housing unit, intra-family communication, neighborhood, employment status of the adolescents, decision making, self-esteem, issue of early marriage and so on. Urban village is a place where migration is highest family comes from rural setup. The whole family settling in a room is a serious problem specially when there are adolescents. A lot of changes start in this age of transition which needs proper guidance and space that cannot be found in one room house. After coming to the city from the countryside, the families also have problem of identity so that choosing the right school and health for the family becomes the biggest challenge for migrants. In this context adolescents find it difficult to adjust to a new place due to which there is a lack of self-confidence in them. Likewise married adolescent females who moved here with their husbands, neither get any knowledge about health in new places nor they think of themselves because of early marriage. As we have seen, all kinds of people live in urban village rich as well as poor. Their problem is not limited to just getting home, the biggest problem is to get good health, education and basic amenities while living in the urban village. Therefore, this study is relevant which bring out the problems of adolescent girls in urban village.

Summing up it can be said that adolescence is a crucial phase of life during which the body undergoes physical and mental changes, which are impacted by social surrounding of an individual. A positive interaction with the community ensures better outcome in socially developed adolescents. This transitional phase becomes especially important for girls because of their dual roles in contributing to the social and economic development and in family building process. The research reveals that girls are more prone to vulnerability because of social, cultural norms and economic constraints. Poor knowledge and lack of awareness are largely the underlying factors that determine the adolescent

health in India. As has been observed in the chapter, adolescent girls suffer from problems like anemia and menstrual complications leading to lack in their overall development. In some cases, further complications are created due to early marriage and early childbearing among adolescent girls in India. Utilization of health services is largely dependent on socioeconomic conditions and demographic behaviour of the adolescents. The intensity of health inequalities increases with rising income inequalities. It is a common understanding confirmed by various studies that health can be cared for in a better way by a family when their socioeconomic status is high.

Attempts at the betterment of the adolescent health have been made by the government through target-based policies and programs, which strive towards changing the negative attitude towards girls. The study reveals that these attempts do not filter down to the young people due to number of factors. As a result, there is a need to cover health issues amongst adolescents apart from sexual and reproductive health, along with a strengthened effort to create awareness about the needs of adolescents. Study of the urban villages of Delhi namely Ber Sarai, Katwaria Sarai and Munirka Urban Village reveal that these are mainly populated by people who migrated from other parts of the country. These areas are heavily populated, leading to a strain on the housing sector in these areas. Sharp socio-economic differences can be witnessed in these villages with rampant problems like water shortages, small, congested housing, water clogging on the roads, security issues, etc. To achieve adolescent well-being and health, there is a need for multidimensional planning of policies focussing on health. As has been seen in the study, urbanization without access to basic health facilities and basic amenities is a major problem in India. The existing adolescent health programmes mainly concentrate on rural populations. Emerging evidence reveals that there is a dire need for accumulating adolescent-related health data. This can help in understanding the nature of the problems and provide a better framework to tackle them. These measures will in the long term help us reap the benefits of demographic transitions in our country.

CHAPTER- 2

Developing Conceptual Framework, Research Question and Study Design

II.1. Review Of Literature

Public health services and personal health care are essential for future efforts to improve the health of adolescent girls. Young people's behavior, lifestyle, and social context change dramatically as they grow and develop through their adolescent years. "This is reflected in the health behavior, health outcomes, and social perspectives attributed to young people of different ages" (HBSC, 2005-06, p: 3). Adolescence is a transition phase from childhood to adulthood characterized by rapid physical growth, social and psychological maturity, and the onset of the reproduction cycle. Adolescents face widely pervasive health issues such as teenage pregnancy, unsafe abortion, sexually transmitted diseases, malnutrition, psychiatric morbidity, and substance abuse. Mortality and morbidity occurring during adolescence are mostly preventable if appropriate intervention strategies are undertaken. Investing in adolescent health accords a top priority as they will play a vital role in India's future socio-economic development (Paul 2015). Adolescence is the most vulnerable period and exposes to risk alike early marriage. Teenage pregnancy, early childbearing, and adverse infant health outcomes are most likely to occur among disadvantaged women with restricted access to health services (Bennett et al. 1997; Barua 2007).

Previous studies reveal that early pregnancy at the period of adolescence may lead to causes like under nutrition, anemia, hypertension, depression, underweight menstrual problems. At the age of puberty rapid growth of the development of the body requires basic dietary patterns for future health. As adolescence is the period of the rapid growth of the development of the body but if the body has not received nutritional requirements there is the risk of under nutrition. Health and nutrition knowledge and healthy habits of female adolescents will have critical roles to play in maintaining the future family. Malnourished and undernourished mothers give birth to malnourished and underweight infants only, thus every girl should be well-nourished and delay the age of marriage required. Adolescents face several challenges as they attain reproductive maturity therefore, parents may expect more socially mature behavior and may begin to

differentiate among sons and daughters more than before, and even same-sex peer groups may change as a function of physical. In addition to pregnancy, especially girls are at high risk for sexually transmitted diseases. More research and development work are needed to help educators and others make puberty a more positive experience for all adolescents in India (Sethuraman and Duvvury 2007; Alam et al.2010).

This rapid growth of the physical development of the body needs proper guidance and care from their family members. Many adolescents are not able to receive knowledge about their bodies. It was found that distance from family and parents may lead to the risk of adolescent life at present as well as for the future. The adolescent's conceptions of their interaction with their parents and satisfaction with their relationships with significant others were more highly related to the adolescent's conceptions of the parental relationship than to the parent's ratings on their mutual relationship. Parental education not just influences them but also influences the health of their children. Child health is an outcome of the direct investment of parental knowledge and available resources. (Narusk and Pulkkinen 1994; Wickrama et al. 1998; Fallon and Bowles 2001). Apart from family guidance regarding adolescent health, another factor that plays a vital role is the high dropout rate in school due to which they are not able to educate themselves to understand the various causes of morbidities. The fact that even educated adolescent girls were not discussing these problems with their parents for remedial measures reflects the poor communication between them. Therefore, adolescent girls should be provided with first-hand information about menarche to be mentally prepared to face it (Vlassoff 1998; Reddy et al. 2005).

Basic hygiene care missing in adolescent girls and menstrual problems is very common for them, but they believe only in indigenous practices for the cure. Many adolescents are unaware of their first menarche, and this turns into depression and anxiety among them. The use of readymade sanitary pads was higher among urban and school going girls as compared to those living in rural areas and not going to school. It was reported that adolescent girls suffer from various reproductive health problems associated with menstruation. Nearly 70 percent in the study area reported problems during menstruation. Among those who reported problems, a major one was ‘abdominal pain’, which was reported by more than 80 percent of the girls. ‘Irregular periods’ were reported by nearly 53 percent. But there was no significant difference regarding awareness in urban and rural girls their sources of information varied. Contrary to expectation the number of girls not

practicing taboos was significantly more among rural girls in the present study. This might be due to the caste composition of the study group. (Khanna et al. 2005; Deo and Ghattargi 2005). Now lifestyle habits and psychological stress are also one of the important points where we can observe adolescent health. Studies identified various interventions at the right time can lead to stress management. In this condition family interaction, community participation, teachers, and peer group interaction can be used to prevent stress and other complications. The family role may play a vital role in the prevention, initiation, maintenance, treatment, and/or cessation of drug use by one or more of its members. Positive peer group interaction, peer group counseling, peer participation program, family-oriented prevention program diminishes the adolescent health risk behavior. The adolescent's conceptions of their interaction with their parents and satisfaction with their relationships with significant others were more highly related to the adolescent's conceptions of the parental relationship than to the parent's ratings on their mutual relationship. (Strother and Jacobs 1984; McCubbin et al. 1985; Hash and Vernnon 1987; Plunkett et al. 2000; Boardman 2005).

For early pregnancy in adolescence spousal communication is an important aspect of health-seeking behavior. It was observed that many adolescents do not have the right to decision making for their child. Even in the treatment-seeking behavior, they depend upon their husband or in law-family. The knowledge regarding sexual and reproductive health is also missing in adolescent girls, therefore, they face various morbidities that affect them in long run. Awareness regarding maternal health care and services among married adolescent tribal girls can decrease maternal health. Peer and social support play a significant role in adolescent girls' maternal healthcare seeking. Spousal communication had the strongest association with all maternal health-seeking behavior. (Upchurch et al. 1999; Sebastian et al. 2004; Rani et al. 2007).

Adolescent health care services need to be strengthened through proper sustainability and accountability on a long-term basis. Community participation, school help, comprehensive management of adolescent health care services needed for healthy adolescent life. The forms and structures of preventive care programs may vary among communities, depending on resources and community needs. Community health centres need the resources to provide a range of services and outreach activities to meet community health needs effectively. Parent-child communication is one of the basic building blocks of the family as a developmental context and acts as an important protective factor in

adolescence. Especially relevant is the role of parents in the development of the child's communication skills, attitudes, and behavioral patterns. Lifestyles and social context change dramatically as they grow and develop through their adolescent years. And reflects in the health behaviors, health outcomes, and social perspectives attributed to young people of different ages. (Perrin et al. 1992; HSBC 2005-06; Paul 2015). In India Adolescent health is not considered a serious public health problem, and so adolescent girls have become one of the vulnerable groups. In the 21st century, women in India head many superior positions such as politics, media, sports, advocacy, teaching, research, science, and many more but still women come as the second preference for parents. There are some families where girls are considered as equals of boys; however Indian society is based upon the patriarchal system so not every family think that girls are equal to boy. Women and girls hardly participate in a family discussion such as marriage, study, birth plan or birth spacing, family functions, family tour, any legal matter, bank, or property, etc. It is a common practice in Indian families for girls that she should depends upon her parents before marriage and on husband after marriage. Apart from existing social negligence even if we look at the health of the adolescent girls it is not improving after implementing RCH Phase-I and RCH Phase-II and various National programs under NRHM. This chapter covers the existing problems related to the health of adolescent girls which is relevant for this study. The later part of the chapter focuses on various aspects of adolescent health which impacts their different phases of life.

II.2: Organization of Literature Review

Table: II.1 Systematic Organization of Reviewed Literature

Family Communication and Adolescent Health		
Sr. No.	**Author/ Title**	**Key Findings**
1	JoAnna Strother and Ed Jacobs (1984) Adolescent Stress as It Relates to Stepfamily Living: Implications for School Counselors	Stress-related issues among children in the family on the issue of freedom. How many kids need to live in a comfortable environment? Comparing stress and freedom related issues among children who live with their biological parents and non-biological parents.
2	Hamilton I. McCubbin, Richard H. Needle and Marc Wilson (1985) Adolescent Health Risk Behaviors: Family Stress and Adolescent Coping as Critical Factors, Family Relations.	Early intervention and prevention-oriented programs for adolescent girls to deal with the early intension among them and try to prevent health risk behaviors.

Psychological health of Adolescent Health		
3	Virginia Hash and Ann Vernon (1987) Helping Early Adolescents Deal with Stress.	To understand the reason behind the mood swing among adolescents. It is important to give them support to understand their behaviors. Communication with friends, teachers and parents can give them external help guides for their confused characters.
Impact of Educational on Adolescent Health		
4	J. Brooks-Gunn (1987) The Impact of Puberty and Sexual Activity upon the Health and Education of Adolescent Girls and Boys	Adolescents need proper guidance and knowledge for their physical change. There are sexual and reproductive changes that can be seen at the age of puberty; therefore, they need to know why this transition is taking place to reduce their anxiety and fear.
Health Care Utilization Among Adolescent Health		
5	James Perrin, Bernard Guyer, and Jean M. Lawrence (1992) Health Care Services for Children and Adolescent	Primary health care programs need to revisit adolescent health programs for a comprehensive module. Communication-based needs to strengthen its view for large impact.
Family Communication and relationship of Adolescent Health		
6	AnuNarusk and Lea Pulkkinen (1994) Parental Relationship and Adolescents' Conceptions of Their Interaction with Significant Others	The study examines the parents bonding with their children. Conflicted relationship between parent-child may have a negative impact on children from their adolescent age. Therefore, strong bonding and friendly connection between parents-child makes them physiologically happy and mature personalities in the future.
Early Pregnancy and Marriage of Adolescent Health		
7	Trude Bennett, Julia DeClerqueSkatrud, Priscilla Guild, Frank Loda and Lorraine V. Klerman (1997) Rural Adolescent Pregnancy: A View from the South. "Family Planning Perspective".	To prevent early pregnancy there is a need to save rural adolescent girls and to strengthen government policies and programs for future. Adolescent girl health is being neglected so far and there is a need to spread awareness related to early pregnancy to prevent maternal and infant mortality rates.
8	Carol Vlassoff (1998) Unmarried Adolescent Females in Rural India: A Study of the Social Impact of Education.	There is a need to put more effort into rural adolescent girls related to their health education and awareness programs. Embedded social and traditional norms tend to neglect girls in society towards her health and education so there is a need to change it.
Parental Education and Role of Family in Adolescent Health		
9	K. A. S. Wickrama, Rand D. Conger, Frederick O. Lorenz, Glen H. Elder, and Jr. (1998)	The study illustrates the importance of education in family and its positive outcome in the healthy upbringing of a child.

	Parental Education and Adolescent Self-Reported Physical Health.	
10	Dawn M. Upchurch, Carol S. Aneshensel, Clea A. Sucoff, and Lené Levy-Storms. (1999) Neighborhood and Family Contexts of Adolescent Sexual Activity.	The study highlighted the two social context families and neighborhoods in the child development process. Sexual experience and fertility-related behavior whether affected by family environment or neighborhood and how much it is affecting the adolescent mind.
11	Barry J. Fallon and Terry V. P. Bowles (2001) Family Functioning and Adolescent Help-Seeking Behaviour.	The study demonstrates the parenting style and gender-based comparison between in the family. Age and sex matters in health-seeking behavior whether it is low in democracies and high in conflicts for adolescent girls and boys 'vice versa'.
Urban-Rural Comparison of Health Outcome of Adolescent Health		
12	Quine S, Bernard D, Booth M, Kang M, Usherwood T, Alperstein G, Bennett D. (2003). Health and access issues among Australian adolescents: a rural-urban comparison. *Rural and Remote Health.*	Rural-urban differences in adolescent health care access. There are structurally disadvantaged groups more in rural areas compared to urban areas. Especially talking about mental health illness and stress-related issues are likely to address more in the rural area.
Early Marriage and Sexual and Reproductive Health Care of Adolescent Girls		
13	Mary P. Sebastian, Monica Grant, and Barbara Mensch (2004) Integrating Adolescent Livelihood Activities Within a Reproductive Health Programme for Urban Slum Dwellers in India.	Importance of parent's discussion on adolescent issues. It is very important how they help them to overcome their problems. Early intervention on girl's education, delay in marriage can change adolescent health outcomes. There is a need for equality in decision making among girls and boys for healthier psychological and physical growth.
14	Anoop Khanna, R.S. Goyal and Rahul Bhawsa (2005) Menstrual Practices and Reproductive Problems: A Study of Adolescent Girls in Rajasthan	Awareness among menstrual hygiene practices to prevent negative outcomes in adolescent health. Also, the cases of white discharge prevalent in the study area so there is a need for proper awareness on the gynecological issue.
15	Jason D. Boardman and Jarron M. Saint Onge(2005) Neighbour hoods and Adolescent Development.	Socioeconomic status and living area how much it increases the crime tendency among adolescents. The study tried to examine the area of residence, substance use, and sexual risk behavior among adolescents in a different area.
Menstrual Hygiene Care and Health of Adolescent Girls		
16	D.S. Deo, C.H. Ghattargi (2005) Perceptions and Practices Regarding Menstruation: A Comparative Study in Urban and Rural Adolescent Girls.	Attempts to examine the rural and urban school adolescent girls about their knowledge of menarche but there were no such differences noted in the study.

Adolescent Health in Different in Various Socio-Economic Status		
17	HSBC (Health Behavior in School-Aged Children International Report (2005-06) Inequalities in Young People's Health	A good relationship with parents can decrease the health risk, criminal activity, psychological, depression, and stress mechanism very efficiently.
18	J. Singh, J.V. Singh, A.K. Srivastava, Suryakan (2006) Health Status of Adolescent Girls in Slums of Lucknow.	Randomly selected adolescent girls in the study area found to have a huge nutrition disorder, low vitamins, and many morbidity patterns which can pose a risk to future adolescent health.
19	Margaret D. Hanson and Edith Chen (2007) Socioeconomic Status and Health Behaviors in Adolescence: AReview of the Literature	It talks about the negative health outcomes and poor diet which are responsible for the socioeconomic status of the adolescent girls. Poor living conditions, less access to health, and less awareness about comprehensive health care.
20	Jolanda Tuinstra, Johan W. Groothoff Wim J. A. Van Den Heuvel and Doeke Post (1998) Socio-Economic Differences in Health RiskBehavior in Adolescence: Do They Exist?	Socioeconomic health differences in adolescent health determine the morbidity and mortality patterns. The poor lifestyle, behavioral change, smoking, drinking habits, physical inactivity is the most common observation seen among lower-income families.
21	Elina Puolakka, Katja Pahkala, Tomi T. Laitinen, Costan G. Magnussen, NinaHutri-Kähönen, Satu Männistö, Kristiina S. Pälve, TuijaTammelin, PäiviTossavainen, EeroJokineni, Kylie J. Smith, Tomi Laitinen, Marko Elovainio, Laura Pulkki-Råback, Jorma S.A. Viikari, Olli T. Raitakari, Markus Juonala (2017) Childhood socioeconomic status and lifetime health behaviors: The Young Finns Study	The study highlighted the poor diet consumption and smoking patterns among adolescents with deprived socioeconomic status which remain in their life.
22	Ying Yang, Shizhen Wang, Lei Chen, Mi Luo, Line Xue, Dan Cui, Zongfu Mao (2020) Socioeconomic status, social capital, health risk behaviors, and health-related quality of life among Chinese older adults.	The study reveals that the unhealthy dietary patterns of Chinese adults show physical inactivity, smoking habits, poor diet all due to previous socioeconomic factors in their life span.
23	Edith Chen, Karen A Matthews, and W. Thomas Boyce (2002) Socioeconomic Differences in Children's Health: How and why Do These Relationships Change with Age?	Poor health conditions, less health care treatment which leads to more chronic diseases in the future due to less family income. Living standard and crowded environment are responsible for asthma, hearing problems, and other respiratory diseases throughout their life.

Nutritional Status, Maternal Health Care and Programmes for Adolescent Health		
24	Edyta Suliga (2006) Nutritional Status and Dietary Habits of Urban and Rural Polish Adolescents.	It is a comparative analysis among rural and urban adolescents on their nutritional status. It was found that rural adolescents have a smaller body height compared to the city.
25	Sandhya Rani, Saswata Ghosh, and Mona Sharan (2007) Maternal Healthcare Seeking among Tribal Adolescent Girls in Jharkhand	Higher maternal mortality among adolescent girls. The very poor condition of girls as well as children because of lack of awareness and treatment available for them.
26	Kavita Sethuraman and Nata Duvvury (2007) The Nexus of Gender Discrimination with Malnutrition: An Introduction.	There is a need for a family intervention in adolescent nutrition, care, and support for their bright future. The study also focuses on domestic violence and decision-making practices in the reviewed papers.
27	Alka Barua, Hemant Apte and Pradeep Kumar (2007) Care and Support of Unmarried Adolescent Girls in Rajasthan.	The study illustrates the harmful outcome of child marriage among adolescent girls in Rajashthan which has recorded the highest adolescent marriages in NFHS-3.
28	Nurul Alam, Swapan Kumar Roy, Tahmeed Ahmed, and A.M. Shamsir Ahmed (2010) Nutritional Status, Dietary Intake, and Relevant Knowledge of Adolescent Girls in Rural Bangladesh	Study explained the importance of nutrition among adolescent girls.
29	Arun Vijay Paul. R (2015) Adolescent Health and Healthcare Delivery in India: A Review	The condition of adolescent girls is very poor so there is a need for a comprehensive model of health care to outreach activities at local health services too. There is also a need for adolescent-friendly health clinics across the nation.
Socio-Economic Impact on Adolescent Health		
30	Amelia Rodríguez Martín and Miguel Angel Ruiz Jiménez (2001) Epidemiological assessment of the influence of socio-family factors in adolescent pregnancy.	The Paper discusses the early pregnancy of adolescents is due to early marriage and distressed economic background of the family. When there is a lack of support of family in terms of economic freedom for the adolescent in that case marriage becomes the instant solution to get rid of the adolescent girls' responsibilities.
31	Daniel T. L. Shek (2005) Economic Stress, Emotional Quality of Life, and Problem Behavior in Chinese Adolescentswith and without Economic Disadvantage.	A socio-economic disadvantage in the family leads to stress in adolescent health, which is associated with quality of life, personal freedom, life satisfaction, quality of housing. Therefore, poor socio-economic background is directly related to the health outcome of the adolescent girls.

32	Benjamin Petruzelka,Jaroslav Vacek, Beata Gavurova, MatusKubak,Roman Gabrhelik,Vladimir Rogalewicz,and Miroslav Bartak (2020) Interaction of Socioeconomic Status with Risky Internet Use, Gambling and Substance Use in Adolescents from a Structurally Disadvantaged Region in Central Europe.	Various socioeconomic structure of the family plays an important role in risk behavior among adolescents. Even lower education of the family is responsible for alcohol use, smoking or regular drugs consumption.

II.3. Adolescent Specific Programmes and Policies in India

There are Government programs and policies in India for adolescent health and wellbeing at a holistic level for their growth and development. For the first time in the International Conference on Population and Development (ICPD) held in Cairo in 1994 there was a focus on the health needs of an individual. On the issue of the sexual and reproductive health of women, it was considered and connected with women empowerment globally. This approach considering the condition of South Asian women and locating health not just related to medical need rather it was linked with socio-economic, cultural, and political context too. In India, in the year 1997 first reproductive Child Health (RCH-1) came with objectives of the current needs of women and child health only. But it just ended with quality and coverage of family planning programs (RCH Phase-I). Then in the year 2005 RCH-2 came with the new objectives of adolescent-specific health programs and policies with high priority. Programs understand why maternal and infant death rate is high in India and for that we need to focus on its base and adolescent health is considered as one of the major focus areas for reproductive child and sexual health (RCH Phase-2).

The National Youth Policy drafted in 2014 highlights the importance of empowering the adolescents of India to reach their full potential. In the same year, under the National Health Mission, the Ministry of Health and Family Welfare (MoHFW) launched a comprehensive national Adolescent Health Programme (RKSK 2014). Earlier national adolescent health program largely focused on sexual and reproductive health, but RKSK came with a new improvement holistically for specific adolescent health development from the right age which begins at 10 years. This includes not just urban areas but the rural areas as well, school going and out of schools and married

and unmarried with their vulnerability. RKSK examined that adolescent health needs community-based intervention and facility-based intervention also. The community-based intervention includes Adolescent Health Days (AHD), Weekly Iron, and Folic Acid Supplementation Programme (WIFS), peer education, and Menstrual Hygiene Scheme (MHS). Facility-based interventions include strengthening and implementing delivery services for adolescents, through Adolescent Friendly Health Clinics (Ibid).

Table II.2: National Programmes and Policies Focusing on Adolescents in India

S. No.	Name of the Programme/ Policy	Years of Implementation
1	**Programs/ Policies by Ministry of Health and Family Welfare**	
A	Rashtriya Kishor Swathya Karyakram	2014
B	Rashtriya Bal Swasthya Kayakram	2013
C	Weekly Iron and Folic Acid Supplementation	2012
D	Menstrual Hygiene Scheme	2011
E	National AIDS Prevention and Control Policy	2012
F	National Programme on Control and Prevention of Cancer, Diabetes, Cardiovascular Diseases and Stroke	2010
G	National Tobacco Control Programme (Tobacco Free Education Institutions)	2007
2	**Programs/Policies by the Ministry of Human Resource Development**	
a	National Policy on Education	1986
B	Adolescent Education Programme	2005
3	**Programs/ Policies by the Ministry of Women and Child Development**	
A	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls, "SABLA"	2014-15
B	Kishori Shakti Yojna	2007
4	**Programs/Policies by the Ministry of Youth Affairs and Sports**	
a	The National Youth Policy	2014
B	National Programme for Youth and Adolescent Development	2008

Source- Prepared by the Researcher

II.3.a. Sexual and Reproductive Health (SRH)

At adolescent age knowledge regarding sexual and reproductive health is important for unwanted reproductive outcomes. Therefore, adolescence is the right age when they can learn about their body change. Adolescent sexual and reproductive knowledge can help reduce unwanted pregnancy, contraceptive use, birth spacing, unsafe abortion, and other vaginal and urinary infections. Every adolescent has full right over their body to get proper information and have access to safe, affordable, and effective methods to control their fertility as well as for health care of safe pregnancy and childbearing at the right age (Ogunlayi 2005). Despite the above-focused government programs and policies for adolescent health, knowledge regarding sexual and reproductive health is inadequately understood by many. Those adolescents who are out of school have very less information about infections related to sexual and reproductive health. So, the guarantee not just comes from government policies and programs but from the family, schools, and community also (Adeokun 2009).

II.2.b. Menstrual Hygiene

An important biological milestone in the life of adolescent girls is menarche, which marks the onset of the reproductive phase (Kaur et al. 2018). This is the first major change of a girl's body which moves towards adulthood. Not just body but psychological changes making them an adult person now. The body needs special nutrition and guidance for healthy reproductive life in the future. Menstrual hygiene care and learning about good hygiene care comprises cleaning of the genital area and using clean sanitary pads (El-Gilany et al. 2005). Despite all these facts, menstruation is a natural physical process for all girls, they realize this after they begin to menstruate. They have limited knowledge and access to health care and for that, one of the biggest reasons is shyness and taboo associated with menstruation which makes young girls uncomfortable. Adolescent girls face serious social, product, and facility-related supports. They are not aware of sanitary products to choose and disposal methods and hygiene measures. Marginalized girls who live in the urban village are more restricted in terms of handling menstruation with privacy and lack of water, and clean toilets (House et al. 2013).

II.2.c. Child Marriage, Teenage Pregnancy, and Motherhood

Once involved in early pregnancy the life of adolescents becomes complicated with many issues for her entire life. It reflects not just on family but also the country's future (McClellan 1987). Teenage pregnancy not only affects the physical health of the adolescent but mental health as well. Also, it gives a negative impact on an infant with low birth weight, premature delivery, miscarriage, stillbirth, and greater risk of death of adolescent mother and child. So, this needs universal attention along with social and medical concern to eradicate nationally (Morrison and Jensen 1982). For marriage, there is not just a need for full-body development but mental maturity too. Awareness related to sexual intercourse and reproductive care helps girls in choosing a suitable time for the birth plan and postnatal care. It was observed that child marriage has socio-economic reasons which are deeply rooted in our society. (Gupta 2012). Therefore, first the British government enacted the Child Marriage Restraint Act, 1929 but there was very less punishment for parents of the bride and groom. It was majorly focused on the adult groom who married the minor bride but later it came with age limits for both the bride and groom. Despite having age limits on marriage by law India has the second highest number of child marriage according to UNICEF[36]. The negative outcomes of previous experiences of practicing child marriage in India Prohibition of Child Marriage Act, 2006 came with effective law which ensures the early marriage is not a legal practice and there have been rigorous imprisonment and fine for those who follow this (Gupta 2012). Although according to NFHS-4 the prevalence rate of child marriage is reduced to 11.9 percent from 26.5 percent in NFHS-3; still 12 states in India where child marriage practices are widely prevalent especially in rural India.[37] Early pregnancy makes the adolescent girls more vulnerable in the sense of her dependency on the family. Being a married girl and daughter in law in the family it is very difficult for her to focus on the future career. Socially and economically, it is difficult for her to take her own decisions related to her or pregnancy and childbearing issues which give her a long-term negative impact on her health. It is widely observed that adolescent married girls have low self-esteem, are underweight, have no knowledge of pregnancy-related risk, and future academic failure (McClellan 1987). Therefore, we can say early pregnancy is a social

[36] https://blog.ipleaders.in/laws-child-marriage-india/. Accessed on 20-01-2020.
[37] https://www.younglives-india.org/sites/www.younglives-india.org/files/2019-12/Rajasthan%20NFHS%20Factsheet_Final.pdf. Accessed on 20-01-2020.

issue and it is accepted by family and society but if we look at medical terms it is more dangerous for adolescent girls in a long term. Major complications related to this are poor nutrition, which poses risk of future reproductive problems, anemia, preterm labor, hypertension, maternal mortality, perinatal mortality, neonatal mortality, low birth weight, all these medical problems caused by early marriage and early pregnancy happening majorly in developing countries like India. (Mukhopadhyay et al. 2010). In India Ministry of Women and Child Development exclusively look for health and awareness related programs for women and child such as Janani Suraksha Yojna, Janani- Shishu Surakshya Karyakram and Integrated Child Development Services but once we know the root cause of teenage pregnancy is followed by social and cultural norms it persists in our society[38].

II.2.d. Adolescent and Coexistence Underweight Problems

Adolescence is an age when the body goes under physical changes and at this transition time body requires protein, vitamins, calcium, and iron for rapid growth and development to increase physical and mental activity (Maliye and Garg 2017). At this development age under nutrition with the lack of micronutrient deficiency such as Vitamin A, B- complex deficiency, Iron deficiency, Iodine deficiency Disorder, other nutrition problems are frequently observed, and goes till the adolescent becomes adult. These deficiencies lead to under nutrition, poor weight during pregnancy, anemia, and an infant born with low birth weight[39]. If we see the data developing countries like India are counted among the low BMI of 53 percent and stunting of 32 percent with zinc and iron deficiency especially among rural adolescents. It is very important to take a nutritional diet and healthy food for the good quality of the next generation.[40] Countries like India recorded the lowest Body Mass Index (BMI) among adolescents. The prevalence of moderate and severe underweight was highest in India 22.7 percent for girls and 30.7 percent amongst boys. Thus, we can say underweight and overweight during adolescents age gives negative health conditions in future reproductive life. Underweight of adolescent girls associates with a high risk of

[38]https://www.who.int/maternal_child_adolescent/documents/preventing_early_pregnancy_brief.pdf. Accessed on 20-01-2020.
[39]https://www.nin.res.in/downloads/DietaryGuidelinesforNINwebsite.pdf.
[40]Kurz KM. Adolescent nutritional status in developing countries. ProcNutrSoc 1996; 55:321-31.

infectious disease and creates greater health risk during her childbearing age. Adolescent girls in India often encounter complications during her pregnancy. This adverse condition of their health increases the risk of maternal mortality and infant mortality rate (NDC-Risk C 2017). There is also a high rate of low nutrition among adolescents as shown in Tables 1 below which clearly highlights the nutritional status of adolescent girls and boys from National Family Health Survey (NFHS)-3) (2005-06) and National Family Health Survey (NFHS)-4 (2015-16). The nutritional status of women aged between (25-49) shows below normal body mass index. Anaemia among adolescence 56.5 percent in urban and 60.2 percent in rural areas. The data shows that the anaemia among adolescents increased by 5 percent if we compare with NFHS-4[41].(NFHS-5).

Table II.3: Change in Nutritional Status of Adolescents

Indicator	**Girls**				**Boys**			
	NFHS-3 (%)	**NFHS-4 (%)**	**Absolute Change (%)**	**Relative Change (%)**	**NFHS-3 (%)**	**NFHS-4 (%)**	**Absolute Change (%)**	**Relative Change (%)**
Total Thin (BMI <18.5)	**46.8**	**41.9**	**-4.9**	**-10.4**	**58.1**	**44.8**	**-13.3**	**-22.8**
Overweight or obese (BMI>25)	**2.4**	**4.2**	**1.8**	**75.0**	**1.7**	**4.8**	**3.1**	**182**

Source: International Institute for Population Sciences (IIPS) and Macro International. 2009. National Family Health Survey (NFHS-3), India, 2005-06: Delhi. Mumbai: IIPS. International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS.

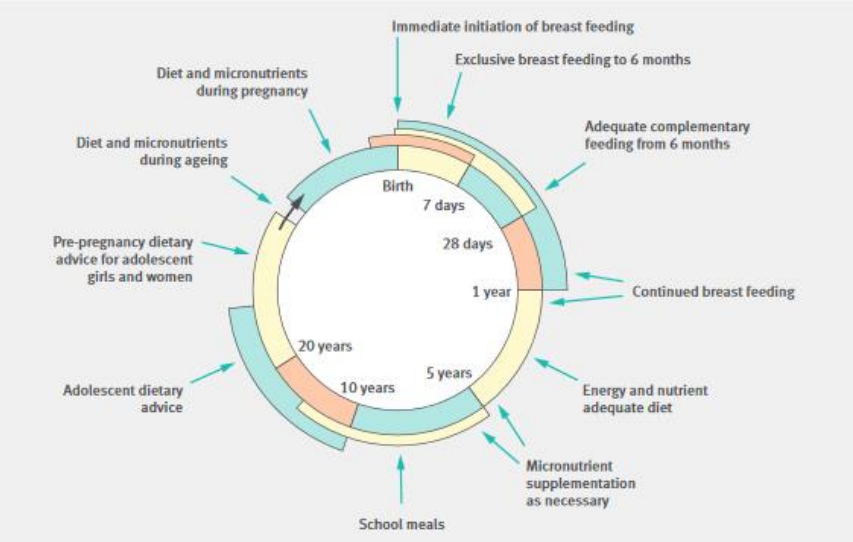
We can see clear differences among girls and boys about their thinness, there are sharp differences observed among girls and boys in terms of reduction of thinness. Therefore, there is more requirement of nutritional need for adolescent girls. Low nutrition status can cause anaemia among adolescents which describes below.

[41] http://rchiips.org/nfhs/NFHS-5_FCTS/India.pdf.

II.2.e. Anaemia

Anaemia is one of the important health indicators to observe under adolescent health. More than half of the adolescents are anaemic and having severe health conditions in India. A total of 50.9 percent in urban and 54.3 percent of the age group of 15-49 years are anemic (NFHS-4). Many maternal and child deaths are caused by anemia (Deshmukh et al. 2008). We can also say there is a giant role of patriarchy mind in our society behind anaemia among girls especially. More attention to food and a nutritious diet is given to adolescent boys when compared to adolescent girls. Adolescent girls always feel discriminated and second choice for parents (Shankar and Reddy 2012). Iron deficiency during a girl's development age causes adverse consequences if she has not received proper diet and nutrition. Iron deficiency is mainly observed by haemoglobin level (g/dl) in the blood which is directly linked with the development process in the body (Habte et al. 2013). The figure II.1 below describes the age-wise nutrition and diet for adolescent girls. Every girl child needs a specific diet and nutrition intake throughout her life. There is a need for proper guidance and care since birth until the age of reproduction. For every healthy

Figure II.1 Improving Nutrition Throughout the Life Course



Source: World Health Organization (2013). Essential nutrition actions: improving maternal, newborn, infant, and young child health and nutrition[42].

[42]2013. http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550_eng.pdf

generation, adolescents need adequate nutrition and micronutrients to avoid future health consequences such as mortality, morbidity, stillbirth, neonatal deaths, preterm birth, and low birth weight of a child (Branca 2015).

The existing literature points out the gaps which pertain to their living and housing conditions; awareness of the government programs and schemes and availing the facilities provided through the programs and the schemes. The review of the literature highlights the following issues:

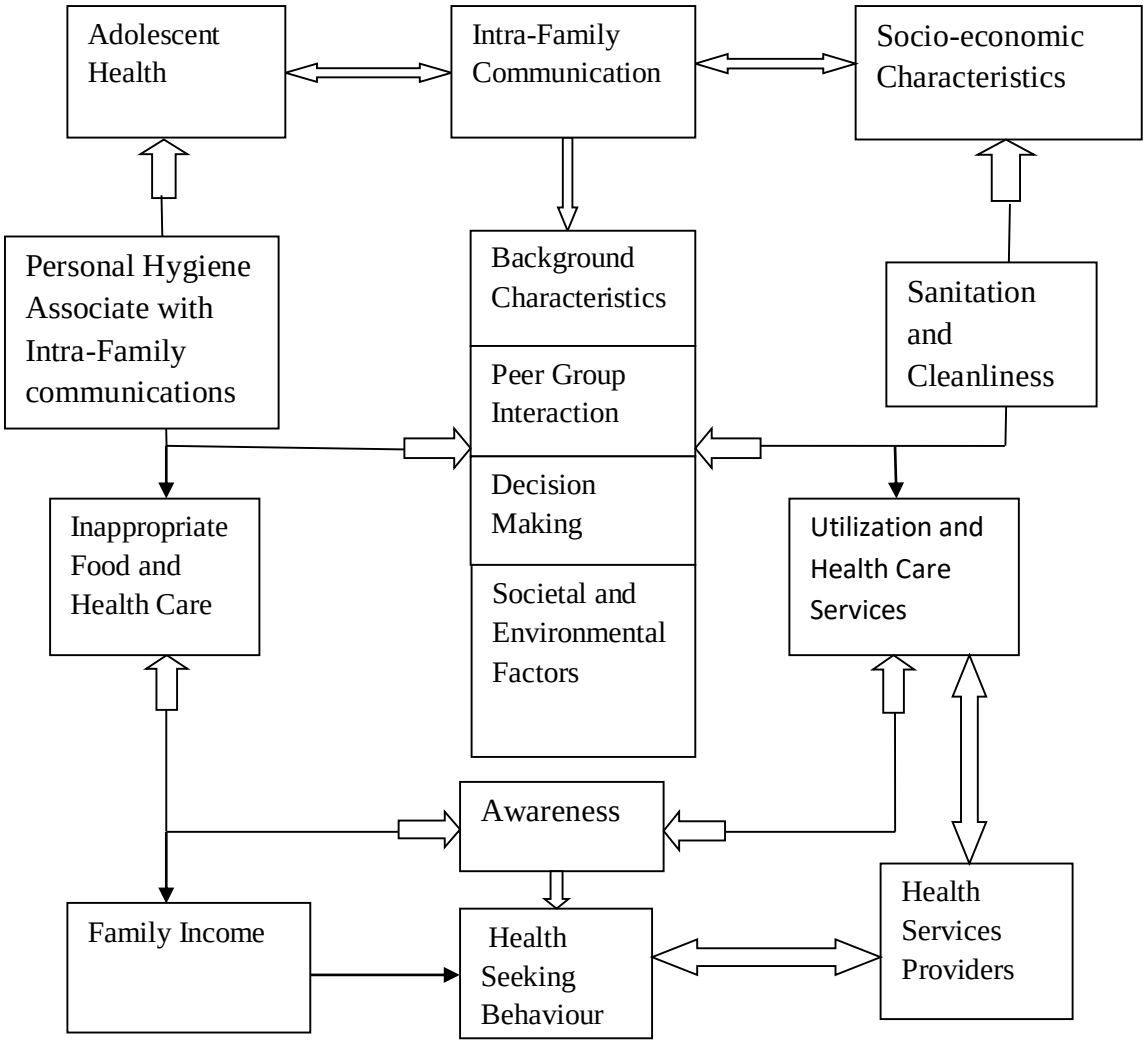
1. Adolescents are differently vulnerable. Living spaces and family characteristics are important in their development.
2. Intra-family communication plays important role in the transition to adulthood.
3. Lifestyle habits and living environments are important for the growth of adolescents.
4. The psychological stress redressal mechanism helps adolescents to overcome problems.
5. Sanitation issue, personal hygiene, personal health care, crowding issue, living environment, and socio-economic background of the family plays an important role during the rapid transition phase in adolescent girls.

Thus, the present research has been conceptualized as follows:

II.3 Conceptual Framework:

The adolescent population is a link between the opportunities available during childhood and the preparedness for adulthood. Therefore, the socio-economic conditions and living environment combined with the demographic characteristics influence the health of the adolescent.

Figure II.2: Conceptual Framework



Source- Prepared by the Researcher

Adolescent health is dependent on demographic characteristics like age, sex, religion, education (caste and household, and socio-cultural) factor. The independent variables, which lead to adolescent health, are intra-family communication, peer group interaction, the lifestyle which creates awareness about programs for adolescents. This helps in decision making towards health-seeking behaviors and reach out to the health services and providers. This is likely to result in the utilization of health care resulting in empowerment and self-esteem towards adolescent health. It is important to understand how intra-family communication and peer groups affect adolescent health;

how far adolescent girls are accessing health care; how do lifestyle and treatment-seeking behavior affects adolescent health?

The decision to choose care-seeking and health care services is important for self-esteem and empowerment, leading to the health of adolescent girls. It very much needs to understand personal health while discussing Intra- Family Communications. Adolescent health is not just limited to her menstrual health but also the present environment where she lives and affecting her every day. The factors like access to sanitary napkins in the surroundings, sanitation, and cleanliness issues during the menstruation as well as within the house when the room is very small, nutrition and food habits, what kind of problems are faced by them when they met menarche? What kind of conversation they received while using sanitary napkins for the first time, the difficulties they faced when accessing their health? As we know houses in the urban villages are very close to each other and the number of family members within one household is large. Therefore, the adolescent girls lack privacy required for preparing themselves for their personal hygiene care.

II.3.a. Research Questions

Therefore, the basic research question is whether household crowding and intrafamily interaction affect the health of the adolescent girls. The specific research questions for the proposed study are as follows:

1. What are the determinants of adolescent health?
2. Does intra-family communication help adolescent girls to understand their health issues especially menstrual health?
3. What are the levels of awareness about the program for adolescent girls?
4. What are the factors which affect the utilization of health care services, and government schemes and programs for adolescent girls?

II.3.b. Objectives of study

1. To study the demographic and socio-economic characteristics of adolescents.
2. To understand the background characteristics of the family of the adolescents
3. To understand crowding in housing units and the living condition of the adolescents.

4. To examine the association between crowding in housing and feminine hygiene of adolescent girls.
5. To map the government schemes and programs for adolescent girls.
6. To examine the factors which affect the utilization of health care services and government schemes and programs.

From the above-mentioned objectives, objective one seeks to examine adolescent girls more specifically to map the social and economic profile which can help us to understand the status of adolescent girls in society. Objective two seeks to examine the role of intra-family communication and significant others (Kins, teachers, peers, and others) in making decisions related to the choice of adolescent health and map the available alternative cultural health practices of adolescent girls. Objective three will examine the current situation of adolescent health where they live and how much standard of living conditions such as (Number of rooms, toilets, ventilation, number of family members in a house, personal space within a house) affecting on them. Objective four seeks to examine the crowding units in a family and neighborhood (neighbors are the immediate space where adolescents' observers and learn social and cultural norms apart from family). It also tries to discuss the importance of hygiene practices in adolescent life and how aware they are about it. Hygiene practices include water availability in a kitchen and toilets, menstrual care, and disposal mechanism adopted by them and the kind of precautions they take during their cycles. Objective five will examine the awareness level among the adolescent about specific health programs and looking at the accessibility level among adolescent girls. And lastly, objective six will explore to understand the level of utilization of government programs for adolescent girls.

II.3.c. Urban Village

The number of urban villages increases by 135 since independence in 1951 it was only 47[43]. "Delhi's master plan designated a cluster of villages on the city fringes to be urbanized for the sake of housing the refugees. The 'urban villages', as they are called today, carry unique cultural identities and historicity within them, lending the

[43]https://ccs.in/sites/default/files/files/Ch07_Conservation%20and%20Heritage%20Management.pdf.

city a distinct character and heritage."[44] Before going deep to understand the study area it is necessary to understand the differences between the 'slum' and 'urban village' concept to understand the study area. There are differences between 'slum' and 'urban village', the United Nations operationally defined slums as communities characterized by insecure residential status, poor structural quality of housing, overcrowding, and inadequate access to safe water, sanitation, and other infrastructure (United Nations Human Settlements Program, 2003). A slum is an area that combines one or many of the following characteristics: inadequate access to safe water, inadequate access to sanitation and other infrastructure, poor structural quality of housing, overcrowding, and insecure residential status (UN-HABITAT, 2001). These urban villages "originally belong to these villages that are they are living here even before the independence of India. These villagers are very well off now. Their agricultural land was acquired by the government giving them adequate compensation and this explains their moneyed status now. Their land is taken by govt. for the development of the city. Somewhere govt. built their housing, or some areas come under the industrial area and government office (Soni 2011)."

The present study will attempt to reflect on the status of adolescent girls at the macro level and then connect it to the micro-level. This study will be organized into five chapters that conceptualize the framework for research; review the literature; illustrate the research design; draw the demographic and socio-economic profile of the study population. The study will examine physical, psychological, and menstrual health, living environment, coping mechanism, intra-family communication socio-economic characteristics, and health care services, providers. The present study will examine the present condition of adolescent girls across different social groups in selected urban villages in Delhi. A detailed analysis of socio-economic profile, access to basic infrastructure including toilet facilities, sanitation; housing condition; will be discussed elaborately, Similarly, educational attainment and positive environment towards it; factors responsible for early marriage and its consequences; awareness of health care facilities, and providers vis-a vis age, religion, caste, literacy, living standard and marital status for each of the study sites in the selected urban villages of Delhi will be examined.

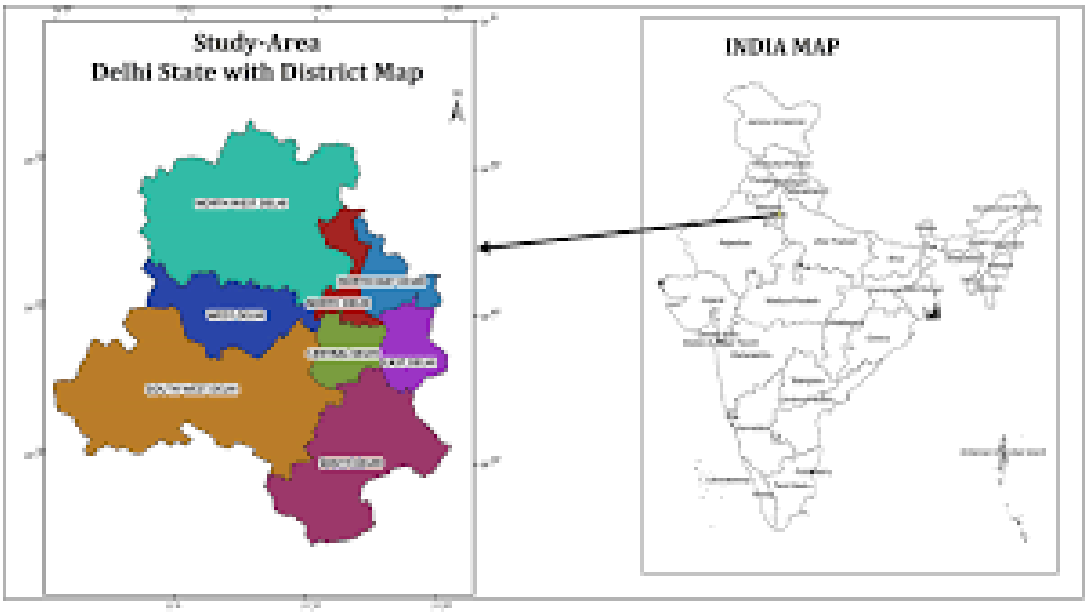
[44]https://indianexpress.com/article/research/world-heritage-day-2019-five-historic-villages-that-are-part-of-new-delhi-5682342/Accessed on 25-07-2019. World Heritage Day 2019: Five Historic villages that are part of New Delhi.

The current study area comprises Munirka village, Ber Sarai and Katwaria Sarai which located in the southwest of Delhi. These three urban villages are heterogeneous in nature by the sense of locality, population, income, and area wise. However, these three areas are known for unauthorized construction of buildings by locals after independence. These three areas developed in the sense of building formation only however roads are congested, broken, and muddy. These areas known for the dense populations because here buildings are much closed to each other which makes the population vulnerable in terms of living space, surroundings, health, education, personal development.

II.3.d. Study Area

Unlike slums which predominantly have the migrant population, urbanized villages are characterized by non-migrant population experiencing the change which the process of urbanization ushers in urbanized villages also allow space for migrant population which evolves a unique interaction among population groups especially adolescent and youth. Thus, the study areas (Figure II.3) selected for this purpose are urbanized villages of the National Capital Territory (NCT) of Delhi. Delhi is a national capital territory and fastest-growing metropolitan city, the city relates to the state of Haryana and Uttar Pradesh. This city has many histories and glories attached; the total area covers 1,484 square kilometers (Census 2011). Before describing the study area, it is very much important to understand the characteristics of three urban villages because, based on that, field sites had selected for the study. There are some similar and dissimilar characteristics observed by the researchers during the pilot visit of the three study sites, which can easily be identified as adolescent girls, and her existing problems are caused by living in the urban village.

Figure II.3: Map of the National Capital Territory of India



Source: census india.gov.in 2011. The researcher accessed this article on 25-07-2019.

The given below description of the study area written based on the pilot visit and secondary sources by the researchers in Munirka Village, Katwaria Sarai, and Ber Sarai as follows:

II.4. Description of the Study Area

The initial phase of such a sampling design involved locating all the adolescent girls living in the study area. After spending one and two days in the study area it was easy to identify their houses and AWCs in the three study areas. It was identified that there were 15 AWCs in Munirka Village, 7 AWCs in Katwaria Sarai, and 6 AWCs in Ber Sarai. After Focus Group discussions the researcher observed that all three study areas identified with a mixed population, and the majority of which had migrated. People come from all over India and even some of them are foreigners, some major predominant caste was *Jats, Dahiya Gotra, Tokas Rathi, Prajapati, Brahmins, Valmiki, Kain, Chuda, Nai, Khati,* etc. The landlord caste mainly comprises of *Jats, Prajapati,* and Muslims. After spending one month in the study area, it was easy for the researcher to identify every house easily. Unlike Ber Sarai and Katwaria Sarai, Munirka Village is always in demand for migrants because it is situated in the center of the city and from here it is easy to go anywhere easily with the help of public transports. We can also say compared to the size of the area

population is large in Munirka Village and now there is Delhi Metro introduced therefore it is more in demand to stay.

II.4.a: Munirka Village

History, Development, Socio-Economic, Current situation

Munirka village is an urban village, and it is situated Southwest of Delhi with 1527 acre in total area, it is surrounded by Jawaharlal Nehru University, Vasant Vihar, Rama Krishna Puram, and Indian Institute of Technology (IIT). "The notification for the urbanization of Munirka was issued in March 1954, making it one of the earliest villages to be urbanized. After the acquisition of the agricultural land of the village, agriculture ceased to be the main economic activity and the habitation ceased to be the village".[45]

In the history of Munirka Village during the process of urbanization in Delhi Mehra argued that "the land from Munirka, was acquired for Rama Krishna Puram, a housing colony for government servants, during 1951-61, but its 'urbanization' took place during 1961-71. However, urbanization in its vicinity took place during 1971-81." After the 1970s Munirka Village started getting commercialized, villagers turned themselves into businessmen, shopkeepers, and owners of rented houses because their initial agricultural work stopped. Broadly rent became the major income in this area, people come here more due to its main locality (Mehra 2005).

Hindi is the popular language in these areas, migrants and locals speak their local language only mostly, but the Hindi language is widely spoken by the shopkeepers, local businessmen, schools, hospitals, clinics, religious places, parks, local leaders, Anganwadi centers, and so on. Munirka Village is one of the popular destinations for migrants in Delhi; people not only come from India but from other countries too. "There is a Korean church, a Sikh temple, and a mosque other than the Baba Ganganath temple, which houses the patron deity of the village. Nigerians, Ugandans, Kenyans, Japanese, Koreans, Bangladeshis, Nepalis, Almanis or Germans, French, Swedes, Iranis, Spaniards, Sri Lankans, Thais, British, and Americans amongst other nationalities can be found residing here[46]."

[45]https://indianexpress.com/article/research/world-heritage-day-2019-five-historic-villages-that-are-part-of-new-delhi-5682342/. Accessed on 25-07-2019. World Heritage Day 2019: Five Historic villages that are part of New Delhi

[46]https://en.m.wikipedia.org/wiki/Munirka. Accessed on 25-07-2019.

There are DDA (Delhi Development Authority) flats, various playschools, clinics, small hospitals, park (with a newly installed gym in it[47]), Delhi metro, and shops for every necessity like plumber, furniture shop, restaurants, electricians, carpenters, tailors, private tuitions, coaching centers, art classes, beauty parlor and so on. All buildings and houses are attached because of the high demand for rent in this area. Migration flow in this area makes local landlords greedy they are making huge buildings that are structurally unsafe and cannot protect human beings if natural calamities occur here. Roads are poorly constructed, narrow, and muddy in rainy seasons sometimes it is difficult to walk here. Roads are too narrow to move two cars at the same moment and in interior places people are only able to walk here. Houses are mainly pucca and some are thatches that are constructed between small areas between two buildings. This place is in high demand because of its small sized shops which are always searched by people. On the other side group of locals is often seen by having hukkah which apparently is the specialty of this area.

II.4.b. Katwaria Sarai

(History, Development, Socio-Economic, Current situation)

Katwaria Sarai is an urban village near Munirka village and situated southwest of Delhi, it is surrounded by Qutub Institutional Area, Indian Institute of Technology (IIT), Aurobindo Marg, Kalu Sarai, Saheed Jeet Singh Marg Like Munirka Village, in Katwaria Sarai Hindi is the popular language here and speaks by all residence, shopkeepers, and businessmen. Katwaria Sarai is the oldest urban village in Delhi came to existence 400 years ago. The major dominant caste is *jaats,* Kataria, Malik, Tokas, and Sansanwal. It is popularly known that Sansanwal Gotra who comes from Bharatpur (Rajasthan) first settled this village.

In 1700 King Surajmal from Rajasthan came to Delhi along with other kings from a different state and attacked Red Fort against the Mughal emperor. They belong from *Gotra Sansanwal* when they came to Delhi and saw huge agricultural land, so they decided to settle here because Rajasthan counted as one of the deserted areas in India. They settled on buying land in Katwaria Sarai, at that time only five families came which belongs to *Gotra Sansanwal*. Then the population increased in this area with another landlord caste-like *Malik* and *Kataria*. Other caste-like Brahmin, Harijan,

[47]https://indianexpress.com/article/cities/delhi/dda-to-have-free-open-air-gymnasiums-in-50-parks/

Valmiki, and Nai came because Sansanwal, Malik, and Kataria settled them consciously.

II.4.c. Ber Sarai

(History, Development, Socio-Economic, Current situation)

Ber Sarai is an urban village and situated near Jawaharlal Nehru University and Indian Institute of Technology in the southwest district of Delhi. Munirka Village and Katwaria Sarai is an adjoining area that is connected to Ber Sarai with outer ring road and another connecting road to this area. This area is famous for students and old and new booksellers, small hostels, lodge paying guests for students, and shops are mixed with houses in this area. Inside Ber Sarai landlords are given their flats for rents purpose and there are many small-small Dhaba, mess systems, hotels, restaurants which specifically made for staying students in this area. There are many tuition centers and coaching centers available for school going children and for those who never went to school. The larger economic dependency of landlords in Ber Sarai is rent; they are also involved in small businesses which is based on stationary. Institutes like Jawaharlal Nehru University and Indian Institute of Technology students regularly come here for their educational supplies and other needs.

II.5. Education

In terms of running schools in these areas; there were two government primary and high schools in Munirka Village for boys and girls and one government primary school in Ber Sarai. There are two primary schools in Katwaria Sarai for boys and girls. Despite the National school health programs implemented in government schools for adolescent girls there are no weekly checkups and friendly counseling available for these students. However monthly check is conducted regularly for children and if some child gets injured or other accidents happen, they are immediately referred to the nearby PHC. For health education, they only tell children about ‘good touch’ and ‘bad touch’, and *Naithik Shiksha* for an about a balanced diet, the importance of yoga -exercise, bad effects of television and mobile phones. When the researcher asked the school principal regarding sexual and reproductive health programs for adolescent girls and other provisions mentioned under school health government schemes were conducted or not, they said no. Even though it is included in the school syllabus they are not functioning at all. During summer vacation in

school '*Buniyad*' education scheme is going on for '*Uddham*' and '*Ujjawal*' kids from 7:30 to 10:30 PM. This is for the kids who need more attention in their studies. But for the health education, Primary school in Munirka village, no such facilities are provided.

Researchers were able to identify some of the coaching centers and tuitions where chances are high for more adolescent girls to attend school. It was observed that all the AWCs were functioning, but the condition was very bad, and they did not follow the National given guidelines for AWCs as well. There was no proper room given for functioning of AWCs, some were under the stairs, some were in open *baraamada*[48]and some were in the AWCs helper's home. There was no ventilation in the room and the room size was also very small. The weekly schedule of AWCs was not followed at all and upon being asked about the bad condition, they said that they were not getting extra food materials, stationery for the kids, they were also not aware of the proper schedule for functioning it.

II.5.a. Healthcare

When the researcher inquired about PHC in these three areas it was told by few key informants that, there is one PHC and one Mohalla clinic in Munirka Village, there is no PHC in Katwaria Sarai and only one PHC in Ber Sarai. Most people go to private clinics or local traditional healers, and some people do self-medication also. Regular polio vaccination campaigns were happening, and at the National Institute of Health and Family Welfare (NIHFW), every Wednesday was the vaccination day and was open for all residents of Munirka Village and families even came from Jawaharlal Nehru University, KS and BS. However, for major diseases people go to private clinics and hospitals like Sitaram Bhartia Institute for Science and Research, Rockland Hospital, Fortis Hospital, Safdarjung hospital, AIIMS, etc. There are many private clinics available, and people mostly go there for seasonal disease, dentist, lab, and other clinical tests.

II.5.b. Livelihood

Unlike Ber Sarai and Katwaria Sarai, Munirka Village has a big marketplace where not just people of Munirka Village but also surrounding areas depend on its marketplace. There is a huge furniture market available, many restaurants and hotels, hostel, paying guests for boys and girls, canteen for students. The study population entirely depends

[48]The Porch

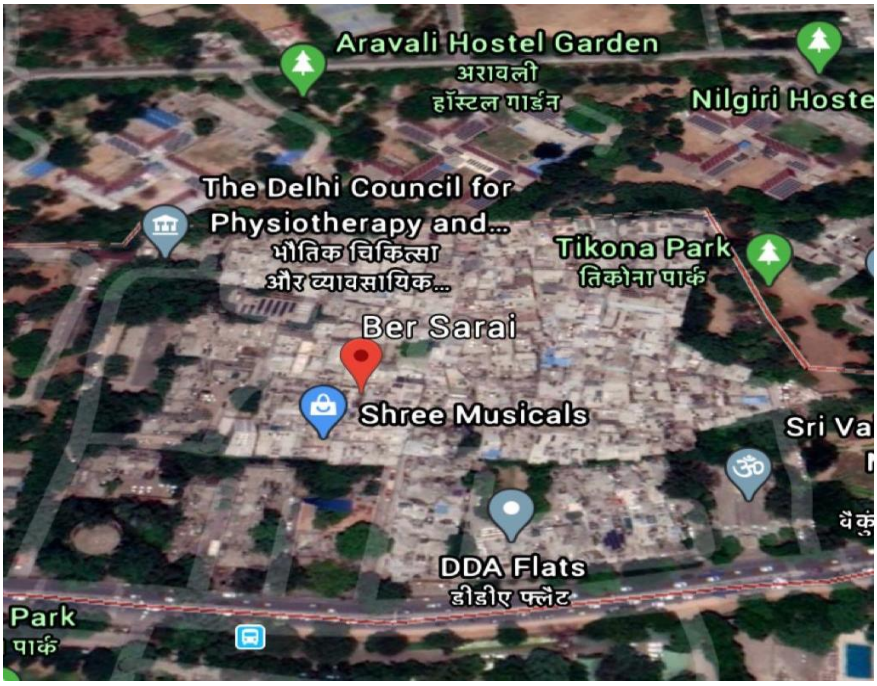
upon the migrated population, after Delhi Metro started running in Munirka Village it comes as a golden opportunity for them to travel so long every day, and now they can save their time as well. As this study area is mainly occupied by the migrant population there is less chance for different people based on their caste. Not only Indians but peoples come from abroad to stay here just for the benefit of the location and opportunities.

II.5.c: Living Style and Building Formation

Munirka Village, Katwaria Village, and Ber Sarai comprise unauthorized colonies along with Delhi Development Authority Flats. Buildings are attached, there is no space between two buildings therefore these areas have fewer windows at home. One can feel suffocated and clammed up during the summer season. The landlords made these houses for rent purposes only therefore doors and windows are made up of cheap materials which can be dangerous for renters. Even the streets within these villages are very narrow, muddy, and broken. There is temporary slum formation within the villages due to extra spaces between two buildings that creates overpopulation. There are many buildings which were built under negligence of safety measures which can make the life of resident risky. Recently the six stories building in Munirka Village collapsed it was made up of rocky and narrow lane. People were not aware of the cracks on the building and before the loss of any lives the officials who examined the building asked the residents to vacant immediately.[49] There was a huge loss of cash, valuable items of the residents and they are still in trauma. Figures II.4 and II.5 give us an idea about how buildings are attached in this urban village and there is no space between two buildings therefore it is very important to bring the satellite picture to show the area congestion. All the green areas can be seen in this figure which is outside the village.

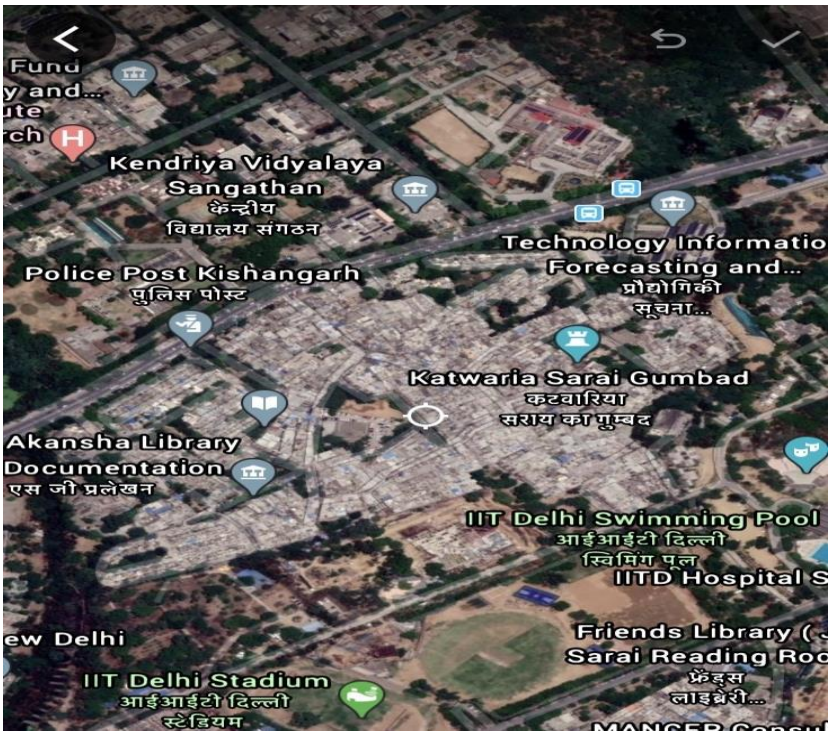
[49]https://timesofindia.indiatimes.com/city/delhi/tilted-building-in-munirka-finally-razed/articleshow/74274416.cms.

Figure II.4: Satellite View of Ber Sarai Urban Village



Source: Google Map of India (Accessed on 25-07-2019)

Figure II.5: Satellite View of Katwaria Sarai Urban Village

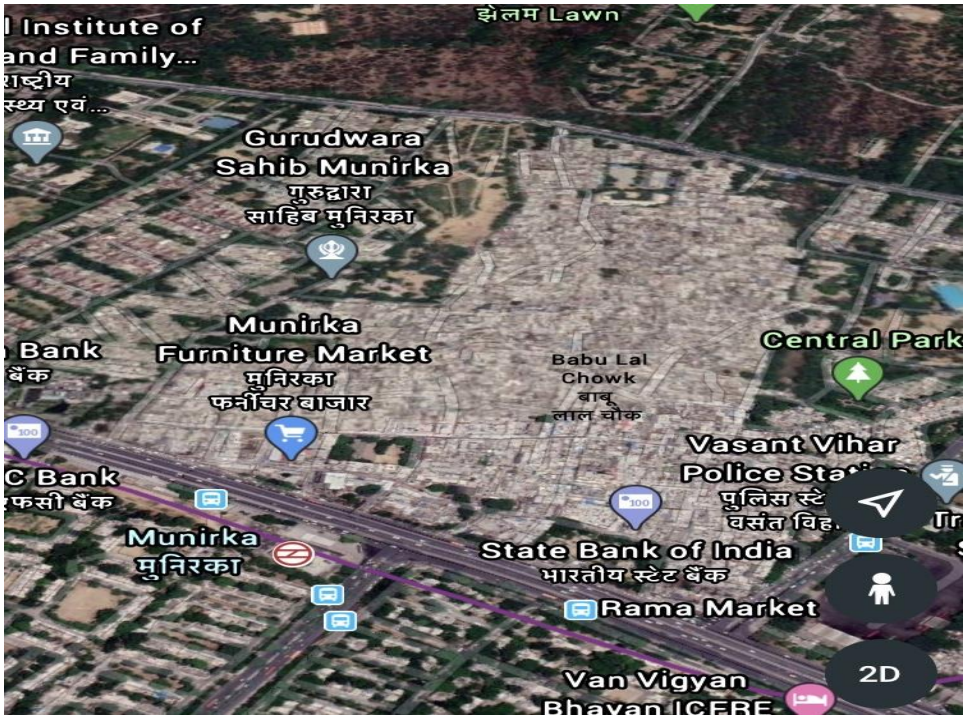


Source: Google Map of India (Accessed on 25-07-2019)

II.5.d. Lack of Green Space

There is no proper boundary space for villagers in their surroundings. Animals like cows, dogs, bulls roam around and streets dirty. Parks are not available except Delhi Development Authority Park in Munirka village. Very few plants and trees can be seen within the village area. There is hardly any space left between two houses to plants and trees. Trees can be seen only on the main street, not inside the urban area. Some people have plants inside their houses depending on the space available to them. Landlords are giving more importance to building construction and not on the beautification of the areas with plants and trees. In figure II.6 below we can see the actual building congestion in the Munirka Village and how life can be affected by this situation.

Figure II.6: Satellite View of Munirka Urban Village



Source: Google Map of India (Accessed on 25-07-2019)

II.5.e. Struggling life

The population is increasing day by day in these urban villages and so is building construction, small dhabas, restaurants are rising in numbers. Food quality is also shocking according to the expense of students and the unemployed. But with a high

speed of growth, people are also witnessing kinds of diseases like asthma due to massive air pollution[50]. People started wearing masks, to protect themselves from foggy bad air quality in Delhi. Other health problems like headaches, itching in the eyes, hair fall, depression, premature greying etc. are also prevalent. People live in these surroundings because of their affordability. People come from different parts of India in search of jobs and livelihood. Due to poor propensity, they select cheap accommodation in Delhi. Often the urban villages offer housing within their budgets (Kushwaha 2018).

II.5.f. Sewage, Garbage, Electricity, and waterlogging problems

While walking across the urban villages, overflowing drains, garbage dumped in corners, and uneven walkways are encountered. Cow and dog excreta is invariably found on the streets. Sometimes sanitary napkins and diapers are also found on the main walking passages and alleys (*galis*). Sewage is not properly collected and disposed of by the workers designated for the job by the Municipal Corporation of Delhi therefore drainage water comes on the roads and makes the area unclean[51]. In the rainy season, massive water logging problems occurs every year, but there are no measures taken by the responsible authorities. Another pattern observed was the large number of electricity poles and wires stretching all over the houses and market area which pose risk can harm anyone. Sometimes kids are playing near the garbage due to the lack of parks in their locality increasing the chances of disease spread and infection.[52]

II.5.g. Transport and Communication System

All three villages are well connected with main roads such as Baba Gang Nath Marg, Shaheed Jeet Singh Marg, Palam Fly Over, Aurbindo Marg which further connect to all over the Delhi and main Metro Stations. The Rao Tula Rao Fly Over started functioning from 30 June 2020 and has benefited the residents of its vicinity including

[50]https://timesofindia.indiatimes.com/city/delhi/health-emergency-in-delhi-ncr-as-air-quality-enters-severe-zone/articleshow/71860360.cms. Accessed on 26-11-2019.
[51]https://timesofindia.indiatimes.com/blogs/keep-india-beautiful/life-in-a-slum-ugly-face-of-india. Accessed on 26-11-2019.
[52]https://timesofindia.indiatimes.com/blogs/keep-india-beautiful/life-in-a-slum-ugly-face-of-india. Accessed on 25-11-2019.

Munirka Village and its connected places[53]. On 29th May 2018 the Delhi Metro Magenta Line became functional facilitating commuters especially of the study site Munirka Village which lies very close to the Magenta Line metro stations.[54]. Ber Sarai and Katwaria Sarai however are a little further away. Before Magenta Line the Yellow Line of Metro was the link through metro to the other parts of the city for the study site dwellers.

II.5.h. Rationale of study

The Share of the adolescent population has increased. At present nearly 20 percent population can be categorized as an adolescent (UNICEF, 2015). They contribute to the economy and are an important peg in the wheel of development. However, there are gender disparities in health and education. Adolescent girls experience specific health concerns. In India more than half of the adolescent girls are anemic, one-fifth is denied education, those who do access, and nearly 60 percent drop out during primary and middle levels (Warner, 2015). Therefore, the present research endeavors to understand issues about the scent population and its relationship with socioeconomic factors. Which influence and determine the health issue concerning adolescents and with special reference to girls? "Slums" of metropolitan cities, especially Delhi; have been studied, not much has been examined for the urban villages, much less of the adolescent health in the urban villages. During the pilot survey for pre- testing the research tools, there are some important observations made which extend the justification to understand why adolescent health in the urban villages needs to be examined. The following points of observation were instrumental in the selection of the field area too.

1) Adolescents living in the Urban Villages including the study sites, were scantily discussed, mostly from the sexual and reproductive health perspective. While this approach overwhelmingly addressed the sexual and reproductive health, it lacked the broad understanding of general health conditions- both physical and mental.

[53]https://www.financialexpress.com/infrastructure/roadways/rtr-flyover-in-delhi-set-to-open-rao-tula-ram-flyover-to-connect-south-delhi-to-igi-airport-soon/1618030/.
[54]https://en.wikipedia.org/wiki/Munirka_metro_station.

2) Sanitation, water supply, accommodation (residential unit), quality of life, and lack of awareness regarding adolescent health; and care services are of the biggest challenge.
3) Small living spaces, mostly one room with at least five people on average, make it necessary to understand the personal space available to the household member especially adolescent girls who need some privacy considering their physiological needs. The number of rooms in a house is important for their development. The availability of personal space in Munirka Village, Katwaria Sarai, and Ber Sarai is very small, often making one feel suffocated in the congested rooms.
4) The number of school dropouts is high, and lack of awareness regarding adolescent health programs, and therefore the utilization of the benefits is also low in these areas.
5) The use of shared toilets, often with lack of water, affects personal hygiene, and needs to be discussed as it influences adolescent health.
6) Since women and girls are at the lower priority in access to any kind of resource including household goods and food, their nutritional status, and dietary intake is poor. There is need to understand how much importance is given to the nutrition of the adolescent girls in this urban villages.

Therefore, this study will explore the situation of adolescent in the urban villages of Delhi with special reference to the health of the girls. There were three urban villages selected for the study Munirka Village (MV), Katwaria Sarai (KS), and Ber Sarai (BS). These three are in the Vasant Kunj Southwest area, Mehrauli Ward of Delhi; they are occupied with unauthorized and authorized colonies. There are some similar and dissimilar characteristics of three Urban villages by which we can understand the study demand and present conditions affecting adolescent health. As we know nutrition, social, physical, emotional, and hormonal changes occ in an adolescent's body, but the living environment is another major area where adolescent needs special attention.

Table II.4 Characteristics of the Study Sites

Munirka Village	Katwaria Sarai	Ber Sarai
Wide market area.	Average market area.	Moderate market area.
Mostly occupied by business area and commercial shops.	Most migrants and landlords reside there. However, in some additional slum areas poor migrants lived there.	Unlike Munirka and Katwaria Sarai, Ber Sarai famous for book shop and students living space who generally come for various exam preparations all over the world.
The area is occupied by mixed migrated people.	The area is occupied by diversified migrated people.	The area is occupied by various migrated people.
Sanitation and cleanliness issue is prominent in Munirka Village.	Sanitation and cleanliness are affecting most of the houses.	Sanitation and cleanliness are emerging problems
Early marriage is seen among migrated families.	Early marriage among adolescence and some are already mothers.	Early marriage before the legal age is followed by their rural culture.
Girls are malnourished and anemic.	Undernourished and anemic girls found, and they look younger by their age.	Malnourished and anemia are rampant. As girls are mostly found short heightened and underweight.
Economic crises in the family forced them to school dropout and participate in the workforce to help the family.	Involved in economic activity and taking care of siblings and household after school dropout.	An adolescent is a disadvantaged in education and engages themselves in economic activity at an early age.
Socio-economic health consequences on poor health and pressure for childbearing.	Socio-economic disadvantage adolescent girls feel unsafe and surrounded by many social and community challenges after marriage.	Socio-economic crises in the family make adolescent girls vulnerable and low self-esteem.

II.6. Data Collection

Both qualitative and quantitative methods have been used to collect the data. After developing the questionnaire schedule, pre-testing was carried out. The data was collected from the adolescent girls and another senior member of the household. Prior consent was taken from the responsible member of the household to canvass the

questionnaire schedule to the adolescents particularly. House listing was done to identify the households will adolescents particularly girls. Social mapping of the study sites was done to identify the social strata. Purposively 250 households with adolescent girls were selected, to ensure that each stratum is adequately represented.

II.6.a. Household schedule

In household schedule information was collected on socioeconomic status of all the members in the household, their age, education, caste, religion, marital status, occupation, income, and type of house, housing amenities and assets, main source of drinking water, lighting, type of fuel for cooking, toilet facilities and cultural practices. Interaction between adolescents and family members, awareness of health services, other government schemes for adolescents were also part of the household questionnaire.

II.6.b. Adolescent girl's Schedule

Personal characteristics such as age, level of education, occupation, marital status; awareness related to various practices, hygiene, psychological condition; awareness and utilization of health care services, and various government programmes were part of this research tool. Information on intrafamily interaction was also gathered.

For information on the household, any responsible person was contacted for responses.

II.6.c. Tools for Quantitative Data Collection

- Semi-Structure Interview Schedule
- Structured Interview Schedule

II.6.d. Qualitative Data Collection

Qualitative data was collected from selected key informants on specific issues. Case studies, focus group discussions, were also conducted. Besides these, observation was also done. Selected tools used for data collection include:

Table II.5: Tools / Techniques for Qualitative Data Collection

Techniques	Participants/Activity	Tools Used
Focus Group Discussion (FGD)	FGD1: Landlords, Munirka Villagers FGD2: Local Residence, Village Pradhan (RWA Secretary), Katwariya Sarai FGD3: Local Residence, Village Pradhan (RWA Secretary), Ber Sarai FGD4: Local landlords FGD5: Adolescent Girls, Elderly women FGD6: Non-Governmental Organization Team	Face to Face Interview
Key Informants (KI)	KI 1Anganwadi Helper KI 2 Anganwadi Worker KI 3 Elderly Women KI 4 Adolescent Girl KI 5 School Principal KI 6 Elderly Men KI 7 Group of Adolescent Girls	Face to Face Interview
Individual Interview	Adolescent Girls (250)	Structured Questionnaire Schedule
Case Study	Adolescent Girls	Face to Face Interview
Observation	Field Area	Detailed observation of the Study sites

II.6.e. Limitation of the Study

This study has been conducted in the urban villages of Delhi city. Therefore, the findings from this study may not be represent other parts of the city or other cities or urban areas. Mainly the primary data was collected from a particular urban village in a specific period. This may not be identical to any other period or fit to any other urban city inside or outside the city. Information was collected based on what people said. Therefore, the results of this study may not match with any other previous or later studies in the same city unless the similar attributes are made comparable. Moreover, given that the basic living conditions of the people in the urban villages are poor, there may be similarities in patterns of access to health care and basic amenities with other similar socio-economic and geographical regions in any urban setting.

II.6.f. Problem collecting Primary Data

The primary data was collected during a period of January-August 2018, houses were closed to each other. Most of the girls were school going and their timings were morning to afternoon. During the field visit initially, it was difficult to catch up with respondents because some are school going and some are dropout schools. The researcher had some difficulties in communication with those respondents who came from the north-eastern side of India, they did not know Hindi nor English language because they worked as daily wage worker and had come to Delhi recently to earn a livelihood. In such a case the researcher had to ask the respondent(s) in the neighbouring household or noted down the verbatim expressions and later translated after consulting the key respondents in the study sites. The researcher realized that most of the respondents' families did not open initially while talking. They did not feel free to answer when the researcher started writing responses on the questionnaire. They always interrupted asking the researcher "what benefits we will get after giving you all answers".

II.6.g. Ethical Considerations

Verbal consent of the participants the was taken. All the respondents participated voluntarily. None of the participants were forced. The names and other identifiers of the participants have been changed and protected. The phone numbers collected for follow-up were destroyed after the completion of the data collection and follow ups.

CHAPTER-3

Socio-Economic Factors and Migration in the Study Area

III:1 Introduction

The present chapter will discuss the socio-economic and baseline variables of the study area. In this chapter demographic profile comprises age distribution, education, occupation, income, marital status, social identity, and religion as well. To examine the health of the adolescent girls it is important to understand their environmental condition and their living area, crowding unit at home, migration status, and cause of migration. The chapter analyses the period of the respondent currently where they live and how it is affecting their health. On what basis they can compare an earlier place to this place in terms of education, health care utilization, health-related awareness, and better livelihood. Health is related to all these circumstances which the chapter is going to discuss. The chapter also discusses the housing condition of the study area such as type of house number of rooms, electricity facilities ventilation facilities, separate space for cooking, and ownership of the house. The present chapter is also followed by case studies which give us a clear picture that how living and environmental conditions responsible for health too.

III:1. a. Peoples' Narratives on History of the Study Sites

The Researcher explored the following information on the study sites. During the group discussions related to the history of Munirka Village, Katwaria Sarai, and Ber Sarai the discussants came up with the following details as articulated below:

"*During Mughal Empire, one Muslim Vajir Munir Khan Pathan gave this Rakba (area) to the ancestral of Munirka Village Baba Masknath and Rudra in only 600 rupees, therefore in the later period this place came to be known as Munirka. Initially, Munirka Village was divided into (BOJOTT[55]) agricultural land and Laal Dora Abadi. living land with a total of 825 pieces. Laal Dora in clear terms is an imaginary boundary line to divide the village population with the help of a particular*

[55] Bojoti is mean of agricultural land during that time. They kept this fertile land for agricultural purpose.

house or road. In one Laal Dora, there are 100 Mustils (acres) land used for living purpose. Every Laal Dora has different size of Mustil or Biswa (Gaj) and it is not constant. There was a landlord named Tankar who first settled in Mathura, then moved to Tonk district, and later shifted to Indraprasthat, and settled Munirka. His clan mostly settled in Munirka, but some families of the clan went to Haryana and settled in two villages in Haryana (Nihalgarh and Taoru). Munirka Village is predominantly occupied by people belonging to jat caste because Jats are the dominant landlords in this area. 'Tokas', 'Rathi', 'Takchatt', and 'Dahiya' are some of the dominant caste groups in this area. They like to speak their local language 'Haryanvi' broadly [FGD 1].

The other urban village is Katwaria Sarai according to a group of landlords they discussed its history and present condition as- *"If we harvest the crop, we need manual labour and tools, therefore our ancestors* settled and started practicing as carpenters and blacksmith too. For cleaning and nightsoil collection and disposal, we further needed *Bhangi*s. For carrying dead animals, skinning them, and making leather goods we needed *chamar*, therefore our ancestors gave small portions of land to them to settle here purposely. But lower caste people have ghettos in this area, they have no right to build their house anywhere in this area. Earlier Jia Sarai and Ber Sarai were one village with one panchayat system. After independence, our ancestors build Guru Gorakhnathji Mandir in this area. At present Katwaria Sarai had a population of approx. 1-2 lakh[56] perrons. Because of its prime location, Katwaria Sarai has DDA flats in this area. In 1975-1978 Government took some land from our ancestors for making DDA flats in this area. This place is popularly known as Jaat villages because of Jaat dominance. However, people from all over India and people from all social groups live here. There are two government primary school for girls and boys, one Anganwadi Centre. The Delhi Jal Board supply water for us. There is proper sewage line available from Jal Board and proper sanitation work by Municipal Corporation of Delhi" [FGD 2].

As rent is the main source of income in urban villages therefore one of the key informants discussed that:

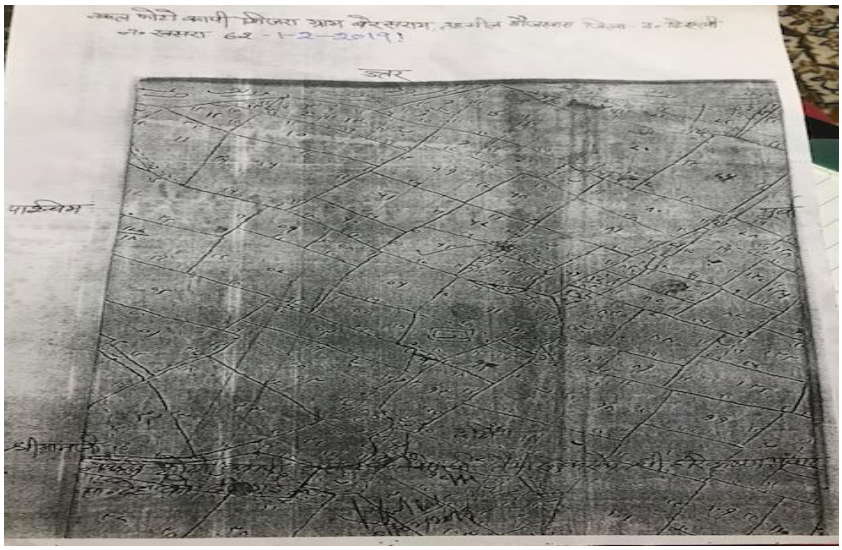
[5656] Census of India do not have accurate data of population at this area, therefore researcher tried to anysised the population data based on the local leaders and Anganwadi centres. For more accuracy researcher also analysed voter list for population figure.

"We always welcome migrant people to live here on rent because this is the only business on which we survive from generation to generation. My daughter got 89 percent marks in 12th class she tried for Delhi University, but she did not get it besides that 50 percent marks of schedule caste and schedule tribe category students easily cleared and got admission in the same college, so our condition is worst we hardly get good jobs especially government jobs in any sector" [KI 6].

The third urban village selected for the present study is Ber Sarai. According to residents and Village Pradhan they articulated the history of Ber Sarai as follows:

"*In 1715 Chaudhary Nayan Sukh Pawar from Shapur Jaat inhabited this urban village. At that time there was no paper map available, so they used to make maps on cloth (Sijra Plate III.1) and decided the boundaries (Hadbandi) for every village. The Ber Sarai village was carved out from the Tehsil Mehrauli, the present-day ward. Till 1990 fifty-six Dahliz (Makan/ Housse) were there for the landlords in Ber Sarai. Now it is a total one fifty-five Dahliz for the landlords and some houses are for renting out. Out of this settlement, only Pawar Gotra moved and resettled in Maharashtra and Rajasthan. Then five generations of Kings from Pawar Gotra in Rajasthan and moved to Haryana near Palwal. Many years after Chaudhary Narpal Singh Pawar came to Delhi and resettled in Shahpur Jaat village in 1418. Shahpur Jaat knows as the oldest urban village in ancient Delhi with Siri Fort in it" [FGD 3].*

Plate III.1: Map of Ber Sarai Urban Village on Cloth (Sijra)



Source: Compiled by Researcher (Given by Key respondent)

III:1. b. Socio-Economic Characteristics of the adolescent

Socio-economic characteristics of the individuals are important because it gives clear insights to the study. To understand health, the social and economic status of the family is the first aspect to observe. Table III.1 which is on the distribution of sample according to religion reveals that most of the (93.8%) respondents in the Ber Sarai study area; were Hindu and very few were (6.3%) Muslim. We can see a similar trend in the Katwaria Sarai and Munirka Village study area. Where most of the (91.3%) respondents in the Katwaria Sarai were Hindu and very few (5.0%) were Muslims. Similarly, in the Munirka Village, most of the (93.3%) respondents were Hindu, and very few (5.6%) were Muslim. Most of the respondent's families came to the capital of India in search of a job, and few migrated after their marriage which the chapter will elaborate on later. They also told that their village does not have well-constructed roads, electricity facilities all the time, and medical health aids. They came here with some hope to get a better life and for a good future. "At least we are living in a *puccaghar*[57] but in the village, our houses were *kuccha*[58] only." Most of the migrated people come from rural areas that is why with the limited basic amenities they live happily here with less complaint. When the researcher asked about their earlier place one key informant articulated that:

"*Yahan par chances jyada milti hai agar struggle kiye to kuch na kuch job mil hi jati hai par gaon mein toh hume yuh hi khali baithna padta hai*[59]*"*[KI 3].

Table III.1 Distribution of Sample According to Religion

Study Site	Hindu	Muslim	Christian
Ber Sarai	93.8%	6.3%	0.0%
Katwariya Sarai	91.3%	5.0%	3.8%
Munirka Village	93.3%	5.6%	1.1%
Total	92.8%	5.6%	1.6%

Source: Fieldwork

[57]Concrete House
[58] Non- Concrete
[59]There is more chances here if people struggle hard you will definitely get some jobs but in villages, we have to sit down empty.

Table III.2 social composition of the surveyed population reveals that more than half (66.3%) respondents of the Ber Sarai study area belonged to schedule castes, few (22.5%) of the respondents belonged from other backward caste and very few (10.0%) of the respondents were general category. Similarly, in Katwaria Sarai more than half (67.5%) of the respondents belonged to schedule caste, a few (22.5%) of the respondents were from other backward caste and very few (8.8%) respondents belonged to the general category. In Munirka village more than half (66.4%) of the respondents belonged to schedule caste, a few (17.8%) belonged to other backward caste and only a few (15.6%) of the respondents were from the general category.

Table III.2 Social Composition of Surveyed Population

Study Site	**SC**	**ST**	**OBC**	**GEN**	**Others**
Ber Sarai	66.3%	1.3%	22.5%	10.0%	0.0%
Katwariya Sarai	67.5%	0.0%	22.5%	8.8%	1.3%
Munirka Village	65.6%	1.1%	17.8%	15.6%	0.0%
Total (250)	66.4%	0.8%	20.8%	11.6%	0.4%

Source: Fieldwork

According to the above table III.2, we can see that in all three study areas schedule caste were majority in numbers. And very few belonged to scheduled tribes which are mostly migrated populations. When we see the type of house in the study area where they currently live, Table III.3 reveals that most of the respondents (93.2%) were residing in *pucca* house and very few of the respondents (6.8%) were residing in *semi- Pucca*[60] house. The study area comes under an unauthorized colony therefore houses are much closed to each other.

Table III.3 Distribution of Household according to the type of House

Type of House	**Frequency**	**Percentage**
Pucca	233	93.2
Semi-Pucca	17	6.8
Total	250	100.0

Source: Fieldwork

[60] Half- Concrete

The distance between the two houses was narrow (Plate III.2). The lanes were poorly lit. It was observed by the researcher that there was no proper ventilation and if there was a window it was very packed. During fieldwork, it was winter season people in the house did not get proper sunlight and the houses were very cold. Although most of the houses are *pucca* it is very suffocating with less ventilation space. Some landlords in the study area built their houses in good condition with proper ventilation and enough spaces outside the house. It was found that the spaces left between two buildings was used to develop *semi- pucca* houses which were occupied by the poor who mostly involved in cleaning and domestic help works. They have only one room to live in where they cook, sleep, and eat and for the water need they ask for the landlord's buildings. For toilets use they go in Public Park (open defecation), public toilet, and *sulabh shouchalaya* which paper explains in Table III.6. We can see in Table III.4 the distribution of respondents according to the number of living rooms gives us an idea that the majority (70.0%) of the respondents were living in one room, and very few (22.8%) of the respondents were using two rooms and few (7.2%) of the respondents were having three rooms and more than three rooms set up with separate kitchen and bathrooms. It was observed that most of the respondents who are living in one room are migrated. Those who are landlords having two or more than three-room, they build their houses for rent purposes only. Therefore, the size of the rooms is small with a small kitchen and small bathrooms. The house is not designed keeping in mind the health of anyone. People also come here to earn money being a renter; no one is unable to speak anything to their landlords. If somebody complaints about something, the landlords respond by saying:

"*Go and spend more money and stay in good places*."

When researchers asked about the size of the room and ventilation problem one key informant articulated that: "*Yeh zamin hume jab mili sab aise hi jise jo lena tha le liya sab ne apne apne hisse ka ghar banwa liya jis ko jitni zamin mili. Kyuki sarkar ka hast chep nahit hai sliye sabne apne hisab se kabza jama liya aur uske baad ghar banwana shuru kar diya. Isliye kisi ke ghar bade bane kisi ke bahot chote. Aur phir usi hisab se building badhani shuru kr di rent ke liye isliye yaha ke room size chote*

hai aur gharo ke bich kam jagah bachi. Par India capital hone ki wajah se log har saal aate hai rent pe ghar lete hai.[61]*"* [KI 6].

Plate III.2: Narrow Lanes Between the Houses

Source: Fieldwork

In Plate III.2, one can observe the room condition from the outer side, even in the daytime, there is no light and no cross ventilation identified. They need to use electricity to perform their daily work. The children are growing in this condition

[61]When we got this land, we got all those who had to take it, all got their own house of land, which got all the land. Because there is no interference of the government, so everyone took possession of it accordingly and then started building the house. So, some house made bigger and some very smaller. And then, accordingly, the building started to grow, so the room size here is small and there is less space between the houses. But due to being India Capital, people come every year to get home on the rent.

which makes them vulnerable. There are loose wires hanging outside the houses, spaces are very less to move or to live a comfortable life.

Plate III.3: Room condition and living standard of the House

Source: Fieldwork

Table III.4 Distribution of Respondents According to Number of Living Rooms

Number of Rooms	**Frequency**	**Percentage**
one room	175	70.0
Two rooms	57	22.8
Three rooms and above	18	7.2
Total	250	100.0

Source: Fieldwork

Table III.5 reveals the number of rooms distribution of respondents according to their age groups where we can see in all age groups (10-19) one room setup are more to be found among all age groups listed in Table III.5 which is 175 out of 250 respondents. Thus, we can say the living condition of adolescents who lives in one-room houses are more in numbers. As we know adolescent age is a transition phase from childhood to adulthood and at this phase of time adolescents need special attention and

protection; at the onset of puberty and greater personal freedom make adolescents acutely vulnerable, and girls especially so (UNICEF 2012). Therefore, every girl needs her freedom so that her intense physical, mental, and emotional development will not be affected by the surroundings where she lives. But here we have found there is a single room given to all family members to live in and even for sleeping purposes at night.

Table III.5 Distribution of Respondents According to Number of rooms and their Age Groups

Age Group	Number of Rooms			Total
	One Room	Two Rooms	Three Rooms	
(10-12)	58	23	6	87
(13-15)	49	14	4	67
(16-19)	68	20	8	96
Total	175	57	18	250

Source: Fieldwork

There are many adolescents that the researcher found while collecting data who were unspoken and shy. They hardly share their problems till it becomes serious especially during their menstrual cycle it is very difficult for them to live in the same room where all family members are sleeping. There was one adolescent she shared her problem with the researcher as stating:

"*Ek room mein sona accha nahi lgta par rent itna jyada hai ki hamare papa bada ghar nahi le sakte kyuki income utni nahi hai. Raat ko bhot pareshani hoti hai periods mein kabie kapdo pe lag jata hai toh kabie bed pe bhi lag jata hai bhot sharm aati hai sab ke samne. Bathroom bhi bahar hai sharing mein light to rehti hai par hamesha aisi pareshani hoti hai to man chid chid ho jata hai gussa aata hai bhot*[62]". [KI 4]

According to the above statements by adolescents, we can imagine how much mental pressure and stigma they are facing every month but are coping with the situation because there is has no other option left and it is directly affecting their mind slowly.

[62]Sleeping does not look good in one room, but the rent is so much that our papa cannot take a big house. There is a lot of trouble in the night sometimes blood stain comes over my clothes and on the bed; it is very shameful in front of everyone. Bathroom is also outside light is there, but it is on sharing basis, if this problems often occurs, then I get annoyed and gets angry.

In these circumstances parents prefer their girl to get married soon as a result she may be cut off from their families at her early age, their formal education is left behind, their overall development, and the fulfillment of their human rights may be compromised (UNICEF 2012). This situation makes them more vulnerable in terms of physical, mental, and emotional development; they are not ready to change their personality and behavior in their new environment after marriage very suddenly. Now in Table III.6 reveals the distribution of respondents according to their toilet use here we can observe the above statement by the adolescent. Table III.6 shows only half (50.8%) of the respondents having sharing toilets facilities. More than one third (37.2%) of the respondents have their own toilets facilities. This also shows us the cleaning and sanitation awareness still missing in these areas where half of the population does not own toilet facilities, if we look at the National program; India launched the Nirmal Bharat Abhiyan, national sanitation program in1986 intending to provide subsidies for building latrine in every home[63]. But during fieldwork researchers also found there is no proper sewage system available and poor kids are using parks or drainage for latrine purposes which causes an unhygienic atmosphere. There are some *sulabh shouchalaya* built for the urban poor but there is negligence of water and no proper maintenance which makes this more unhygienic for use. The study also shows that because of the unavailability of toilet use and open defecation there are deadly consequences that occur every year in India[64].

Table III.6 Distribution of Respondents According to their Toilet Facilities

Toilet Facility	**Frequency**	**Percentage**
Own Toilet	93	37.2
Shared Toilet	127	50.8
Public Toilet	19	7.6
No Toilet/Open Defecation	11	4.4
Total	250	100.0

Source: Fieldwork

[63]https://scroll.in/article/656661/How-Sikkim-built-toilets-for-all-%E2%80%93-and-why-the-rest-of-India-is-struggling-to-catch-up. How Sikkim built toilets for all – and why the rest of India is struggling to catch up.

[64] The Sanitation Challenge." *Economic and Political Weekly*, vol. 44, no. 4, 2009, pp. 6–6. *JSTOR*, JSTOR, www.jstor.org/stable/40278821.

Although the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) targets 100 percent sanitation coverage in urban areas, it was only in October 2008 that the government came out with the National Urban Sanitation Policy (NUSP). Where 8.1 percent use community latrines, 19.49 percent share latrines, 18.5 percent have no access to drainage, and 39.8%are connected to open drains. It also aims at community participation, raising awareness, changing behavioral attitudes, making our cities open defecation free, and the safe disposal of solid and liquid human wastes with special emphasis on the poor and women (The Sanitation Challenge 2010). Thus, this is becoming a serious problem and still exists in the community, many migrated people also feel discriminated against by locals because they come from a rural place and so they hardly complain about their lack of basic amenities. Some respondents claimed that it is worst in the rainy season for those who have *semi-pucca* houses who face different kinds of communicable disease infections directly.

Now, if we reflect on the family environment which the researcher observed during data collection, it was seen that those who have a single room must cook in the same room. The color of the wall also changed because of regular cooking it was found dark and sticky because of no ventilation. In table III.7 distribution of respondents according to space for cooking where we can see more than half (64.4%) of the respondent house had no separate room where they can cook food. On the other side more than one third (35.6%) of the respondent's houses had separate spaces for cooking. A larger proportion of the population in the study area came from deprived groups. There is no space in the room left for other purposes like sitting, studying, and other daily routines. According to some research it was determined that the kitchen was considered as a distinct zone where other activities of the family are restricted. It is a zone that needs some extra area for house lady to perform their work which gives her a distinct character in her family (Smith 1971).

Table III.7 Distribution of Respondents According to Cooking Space

Availability of Cooking Space	**No. of Households**	**Percentage**
Cooking Space Available	89	35.6
Total	250	100.0

Source: Fieldwork

Over 72 percent of all households in India and 90 percent of households in the poor countries, cooking is done in the same room where the family sleeps and spend most of the time. This results in respiratory, or lung infections and it was mostly found among women and kids (Duflo et al. 2008). It was also discussed that if there is no space in the house children of the family spend most of the time outside and therefore their chances of involvement in criminal activity or drug abuse are more. There is also less involvement of child-to-child interaction, they start taking part in adult conversation and follow their activity at their early stage of life (Smith 1971). Thus, we can say the size of the room and living atmosphere directly influencing the child's physical and mental development.

III:2. Migration and Income in Urban Villages

According to the Census 2011 of India 307 million people have been reported as migration by place of birth. Out of them about 259 million (84.2%), migrated from one part of the state to another, i.e., from one village or town to another village or town, and 42 million (2%) from outside the country.[65] Migration is considered as one of the important aspects to analyze health because they are directly or indirectly interconnected. Migration is also a unit of transfer from one place to another, some people migrate for better employment and some for education and marriage. In the study area, most of the population migrated for employment and marriage some group discussion of the landlord of the study area which was articulated that:

"Hamare yaha jyadatar students aate hai aur choti family wale sab aate hai jiski shaadi hui hoti hai. Hamare yaha room bhale hi chote-chote milenge aapko jo rent purpose ke liye banwaya hai par privacy mein koi kami nahi hai kyuki hume to bus rent milne se matlab hai. Subah aur sham sab ke liye pani chalate hai tank mein taki pani ki dikkat na ho. Hamare bacche bhi jyada padhne mein interest nahi lete kyuki unhe fir baad mein hamara kaam dekhna hoga.[66]" [FGD 4].

[65] http://censusindia.gov.in/Census_And_You/migrations.aspx. Office of the Registrar General and Census Commissioner, India. Ministry of Home Affair, Government of India.

[66] In our place, most of the students come here and others with small family, and are married., come here Even if our rooms here are small, we have built for the rent purpose but there is no shortage of privacy because we all want our rent on time. In the morning and evening, water runs for everyone so that there are no water problems for renters. Our children also do not take too much interest in reading too much, because they have to see our work later.

In Table III.8 distribution sample of the respondent according to their previous place of living shows, more than half (64.4%) of the respondents come from the rural areas and very few (3.6%) of the respondents came from the urban areas and one third (32.0%) of the respondents were born in Delhi itself. Thus, we can say the number of migrated populations is highest in the study area even if they belong from a good income family, they are ready to live in a place where they get fewer basic amenities and a very suffocating living area. There were three dominant reasons identified behind migration they are marriage (family movement), education, and most important employment.

Table III.8 Distribution Sample of Respondents According to their previous Place of Living

Earlier Place of Staying	Frequency	Percentage
Comes from a Rural area	161	64.4
The shift from another Urban area (Outside Delhi)	9	3.6
Birth in Delhi	80	32.0
Total	250	100.0

Source: Fieldwork

The Census of India included two questions from which migration data can be derived first is the place of birth and second is the place of last previous residence (Skeldon 1986). Therefore, Table III.8 gives a broad idea about the earlier place of living where respondents come from. If we see more than half (64.4%) of the respondents migrated from a rural area that means most of the families are poor and unemployed. In one study it is mentioned that migration is more often seen as a product of poverty and mostly happens in developing countries (Black et al 2006). Therefore, in Table III.9 distribution of respondents according to housing status shows that the majority (86.0%) of the respondents having rented houses and very few (14.0%) of the respondents are having their own houses. However, those who are having their own houses put it on rent purpose and they extend their houses to earn more and more money but there is a lack of ventilation with very small room arrangements.

Table III.9 Distribution of Respondent According to Housing Status

Currently Living	Frequency	Percentage
Own House	35	14.0
Rented House	215	86.0
Total	250	100.0

Source: Fieldwork

On one side those migrants who come from rural areas have never received any kind of good healthcare, education, and other basic amenities but can get better advantage of living in an urban village. They have a local dispensary, healthcare, schools, park, and other benefits of living in India's capital. But on the other side if we look at the living environment they live in very suffocating environment, tiny rooms, shared bathrooms, less private space for family, basic household facilities, and transfer of new disease and crowding space which makes them vulnerable by staying in an urban village. The present location is important here to understand their living environments as we saw above in Table III.8 earlier place of staying, where more than half (64.4%) of the respondents came from a rural area so the differences can be obtained in terms of health care utilization, education, and livelihood. Many respondents responded that at the present location they could access health care at anytime and anywhere but in a rural area it is restricted by its timing, availability of resources, and manpower. Even the condition of the schools is very bad in a rural area here at least kids are going to school regularly and they are getting a mid-day meal also but in the village it is problematic. Bringing two dimensions to analyze an individual's growth one is where they come from and present location how much it is benefiting to them.

People move from rural to urban for better livelihood and expect that they will get a good income in comparison to a rural area. There is one study on migration which clearly shows that there is always a difference between non-migrants and migrants in terms of their overall developments; rural to urban migration and are mostly caused by the lack of planning in urban areas to take care of the natural growth of urban population. It is contended that migration tends to swell the ranks of the unemployed in the urban areas, or then forces the migrants to take up work in the unproductive and low-income activities in the informal sector. It leads to squatter settlements and puts a severe strain on the urban utility systems. Problems of urban congestion, social

disorders, and crimes are often attributed to the phenomenon of migration from rural areas (Papola 1988). The qualitative data on the research area also confirmed that, although migration occurred due to unemployment the current situation does not much acquire them what they come for. Parents came here for better livelihood, income, and education for their children, but many adolescents are distracted by new gadgets in markets and are focusing on the latest songs and movies on television. They try to copy the lavish lifestyle from movies and songs rather than concentrating on their studies, they also ask their parents for smartphones and tablets. Rapid changing lifestyles may be a risk to their parents and make it difficult to survive in an urban village.

Table III.10 Distribution of Respondents According to the Duration of Stay in Delhi

Duration of Staying in Delhi (Year)	**Frequency**	**Percentage**
Since Birth	17	6.9
<1	16	6.5
1-5	25	10.1
6-10	69	27.9
11-15	11	4.4
15 and above	112	44.2
Total	250	100

Source: Fieldwork

If we compare respondent family according to their family monthly income in Table III.11, we come to know that very few (8.8%) of the respondent's family earning is more than 50 thousand. They have good assets like LCD television, double door fridge separate kitchen-bathroom, healthy diet, access to good healthcare, more than two rooms, own house, and land. However, the percentage we can observe (between 15 -20 thousand) where only a little above one fifth (23.2%) of the respondent families earns a monthly salary and they are living in rented houses migrated from the rural area, with poor assets and lack of basic amenities.

Their houses are very suffocating and attached to other houses which make a very congested living environment. While discussing adolescent health it is important to

bring income distribution among different families to analyze how income is influencing health. Many studies reveal that income is the major reason for the overall health of the individual because income inequality causes health problems among the poor and marginalized. Consequently, stress and depression are some of the serious illnesses occurring nowadays because of low income. Income inequality produces communities in which there is little social provision for the well-being of the poor. This affects the health of the poor directly, through the provision of health care, and indirectly, by producing an unjust social climate that has its negative psychosocial consequences (Mellor and Milyo 2001). There are so many examples of public health in the past wherein income and mortality rates are inversely related to each other

Table III.11 Distribution of Family According to their monthly Income

Monthly Income of the Family	Frequency	Percentage
<15,000	47	18.8
15,000-25,000	92	36.8
25,000-35,000	52	20.8
35,000-45,000	18	7.2
50,000 and above	19	7.6
Do Not Know	22	8.8
Total	250	100.0

Source: Fieldwork

Children that are raised in poverty, and adults living in poverty, are more likely to experience poor nutritional patterns, receive less adequate medical care, live in overcrowded and unhealthy circumstances, and are more likely to be exposed to environmental risk, infection, and illness (Haggerty and Johnson 1996). It will not be wrong to say good income increases the family health and lowers the mortality rate, good earnings increase choice of health care access, and monthly diet consumption. There is one dimension in social science to analyze family status i.e., family having a bank account or not. It was very surprising to reveal that majority (82.4%) of the respondents do not have an account in the bank (Table III.12). This shows they do not have enough savings to put in any account; and the lack of personal documents which

facilitated opening an account in any bank. Some key informants talk about financial problems they articulated that:

"*Humlog yaha bhot hope lekar aaye the ki acchi kamayi hogi par bade city mein raho to extra saving ho hi nahi pati hai. Ghar wale sochte hai sehar gya hoga to ghar pe paise bhejega jab zarurat hogi par nahi bhej pate hai to who log ulta samjh lete hai. Uper se kiraya inta jyada hai baccho ki school fees aur ghar ka kharch sab mila jula ke hath mein kuch nahi bachta*[67]*"*[KI 3].

Table III.12 Respondent who have Bank Account

Bank Account	**Frequency**	**Percentage**
Yes	44	17.6
Total	250	100

Source: Fieldwork

Table III.13 reveals that the majority (94.00%) of the respondents are students and others involve in earnings (part-time/full-time) helping their families. There was a family of five daughters and all of them had dropped out of school and were doing nothing. All sisters were school dropouts they have plenty of reasons majorly it was, "once I fail in the exam I left school, teachers do not like me they always target me, so many domestic works look after my siblings."

Apart from this, they wanted to do something, but they do not have proper knowledge and guidance, when the researcher asked about the plan they said-

"*didi hum sab kuch karna chahte hai par samjh mein nahi aata kya kare aur kaha se shuru kare. Ghar wale ek ek kar ke sabki shaadi kra denge aur padhai dubara shuru kar nahi sakte kyuki jab school chode the tab chote the ab bade ho gaye hai usi class se dubara shuru karne ke liye. Humsab din bhar aise hi bekar baithe rehte hai khana banana khilana aur baki chote chote ghar ke kaam bus*.[68]" [KI 4]

[67]We have come here with lot of hope in the city, but we do not have any extra savings. Our family in village thinks we would send money when they need but we are unable to send them money, so they think us wrong. We unable to save money because here rent is so high, school fees and our own expense it is difficult to survive.

[68] We wanted to do something but from where we start and what to do? Our family one by one marry us and we cannot starts our school again because when we left school that time, we were so small and now we are old for that same class. Without any work we are just sitting at home and just cooking and eating and nothing else.

Table III:13 Distribution of Adolescent according to their Work and Income

Type of Work	Monthly Earning	Frequency	Percentage
House Maid	1000-2000	2	0.8
House Cook	2500-3500	5	2
Beautician (Part Time)	3000-4000	4	1.6
Salesgirl (Part Time)	4500-5000	4	1.6
Students	Getting financial support from family, researcher did not find any scholarship or reimbursements facilities.	235	94
Total		250	100

Source: Fieldwork

As education is one of the important elements by which one can achieve their goal later in life, it depends upon the family background and family history. It is rightly said that the parent's education and neighborhood environment is universally responsible for a child's education. In the field area all houses are close to each other there are no peaceful environments for students, even in the house number of family members in single rooms are more and not suitable for student's own space. According to Pierre Bourdieu cultural capital theory comprises a person's assets that include his/her knowledge, skills, style of dress, style of speaks, intellect, and family background (economic stability) transfers from one generation to another which is responsible for the overall development of a child. He also discusses that the possession of cultural capital varies with social class, yet the education system assumes the possession of cultural capital. This makes it very difficult for lower-class pupils to succeed in the education system (Bourdieu and Passeron 1977). Therefore, the number of school dropouts increases in this situation, besides the study area is in the capital of India where there is no hundred percent literacy. Table III.14 describes the reason behind school dropout, and it is shocking to learn that children do not feel like going to school is very few (6.0%). When the researcher asked them, they replied-

"*Teacher se dar lagta hai", "Teacher hamesha mujhe target karti hai", "Fail hone ke baad school jana accha nahi lagta", "Ghar mein itne kaam mummy deti hai ki school*

nahi ja pati", "Chote bhai-behan ko dekhna padta hai kyuki mummy-papa kaam pe jate hai", "papa ke sath chicken shop pe baithna padta hai", "mujhe padhai samjh mein nahi aati[69]" [KI 7].

Table III.14 reveals that more than half (64.0%) of the respondents can attain education because they do not have any obstacles. On the other side regarding school dropout girls, we can say as a girl child has many duties in her house and some moral obligations to discontinue her education. The other stranger sequence observed in the field that many girls felt they do not want to go to school. Many reasons came out from several respondents these are fear of teacher, fear of getting fail in exams, in class when the teacher asks questions in front of everyone. Urban village is not an area where girls get encouragement for studies, once girls denied for study further then no one makes them aware, Parents give more preference to boy child for education, girls must look after her siblings and home as well and there is always some level of inequality of opportunities in girl's education which still exists in our society (Vaid 2004).

Table III:14 Distribution of Respondents According to their reason for School Drop Out

Barriers in continuing School Education	Frequency	Percentage
Migration	12	4.8
Marriage	14	5.6
Domestic Work/ Household work at home	20	8.0
Own Health Problems	3	1.2
Do Not Feel Like Going to School	15	6.0
Parents Looking for Groom for marriage	3	1.2
Started Working now	14	5.6
Joined a Professional course	9	3.6
Studying currently (Regular student)	160	64.0
Total	250	100

Source: Fieldwork

[69]"Scare of teacher", "teacher always target me", "after getting fail I do not feel like going to school", "my mother gives so much domestic work so that I am not able to go to school", "I have to look after my younger siblings because mother-father go out for work", "I have to sit with my father in his chicken shop", "I do not understand studies".

We can also say here not just the student's family and background influences their education but also the structure of school and its environment depending upon the discussion. Under *Sarva Shikha Abhiyan* and Mid-Day Meal Scheme some changes also occurred, but India still has not adopted its full literacy. There is always a need for schools and the broader educational community to create opportunities for success and to provide necessary supports for all children to meet educational standards is complicated by requirements in many states that students must pass state high school exit exams to earn a standard diploma (Sandra et al 2004). Many respondents who come from the same surroundings almost have the same mindset regarding education they do not understand the actual necessity of education which can change her life completely. As to copy new fashion and trends they want to earn money as soon as possible so that they do not have to ask their parents.

III:2. a. Marital Status and Health of the Respondents

After discussing education among adolescents, it is also important to discuss the early marriage of adolescents and its negative impact on health. Many studies have been done on the early marriage of a child and early childbearing problems which the researcher should highlight here as a serious problem in our society. Indian society is still based on patriarchal tradition which gives some restriction for a girl child that impacts throughout her life. Adolescent marriage may bring abrupt stresses (e.g., due to the rapid assumption of marital and other "adult" responsibilities) that are independent of those associated with parenthood but have similarly disruptive effects on the resolution of adolescent developmental tasks (Douglas 1989). Also, this leads to anemia among adolescents and other menstrual cycle-related problems day by day, so it was necessary to focus upon.

In this section the research will attempt to bring out the information about adolescent girls and their marital status by Table III.15 where we can see the respondents who are adolescents comprise of very few (11.2%) of the respondents who are married in the study area. They reveal some shocking experiences which is later explained in a case study subsequently (Case study 01).

Table III.15 Distribution of Respondents According to Marital Status

Marital Status	Frequency	Percentage
Married	28	11.2
Unmarried	222	88.8
Total	250	100.0

Source: Fieldwork

III:3. Case Studies

While interviewing adolescents in the field there were two case studies which clarify that being a girl is challenging for both married and unmarried in deprived socio-economic area. Both live in the different urban village but due to lack of communication, they are unaware about adolescent health, shy nature towards own health result in them putting their lives at risk. These case studies are discussed in this chapter, and they highlight that the place where we live has a great impact on us. The case studies of Sandhya Devi[70] and Chaaya Kumari offer different field insights in showing how two girls in the same age group of their adolescents struggling from their different roles in her life.

III:3. A: Case Studies 01

III:3. a: General Profile

Sandhya Devi 19 years old wife of Aashish Singh Bhadariya (24 years old), an Ola taxi driver. Originally, they are from Rajasthan but many years ago their parents migrated to Delhi for a better livelihood. Her mother-in-law Meera Devi is currently Anganwadi helper, and her father-in-law Dharmendra Singh is an auto driver. All are living together in a two-room rented house in Ber Sarai since the 1990s. Two years back Sandhya Devi got married to her husband at the age of 17. They both belong to Hindu families and come under OBC category. Sandhya Devi studied till 5th class in her village, but she cannot read and write, and the researcher found that she is illiterate and even unable to write her name. This family had a very tragic suicide history of Meera Devi's elder son, who committed suicide and hang himself in their

[70] All names have been changed for ethical reasons.

house in native village. This is the major reason behind her early marriage because this family wanted to recover from the past pain of their elder son.

III:3. b. Household Details

It was two rooms pucca house with a separate kitchen and bathroom followed by a small balcony space. There is only one door on the front side and no window; the source of light is only electricity. They have their own house in the village but here they are giving Rs. 9,000/month rent. Family income is near about 48,000/ month, his father-in-law earns 15000/months, mother-in-law earns Rs. 25,000/months and Sandhya Devi's husband earns near about Rs 8,000-10,000/month. They have two-wheelers, a television, mobile phones, electric water purifier, fridge, LPG gas connection, and every minimum household asset which is essential. When the researcher asks about electricity, they said in winter electricity is normal but in the summer season, there is a regular power cut.

III:3. c. Early marriage and Health

As was discussed earlier family income is normal for small members of the household, but the researcher identified a few problems that exist in the Sandhya Devi case. Marriage before the legal age makes her vulnerable in terms of reproductive and sexual health. During the menstrual cycle, she is facing severe lower abdomen pain, leg pain, vomiting, nausea, heavy bleeding, weakness, and back pain. She told the researcher that, her health problems become a barrier in daily household work and create difficulties for others too. She further admitted that '*these problems started happening after my marriage before I was very active and healthy'*. Family pressure for having a grandson became the major reason for three times miscarriage; her body is still not mature enough to conceive a baby. As the husband is working including weekends and comes at night directly. So, she never gets a chance to tell him all these problems, only her mother-in-law available to look after her.

III:3. d. Family Income and Health Seeking Behaviour

Earlier it was mentioned that family income is not very less for all members of the households. Routine checkups are not being performed concerning her reproductive and sexual health. The researcher observed that regular attempts for baby with less involvement of doctor's guidance and more interference of mother-in-law puts her

health in danger. Like her mother-in-law, she is an AWCs helper, but she hardly understands her health problems. This is the major reason to consider Sandhya Devi's case as a serious concern. When the researcher asked about her daily food consumption, she mostly denied that food is essential for her growth and development. She is having a morbidity of illnesses related to her sexual and reproductive health. However, she is not having any kind of nutrition supplements which can be necessary for her critical health. Even though she is anemic she is not undergoing any anemia treatment and hemoglobin test last three months.

III.3.e. Interpersonal Communication and Adolescent Health

As it was discussed adolescent age is a very important phase of life because enormous changes are happening in the body as well as psychological changes too. At this phase of life, adolescents need proper counseling and guidance for the rapid changes happening in their bodies. In this case, study researchers observed that there is a lack of communication between Sandhya Devi and her mother-in-law case. Meera Devi is the helper of AWCs at least she knows the basic care of her daughter-in-law's illness. But there is one English phrase "*Nearer the Church, farther from God*". As an AWC, she advises others to take care of their health but at her own home her daughter-in-law is facing series of illnesses. Wanting a baby and neglecting her health leads to serious long-term illness. She is in her in-law's house where she unable to express her desire and decision-making depends upon her mother-in-law.

III:3. B. Case Study 02

III:3. a. General Profile

Chaaya Kumari 17 years old daughter of Shiv Sahay (46 years old) and Mamta Devi (40 years old). Originally, she comes from Uttar Pradesh and lives in Munirka Urban Village with her elder sister Muskan Kumari (25 years old) while the rest of her family is in the village only. It was very tough for both of her to live here alone without their parents just for income. Initially, their parents were not ready to send them here but after seeing their interest in Mehendi[71] design making and art love they

[71]A design made on someone's hands with henna.

agreed to send them here. They come from a Hindu family and come under OBC category.

III.3.b. Household Details

The researcher did not get a chance to see their house, but they explained it verbally. They live in a small room where the kitchen is arranged for two of them neatly. They share toilet with their neighbors in the same building. In the room, there is only one door no other window for ventilation, when they cook, they open their front door to avoid suffocation. They pay 3,500/ month's rent from their income and the rest amount is used for other expense. If they can save some money during the seasonal time for Mehendi making they send some income home. Both the sisters have mobile phones, one bed in the room, a stove for cooking, and some most essential items required by them on the daily basis. They did not complain about electricity it is available for 24 hours at their home.

III:3. c. Socio-Economic Status and Adolescent Challenges

When we were in the village it was very difficult for girls to express their wishes in front of their parents and elders. Our family is based on agriculture, our parents were not able to send us to college after school due to lots of problems we have faced like income, gender, patriarchy rules, and a dropout rate of girls in the school. College is very far and most of the girls are school drops out if one girl wants to do something peculiar social condition does not allow her to fulfill educational demand. In the village, girls get married early, and the rule of the government does not matter to the people here not to marry your daughter before 18 years of age. We have faced many social barriers before coming here, no one will marry you both, you will get old, this is real life, there is no cinema where you will find a hero at the end and so many others. After coming and settled here we felt like free birds, we can do whatever we want to. We have some personal customers in the Vasant Kunj area they call us personally for Mehendi making and we get a good amount. We are free to move anywhere anytime without hesitation and fear of family and society. Our life is now on the real tract where we wanted it to be before we did not earn but now, we have our own money, and feel independent and confident.

III:3. d. Living Standard and health Care Need

While living here we have little space and some hygienic issues in sharing toilets because it has no ventilation and feel very suffocating. People do not use it properly we always find it unclean with shortage of water. While menstruating it is unfortunate to have a toilet like this, we don't have a proper disposal facility in our building. The landlady says throw your used pad/cloth outside the building it is dirty if you throw it in the household bin. The landlady always says,

"*Jab gaon mein thi to waha bhi open mein hi pad/cloth fekti thi na to yaha bhi bahar hi fekakaro*[72]."

Whenever we complaint for dirty toilet and water problem she argues with us.

"*Gaon mein konsa ghar mein nalka laga hoga, yaha hamehsa to problem nahi hoti kabie kabie hoti hogi toda adjust karna bhi sikho, Toilet to open mein hi hoga tum logo ka kam se kam yaha toilet to hai tum logo ke liye jo ki kabie bhi istemaal kar skati ho*[73]."

This kind of experiences Chaaya Kumari and her sister faces everyday now they store some extra water in their room for emergency purpose. Though this is not a permanent solution they continue to struggle for their hygiene issue in their own surroundings. They have never met any Anganwadi helper who came to them for the distribution of sanitary napkins. They do not know why and what is the purpose of Anganwadi centres in their surroundings when researcher asked.

III:4 Discussion

In this chapter on and average researcher got similar kind of response pattern among all three urban villages: Katwariya Sarai, Ber Sarai and Munirka. All characteristics are same on different kind of issues such as toilet facilities, no separate space for cooking, and majority of the respondents came from the rural areas. Therefore, the above description of the chapter given a same similarity in socio-economic demographic profile in the three study areas. Even living standard in the urban village

[72] When you were in the village, you used to throw your used pads / cloth in the open field, so throw away here too.

[73]Which house must have been taped in the village, it is not always a problem here try to learn to adjust sometimes? You must have done the toilet in Open field at least there is a toilet for you people who can use it anytime.

shows a similar housing pattern such as single room occupied by the families more than 4-5 persons. The houses are closed to each other not identified proper ventilation, access of sunlight and wind. Adolescents in urban village girls are facing personal hygiene problems during nighttime in the shared bathroom. There were similar issues found by the researcher behind the school dropout for adolescents girl. It was not easy for them to continue their studies with barriers like household's responsibilities, no separate room for studies, look after their younger siblings, lots of disturbance by the neighbourhood. The similar reason obtained by the researcher behind the need of early earning, such as parents not fulfilling their demand, living in a capital city they want to look perfect, families are less educated therefore their children not able to get any inspiration or guidance. Thus, given qualitative analysis in the field researcher got by and large similar kinds of responses with the support of the above description.

III:5. Conclusion

Based on the preceding data, many people residing in the study area live in *pucca* houses located in narrow lanes with limited space for ventilation. Most of these houses consist of single rooms due to which studying, sitting, cooking, sleeping, etc. are done in a single room, this results in most children spending most of their time outside the houses which in turn leads to limited interaction with the members of their families. The houses have minimal daylight and constricted space for moving around in the house. Members of all age groups in these families share a common living space. It can be concluded that such conditions prove to be a hindrance to the physical and mental growth of these adolescents. Most of the girls interviewed/contacted for this study showed hesitation and shyness in sharing their problems. The study also reveals that the girls going through menstruation experience difficulties in sharing common toilets and living space with no privacy at all.

One of the significant findings of this study is that most of the interviewed girls did not display any kind of awareness towards personal hygiene. As has been seen through the fieldwork data that most of the families residing in the study area have migrated from rural areas in search of better lifestyle and employment opportunities. On the contrary, these people have been pushed into living in congested urban areas rampant with social disorders and crime. The study has also revealed that instead of achieving better education in urban cities, most adolescents struggle with coping with

a lavish city lifestyle. Rapidly changing lifestyles have also been understood to be a risk for survival in urban areas. Lack of money also leads to adolescents dropping out of school to earn for families. The rate of dropouts is higher for girls as the education of boys is prioritized in our country, whereas girls are left to be responsible for looking after their siblings and doing house chores. These findings are evident through the case study of Sandhya Devi, who experienced early dropout from school which in turn lead to early marriage leading to her poor health both physically and mentally. At the same time, early pregnancies and ignored reproductive health have further harmed her physical being. Another case study of Chaaya Kumari showing the adolescent real-life challenges against the patriarchal society and her everyday life experience in the urban village without family.

Here it can be concluded that to achieve wholesome adolescent health, there is a need for a multidimensional approach covering all the major aspects of health problems with utmost emphasis on behavior change, mental health, positive environment, and physical wellbeing.

CHAPTER -4

Adolescent Girls and their health Concerns

IV:1. Introduction

This chapter focuses on the general health concerns and the problems faced by adolescent girls in the urban villages of Delhi and their treatment-seeking behavior. This chapter discusses the reported health problems, anemia symptoms, the decision for treatment, and menstrual health-related issues concerning the condition of the adolescent girls. These issues have been categorized as follows: health problems and treatment-seeking behavior, anemia among adolescent girls, and decision making to access health care, and menstrual health practices. This chapter also discusses the usually underrated problems related to the menstrual cycle and urinary tract infection issues of the adolescent girls. The present chapter ends with one case study which shows how socio-economic conditions and communication gaps between adolescent girls and their family members, especially mothers are important for addressing their health issues.

IV:I.a. Health Problems and Treatment Seeking

It is well known that health problems can be short terms or long illnesses. These can be communicable or non-communicable diseases. As per the report of the NSSO (2016), there are 61 types of health problems that have been reported during the reference period of 365 days before the survey. For this study, there were 10 health problems recorded during the reference period of three months before the survey. These health problems are - Cough, Seasonal Fever, Weakness, Body Ache, Leg Pain, Irregular Periods, Heavy Bleeding, Stomach Pain, White Discharge, and Loss of Appetite (Table IV.1).

The respondents have reported multiple health problems. Figures in Table IV.1 indicate that a vast majority (96 percent) of them have suffered from cough followed by seasonal fever (93.6 percent) and weakness due to unknown reasons (62.2 percent). Body ache, leg pain, heavy bleeding, stomach pain, white discharge, and loss of appetite are linked with menstrual problems among adolescent girls. All these health problems are interlinked. For example, cough and seasonal fevers have generated body ache and loss of appetite, and resultant of this they have felt weakness

and leg pain. This may be due to irregular periods and heavy bleedings sometimes it was found weakness throughout the day. There were 47.7 percent and 40 percent of them who suffered from irregular periods and heavy bleedings respectively. NSSO (2014) has reported that about 15 percent of females are suffering from genitor-urinary diseases. It has been observed that adolescent age is the intermediate stage of life of the girl between childhood and adulthood, and they experience various biological and physical changes in their bodies. Consequently, due to these changes adolescent girls have suffered from various health problems and mental excursions. Living in an urban village with low-income status in the family is largely the main reason for the problems in the early stage of adolescent life. It was observed by the researcher that those who use shared toilets have a higher incidence rate of urinary tract infections and itchiness over the vagina or valve such as Chlamydia, Syphilis, and gonorrhea.

Table IV.1: Illness Reported by Adolescent Girls

Health Problems	**Adolescent girls reporting Illnesses**	**Percentage**
Cough	241	96.0
Seasonal Fever	235	93.6
Weakness	156	62.2
Irregular Periods	119	47.6
Heavy Bleeding	100	40.0
Stomach Pain	85	34.0
Leg Pain	59	23.5
Body Ache	58	23.1
White Discharge	23	9.2
Loss of Appetite	22	8.8
Note: Multiple responses for each health problem (N=250)		

Source: Fieldwork.

Note- Distribution of adolescent girls by reported health problems during the last three months preceding the fieldwork

National Sample Survey (NSSO)[74] reported that pregnancy-related problems have been faced by adolescent girls in their early years (10 years of age). As it is generally accepted that the reproductive age of women is considered to begin from age 15 years to 49 years. As evident, the adolescent girl 15 years old reported the highest percentage of reproductive tract infection (75.2) and genitourinary (62.4) health problems in India. At the age of 17 years, a vast majority of them have suffered from back and body-ache. This information is not available for Delhi, but there were two health problems reported by the adolescent girls in Delhi which were collected by NSSO from January to June 2014. Hypertension (46.7%) and abnormality in urination (53.3%) has been reported by nearly half the adolescent girls[75].

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Percentage distribution of Adolescent Girls in India,2014

Adolescent age (yrs)	*Health Problems (Nature of Ailment)											
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
10	19.9	11.7	34.3	19.9	59.4	67.6	-	-	-	-	-	5.5
	-	-	-	-	-	-	0.1	-	-	-	-	-
11												
12	11.6	10.9	4.4	11.6	-	8.8	0.8	-	24.8	-	-	-
13	3.8	-	-	3.8	-	-	-	-	-	-	-	-
14	**5.1**	**5.7**	**-**	**5.1**	**4.0**	**-**	**64.6**	**-**	**-**	**-**	**-**	**43.0**
15	**11.7**	**62.4**	**-**	**11.7**	**-**	**-**	**2.4**	**-**	**75.2**	**-**	**-**	**-**
16	11.6	3.8	8.6	11.6	-	-	-	-	-	-	41.3	8.5
17	16.8	3.1	7.2	16.8	12.7	14.3	1.7	93.1	-	10-	-	-
18	2.8	0.4	2.7	2.8	21.6	-	8.0	-	-	-	-	17.3
19	16.6	1.9	42.7	16.6	2.3	9.3	22.4	6.9	-	-	58.7	25.8
Total (N)	**6434**	**15682**	**20153**	**6434**	**13087**	**10221**	**56336**	**1824**	**6935**	**487**	**1069**	**6017**

*1-Blood Diseases, 2-Genito-Urinary, 3-Obstetric, 4-Anaemia (any cause), 5-Hypertension , 6-Pregnancy with complications before or during labour (abortion, ectopic pregnancy, abortion, hypertension, complication, 7- Childbirth _ Caesarean/ normal/ any other (for both live birth and stillbirth), 8-Back or body aches, 9-Pain the pelvic region/reproductive tract infection/ Pain in male genital area, 10-Change/ irregularity in menstrual cycle,11-Complications in mother after birth of child,12-Diabetes.

Source: National Sample Survey Organisation, Ministry of Statistics, Planning and Implementation, government of India, New Delhi

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It is a general perception that there is discrimination against women practiced by society or family members in terms of treatment of the illness or treatment from the 'better' health institutions. During the fieldwork, an elderly women asked the researcher about itching on her hand. The woman hoped to get some information on her illnesses, once she came to know that 'someone'- the Researcher, is conducting a study related to girls' health issues. The woman asked anxiously about her problem as follows:

"*Main bas itna janna chahti hoon ki mere dono haatho mein red dots aa gaye hai jo bhot khuzli bhi krte hai ghar mein sab ne kaha apne aap theek ho jayega par abhi tak theek nahi hua. Ab jab 10 din se jyada ho gya hai to sochti hoon doctor ko dikha doon. Pehle isliye nahi socha doctor ke pas jane ka kyuki jyada problem kuch nahi hui thi. Par ab jana chahti hoon kyuki log dekh kar puchne lage hai ki abhi tak theek kyu nahi hua kya hai yeh kya koi badi bimari to nahi*.[76]" [KI 3]

In line with this perception, the researcher has asked in the survey "where did you go for the treatment?" Their responses were public health center (Mohalla clinic), private, traditional healer. Table IV.2 shows that 86.4 percent of them have received treatment from the health centers. There was 13.6 percent of them who have not taken any treatment due to the advice of family members, and have depended on medicines given by family members, and self-medication. The highest percentages (44.1) of the adolescent girls have not taken treatment in the health center because their mothers have given them some non-prescribed medicines. There was 23.5 percent of them

Health problems faced by adolescent girls in Delhi, 2014

Health Problem	Frequency	Percentage
Hypertension	524	46.7
Abnormality in urination	597	53.3
Total (N)	**1121**	**100**

Source**:** NSSO (2016), National Sample Survey Organization, Ministry of Statistics, Planning and Implementation, government of India, New Delhi.

[76] I just wanted to know that, in my both hands I have red dots, and it itches badly all the time, my family says wait for some times it will gone soon by its own, but it does not recover yet. Now it's more than 10 days thinking of going to see doctor for this. Earlier even I thought it was not a big problem and goes by its own. But now this look persistent, and everyone is observing it I want this to get treated as soon as possible because people asked me several times it is any big disease?

who have not taken any medicine because their mothers have advised taking rest for the relief of the illness. About one-fourth of them have taken medicine from the family members for the treatment and few of them have taken medicine by themselves without any prescription from the health professionals. Taking medicines, without a diagnosis of diseases and prescription, may be dangerous for their health at this tender age and it is harmful to their body. The parents should make them aware/teach them about the consequences of self-medication without prescription. Anemia is common in girls because of the biological process in the body.

Table IV.2: Treatment seeking behavior of Adolescent Girls

Treatment seeking behavior	**Frequency**	**Percentage**
Treatment taken	216	86.4
Treatment not taken	**34**	**13.6**
Reason for not taking treatment		
Mother just advised to take some rest and it will recover soon	8	23.5
Sometimes mother gave some medicine by her own understanding	15	44.1
If mother not around family members at home give some medicines, after advised by local chemist shop	8	23.5
Self-medication (Without prescription)	3	8.8
Total (N)	**250**	**100**

Source: Fieldwork

IV:I.b. Anaemia Problems among Adolescent Girls

The health problems which have not been cured on time can create various other health problems. These problems may be blood-related or other. Anemia problems are more common among adolescent girls due to the biological and physical changes in their bodies. Anemia is the lower condition of red blood corpuscles (RBCs) or level of hemoglobin (Hb) in the blood from the normal level. The normal level of Hb in the female serum is 12.0 to 15.5g/dl and it is varying in the different age groups. According to the level of Hb, there are three levels of anemia in the girls i.e., mild

(10- 12), moderate (7.0- 9.9), and severe (<7.0g/dl).[77] Anemia may be treatable or untreatable based on the causes of the anemia. Treatable anemic conditions are those which are cured by the medicines (iron supplements) whereas a not curable anemic condition is that which is permanent owing to any cause. In this study, the levels of Hb have not asked the respondent that is beyond this study.

Table IV.3 shows that 65.2 percent of adolescent girls have suffered from anemia with multiple symptoms of anemia. At the national level, all ages of adolescents have suffered from anemia (See 74 Footnote above) Table IV.3 further indicates the awareness levels of anemia by multiple responses such as Anemia symptoms[78] observed by themselves (65.2 %), get any treatment for anemia (14%), and low hemoglobin tested last three months (61.2 %) to diagnosed anemic condition by them. They have further asked, "What kind of symptom and sign have you observed?" They have reported 10 symptoms related to anemia. These are loss of appetite, pain in the waist, pain in legs, exhaustion, weakness, fainting, low hemoglobin count, and paleness in the tongue, paleness in the lower eyelids and nail beds, and paleness of face.

Table IV.3: **Distribution of Adolescent Girls who were suffering from Anemia**

Anemia Status of Adolescent girls	**Frequency**	**Percentage**
Total (N)	**250**	**100**
Anemia Symptoms Observed	163	65.2
Get any Treatment for Anemia	35	14.0
Low Hemoglobin tested Last Three Months	153	61.2

Source: Fieldwork (Note: Frequencies are multiple responses)

Table IV.4 clearly shows that pain in the waist and leg are the main symptoms of anemia reported by them. There were 42 percent and 38 percent of them have reported waist pain and leg pain respectively as symptoms of Anemia. The scientific

[77]https://en.wikipedia.org/wiki/Anemia

[78] Some major anemia symptoms were paleness on face, very thin body, cold hand and feet, weakness, dizziness, Brittle nails, leg pains, rough hair, and fatigue.

study of anemia is the count of hemoglobin in the blood and about 27 percent of them have reported the low hemoglobin count as the symptoms of anemia. Fainting has been reported by 23 percent of the adolescents, and paleness in the lower lid of eye and nail beds and paleness in the face have been reported by 14.4 and 17.2 percent of them respectively as the symptoms of anemia. It was reported by the researcher that that adolescent who comes from lower-income families are found to be reluctant while answering researchers regarding her health issues. They found very shy; their hands are rough. Skin was very dry, hair was brownish, even eyes were yellowish. We can see sharp differences between girls who go to school and those who drop out of school regarding their health issues. In Plate IV.1, the health condition of the adolescent girls in the field can be observed; they all look younger by their age. Their body shows nutrition deficiencies, no freshness on, or shining on the face. They all look so dull even holding the responsibilities of their younger siblings. When the researcher asked about their school they replied,

"*Mann kiya to jate hai aur nahi man karta hai to nahi jate, koi jabardasti nahi bhejta, kyuki ghar mein itna kaam bhi to hota hai jaise pani bharna, rasan lana, chote bhai-behen kodekhna*[79] [K7]."

Plate IV.1: Adolescent Girls looking younger than their respective age

Source: Fieldwork [Note: From left to right: Ruksana 16 years, Jyoti 13 years, Preeti 15 years, Soni 11 years, and Seema 10 years old]

[79]If we want, we can go and if not like it then do not go to school, no one sends by force, because there is so much work in the house like filling water, bring groceries, and look after our siblings.

Patterns of ailing and hospitalization are different. It does not mean that all the ailing persons have been hospitalized or have visited the health care center for treatment. It is a matter of socio-economic status and geographic location of the health center. The cost of treatment is directly linked with the nature of the ailments, the nature of the treatments, and the duration and place of treatment.

Table IV.4: **Kind of symptoms and sign observed for Anemia**

Anemia Symptoms	**Symptoms observed in Respondents**	**Percentage**
Loss of Appetite	30	12.0
Pain in Waist	105	42.0
Pain in Legs	95	38.0
Exhaustion	64	25.6
Weakness	92	18.8
Fainting	57	22.9
Low Haemoglobin Count	65	26.9
Paleness in Tongue	19	7.6
Paleness in Lower Eyelids and Nail Beds	36	14.4
Paleness of Face	43	17.2

Source: Fieldwork

Note: Frequencies are multiple responses (N=163)

Two types of health care centers have been found in the survey what they have accessed for the treatment i.e., public, and private. It has been observed that preferences of the private health care center over the public are increasing in both rural and urban areas. There was 75.5 percent of the anemic adolescent girls have received treatment from the public, private, and traditional healers. In the scientific modern age, there were about five percent of them that have still taken treatment from the traditional healers (Table IV.5). National Sample Survey (2016) has reported that most adolescent girls have visited a private hospital for the treatment of anemia[80].

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Some of the health studies also found that most of the people have preferred private hospitals over public hospitals for the treatment because of the socio-economic and psychological frame of mind. Prasad (2012) found that people have preferred private hospitals because of the sanitation, quick and effective treatment, lack of time, very rush in public hospitals, etc. Apart from this, one important aspect that needs to be considered here is that family takes every health issue seriously or they just want to depend upon home remedies or wait till it will get well on its own. The type of atmosphere they live where most of them come from villages and having a nuclear family with both parents working, in this situation adolescents getting lesser care and attention when they need. Therefore, most of the respondents admitted that:

Adolescent girls have usage hospitals for the treatment of the Diseases, 2014

	Type of Hospital
Health Problems	**Public**
Fever with rash/ eruptive lesions	-
All other fevers	27.3
Anaemia (any cause)	12.2
Diabetes	34.8
Under-nutrition	-
Headache	-
Acute upper respiratory infections	54.7
Cough with sputum with or without fever and not TB	65.6
Pain in abdomen: Gastric and peptic	67.3
Back or body aches	100
Any difficulty or abnormality in urination	22.2
Pain the pelvic region/reproductive tract infection	-
Change/irregularity in menstrual cycle	-
Pregnancy with complications before or during labour (abortion, ectopic pregnancy, abortion, hypertension)	5.4
Complications in mother after birth of child	100
Childbirth _ Caesarean/ normal/ any other	84.8

Source**:** NSSO (2016), National Sample Survey Organization, Ministry of Statistics, Planning and Implementation, government of India, New Delhi.

"*Ya to hum khud se chale jate hai paas ke medical store mein ya padosi se help le lete hai jyda problem hui to agar mummy papa dono ghar pe nahi ho to. Clinic jane ke liye mummy ya papa ko chutty leni hogi*[81]" [KI 4].

Table IV.5: **Distribution of Respondents According to their Treatment Seeking Behavior for the treatment of anemia**

Where did you go Treatment for Anemia	Frequency	Percentage
Public	117	95.1
Private	116	94.3
Traditional Healer	6	4.9

Source: Fieldwork Note: (N=123)

It has also been observed that about one-fourth (24.5%) of them have not taken any medicine for the treatment of anemia because of various reasons. These reasons are related to the socio-economic and psychological state of mind of adolescent girls. Table IV.6 reveals that 65 percent of them were not aware of the fact that anemia is treatable because of shyness and nervousness to go to the health center for treatment. Most of them have felt that anemia is not a serious disease and there is no need to take any treatment to cure this menace. About one-fourth of them have no money for the treatment. It was observed that many adolescents believed that anemia is only related to unhealthy diet trends, and it cannot be cured by any doctors and medicine because they are poor. They have accepted that because they are poor and must live in this suffocated atmosphere where nobody listens to their problem. Although many Anganwadi centers are working in the field of study, the level of awareness is undetectable while collecting data. There are many aspects which came to light while encountering adolescent problems in the fields, these are:

"*Hum migrated hai hume kon batayega kon si government schemes hamare liye bhi hai, ya yahan ke jo mool niwasi hai sirf unke liye hi hai*[82]*" [KI 4]*.

[81]Either we go by ourselves to a nearby medical store if parents are not at home, we get help from our neighbor if problem is serious and go with them. For clinic visit mother or father must take leave from their work.

[82]We are migrated people, who will tell us which government schema is for us or only for the natives who are here.

"Hamare parents tak ko nahi pata ki agar jis parivar ki aamdani kam hoti hai unn parivaro ke liye sarkar swathya mein sahayata karti hai jaise muft ki medicine, iron-folic tablets, sanitary pads, aur nutrition wala khana[83]"[KI 4].

*"Anganwadi wale to bas register bharte hai ki haan itne baccho ko khana mil gya itne teeke lag gaye isse jyada humne unko karte nahi dekha. Naahi unlogo ne khud se bataya ki Mohalle ke har ghar ke bacche aur ladkiyo ki swasthya bhi unki nigrani mein aata hai. Kyuki badhte umr mein ladko se jyada ladkiyo ke swathya pe dhyan dena zaruri hai[84]" [*FDG3*].*

Table IV.6: **Reason for not going for treatment for Anemia**

Sr. No.	Reason for not taking treatment for Anemia	*Frequencies	Percentage
1	Not Considering it a Serious Problem	15	37.5
2	Not Aware/no information	26	65.0
3	Under Heart Surgery/treatment	1	2.5
4	Not Sharing the problem with Anyone	16	40.0
5	Feeling Shy and Nervous	22	55.0
6	Consider it not as Serious as to take Treatment	16	40.0
7	Thought it usually Happen with Every Girl	13	32.5
8	Not Having Enough Money for Treatment	10	25.0
Total (N)		**40**	**100**
*Multiple responses			

Source: Fieldwork

IV:1. c. Decision for treatment in the household

Decision-making is a mental process, and it depends on the socio-economic and psychological state of mind of the family members as well as individuals. If the decision-makers are well educated and they are earning members of the household,

[83]Even our parents do not know that if the family whose income is low, the government helps those families in health, such as free medicine, iron-folic tablets, sanitary pads, and other nutritious food.
[84]Anganwadis workers just fill in the register that yes so, many children got food, they got so many vaccines, and we did not see them doing more. Nor they told us that the health of children and girls of every house of the locality also comes under their supervision. They never tell even that in the growing age, it is more important to pay attention to the health of girls than boys."

they can take any type of financial decision related to the household management irrespective of their ages. Adolescent age is not as mature as adults and their decision for the treatment or health issue may sometimes not be fruitful or in the right direction. In the case of medical treatment, it is a matter of life of the member of the family, and no one can ignore the health care of the family members. Parents never ignore their children's health issues at any cost. But some exceptions also exist in society, and they never allow children to go outside for any purpose including health care centers. It is very true in the case of adolescent girls. It might be fear of unprecedented accidents or other matters of society. Decisions for taking medical care have been taken by majority (87.6%) of the girls themselves followed by their mothers and their spouses (Table IV.7).

They have also responded that they can go by themselves for the treatment without any restrictions from the household members. It further shows that about 36 adolescent girls have not participated in the decision-making process regarding the treatment of the illness due to various reasons. Some reported that they could not seek treatment because of their age, lack of proper knowledge, fear of going alone, location of clinics at distant places; parents are not at home at the time due to their work, dependence on home remedies, not safe for girls to go outside alone, if it is a serious problem, parents have to take leave, then they can go along and sometimes due to lack of money they have been prevented from availing the treatment. Regarding this conversation, a few groups of adolescents explain their view apart from the questionnaire as:

"*Shayad hume akele jane mein darr lagta hai isliye nahi jate. Hume adat hi nahi koi na koi sath, chahiye sath le jane aur doctor se dikhane ke liye. Kuch menstrual cycle related issues jaise access bleeding and menstrual cramps aur pet ke neeche dard hona yeh sari chize hume ignore karne kaha jata hai kyuki yeh har ladkiyo ko hota hai. Kuch married adolescent ne bataya hume jyada bolne nahi diya jatat hai na shaadi se phele na shaadi ke baad to hume kuch bhi fesla lene ya apni rai dene mein confidence nahi aata isliye hamari koi nahi sunta. Hum sochte hai shaadi se pehle*

maa baap fesla lete the ab shaadi ke baad saas-sasur aur pati leta hai yahi hume manna padega kyuki hum un par puri tarah nirbhar hai.'[85] [KI 7]

Table IV.7: **Decision for the Medical Treatment in the household?**

Decision taken for the treatment by-	**Frequencies**	**Percentage**
Spouse	7	2.8
Mother/Aunt/Sister	24	9.6
We can go by Own	219	87.6
Total (N)	**250**	**100**
Priority given to Decision Making for the Treatment		
Low /Not a Priority	**1**	
Somewhat/ Moderate Priority	**1**	
Essential Priority	**1**	
Not Allowed to go out	**33**	
Total (N)	**36**	

Source: Fieldwork

IV:2 Menstrual Health Practices

Menstruation is the biological process that starts after a certain age of puberty which is called the onset of menarche. The range of the pubertal age- when first-time menstruation ranges from 10 to 19 years, with an average age of 14 years. Table IV.8 depicts that 20.8 percent of them reported that their menstrual cycle has not started, and they were at the age 10 years old. There was 69 percent of them who have experienced menstruation for the first time at the age of 11 and 12 years followed by 13 years. Some of them have also experienced it for the first time at the age of 15 and

[85]Maybe we are afraid to go alone so do not go. We do not have any habit of go alone, we need someone to take along and show them to the doctors. Some menstrual cycle related issues such as access bleeding and menstrual cramps and abdominal pain are all things we are told to ignore because it happens with every girl. Some married adolescent girls told that, we were not allowed to speak much, neither before marriage nor after marriage, so we do not have confidence in taking any decision or giving our opinion that's why nobody listen to us or give us important. We think parents used to take decisions before marriage, now after marriage, mother-in-law, father-in-law, and husband take it, we must believe it because we are completely dependent on them.

16 years old. They have shared about their menstruation with their relatives and as expected, most of them have shared about it with their mothers followed by their elder sisters and their grandmothers. It has also been found that few of them have shared their periods with their respective fathers (Table IV.8). It has also been found in Table IV.8, they have taken advice from their relatives about sanitary pads, dressing, physical work, food habits, spiritual practices, and other sexual activities during the periods. It was observed that few adolescent girls in the field shared their experiences articulated as:

"*Mujhe kab aaya periods pata nahi chala aur yeh kya hota hai yeh bhi nahi malum tha, kyuki kisi ne bataya nahi tha mujhe. Bahut weak feel hota hai, body mein dard hota hai, mummy bolti hai ki time ke sath theek ho jayega. Ek sharam si aati hai hume yeh ladko ko kyu nahi hota? Jab se aaya hai mummy jyada khelne nah deti, bolti hai daag lag jayega*[86]". [KI 4]

Table IV.8: **Age of Menarche**

Age at Menarche (in Years)	**No of Adolescent Girls**	**Percentage**
Not yet Started	52	20.8
11	90	36.0
12	82	32.8
13	16	6.4
14	3	1.2
15	4	1.6
16	3	1.2
Total (N)	**250**	**100**
Menstrual experience shares with family and advice taken		
Shared with	**Frequency**	**Percentage**
Mother	105	42.0
Elder Sister	67	26.8
Aunt	10	4.0
Grandmother	15	6.0

[86]I did not know when the periods came, and I did not even know what happened because no one had told me so. There is a lot of feeling of pain in the body my mummy told me to be patient it will recover by the time pass. There is a shame, why don't boys have this? Mother does not allow us to play more because we might get stain on the cloth we wear.

Father	1	.4
Advice Given when Started First Time*		**(**N=198)
How to Use Pad/Cloth	192	76.8
How to Dispose of Pad/Cloth	188	75.2
Avoid Pickle	69	27.6
Do not play with Boys	64	25.6
Do not Run while menstruating	74	29.6
Do not go to Visit Temple	90	36.4
Do not Cook/go to Kitchen	38	15.3
Do not take bath with Cold Water	36	14.4
Avoid wearing White Cloths	108	43.2

Source: Fieldwork *Multiple responses

Apart from the given advice in Table IV.8, a few adolescents share their experiences as:

"*Humne kabie bhi sanitary pads use nahi kiye, jab hum kapde ka use kar lete hai ya to hum unhe fir se use krte hai jyada ganda nahi hua ho to agar bilkul kharab ho gay hai to hum unhe mitti mein gaad dete hai taki kisi ki nazar na pade. Meri mummy kehti hai ki sanitary pad fekne se pehle use ek baar pani se dho lena chahiye. Kai baar hum galti se mandir bhi chale gaye hai kyuki achanak se periods aa jaye to pata nahi chalta isse kuch ho to nahi jayega na? Hum khelte bhi khboob hai mummy ke mana karne ke baad bhi par jab dard jyada hota hai to so jate hai bina kisi ko bataye nahi to dant padegi*[87]*"[KI 7]*

Various types of menstrual problems have been experienced by 66.7 percent of adolescent girls. About 53.2 percent of them have shared these problems with their family members. The highest percentages of them have reported menstrual-related problems such as daily work constraints during the period. Some of them also have faced serious problems, minor problems, and moderate problems during the periods by 26.2, 20.8, and 7.7 percent respectively (Table IV.9).

[87] We never use sanitary pads, we use clothes either or we use them again, or if it is so messy, then if it has deteriorated completely, we use to bury them in the soil so that nobody can see it. My mother use to tell me after using sanitary pads just wash it with plain water then throw in the dustbin. Many times, we have also gone to the temple by mistake because if period comes on suddenly, it is not known if something happens to it or not? We are also happy to play, even after the mother refuses, but when the pain is more, and then we go to sleep without informing anyone.

Table IV.9: **Menstrual Problems faced by adolescent girls**

Menstrual Problems	**Frequency**	**Percentage**
No Problems faced	68	34.3
Problems faced	130	66.7
Types of problems faced		
Menstrual Constrain in Daily Work	59	45.4
Minor Problem	27	20.8
Moderate Problem	10	7.7
Serious Problem	34	26.2
Total (N)	**198**	**100**

Source: Fieldwork

NOTE- Multiple response

Table IV.10: **Distribution of Respondents according to their Feeling at Menarche**

First Experience When Periods Started	**Frequency***	**Percentage**
Sad	161	64.7
Irritated	110	44.0
Anger	64	25.6
Shy	153	61.2
Mute	48	19.2
Feel Like Crying	117	46.8
Pain in my back	26	10.4
Want to sit only	42	16.8
Want to Sleep only	31	12.4
Loss of Appetite	1	0.4
Material Used During Menstrual Cycle		
Cloth	41	16.4
Locally Prepare Napkins	62	24.8
Branded Sanitary Napkins	95	38.0
Cultural Practices Followed in Family at Menarche/during menstruation		
Do not Cook or Enter into the Kitchen	42	16.8

Do not wash your hair	89	35.6
Do Not Sleep on Bed	33	13.2
Do not come near Pooja room	90	36.0
Sit on Specific Place in Home	73	29.2
Do not go to Temple	159	63.9
Do not Touch Pickle	116	46.4
Avoid going to school first two days	76	30.4
Aware of Menstrual Cycle in Physiology		
Yes	44	17.6
Not at all Aware	188	75.2
Slightly Aware	9	3.6
Somewhat Aware	4	1.6

Source: Fieldwork *Multiple responses

The respondents were asked, "how did you feel when you experience it for the first time?" They responded to have experienced sadness, irritation, anger, shyness/shame, quiet, felt like crying, pain in the back, wanted to sit alone and do nothing, stay away from others and sleep only, and loss of appetite. Most of them have felt sad and shy (Table IV.10). There were 64.7, 61.2 and 46.8 percent of adolescent have experienced sad, shy, and feel crying like respectively. About 10 percent of them have experienced back pain when the period started the first time and 19.2 percent of them preferred to stay quiet (not able to express their problem by their face or by saying just sitting quiet in one place while menstruating) during that time. It is a very common observation; the girls are feeling anger when the period starts, because of various changes in the body and nutritional disorders or mild anemia.

It is also found in Table IV.10, that most of them were using sanitary pads during the periods and it is a good sign for their hygienic condition. 24.8 percent of them have used locally prepared napkins and 16.4 percent of them have used unhygienic cloths. At this age and during the first time of menstruation, they must be aware of the sanitary pad and health benefits of using napkins. They should be aware of these pads and their benefits in advance through relevant education.

It is the mindset of society that during the menstrual period, various kinds of restrictions are imposed on the girls. These restrictions are related to spirituality,

religious rituals, sanitation, and health care. During the survey, they have responded about the restrictions which include-

- Do not Cook or enter the Kitchen,
- Do not wash your hair,
- Do not sleep on Bed,
- Do not come near to *pooja*/prayer room,
- Sit on the specific place in the home,
- Do not go to the temple,
- Do not touch pickle,
- Avoid going to school first two days.

About two-thirds (63.9%) of them have not gone to the temple and one-third (36%) of them do not come to the worship room in the home during the periods. Less than half of them (46.4%) have not used pickles in the diet, 35.6 percent of them did not wash their head, 30.4 percent of them did not go to school during the period (Table IV.10). Health-related restrictions are understandable, but constraints related to the spiritual and religious ceremonies are the issues related to the mindset of the society which put girl health at a low level. Using the kitchen is not permitted during those periods is also not digestible constraint. Restrictions for using beds are also not feasible in modern society. It can be used washable or other clothes in the bed. It is well known to all; the menstrual cycle is a natural process, and it cannot be controlled by any means then why these restrictions are imposed on them. It is a clear indication of discrimination in the name of various unscientific restrictions- emanating from the patriarchal system. Stop cooking food during the periods is good for their health indirectly to avoid workload for them in the kitchen. The time has come to discuss menstruation in public and it should be treated as a health important issue.

IV:2. a. Impact on Adolescent Girls with the ongoing Practices of Patriarchy

It was observed in the field widely that girls were hardly open about the question related to their menstruation which can demonstrate the patriarchal atmosphere. They never had any open discussions about menarche neither in the family nor in school. Gender differences have been reduced to some extent in the last few years but only limited to the educated urban families as observed in the field. The families in the urban village are mostly connected to their native rituals and because of this they have

been living in their old traditions and talking about personal health is perceived as an absence of moral values in the girl. In society, girls do not understand what their priority is and always find themselves confused between the role of their mother and father at home. In the field, it was observed that the mother wanted her daughter to achieve something in her life, but a girl child finds herself dominated by the family head. A girl's main priorities come within the family as she must take her mother's position after her marriage, so she should only learn domestic work and moral values which will help her in the future. Some respondents told the researcher, and I quote,

"*Mummy to tabhi haa bolti hai jab papa unhe haa bolte hai. Hamare ghar mein sara kaam hume hi karna padta hai hamare bhaieyo ko nahi. Agar chote bhai ho to unhe bhi hum dekhte hai. Kahi jana hai to bado ke sath jao akele jane ki permission nahi hai hume*[88]" [FDG3].

Girls learn to speak less from childhood; according to her surroundings, she hardly resists anything because she is not conditioned to do so. Shy nature becomes because of her vulnerable health; if suddenly the sanitary pad in the house is over and mother has gone out, she does not speak to his father/brother about her discomfort. If she is more in trouble and the problem becomes worse and no one is around she must manage with some clothes. Discrimination does not end here; it becomes worse when she realizes that her position comes second after her brother. In urban villages, parents are not able to practice separate sleeping while menstruating, but they must follow some restrictions at some level. Most upper caste who lives in the urban village does not allow kitchen involvement during the menstruation of their daughters especially when some relatives are around. Girls hardly resist and deny these practices when mothers relate them with some moral obligations and God's respect.

There was 75.2 percent of adolescent girls, who were not aware of the menstrual cycle. About 18 percent of them were aware of the menstrual cycle, while 3.6 percent and 1.6 percent of them were slightly aware and somewhat aware of this respectively (Table IV.10). The source of knowledge about the menstrual cycle plays an important role in managing the practice. These sources are mass media exposure (newspaper, TV, radio, internet, etc.), social contacts, and peer groups. Table IV.11 indicates that

[88] Mom only says yes when dad says yes to her. We must do all the work in our house; our brothers never do anything. If we have younger brothers, then we also see them. If you want to go somewhere, we go with the elders, it is not our permission to go alone.

most of them have got awareness about the menarche from peer groups and their friends in the schools. Social contacts such as mothers, sisters, other relatives are playing important role in these practices with live discussion and finding out quick and effective measures during the period. It has also been observed that few of them have got awareness about the menstrual cycle from the doctors. Elder sisters and sister-in-law are the best sources of awareness about this practice and around four percent of them have access to knowledge about the menstrual practices from their elder sisters. Mother is the best teacher of children especially girls for any kind of education and about five percent of them have got awareness about the menstrual cycle from their mothers.

Table IV.11: Distribution of Respondents According to their awareness about Menarche/Menstruation

Awareness Source	**Frequency**	**Percentage**
In-School a friend Shared about it	13	5.2
Saw my Elder Sister sometimes	9	3.6
Saw advertisement on Television	5	2.0
Saw Sister-in-law	1	0.4
Periods started very late/informed by the doctor when visited for late menarche	1	0.4
Mother told me	12	4.8
School teacher told me	3	1.2
Learned from the School textbook/magazine	6	2.4
Aunt told me	4	1.6
Rituals practiced at Menarche in the Family		
Mothers told their daughter(s) to draw three black lines on the wall and cut one line so that, the periods would end within two days without pain	7	2.8

Source: Fieldwork

It has also been found that some of them have reported that menarche is the ritual in their home, and it is celebrated in a big way with the feast, etc. This ritual is popular and celebrated in Odisha, Andhra Pradesh, Telangana, and some other parts of eastern India as evident from literature and reported by the respondent in the field.

Adolescents were asked directly whether any rituals were held at the time of their menarche, in their families. There was three percent of them who reported that "Yes, my mother told me to draw three black lines on the wall and cut one line so that, my periods end within two days without pain" [Black line made by *kajal* or ashes from the bottom of the roti pan].

Thus, the overall conclusions are that the adolescent girls who were 10 to 19 years old have various kinds of health problems. These problems were anemia and menstrual cycles. Most of them were not aware of the menstruation at the time of menarche, and they did not take any treatment for most of their illnesses. They have taken medicine by themselves without a prescription from a doctor and most of them have received medicine from their family members especially from their mothers. One of the respondents told regarding the menstrual cycle and its related restrictions as follows:

"*Jab mujhe pehli baar hua mujhe bhot bura laga bhot dino tak udaas rahi kyuki mummy ne jyada kuch nahi bataya tha. Uske sath sath ab toh jo restriction lagte hai cycle ke doran unse sharam aati hai ki pure baal se nahi nahana hai. Kapde khud se dhone hai andar wale. Ab bacchi nah rahi khela kuda kam karo. Istemaal kiya hua pad raat ko jab sab so jaye tab chupke se feka karo taki koi dekhe na jaise cycle aane se kisi apradh ke shikar ho gaye bhot bura lagta hai."*[89] [KI 4]

Physical and mental development depends upon a good diet and medicine as much as on positive environments too. The foregoing analysis reflects well on this fact. However, to enhance the observations thus arrived, the processes related to these observations were examined through the qualitative data. The following case study highlights that the living conditions of the family directly affect the health of adolescent girls. The living condition is the central argument in the given case study as follows:

[89] When I first got my cycle I felt very bad and sad for a long time, I did not say much. After that, now seems to be restrained during the cycle, is ashamed of not taking enough bath or to use shampoo. The clothes itself is washing the inside ones. Now you are not child anymore. For the used pads, when all goes to sleep at night, then secretly throw it so that no one can see you, it is like if someone see us that such a cycle has become a victim of crime.

IV:3. A: Case Study

4:3. a. General Profile

Rukhsana 17 years old daughter of Mohammad Yasir Khan (45 years old) and Yasmin Bibi (39 years old). Her father is running a butcher shop in Munirka Urban Village in front of Jawaharlal Nehru University, for the last 10 years. Originally, they come from Uttar Pradesh. But for income opportunities and better educations for their daughters, the parents migrated to Delhi. All family members have been living in two-room rented accommodation in Munirka Village. Rukhsana has four sisters namely Farida 15 years old, Fatima 13 years old, Khushi 10 years old, and Farhah 4 years old. Rukhsana was found to be a very ambitious girl and knows her responsibility as the eldest sister at home. Rukhsana is studying in class 8^{th} and her other sisters also go to the same government school which is near to her house except for her younger sister Farida. As they belong to Muslim families, they are involved in the business of butcher shops. Her mother Yasmin Bibi is also helping her husband in the shop sometimes and looking for domestic households.

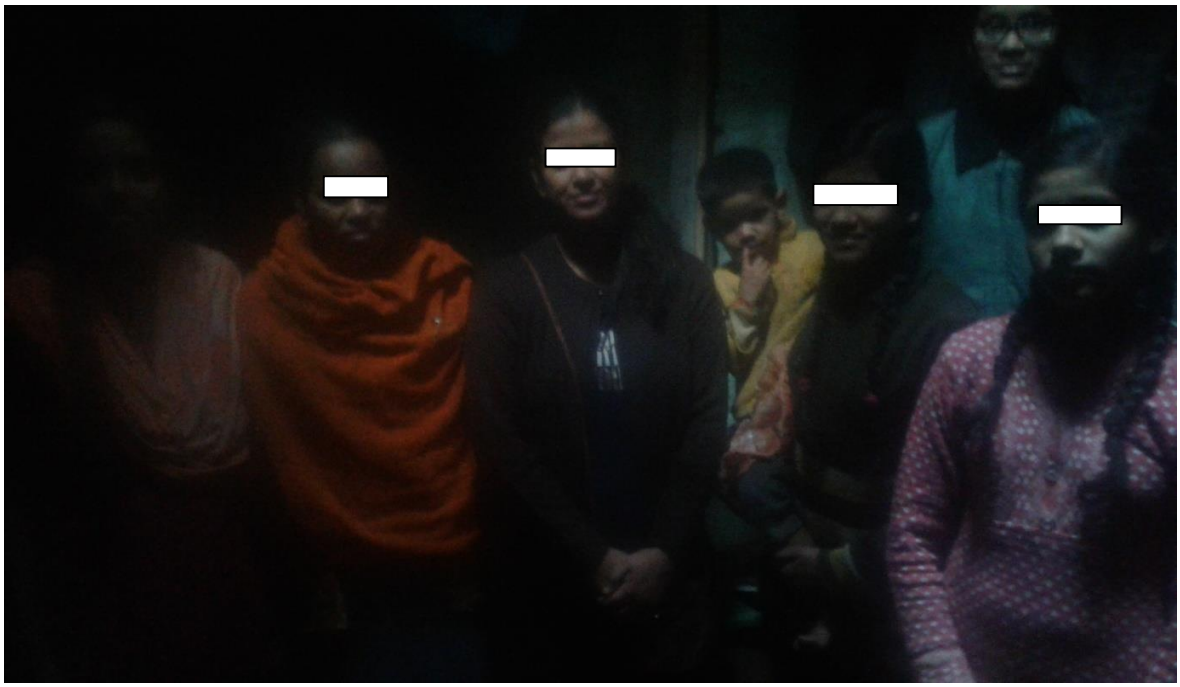
IV:3. b. Household Details

It was two small rooms pucca house with a kitchen in the room itself and the bathroom is on sharing basis with other neighborhoods in the same building. In her house, there are no windows for ventilation sparing a door. The room was so dark with the lights switched on (Plate IV.2). Electricity was there all the time but there are timings for water availability in the building; they must store water for all-day work. They use the same water for kitchen purposes and for drinking they boil it and store. They do not have any native place in the village where they came from. Family income is near about INR 15000 a month which is very less for this huge family to survive. They have one mobile phone, kitchen utensils, a gas cylinder, television, and two beds. The butcher shop is in an open space so at the nighttime they must keep everything at home including chickens. The room was stinking and unclean if anyone visits their house; it is difficult to live with chicken in the room under the bed. When the researcher asked about any substitute for keeping chicken, they replied, ‘we have only two rooms if we start keeping them outside neighbors will complain to our landlords.’

IV:3. c. Family Conditions and Place of Residence

As we discussed in the chapter adolescent health is influenced by socio-economic factors as well as poverty in the surroundings which has a negative impact on their health. Place of residence is decided by the family income and family requirement of basic needs. The family might soon experience problems in the respiratory system because of living in proximity with chicken and then there is also the risk of salmonella. It is now their need to live their life with chickens and continue their everyday work. Rukhsana's mother miserably said, “Sometimes these chickens make noises at nighttime our neighbors even complain but we have no other option left now”. It is difficult to invite someone at home because of the poultry which is the source of family income, and its terrible smells in the rooms.

Plate IV.2: Many Sisters in one Family with Cramped living Atmosphere



Source: Fieldwork

Sometimes younger children in the house play with these chickens which is very messy and not good for their health. Every day before going to school Rukhsana must help her father and mother to clean the chicken waste; then to help in setup the shop and kitchen preparations. Other sisters also help but as the eldest daughter, Rukhsana has a lot of family responsibilities including looking after her younger sisters too. She must sit with her father in the evening to help him in the shop because the mother has

other domestic work. For medical emergencies and regular illness, they go to private clinics only and sometimes they practice self-medication. When the researcher asked about the family size and difficulties faced by the mother she said, “because of desire for the son we have so many daughters now, it is not just my decision my husband too wanted (still wants) a son”. Rukhsana's father always says, “If we have one son, he will help in the butcher shop and can run this business at an extensive level.

IV:3. d. Living Condition and Adolescent Health

As we discussed the income of the family is influencing living conditions and it is directly influencing the health of the adolescent girls. It also includes inadequate water, sanitation, health, education, and poor infrastructure. Rukhsana is a very ambitious girl when the researcher asked her about interest in education, she replied with much enthusiasm, “I want to finish my studies and want to go for higher education, if I get the chance to go to university like Jawaharlal Nehru University I would love to go. Please guide me if I can apply to this university or not?” Although she is aware of her condition, she can fulfill her desire. Regarding her menstrual health-related issues she takes care of her younger sisters and always guides them. They use cloth for the menstrual cycle and sometimes reuse it and destroy it if it becomes so dirty and torn. She did not aware of the menstrual cycle before the encounter on her own, her mother guides her when she menarche for the first time. In school, they have one class where the teacher tells them about the reproduction and importance of the menstrual cycle in their life. Ruksana included all her sister found very thin and pale face, which reflect their diet and unhealthy lifestyle.

Therefore, as discussed case study clearly shows that how living conditions and unhealthy lifestyles affecting them poorly. It also describes that family income responsible for inequality in access to basic amenities including health and education of adolescent girls.

IV:3. B Case Study

IV:3. a. General Profile

Pinky 13-year-old daughter of Shankar Singh (35 years old) and Champa Kumari (30 years old). Her father is working in an automobile shop in Katwariya Sarai urban village, for 5 years. They come from Chapra District, Bihar many years ago. Shankar

Singh came to Delhi for a better livelihood and employment opportunity. They have three children Raju 10-year-old and Khushi 5-year-old. They have a small, rented room with a separate kitchen and sharing bathroom. Pinky is studying in class 9th her younger brother studying in class 5th all of them go to senior secondary government school in Rama Krishna Puram by public transport every day; Khushi has not started school yet. They belong to a Hindu upper-caste family Pinky's mother is also working in one grocery shop as a helper from morning to evening.

IV:3. b. Household Details

It was one small room pucca house with a kitchen in the room itself and the bathroom is on sharing basis with other neighbours in the same building. They have one open balcony space in front of their room which is mostly used by them only; they keep some of their household item over there. From the open balcony space, they get some daylight and breeze in their room which works as ventilation. They have electricity all day, but they must store water in the morning and evening for emergency purposes. For drinking purposes, they boil and filter it using the traditional method (Drink clean water from an earthen pot). Pinky's father earns nearly about INR 10,000 a month and her mother earn about INR 5000 a month, they have no other family income or support from their native home. They have one mobile phone, one colour television, gas cylinder, two beds, a cooler, one second-hand bicycle. In total they are living a good life in the urban village as Pinky's father said, 'at least money comes at the end of the month, it used to be difficult to live in the village.'

IV:3. c. Intra-Family Communication and Role of Father in menstrual health and Hygiene

Her experience has been quoted here, "it was early in the morning when my mother was not at home, and I was having severe pain in my stomach. I decided not to go to school, my father goes late for his job after my mother and brother were playing outside, he also left his school because of my illness. I was just lying on my bed with pain suddenly father came and asked me what happened why are you crying, I said the pain in my stomach, then started crying. I was saying please father call mother because the pain is getting serious, and I cannot bear it. My father understood my situation and then took me to a nearby dispensary. The doctor understood the reason behind my pain and advised my father regarding menstrual care. After visiting the

doctor my father brought some sanitary napkins and a few painkiller tablets for emergency. He then advised me about sanitary napkins how to use them and gave them to me and said, “when the mother comes, she will tell you why it is happening with you and other precautions, now I am going to my job have your food if the pain comes to take medicine”. Then I slept nicely after having food and medicine, when mother came in the evening she told me about menstruation, this happens with every girl at this age so that means you are growing up now. Now, “take rest for some days until it’s over if you do not like to go to school, then do not go to school,” my mother said.”

IV:3. d. Adolescent participation in various work during menstruation

It was seen in the above case study that, during menstruation, she stopped going to school because of pain and discomfort. It affected her education as well as her younger brother because he was too small to go to school alone. As this is her first experience of menarche she can't help her mother with household work, the pain has disrupted her daily uncomplicated routine. She even does not understand her situation because she was not aware of menarche. She must use a shared bathroom and personal care getting affected due to the single-room setup. At this stage with inadequate knowledge of menstruation she tried to cut off from her friends too, because she felt shy of sharing this change in her life friends will ask; “Why you are not coming out for playing, even not going to school, what happened?” On the other side living in a small room with family makes her stressed about staining the bed if there is a need for a pad at the night how will I manage to take it from the cupboard and go to the toilets. Similarly in the morning if I need to go toilet urgently how others will understand my situation. Therefore, this kind of frequent question comes to her mind which shows she is feeling guilty about why this is happening with her and completely changed her lifestyle. This critical transformation phase of her life is becoming puzzling for her due to the inadequacy of information related to menstruation and less support from her mother as she is working.

IV:4 Discussion

In this chapter, some tables do not show the village-wise analysis because the issues and problems faced by the adolescents are by and large the same. Some adolescents accepted they have a good conversation with their parents however majority of the

adolescents faced communication gaps on personal health issues. Prior talk on the menstrual cycle is negligible even the rituals and cultural practices are the same in all three urban villages. A similar pattern was observed in all three urban villages over decision-making at home by the adolescents. They hardly take part in family discussions, even if it is their matter of her marriage or education. The reason behind accepting private treatments more is the dispensary is nearby or easily gets treated with the familiar. There are common health problems observed in the fields: Katwariya Sarai, Ber Sarai, and Munirka but self-medication and medicines advised by the family member at home were observed widely. Even the rituals and believe over the menstrual cycle are similar, some adolescent girls' families advised them to use clothes during their menstrual cycle. Even though adolescent girls are migrated coming from different rural setups their believes system on personal health and experiences about menstruation are the same. Adolescent's girl observed very shy and quite which was found in all three urban villages. They are also found less ambitious about their future, and they always must be at home if both the parents are working for look after their younger siblings and household involvements.

IV:5. Conclusion

As has been revealed through the fieldwork data, adolescent girls in the study areas indicated that they have experienced multiple health problems. It can be concluded that low-income status is the major reason behind the ill health of the respondents. Most of these girls have had irregular periods, loss of appetite, and white discharge indicating low health. The fact that they must use a common toilet leads to incidents of urinary tract infections and related issues. Lack of importance given to their health by their families and reluctance in seeking treatment is another reason for their poor health. It has been understood that easily treatable diseases have also been ignored or treated through home remedies. There is a dire need to establish adolescent-friendly clinics across these urban villages to achieve universal coverage. A framework for regular screening of health could prove to be an effective tool in the long run for ensuring treatment of the physical issues faced by these girls.

One of the most common issues found among many girls was anemia. These girls were found to be unaware of the fact that anemia can be treated and do not consider this to be a major health issue. The girls studied have largely accepted their financial

status is the root cause for their ill health and so there is not much that can be done according to them. It was also noted that despite the availability of health clinics and freedom to visit these clinics, some of the respondents have failed to do because of a lack of awareness about their health issues. Lack of hygiene and knowledge about menstruation has also been observed to be a cause for concern among these girls. The study has highlighted that socio-economic status represents the standard of living for these people and family income has a profound impact on the opportunities present for adolescents and so it can be said that socio-economic factor is of key importance when it comes to living standard and nutritional intake which influence adolescent growth.

CHAPTER -5

Adolescent Health and Nutrition- Access and Use of Schemes

V:1. Introduction

In the previous chapter health, family and living condition of the adolescent girls, and health problems faced by them, and their treatment-seeking behavior during the menstrual period and illness was discussed. Keeping that in mind the awareness is the first step of increasing knowledge about health and the power of decision for adoption of practices in health care, the current chapter lays emphasis on awareness about the health care and utilization of the health care practices other than menstrual health issues. These issues are not mutually exclusive, and they are categorized as awareness about the health issues, accessing of health benefits program and schemes, availability of health care facilities in the locality, opinion on balance diet and its intake, and anthropometric measurements by age. The present chapter ends with two case studies with a comparative analysis based on the socio-economic background of the family.

V:1. a. Awareness about the Health Issues

Awareness is the first step of creating interest in any issues either health-related or other personality development. Adolescent girls must be aware of health problems with age. They are experiencing various physical changes and psychological feelings. We have listed around 15 health problems by age group and single year age of the adolescent girls[90]. They have responded to multiple responses. Many of them (38.4%)

[90] **Awareness Among the Adolescent girls about Common Health Problem**

Common health Problem	Age Group			Single Year Age of Adolescent Girls										
	10,11,12	13,14,15	16,17,18,19	10	11	12	13	14	15	16	17	18	19	Total
Weakness	26.4	41.8	46.9	17.2	14.3	39.0	36.0	45.0	38.1	35.3	41.7	45.0	56.4	38.4
Body Ache	18.4	41.8	38.5	6.9	14.3	29.3	40.0	40.0	33.3	41.2	41.7	20.0	48.7	32.4
Leg Pain	12.6	32.8	26.0	6.9	0.0	22.0	44.0	30.0	14.3	11.8	29.2	25.0	33.3	23.2
Irregular Periods	14.9	41.8	45.8	6.9	7.1	22.0	48.0	45.0	33.3	47.1	41.7	40.0	48.7	34.0
Heavy Bleeding	19.5	41.8	43.8	6.9	14.3	29.3	36.0	35.0	47.6	41.2	37.5	50.0	48.7	34.8
Stomach Pain	29.9	17.9	30.2	20.7	21.4	41.5	24.0	20.0	4.8	17.6	37.5	30.0	30.8	26.8
White Discharge	8.0	20.9	8.3	3.4	7.1	12.2	12.0	20.0	28.6	0.0	8.3	20.0	7.7	11.6
Pain during Urination	6.9	9.0	5.2	6.9	0.0	9.8	8.0	15.0	4.8	0.0	0.0	0.0	12.8	6.8

were aware of the weakness among the adolescent girls followed by heavy bleeding and body ache. A few of them were aware about the issue of fainting and low hemoglobin. It is well known that most adolescent girls have experienced menstruation after 12 years of age and almost all of them have menstrual cycles by 19 years of age. Keeping in mind this biological phenomenon, we have categorized adolescent girls into three age groups, i.e., 10-12, 13-15, and 16-19 years. It further (See Footnote 90) shows that the last group of adolescent girls were aware of the weakness, irregular periods, heavy bleeding, and body ache. The first group of adolescent girls (10-12 years) was aware of the weakness and stomach pains, whereas the second category of adolescent were aware of the weakness, body ache, irregular periods, heavy bleeding, and leg pain among them. This indicates that awareness about health is increasing with the increasing age. The researcher has further analyzed the awareness level among them by single year age. It was found that 10-year-old girls were more aware about stomach pain and weakness, whereas 19-year-old girls were aware of all the listed health problems. It means that all the list of diseases were directly linked with menstruation and up to 19 years all adolescent girls have experienced menstrual cycles. We cannot say that all these health problems are menstrual cycle related. We have discussed in chapter 4 about menstrual and its related health problems.

It is well known that the bivariate analysis shows the gross effect of the dependent variable on independent variables (Predicted variable), but multivariable analysis indicates the net effects of the dependent (response) variable on the independent variables. Thus, the odds ratio shows the awareness level of the adolescent girls about

Loss of Appetite	8.0	9.0	15.6	0.0	14.3	12.2	8.0	10.0	9.5	17.6	16.7	20.0	10.3	11.2
Exhaustion	9.2	19.4	20.8	0.0	0.0	19.5	12.0	20.0	23.8	23.5	16.7	35.0	15.4	16.4
Pain in waist, hand and leg	14.9	34.3	29.2	6.9	7.1	22.0	28.0	45.0	23.8	47.1	41.7	20.0	23.1	25.6
Fainting	2.3	3.0	3.1	0.0	0.0	4.9	4.0	5.0	0.0	0.0	4.2	5.0	2.6	2.8
Low Hemoglobin	1.1	3.0	2.1	0.0	7.1	0.0	4.0	5.0	0.0	5.9	4.2	0.0	0.0	2.0
Paleness of Face	5.7	14.9	8.3	0.0	0.0	12.2	20.0	15.0	9.5	5.9	4.2	10.0	10.3	9.2
Paleness(Pallor) in tongue, lower lid eye and nail	2.3	7.5	9.4	0.0	0.0	4.9	8.0	5.0	9.5	17.6	8.3	5.0	7.7	6.4
Total (N)	**87**	**67**	**96**	**29**	**14**	**41**	**25**	**20**	**21**	**17**	**24**	**20**	**39**	**250**
Note: Multiple responses														

Source: Fieldwork

the various selected health problems[91]. We have selected these health problems as dependent variables and regressed with age group, marital status, and education levels. Keep in mind that after 14 years of adolescents have experienced menarche that is why we have selected age group 14 to 16 and 17 to 19 years for the study purpose. Correspondingly, we have selected only 11th and 12th education levels along with illiterate adolescent girls. The girls who were more than 16 years old, were more likely to be aware of all the health problems as compared to the reference category (14 to 16 years). Similarly, unmarried girls were less likely to be aware of health problems than married girls. It is expected that married girls are more mature and aware of these health problems. The graduate girls were more likely to be aware of the weakness, stomach pain, and white discharge, and fainting as compared to girls who have been educated up to 11-12 classes.

The correlated coefficient shows the direction of the relationship between the variables, and it needs to be checked before logistic regression analysis. In Appendix III it is shown that a correlation between the variables exists, some are negatively correlated, and some are positively correlated. For example, Body Mass Index and weakness are negatively correlated. It means when the Body Mass Index increases correspondingly weakness declines and hemoglobin increases, fainting decreases. Exhaustion and pain in the wrists, hands, and legs are significantly negatively correlated. It is not clear here why this is so.

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Odds ratio for awareness about the health problem

Variable	Health Problem							
	Weak nests	Body ache	Leg pain	Irregular Period	Heavy Bleeding	Stomach pain	White Disch	Pain during Urination
Education								
1-Class 1-5®								
2-Class 6-8	2.089	3.753*	0.634	1.439	3.788*	0.403*	0.649	0.104*
3-Class 9-10	1.184	3.424*	0.616	1.405	3.448*	0.784	0.346	0.905
4-Class 11-12	0.371	2.805	0.547	2.305	2.323	0.232*	0.749	1.867
5-Graduation	1.324	2.267	0.972	1.517	2.006	0.283*	1.543	1.639
6-Illiterate	1.065	3.858*	0.995	2.304	2.187	0.104	0	0
Age Group								
10,11,12®								
13,14,15	0.982	1.466	1.999	2.205	1.189	0.185**	2.579	0.735
16,17,18,19	1.756	1.319	1.29	1.715	1.973	0.713	0.599	0.083*
Marital Status								
Married®								
Unmarried	1.291	0.951	0.784	0.459	0.928	1.901	1.179	0.067*
Constant	**0.336**	**0.216***	**0.503**	**0.712**	**0.229**	**0.926**	**0.171**	**2.171**

®Reference category

Table V.1: Awareness of legal age for marriage and NGOs

Item	Age Group (in years)			
	(10-12)	(13-15)	(16-19)	Total
What is the legal age at marriage				
Do not Know	77.0	3.0	5.2	29.6
Know	23.0	97.0	94.8	70.4
For Boys 21 and for Girls 18				
Yes	19.5	98.5	99.0	71.2
Total(N)	**87**	**67**	**96**	**250**
Awareness about NGOs in the Locality				
Awareness about the NGO	**Age Group (%)**			
NGO in the Locality	(10-12)	(13-15)	(16-19)	**Total**
Yes	12.6	11.9	12.6	12.4
Do not know	18.4	13.4	14.7	15.7
Total(N)	**87**	**67**	**96**	**250**
NGOs working in the Study Sites				
Anganwadi	2	0	1	3
Buddha Charitable Foundation	2	0	4	6
Centre for Education and Health Research Organization	3	1	1	5
Centre for Smile	2	1	1	4
Adaan Foundation	1	4	4	9
INSAF - Indian Social Action Forum	0	2	1	3
Jagriti Centre For Social Rights Society Organization	1	0	0	1
Total (N=250)	**11**	**8**	**12**	**31**

Source: Fieldwork [Multiple Responses]

Marriage is a social and cultural norm of almost every community, but it should be solemnized at a certain legal age of both males and females. It is a general perception that girls are marrying at an earlier age than their male counterparts in India (Brahmapurkar 2017). It has been stated that all the states of India have reported

marriage before the legal age; males have married more than females before legal age in Delhi. Mean age at marriage is a good indicator of the legal age of marriage. Adolescent girls should be aware of their legal age of marriage to avoid marriage in the minor age which is legally not permissible. The legal age for marriage in India for boys and girls is 21 and 18 years respectively. Table V.1 shows that majority of the adolescent girls were aware of the legal age for marriage for both boys and girls. Almost all the girls more than 13 years old knew the legal age for marriage but, there was 20 percent of 10 to 12 years age group girls who were aware about this.

Adolescent girls should be aware of the social and political organization in the locality. These organizations may be a Non-Government Organisation (NGO) or local community-based organization or a residence Welfare Association (RWA). Some of them are working specially for women in general and adolescent girls particularly. That is why the adolescent girls should be aware of these organizations that are working on women/girls in the locality for their legal or mental or emotional counseling or support if needed. Table V.1 indicates that only 12.4 percent of the adolescent girls were aware of the NGOs which are working in the locality. 31 respondents reveal that Anganwadi, Buddha Charitable Foundations, Centre for Education and Health, Research Organization, Centre for Smile, Adaan Foundation, INSAF - Indian Social Action Forum are working in the locality and Jagriti Centre for Social Rights Society Organization. In the Centre for Education and Health Research Organization when researchers went to discuss the ongoing project, they were not ready to discuss it so far. After knowing the motive behind the visit, they just explained in a brief and averted the discussion by indicating that they were busy. The discussion with them has been illustrated below,

"*Hamara health ko lekar koi kaam nahi hai hum sirf unn baccho ki education se related pareshaniyo mein madad krte hai jo bcache school nahi ja pate kyuki waha uniform aur books ke liye paise nahi hai. Unn baccho ko hum tuition ki suvidha dete hai jo padhna chahte hai. Kuch bacche aise bhi hai jo school jate hai par tuition ke liye paise nahi hai to who bacche yaha aakr apni duvidha clear krte hai. Sabki alag alag timing hai age and class ke hisab se taki padhane mein koi dikkat na ho unhe. Hamare yaha extra book hai jo bacche kharid nahi sakte unhe hum free books dete hai. Proper test and exam bhi lete hai unki kabiliyat check karne ke liye. Koi baccha yaha aane se darta nahi hai ghar ki sari pareshaniya hume batate hai ki unhe humse*

kis tarah ki help chahiye. Sabse important hai hamare yaha ki hamare pas unke liye jagah hai jo unhe ghar pe nahi mil pati. Ek study room hai, ek office room hai aur ek bathroom. Baki office mein hi humne ek choti si library banayi hui hai jaha unke study material and donated books bhi hai[92]*."* [FDG4]

This is an initiative taken by above NGO which attempts to give a good direction for poor-needy kids and adolescent in Munirka Village. All kids enjoy coming here and happily read with peer groups. During the survey they seemed very friendly with their teachers and were aware about using toilet hygienically. Girls now understand the value of education, they can say 'yes I also want to become something in my life.' Earlier girls used to think about the household, siblings' care, and marriage only. There are more than 76000 NGOs in Delhi out of the 100 NGOs are working for girls and women. Care India is a well-known NGO that is working for girls and children in Delhi as well as other parts of India. It was found that adolescent girls were aware of their health problems and the organization which is working for women and girls. If girls are aware of the health problems and the health facilities, it is likely to enable access to health facilities as well as health benefit programs to address their health issues. The following section is devoted to the discussion on accessing health benefit schemes or programs implemented by the government of India.

V:2. Accessing of Health Benefits Programme/Schemes

There are nine health programs listed in the questionnaire to know the awareness level about these programs among adolescent girls. These programs are Balika Samridhi Yojna, Kishori Shakti Yojna, Nutrition Programme for Adolescent Girls (NPAG), Adolescent Reproductive and Sexual Health (ARSH) program, National AIDS Control Programme (NACP) Phase-III, Rajiv Gandhi Scheme for the Empowerment of Adolescent Girls (Sabla), *Rashtriya kishori swasthya karyakram*, *Ladli* scheme and *Beti Bachao Beti Padhao* (BBBP). It is surprising that out of nine health programs

[92]We do not have any work for health; we help only those children related to their education, who are unable to go to school because they do not have money to buy uniform and new books by their own. We provide tuition facility to those students who want to study. There are some children who go to school but do not have money for tuition we provide extra session for them to clear their problems. Everyone has different timings according to the age and class so that there is no problem in reading. We have extra books here also; we give free books to children who cannot buy them. We take proper tests and exams to check their abilities. No child is afraid to come here, all the troubles of the house tell us what kind of help they want from us. The most important is that we have a place for them here, which they cannot find at home. There is a study room, an office room and a bathroom. In the rest of the office, we have a small library where student's study material is kept and some donated books.

listed, the adolescent girls were aware of the Ladli scheme and BBBP only. There were around 50 percent of 10-12 years age group girls who were aware of the Ladli scheme. Ladli Scheme was launched by the Government of National Capital Territory (NCT) of Delhi on January 01, 2008, to empower girl children who are born in Delhi. Under this health program, monetary aid is provided in the form of term deposits to those households whose annual income is less than one lakh rupees. For example, Rs. 11,000 for the baby girls delivered in the institution; otherwise Rs. 10,000. There will be Rs.5, 000 added five times i.e., when the girl child reaches Class 1, then in Classes 6, 9, 11, and 12. This scheme is limited to two girls in a family. Similarly, BBBP is the central government scheme to save girls and to check sex-selective abortion and improve the sex ratio. This scheme was launched in Haryana by the Prime Minister of India on 22 January 2015. It is the effort of ministry Women, Human resources, and Health and family welfare. There was 39 percent of the adolescent girls who were aware of the BBBP scheme (Table V.2). In qualitative observation also most of the schoolgirls in the fieldwork knew about the BBBP scheme which is good in sense of awareness.

Awareness and accessibility of the health programs are not mutually exclusive, and both are positively correlated. They were further asked whether they have secured benefits of these programs. There was 10 percent of them who responded positively and many of them belonged to the age group of 13 to 15 years (Table V.2). It is general perception and experience that ordinary populations are less likely to be accessed any benefit schemes. The poor and illiterate people face various problems in accessing health schemes and Table V.2 clearly shows that majority of them have faced various undisclosed problems in accessing health schemes. Table V.2 indicates the awareness and accessibility of health schemes, but it is also important to know that about the effect of independent variables on dependent variables for awareness and accessibility of these schemes. Some girls know the scheme name Beti Bachao Beti Padhao by Television advertisement, or on posters, seen somewhere but forgot when researchers asked them about it, they just said,

"*Itna hume kaise pata hoga hum utne padhe likhe nahi hai aur hume aakr kon batayega yeh sab ke bare mein.*"[93][K7]

Table V.2: **Awareness about the health programs for adolescent girls in Study Areas**

Awareness level	Age Group			
	(10-12)	(13-15)	(16-19)	**Total**
Aware of Adolescent Health Programs				
Ladli scheme	50.6	47.8	46.9	48.4
Beti Bachao Beti Padhao (BBBP)	31.0	41.8	43.8	38.8
Do not Know	18.4	10.4	9.4	12.8
Secured any Benefits				
Yes	6.9	13.4	10.4	10
Do not Know	11.5	4.5	6.3	7.6
Faced difficulty getting benefits				
No, we used it with simple paperwork	14.9	16.4	20.8	17.6
Total(N)	**87**	**67**	**96**	**250**

Source: Fieldwork

Table V.3 shows the odds ratio of securing health schemes by different variables. Binary logistic results show that the adolescent girls who were more than 6th class are more likely to be secure health benefit schemes than the girls who were in classes 1 to 5. They were more than three times more likely to have secured health benefits from scheme for those girls who were in 11 to 12 class as compared to the primary standard. Similarly, 13-15 years old girls were more likely to have secured health benefit schemes as compared to the reference category. It is expected that this age group of girls were more aware of the new issues and after that, they are not taking interest in these issues. It has been found that the girls who were aware of the Beti Bachao Beti Padhao scheme, were less likely to have secured benefit schemes as compared to those who were aware of the Ladli schemes (reference categories). It is also surprising and important results found that unmarried adolescent girls were more than three times more likely to have secured health benefits schemes than married

[93]How much will we know about that we are not so educated and who will come and tell us about all this to us?

girls. It is not clear why this ii is so, but it may be because of ignorance of married girls by both parents and in-laws, whereas unmarried girls were taking care of their parents and parents worried about their health and receiving health benefits from the government. It was observed in the field that married girls in the surrounding do not feel or do not see themselves motivated to do something for her life. They were just following the parents-in-law to avoid any domestic clashes.

Table V.3: Likeliness of Securing Health benefits

(Odds Ratio for Selected Variables)

Selected Variables	Secured health benefits		
	Frequency	**Exp(B)**	**Sig.**
Education Level			
1-Class 1-5	52		0.832
2-Class 6-8	65	1.732	0.461
3-Class 9-10	42	2.300	0.331
4-Class 11-12	30	3.563	0.151
5-Graduation	16	2.491	0.393
Age Group			
(10-12)	71		0.760
(13-15)	60	1.637	0.479
(16-19)	87	1.265	0.752
Awareness level			
Ladli	121	-	
Beti Bachao Beti Padhao	97	0.452	0.102
Marital Status			
Married	28	-	
Unmarried	190	3.238	0.282
Constant		**0.024**	**0.003**

Source: Fieldwork

It was observed in the field of marriage or after being married, the desire for education simply goes away in women. Most of the family expect women to do

household work only and take care of children. The value of education is limited to read and write to ease future difficulties. Some elders still believe in,

"*Dusre ghar jana hai, toda bahot padh le wahi kafi hai aage sasural wale jane kya krwana hai aur kya nahi*[94][FGD 3]."

This kind of statement shows why adolescents are still confused with their own identity about their choice and value of their own life. Lack of confidence can quickly be observed once a person asks about her education and future education because she felt herself bounded with family pressure and know her limit at her in-law's place in future.

Table V.4: Odds ratio for awareness about health scheme among adolescent girls

Item	Adolescent girls	Model 1 (Ladli)		Model 2 (BBBP)	
		Exp(B)	Sig.	Exp(B)	Sig.
Work Status					
Ever Worked®	18		0.336		0.197
Currently working full time	16	0.735	0.842	1.406	0.828
Currently working part time	10	1.734	0.701	0.375	0.504
Non-Worker	57	3.269	0.366	0.190	0.218
Student	149	1.246	0.867	0.383	0.472
Education Level					
1-Class 1-5®	58		0.976		0.841
2-Class 6-8	78	0.915	0.808	0.737	0.431
3-Class 9-10	45	0.933	0.886	0.902	0.836
4-Class 11-12	36	0.924	0.878	0.678	0.469
5-Graduation	18	0.635	0.475	1.388	0.609
6-Illiterate	15	0.695	0.573	0.768	0.699
Age Group					
(10-12) ®	87		0.839		0.364
(13-15)	67	0.868	0.719	1.784	0.161

[94] She has to go another house (of the in-laws) in future. If she can read a little bit, that is enough, future in-laws know what to do and what not to do.

(16-19)	96	0.758	0.554	1.629	0.319
Marital Status					
Married®	28				
Unmarried	222	2.365	0.110	0.261	0.018
Constant		**0.366**	**0.472**	**4.732**	**0.279**
®Reference category					

Source: Fieldwork

Earlier, we have discussed that only two health schemes were known to the adolescent girls i.e., the Ladli scheme and Beti Bachao Beti Padhao. It is important to know why and who were aware of these schemes. For this, we have generated two dummy dependent variables. First, Ladli schemes whether aware or not by two responses 'Yes-1' and 'No-0', and second, Beti Bachao Beti Padhao by the same responses. Therefore, two models of logistic regression have shown in Table V.4. Odds ratios are not significant, but results show important interpretations about the awareness about the health schemes. It has been found that nonworkers, currently working and students were more likely to be aware of the Ladli schemes than ever worked in the past time (Table V.4, Model 1). Therefore Model 1 and 2 showing regression results are not significant of Beti Bachao Beti Padhao and Ladli scheme.

In the case of Beti Bachao Beti Padhao scheme, currently working on full-time jobs were more likely to be aware as compared to who never worked. In the educational group, it has been found that students of graduation were more likely to be aware of the Beti Bachao Beti Padhao than primary class girls, while Ladli scheme was less likely to be known to groups other than primary group of adolescent girls. We further found in Table V.4, that more than 13 years old girls were less likely to be aware of the Ladli scheme as compared to the 10-12 years old girls, though they were more likely to be aware of the Beti Bachao Beti Padhao schemes than youngest (10-12 Year) age group of girls. Unmarried adolescent girls were more likely to be aware of the Ladli schemes but less likely to be aware of the Beti Bachao Beti Padhao.

We have discussed the awareness and accessibility of health benefits schemes by adolescent girls. Awareness and accessibility depend on the availability of health resource facilities and other health components. The next section is related to the availability of health facilities in the locality. Some elder people were sitting in a

group having Hookah[95] when the researcher asked about the village's adolescent health-related problem why nobody talks about it they replied?

"*Yahape adolescent health ki seriousness ko hum tabhi samjhenge jab hum iski seriously lenge. Ya hum yeh keh sakte hai ki yeh mudda gender se juda hua hai isliye koi dhyan nahi de pata. Ya sirf padhe likhe logo se hum iske seriousness ki ummid kare kyuki who shayad jyada gehrai tak samjhe. Yaha jyadatar log health asamnta ke shikar hai kyuki sab rehte to ek hi village mein hai par sabke parivaar desh ke alag alag jagah se aaye hai jinhe sanghathi karnabhot mushkil hai*." [FGD4]

V:3. Availability of Health care facilities in the Locality

It is an important condition of the accessibility of the health benefits if it is situated in the locality and these health facilities were affordable to the mass. Table V.5 clearly shows that most of them have not responded and there were 18 percent of them did not know any health facilities in their localities. We have listed three health facilities to know which one is in their locality for adolescent reproductive and sexual health. These are private, public, and traditional healers. Most of them were not aware of these facilities or if any of these were available for them and they have not responded. Some of them have expressed that they don't know if this type of facility is available in the locality. It has been observed that most of them were feeling shy when we have asked this question. They belong to 13 to 15 years age groups. We have also observed that Anganwadi workers did not know about these facilities, even though they are pilot health workers in the locality.

The adolescent girls were further asked, "Do you think it is the right for adolescent girls to seek health care for any reproductive as well as sexual related problems?" There was about 14 percent of 10–15-year-old girls who have responded positively and again no responses were more in this matter. 28 respondents have responded positively and out of these most of them (42.9%) have reported that "we want to know our body" followed by "Because we also want to be aware (32.1)" and "For those who need, can avail treatment easily (17.9%)". They were 10-12 years old or who are firstly experiencing menstrual cycles or related matters (Table V.5).

[95]Hubble bubble

Table V.5: **Health Facilities for Adolescent Reproductive Health in the locality**

Items	Age Group (in years)			
	(10-12)	(13-15)	(16-19)	Total
Types of Health facilities				
Do not Know	17.2	13.4	21.9	18.0
No response	82.8	86.6	78.1	82.0
Right to seek health care for Reproductive and Sexual related Problems				
Yes	13.8	13.4	7.3	11.2
No	-	16.4	10.4	8.4
Do not Know	14.9	11.9	12.5	13.2
No Response	71.3	58.2	69.8	67.2
If Yes Give Reason				
We want to know about our body	58.8	11.1	57.5	42.9
Because we also want too aware	25.0	44.4	28.8	32.1
For those who need can avail treatment easily	8.1	44.4	-	17.9
Because at home we never get this kind of information	8.1	-	13.7	7.1
Total(N)	**12**	**9**	**7**	**28**

Source: Fieldwork

Nutrition is playing important role in the health management of individuals. Balanced diet consists of seven important elements. These are carbohydrates, protein, fat, water, vitamins, minerals, and fiber. The concept of food security states that "*to provide sufficient quantity of quality food to all human beings in an accessible way with an affordable price*". India has sufficient food to feed its citizen, but malnutrition has prevailed in various geographic areas. It means they are not eating a balanced diet in their meals. Adolescent girls should be aware of the balanced diet and section 5.4 has discussed the opinion about the balanced diet.

V:3. a. Opinion on the Balanced Diet and its intake

Adolescent girls must be aware of balanced diets, and they must consume them in sufficient quantity on time for proper anthropometric growth and development.

Adolescent girls have asked their opinion about the importance of a balanced diet. Table V.6 shows more than two-thirds of them (69.6%) have responded that a balanced diet is very important and about 20 percent of them also expressed that it is extremely important in the diet. Even a few of them have also reported that it is not at all important. And these are 10 to12 years old girls. It might be they are not well known what a balanced diet is and what it's important. That is why they should be aware of important items in health issues. We have further asked what are eating in daily meals and more than half of them (54.85) have reported simple homemade meals such as dal, chawal, sabji, and roti followed by regular daily home food (39.6%). A vast majority of them (95.2%) have not taken any nutritional supplements. There were 5 adolescent girls (10-12 years) who were taking nutritional supplements of iron and protein. There were 13–15-year-old girls taking iron supplements only, whereas 15 -19-year-old girls were consuming supplements for calcium and protein. We have observed that adolescent girls were consuming milk rarely in the diet and seasonal fruits and vegetables sometimes. At this growing age, they are not having a balanced or nutritional diet in their meal which is very alarming and the threat of food security or nutritional security among adolescent girls. It is also found that they have never consumed dry fruits, fish, and other non-vegetarian foods.

Table V.6: Opinion of Adolescent girls on balance diet and its importance

Item	Age Group (in years)			
	(10-12)	(13-15)	(16-19)	Total
Opinion on the Importance of Balance Diet				
Not at all important	1.1	-	-	0.4
Low important	2.3	-	-	0.8
Slightly important	-	3.0	-	0.8
Neutral	6.9	10.4	3.1	6.4
Moderately important	1.1	4.5	2.1	2.4
Very important	66.7	62.7	77.1	69.6
Extremely important	21.8	19.4	17.7	19.6
What do you eat generally				
Regular daily home food	37.9	44.8	37.5	39.6
All type of foods and sometimes outside	3.4	7.5	6.3	5.6

Dal, chawal, Sabji and roti	58.6	47.8	56.3	54.8
Nutrition Supplements				
Yes	5.7	3.0	5.2	4.8
No	94.3	97.0	94.8	95.2
Total(N)	**87**	**67**	**96**	**250**
If Yes (Local dispensary and Government Hospital)				
Iron	59.6	100.0	-	41.7
Calcium	-	-	59.6	25.0
Protein Syrup	40.4	-	40.4	33.3
Total(N)	**5**	**2**	**5**	**12**

Source: Fieldwork

Table V.7 indicates that the girls across the educational classes were less likely to have consumed nutritional supplements as compared to the reference category (1-5 class) but illiterates were slightly more likely to have consumed nutritional supplements. In the age group, 16 – 19 years, unmarried girls having normal body mass index were more likely to be taking nutritional supplements than reference categories.

Table V.7: Odds Ratio for nutritional supplement among the adolescent

Variable	Take nutritional supplement	
	Exp(B)	Sig.
Education Level		
1-Class 1-5 ®		0.893
2-Class 6-8	0.775	0.735
3-Class 9-10	0.299	0.328
4-Class 11-12	0.289	0.321
5-Graduation	0.540	0.628
6-Illiterate	1.032	0.979
Age Group (in years)		
(10-12) ®		0.667
(13-15)	0.823	0.834
(16-19)	1.795	0.479

Marital Status		
Married ®		
Unmarried	2.174	0.514
Body Mass Index		
Malnourished (<18.5)®		0.998
Normal (18.6-24.9)	1.047	0.944
Overweight (>25)	-	0.998
Constant	**0.032**	**0.009**
® Reference category		

Source: Fieldwork

The measure of a balanced diet and nutritional status assured the body mass index of the girls. Due to the lack of anthropometric data, we have calculated only body mass index (BMI) with average height and weight of the adolescent girls discussed in the last section of this chapter.

V:3. b. Anthropometric Measurements by Age of Adolescent girls

There are various anthropometric measures such as height, weight, BMI, malnutrition, hip height ratio, hip weight ratio, anemia, etc., to know the health status of adolescent girls. We have not collected all this information except height and weight and based on height and weight measured Body Mass Index (BMI) of the adolescent girls. There are three categories of BMI i.e., malnourished (<18.5), normal (18.6-24.9), and overweight (>25). Table V.8 indicates that more than half (52%) of the girls (10-12 years) were overweight according to their BMI. The average age of adolescent girls who are overweight, normal, and malnourished is 13.6, 15.1, and 14.3 years respectively. We have further found that 12- and 15-years old girls were overweight by 20 percent each. The maximum number of malnourished girls was 10 years followed by 19 and 12 years. Overall average BMI has found 20.4. More than half (50.8%) percentage girls were malnourished and 10 percent of them were overweight.

Table V.8: Body Mass Index of Adolescent Girls in Delhi

Age (in years)	Body Mass Index value (%)			
	Malnourished (<18.5)	Normal (18.6-24.9)	Overweight (>25)	Total
10	18.1	2.0	16.0	11.6
11	5.5	3.1	16.0	5.6
12	13.4	19.4	20.0	16.4
13	9.4	13.3	-	10.0
14	8.7	9.2	-	8.0
15	7.1	7.1	20.0	8.4
16	5.5	7.1	12.0	6.8
17	9.4	12.2	-	9.6
18	7.9	8.2	8.0	8.0
19	15.0	18.4	8.0	15.6
Mean age	**14.3**	**15.1**	**13.6**	**14.5**
Age Group				
(10-12)	38.6	25.5	52.0	34.8
(13-15)	25.2	29.6	24.0	26.8
(16-19)	36.2	44.9	24.0	38.4
Average BMI	**15.8**	**21.1**	**25.2**	**20.4**
Total (N)	**127(50.8)**	**98(39.2)**	**25(10.0)**	**250**
Note: figures in parenthesis are the percentage				

Source: Fieldwork

There are two components of BMI i.e., height and weight mentioned in Table V.9. The average weight of 10 years old girl is 23.6 kg, and the average height is 1.23 meters in India. As per the health statistics, all the adolescent girls were good in weight and height parameters. None of them was stunted in height and lower weight. Their average weight is 37.696 kg, and the average height is 1.43 Mts with 0.13 Standard Deviation (SD). It has been reported that if the girl's height is minus two SD then they were treated as moderate stunted and minus 3 SD are considered to be severely stunted (Table V.9).

Table V.9: Average Weight and Height of Adolescent Girl

Age group	Weight (Kg)	Height (Mt)	Total(N)
(10-12)	29.750	1.32	87
(13-15)	39.359	1.44	67
(16-19)	43.736	1.52	96
Single Years			
10	25.259	1.33	29
11	29.791	1.28	14
12	32.383	1.32	41
13	35.872	1.39	25
14	39.211	1.46	20
15	41.948	1.47	21
16	43.441	1.50	17
17	43.131	1.51	24
18	42.151	1.52	20
19	45.336	1.53	39
Total	**37.696**	**1.43**	**250**

Source: Fieldwork

The overall conclusion is that adolescent girls were not aware of most of the health schemes, and they are not taking a balanced diet on daily meals. Most of them were aware of the legal age of marriage for both males and females. Few of them were aware of the NGOs working in their locality. Ladli Scheme and Beti Bachao Beti Padhao were known to most adolescent girls. They are malnourished based on BMI, but they are good in their weight and height. None of them were stunted or had low weight but some of them were overweight.

Based on the existing scenario of the adolescent health case study below describes how socio-economic disparity excludes someone from taking advantage of what others can get at the larger frame in terms of health-seeking behavior as a whole. Even in the urban village, there is income and educational hierarchy seen among adolescent girls which confirms their vulnerability. Those who come from a landlord family can easily access care services however the situation is critical for migrated families. The

health outcome, poor body mass index, poor nutrition, and unequal access to resources showing the actual condition. Some family only wants their girl's child to be healthy until marriage.

V:4 Case Studies highlighting socio-economic Differences of the Adolescent Girls in different household

V:4. A: Case Study1

V:4. a. General Profile

Neha is 16 years old daughter of Ravi Prasad (45 years old) and Kamla Devi (39 years old). Her father is a contractual worker in Jawaharlal Nehru University and her mother is a housemaid. Neha is a 10^{th} class school dropout and helping her mother in household duties when she goes to work. Neha has two younger brothers Sonu (10 years old) and Monu (7 years old) both are school-going children. Neha is not going to school as she helps her mother with household work when she goes out early in the morning. Neha's mother is worried about her health because her periods had not started yet.

V:4. b. Household Details

Neha is living in Munirka village a rented house in a one-room house with a sharing toilet and kitchen in the same room. There is full day electricity in the house but no window in the room except one door. Her father earns near about INR 25000/month and her mother INR 15000/month which is the only total income for the family. In her house, there was one television, mobile phone, fan, LPG gas connection, and other basic facilities that they need every day but poor access to basic infrastructure.

V:4. c. Inequality cause lower Level of Health, and Nutrition

As she does not receive her menarche mother took her once to Safdarganj hospital and she is undergoing treatment now. But when the researcher asked about her nutrition, diet plan, and precautions they did not pay much attention to it because it was a lack of knowledge. She not even takes medicines regularly, after getting up in the morning when half a day passed then she is able to take her first meal which makes affects her health. She was very thin and looked tense because her mother always complaints to her about not receiving her periods at this age. Her mother is not worried about her

health she talks more about "*who will marry her*?" This is the other major reason for not going to school as she was hesitant and not vocal about her health and choice.

V:4. d. Income Inequality, Educational Attainment, and Impact on Standard of Life

One important question rising here is that why do the daughters of the house have to do household work after leaving their studies? Especially where income is less, even if she must study, she must take all the responsibility of the house as we see in Neha's case. Her mother was telling various problems in their life related to income and living standard but regarding her daughter, she was only worried about her marriage. She does not even have her personal space in the house to take proper rest whenever she wants. Her house is surrounded by neighbors' day and night and due to this she always has a communication gap with her mother.

V:4. B: Case Study 2

V:4. a. General Profile

Shikha is 15 years old daughter of Sunil Kumar (50 years old) and Sarda Devi (38 years old). Her father is working in a shop as a helper and her mother is a teacher in playschool. She is staying with her maternal grandparents in Ber Sarai in a two-room house with a separate kitchen and bathroom. Sikha has a younger brother named Ravi (10 years old). Sikha left her school after completing 7th class due to her declining health day by day. Sikha is suffering from serious heart disease for which she is undergoing treatment in Delhi at All India Institute of Medical Science (AIIMS).

V:4. b. Household Details

Shikha is living in a rented house too but there she has a separate kitchen, bedroom space, and own toilet facilities. Her father earns near about INR4000/month and the mother earns INR 25000/month; she is being taken care of by her maternal grandmother. In her house, she has all basic facilities like a fan, air conditioner, water purifier, fridge, living room space, balcony space, separate roof, window mobiles, two-wheelers, which makes them sufficient.

V:4. c. Inequality cause lower Level of Health, and Nutrition

During the conversation, the researcher came to know that she is not going to school, and it is her decision because she is feeling very weak when she goes out of the house. She is very confident and vocal about her health and treatment, and she is on a diet plan which doctors say, "as you are a heart patient take precautions very seriously." Unlike health problems, she does not feel any social stigma of being a patient or feel low that she is undergoing now. Her family is very supportive and educated they as well always take care of her health, whenever she feels she can get up in the morning and can do anything she likes to.

V:4. d. Income Inequality, Educational Attainment, and Impact on Standard of Life

Sikha is an independent girl compared to Neha because her family always supports her. She always gets mental and emotional support; she is not allowed to eat outside food and is strictly on home-cooked food. The family regularly takes her for medical treatment and follows up with the doctor. She has her personal space and separate room whenever she wants, she can rest and entertain herself by watching television. They also have a neighbor just attached to their house, but they keep some distance to maintain privacy and relationship.

V:.5 Discussion

This chapters cover the understanding about the adolescent's own mobility of social as well as physical health awareness. At (10-19) is an age when a child entering the process of becoming adulthood therefore the awareness and accessibility about the health schemes for them need to know very well. But the study areas show the actual understanding of adolescent girls which by and large same in all three urban villages. Awareness about the legal age of marriage and awareness about health programmes of all three villages shows in one table because of same responses researcher got. Even for the balance diet pattern and daily food habits are same if we go villages -wise. There was common thought behind eating non-vegetarian food for girls, the family believe that girls should eat only vegetable foods. There is patriarchal thought behind girls eating habits which is seen in every household. Awareness about the government programme, most of the girls admitted that they heard about the Beti Bachao Beti Padhao slogan during election time but do not know about it. For reproductive and

sexual health more than 5o percent of adolescent gave no response which shows the awareness towards health of their own body. Thus by and large we can say all three urban villages shows the similar

V:6. Conclusion

The study has revealed that at this crucial crossroad of childhood and adulthood many hindrances come in the way of rational thinking in adolescents. It was also found that most of the time the caregivers are not able to fully understand their demands, needs, and attitude concerning these ongoing physical and psychological changes. Based on the fieldwork data, it can be deduced that there is a considerable increase in the awareness level of the girls concerning the common health issues faced by adolescent girls. They were also aware of the legal age of marrying, but they showed a lack of information concerning social and political organizations working towards their cause in their vicinity. Health and nutrition are major concerns for human existence. Policymakers should focus on educating adolescents about the same through comprehensive knowledge of the importance of nutrition. The patriarchal nature of our social norms, customs, culture, and values about gender leaves little scope for exposure to women largely and adolescent girls, in particular, to explore the outer world. Detailed nutritional education should be imparted in schools and through primary health services. At the same time, parents and guardians should also be made aware of the importance of adolescent nutrition.

To conclude adolescents in urban villages of Delhi are facing problems related to health. Education towards the same and counselling are the need of the hour in these areas to improve adolescent health. Primary care services can act as a bridge between these age groups and their families in solving the problems. At the same time, there is a need to create awareness related to adolescent health not only among these youngsters but also among their family members so that they can receive appropriate guidance and advice. Whilst government programs strive to improve adolescent health, they have largely focused on covering the broad health issues in this population whereas there is a need to assess them locally and adapt the programs accordingly to ensure that these actions are relevant and effective.

CHAPTER - 6

Intra- Family Communication and Social Environment

VI:1. Introduction

In the previous chapter V, analysis of awareness about the health care and utilization of health care practices was done. It is important to know whether the adolescent girls were free to choose health care facilities and they can roam around in the locality and outside of the locality for various purposes including hospitals, recreational complexes, marketing/shopping, social events, and others. It is a general perception that girls should not be allowed to roam freely without control because of various social restrictions which are imposed on the adolescent girls in the household. The people also believe that adolescent girls are not aware of the society and the attitude of the outsiders because they have lack of knowledge about the social behaviors prevailing in society. Knowledge is the power, and the adolescent girls must be aware of the social behaviors of the people so that they can take decisions for their mobility for an outing for overall personality development and participate in the decision-making process in the household. Thus, the present chapter has included discussion about the decision-making and mobility of adolescent girls with one case study. These matters have been discussed as a social relationship with family members and mental pressure and decisions for routing/mobility.

VI:1. a. Social Relationship with Family Members

An individual is a unit of the family, and a family is a unit of society. It means every member of the household plays an important role in the socio-economic and behavioral relationship in the house. A biological relationship is stronger than a social relationship, and adolescent girls are closer to their mothers both biologically and socially, which the researcher observed in the field. Table VI.1 shows that adolescent girls have cheering/comforting behaviors (21.2%) with their parents followed by affection, close and friendly behavior among all the ages of the adolescent girls. As expected, 10-12 years old girls seek more affection from their parents. It is also found that about 5.6 percent of them have experienced negative behaviors of their parents and 5.2 percent have reported that their parents have dominating nature.

Table VI.1: Relationship with parents and social environment in the household

Item	Age Group			
	(10-12)	(13-15)	(16-19)	Total
Relationship with Parents				
Friendly	13.8	10.4	9.4	11.2
Very Loving	16.1	13.4	9.4	12.8
Comforting behavior	21.8	19.4	21.9	21.2
Negative behavior	5.7	3.0	7.3	5.6
Very Positive	6.9	13.4	15.6	12.0
Cooperative	12.6	7.5	12.5	11.2
Dominating behavior	4.6	6.0	5.2	5.2
Affection or Close	10.3	17.9	11.5	12.8
Others	8.0	9.0	7.3	8.0
Comfortable To share with Family members				
Spouse*	0.0	1.5	18.8	7.6
Father	9.2	11.9	11.5	10.8
Mother	34.5	37.3	26.0	32.0
Aunt	10.3	6.0	6.3	7.6
Sister	6.9	16.4	6.3	9.2
Brother	8.0	4.5	2.1	4.8
Friend	5.7	4.5	9.4	6.8
Neighbour	2.3	4.5	5.2	4.0
Grandmother	11.5	6.0	5.2	7.6
No one/Never	11.5	7.5	9.4	9.6
Total(N)	**87**	**67**	**96**	**250**

Source: Fieldwork [*Married adolescents Girl]

In the study, we need to understand as the age of the adolescent grows the distance from their parents also increases. These are the main changes observed in adolescent behavior they are less likely to make more and more friends and feel comfortable in making few friends only as they age. In Table VI.1 it has been observed that girls are not comfortable with each member of the family in sharing their personal or feelings when they are (10, 11,12) age groups. It is also found that girls are very selective in

terms of sharing their behavioral problems. They can share these problems with their peer groups, mother, and sister before marriage and their spouses after marriage. It is clear in Table VI.1 that most of the girls have shared their problems with their mothers (32%) especially those who were 10 to 15 years, but 16 to 19 years have shared it with their mothers (26%) along with their spouses (18.8%) and fathers (11.5%). It has also been found that the sister is playing an important role with them in sharing their problems and brothers too. It is not clear what types of problems they are sharing with their sister, brother, mother, father, and spouse in the field. That would be suitable for another study altogether. Surprisingly, 9.6 percent of them have not shared their problems with anyone in the family. It is a matter of psychological state of mind. It maybe because they are introverted, or they are not comfortable talking to them due to various social restrictions. When the researcher asked about comfortable to share with their problem in your family one respondent articulated that,

"*Mujhe mann krta hai apni feelings khul kar ghar walo ko bataun par darr ke sath sath mahol nahi mil pata ki apni baat kahu kaise'*[96] [K4].

It is well known that extrovert girls are more talkative and express their feeling easily to others, but introverts are bearing all the problems within their minds, and it leads to mental sickness or unhappiness and sometimes it ends up being suicidal cases. Thus, family members should be conscious of their psychological state of mind through anthropological study or daily observation of their habits and social behaviors how they behave in the different social environments and with different peoples. Adolescent girls observed to be shy and dull while sharing problems, it all depends upon the nature of family members how they treat their daughters how much freedom they get and depends upon them. Some girls share their feelings with researchers as,

"*Acchi baat share karne mein koi problem kisi ko nahi hoti par jab baat serious ho padhai ya bahar jane se sambandhit ho tab kaise kya kahe ya puche kuch samjh mein nahi aata. Hamare bhaiyo ko itni puchne pachne ki zarurat hoti hi nhai hai. Hume bhale khelne ki permission hai ki kisi ke sath bhi kkhel sakte hai par ja kahi nahi sakte*

[96]I always wanted to share my feeling with my family, but I scare and not found comfortable place to sit and talk with them.

iss mohalle se bahar bina parents se puche. Ghar mein badi didi ya dadi hoti hai to unhi se job hi pareshani hai puch lete hai[97]*".* [FGD 3]

Table VI.2: Moral Support from Mother to Adolescent Girls

Item	Age Group			
	(10-12)	**(13-15)**	**(16-19)**	**Total**
Moral Support from Mother				
Yes	20.7	13.4	17.7	17.6
Type Moral Support from mother				
During exam/study time	16.6	33.3	15.7	19.6
During menstrual cycle	11.2	0.0	15.7	10.9
Share problem and tension with her	5.4	0.0	15.7	8.7
Whenever fall ill, mother cares	5.4	22.2	15.7	13.0
Care, support, and Love in stress	33.7	22.2	10.7	21.7
Whenever feel sad	22.4	0.0	0.0	8.7
She works, so hardly able to give time to me	5.4	22.2	5.1	8.7
Family related problem discuss on phone (Married Girls)	-	-	21.3	8.7
Total (N)	**18**	**9**	**19**	**46**
All Total (N)	**87**	**67**	**96**	**250**

Source: Fieldwork

It was shared with one married adolescent girl who was found to be very thin and recently underwent miscarriage, when the researcher asked her why after a miscarriage at this age you are planning for the baby, she replied looking at her mother-in-law as,

"Ab jo ghar wale chahe wahi to krungi ek baar nahi ho paya to dusri baar try to krungi[98]*."* [K4]

[97]There is no problem in sharing good things, but when the matter is serious or related to going out and our studies, then how to ask and make them understand something or convince it's very difficult. Our brothers need not to ask so many questions they are free. We have the permission to play that we can play with anyone, but we cannot go out of this locality without asking parents. If there is a big sister or grandmother in the house, we use to ask them only if there are any difficulties.

[98] Now, if the In-laws want to do the second child immediately, I will have to do it again, if I am not able to do it again, then I will try my best.

Her mother-in-law replied quickly of fear as,

"*Hum iske khane peene ka pura dhyan rakhte hai hamare yaha issi age mein Shaadi hoti hai humlog Rajasthan se belong karte hai. Baccha-waccha ho jaye fir hum isse padhayenge bhi taki baccho ki padhai mein dikkat na ho koi. Baki jo doctor bol rahe hai unhi ke hisab se humlog chlte hai time pe khana time pe dawai*[99]." [K3]

Table VI.3: **Odds Ratio for Moral support to the adolescent by mothers**

Selected Variables	**Moral Support**	
	Exp(B)	**Sig.**
Education Level		
Class 11-12		
Graduation	1.181	0.836
Illiterate	1.384	0.728
Age Group		
14 to 16		
17 to 19	4.852	0.017
Working status		
Working ®		
Not Working	0.788	0.849
Constant	1.620	0.701

Source: Fieldwork

The above conversation shows the decision-making possibilities after the marriage of an adolescent girl in a family. She completely denied saying to her mother-in-law that it's not our fault it's our traditional custom which we have to follow. This is the question of age at marriage in which food and medicine cannot be fulfilled. After the miscarriage, she is ready for the second baby that means she has family pressure, and her family has some social pressure as well. Moral support is compulsory for the girls for overall development because adolescent girls are more emotional than boys. Mother is the best teacher, friend, and moral supporter to the children in general but to girls. There were 17.6 percent of adolescent girls who have moral support from

[99]We take full care of her drinking and foods very carefully, we use to get married in this age only, it is our custom we belong from Rajasthan. If she able to conceive the child becomes a mother, then we will also teach her as well so that there will be no problem in the education of children. According to the instruction of the doctors whatever they speak, we always follow them for our daughter- in-law and give her proper medicine and nutritious foods on time.

mothers. These moral supports were during exam/study time, during my menstrual cycle, share my problem and tension, whenever I fall ill, Care, support and love me whenever I am under stress, whenever I feel sad, she works so hardly give time to me, Family-related problem discusses on phone, and Others. Most of them have revealed that they have got moral support during exams, sickness, and during stress by 19.6, 13.0, and 21.7 percent respectively. Adolescent girls (10-12 years) have got moral support during stress (33.7%) and 13-15 years old got it during the examination time (33.3%). It is interesting to note that 16-19 years old girls have got support for family matters on phone. They are either married or a responsible member of the household. Table VI.3 shows that girls who were in graduation were more likely to seek moral support from their mother as compared to the girls who were in class 11-12th. The adolescent girls who were 17-19 years, were about five times more likely to be supported by their mothers and 14 to 16 (® -reference group). The non-working girls were less likely to be morally supported by their mothers.

Adolescent girls are more participating in the decisions making in the household after a certain age. In the next section, we have discussed these issues.

Table VI.4: Adolescent Girls- Experience of Peer Pressure and Mental Stress

Item	Age Group			
	(10-12)	(13-15)	(16-19)	Total
Peer Pressure				
Going out for films	11.5	9.0	21.9	14.8
Going out with friends	34.5	28.4	21.9	28.0
Wearing new western cloths	21.8	17.9	16.7	18.8
Going out with friend's place for night out	13.8	22.4	17.7	17.6
Try some new makeup and outfits	14.9	14.9	11.5	13.6
Earn money for good lifestyle	3.4	7.5	10.4	7.2
Experience Family Violence				
Physical	31.0	29.9	40.6	34.4
Verbal	69.0	70.1	59.4	65.6
Experience Mental Stress				
On Studies Issues	74.7	74.6	33.3	58.8
On Marriage Issues	4.6	6.0	21.9	11.6
On Income Issues	8.0	6.0	16.7	10.8

Others	12.6	13.4	28.1	18.8
Support during mental Stress				
Spouse	-	1.5	17.7	7.2
Father	27.9	32.8	19.8	26.1
Mother	47.7	35.8	22.9	34.9
Aunt	4.7	7.5	6.3	6.0
Sister	2.3	6.0	2.1	3.2
Brother	3.5	3.0	4.2	3.6
Others	14.0	13.4	27.1	18.9
Total(N)	**87**	**67**	**96**	**250**

Source: Fieldwork

VI:2. Peer Pressure and Decisions for Outing/Mobility

There were also facing various restrictions such as not allowed to go out with their friends (28%), wearing modern western dresses (18.8%), going out at night with friends (17.6%), going out for movies (14.8%), new makeup (13.6%) and earning for pocket money. Although they want to try all new types of beauty makeup and dresses they cannot afford much. Some girls want to watch new songs on television and copy them, some try to dance and act like that which the researcher found very common threads in all three urban villages. They sometimes tinkering one another about “what comes to her house”, “what new dress did she get”, “who has traveled so often”, “who is whose friends”, “she is very arrogant I don’t want to talk with her”, “she only talks with boys on mobile phones we do not like her”.

These kinds of group conversations show what is more important in their life. They are not getting good guidance for the value of education in her life. As we saw in the literature review the surrounding environment is the main common factor for adolescent's mental, physical, and psychological transformation. There is no such role model image in their mind to copy or want to be like them. Their mind is occupied by neighboring bodies or television, movie stars. It is very sad to say that very few adolescents’ girls in the urban village come to higher education despite living in the National Capital Territory of Delhi. We can say living in the urban village makes them more vulnerable in terms of career orientation plans, poor health guidance, and whispering in nature.

Table VI.4 also indicates family violence such as physical, verbal, sexual, and others. Most of them have faced family violence in the form of verbal (65.6%) and family violence (34.4%). There was no sexual (married) violence found in the study area. They have faced mental pressure during examination followed by marriage and earnings. They have further reported that whenever they were under mental pressure, their mother, father, and spouses have supported across the ages. But marriage is a family issue where they have not allowed to express their choice which is also common trends in all three urban villages.

Table VI.5: Participation of Adolescent girls in decision making in family

Item	Age Group			
	(10-12)	**(13-15)**	**(16-19)**	**Total**
Have Influence on me By Family Decision				
Influenced Great Deal on me	43.7	52.2	32.3	41.6
Little on me by Family decision	36.8	26.9	45.8	37.6
No influence on me	19.5	20.9	21.9	20.8
Important Decision with you				
Never shared with me	32.2	28.4	21.9	27.2
Rarely shared with me	21.8	19.4	21.9	21.2
Occasionally shared with me	26.4	16.4	22.9	22.4
Sometimes shared with me	8.0	17.9	13.5	12.8
Frequently shared with me	5.7	6.0	3.1	4.8
Usually shared with me	3.4	9.0	9.4	7.2
Every time shared with me	2.3	3.0	7.3	4.4
Total(N)	**87**	**67**	**96**	**250**

Source: Fieldwork

Adolescent girls have also been influenced family matters. Most of them have responded that they were influencing a great deal and little. About one-fifth of them have not been influenced by family decisions. Adolescent girls have further asked:

"*How often do your parents talk about important decisions with you?*"

It was 4.4 percent of them said every time and 27.2 percent never. In this matter, 16-19 years of age group girls more. Overall conclusions are that adolescent girls were

also influencing family matters and have faced various restrictions of mobility and going out with friends. If parents know the friend's family, then they have allowed them to go out even for shopping or movies. If three-four girls want to do something together in their education, job, or some outings they are allowed to do so but single girls do not have permission to do something on their own. Verbal violence in the form of abuse and physical violence such as slapping and hitting have been observed in the field. Some of them have participated in an important decision in the family which was rare. They are not allowed to sit outside the house, they can talk with friends inside the house only in the presence of elders. Some married adolescents who live with their husbands have the freedom to go outside alone but nearby only.

VI:3. Case Study 1

VI:3. a. General Profile

Sonia 19 years old daughter of Anant Dev (50 years old), who is working as a sweeper in a private company. Originally, they belong to Uttar Pradesh but many years ago their parents migrated to Delhi for a better livelihood. Her mother Sunita Devi is currently a Housewife and doing some other meagre work in the neighborhood. Sonia has six sisters named Minakshi 18 years old, Richa 16 years old, Dolly 14 years old, Neha 15 years old, Jyoti 12 years old, and Soni Kumari 10 years old. All are living together in two rooms rented house in Katwaria Sarai for many years. All sisters except Soni Kumari is drop out of school for various reasons like, do not feel like going to school, many household works, sibling's responsibilities, once fail in exam now feel scared to go to school, want to earn something as soon as possible.

VI:3. b. Household Details

It was two rooms pucca house with a separate kitchen and bathroom followed by a small balcony space. There is only one door on the front side and no window; the source of light is only electricity. They have their own house in the village but here they are giving INR6,000/month rent. Family income is near about INR40000/ month, the father earns INR15000/months, mother earns near about INR 25,000/months. They have television, mobile phones, electric water purifier, fridge, LPG gas connection, and every minimum household asset which is essential. When the

researcher asks about electricity, they said in winter electricity is normal but in the summer season, there is a regular power cut.

VI:3. c. Decision making and interpersonal

When the researcher asked about their interpersonal communication regarding health and other personal and social problems within the family they discussed. Both mother and father working, and since all sisters are at home, they know each other very well, Plate IV.1. Whenever they need any kind of health problems or treatment from doctors, they go with each other and help each other. Whenever they want to go out for shopping, a movie, or other outside fun they go with each other, they just inform their parents that they are going. Thus, this picture presents that they have their rights for mobility and decision-making for anything which they want to explore new. One of Sonia's sisters Richa asked the researcher about her job-seeking scope because she was a school dropout but wants to do some job and earn money for her good life. When the researcher asked about the reason for school dropout; "why you left school"? She explained, "once I failed in school exam teacher scolded me so badly, I felt humiliated, then I decided not to go to school ever in my life". Because of no career guidance and family history of school dropouts she also left school. She further explained:

"*Hume yaha koi yeh samjhane wala nahi tha ki ek baar exam dekar fail ho jate hai to dubara mehnat karke acche se de sakte hai, par ek baar school choddiya to ab himmat nahi hoti dubara jaye waha*[100]" [K4].

VI:3. d. Personal Hygiene and Intra- Family Communication

It is very interesting for the researcher to know their living patterns which are different from other households. The eldest most sister in the house taking care of her younger sister after her parents leave for job. She guides all her sisters on how to clean themselves during the menstrual cycle. She is responsible for buying and keeping pad/cloths in a safe place, whatever issue her younger sisters face they ask her elder sister only. Sonia only decides which day they should wash hairs after the menstrual cycle and after that, they are allowed to worship God/visit temple. Sonia

[100]There is no one in our family who tell us what to do once you fail in exam, and now we left our school do not have enough guts to joined again.

must look after the kitchen and household on what is required in the kitchen or what to take for home. However, Sonia is just 19 years old she also has limited knowledge about menstrual hygiene care and the importance of diet for adolescents. She has less knowledge about issues of anemia about which her sisters complain often. How to do proper disposal methods for the pads/cloths, what is the importance of menstrual hygiene in girls' life is missing. When they complain about leg pain or lower abdomen pain, Sonia tells them to take a rest or take a hot bottle only. When it becomes often or serious then she tells her mother about treatments, sometimes they do self-medication and sometimes they may visit private hospitals. They all are very jolly girls, and they want to do something good in their life, but they have no opportunities and proper guidance for their future. At the same age, boys do outings, roaming places using smartphones get money from parents; however, on the other side adolescent girls just do homely things like taking care of siblings, and have no freedom in their own life.

Plate VI.1: A Family which has Seven Sisters

Source: Fieldwork

The above case study shows how the environment of the family and neighborhood plays an important role in a girl's decisions related to life. But within the family, there were responsibilities of household chores and care of siblings by the older sisters. Working parents, usually in low-paid jobs, can give little time to their families.

Therefore, the older siblings, particularly girls, look after the family responsibilities and younger siblings back home.

VI:4. Discussion

The chapter discusses the issues and daily challenges of adolescent girls which makes them vulnerable compared to boys. If we discuss moral support in all three urban villages Munirka Village, Katwariya Sarai and, Ber Sarai it was the same kind of responses the researcher observed. Major moral support in the sense of not feeling well, need support during exams time, during the menstrual cycle, and everyday feelings and conversation which going on girl's mind overall same in the three study sites. The kind of relationship with parents and other family members at home shows the same kind of quantitative result. Some parents are friendly however others are strict on girl's rights. In the decision-making scenario at home girls are not free to put their own choice individually. It was very tough for them to convince their parents of their decision. If she wants to go out for the movie, go out with friends, want to spend some money for herself, if she is married then the situation is more difficult for her. Researchers observed at the household level that boys are freer to roam anywhere day and night, they even carry mobile phones easily however for girls it is like "when pigs fly" situation.

On the question of violence at home, most of the respondents in all age groups say they faced verbal scolding often at home when they refuse parent's instructions, but it was less for boys in all three urban villages. Table 6.2 shows the moral support during the menstrual cycle is only 10.9 percent which is very less which shows the situation of girls when they need mother's support it was neglected. Being a girl, it is very difficult to survive in a place where boys are the first choice for parents. She faced everyday challenges when she met her first menstrual cycle. In a way, it must go with the rules of society, not their own. Living in an urban village, following the culture of a rural village is a kind of daily challenge for new girls. On the choice of using cloths instead of pads, she must depend upon her family and these kinds of situations are observed in all three urban villages. Therefore, these qualitative evidence from the study sites shows the responses are similar on the different questions, thus village-wise analysis is not have been done separately.

VI:5. Conclusion

Adolescence is understood to be a particularly stressful and traumatic phase in the life of a youth. During this age, youngsters make efforts to gain independence and to form an identity of their own, at the same time also feeling the need to form stronger bonds and connections with their families and peers. It needs to be understood here that this formation of individuality is something that happens through the co-creation of parents and adolescents. Parents and peers have a major contribution in developing the self-identity of adolescents. It is common knowledge that there is a strong relationship between parent youth communication and the wellbeing of the youth. More precisely, adolescent evolvement and adjustment with the environment are directly linked with the kind of communication they share with their family members.

Adolescents, in a way desire freedom from family, while residing with extended families, which makes it difficult for them to assert themselves and display freedom in thought, behavior, and action. The study reveals that most of the adolescent girls interviewed were extremely reluctant in discussing their problems. Furthermore, sexuality and sexual issues are not discussed openly, relationship with the opposite sex is discouraged and sex education is made easily available. Moral support is essential for the overall development of adolescents, especially for girls. Flexibility in communication with family permits the adolescent to express herself with openness and honesty. By developing a level of comfort common issues faced by adolescents can be discussed with greater comfort and success. There is a need for parents to attempt to listen and understand the needs of their adolescent children. Parents need to spend time with their girls and should allow them to enjoy some privacy. But the study has revealed that with bad housing facilities for most of the families of adolescent girls in the study area, it is difficult for them to have any kind of privacy or space to share their problems with their parents. With small living rooms, the adolescents have to spend most of the day outside their homes, leaving limited scope for communication with parents.

Negative communication is understood to be a common cause leading to conflict. Harsh criticism, nagging, and yelling are negative ways of communicating which lead to weak channels of communication between parents and adolescents. Most of the interviewed girls indicated that they experienced verbal, physical, sexual violence.

The case study shows that the environment of family and neighborhood plays a vital role in the formation of choices made by an adolescent.

CHAPTER - 7

Adolescent Girls and their Health Issues- The Way forward

Summary, Findings, Suggestions, and Conclusion

VII:1. Introduction

The share of the adolescent population has increased during the past few decades is evident from the censuses. At present nearly 30 percent population can be categorized as adolescents. "According to *Ayushman Bharat*, India's path to Universal health Care which launched in 2018 it promised, 7 million adolescents provided health services through 7500 dedicated adolescent clinics, annually. Around 40 million adolescents receive weekly Iron Folic Acid tablets and nutritional advice annually"[101]. However, adolescent health care is still ignored by many, it is considered the most shameful or hidden topic in our society. There is a different-different type of adolescent health care understanding in the community which the researcher explored while collecting qualitative and quantitative data. It is our biggest mistake to limits adolescent health care and thinks health care and guidance are only needed when girls become mother or planning for it. There are different phases of change that happen in a girl's body which have been discussed in chapter one. If care for every girl since her age of puberty, can be provided, this can help reduce maternally and child mortality in India. However, the reality gives us a clear picture of negligence in health care practices for girls in Delhi urban village. Apart from health care negligence, our community is still very ignorant and least important for adolescent health care concerns.

VII:2. Summary

Adolescence is a bridge between childhood and adulthood. This period is significant in formulating the life of an individual, especially due to psychological, physical, and behavioural changes which occur during this period. India is home to the world's largest number of adolescent populations is 253 million[102], who are also an important vulnerable group of the population. Various research has proven that girls are more vulnerable because of socio-economic constraints and cultural norms like early marriage, gender-based discrimination, and inaccessibility to health care services.

[101] https://nhm.gov.in/showfile.php?lid=711. Accessed on 20-11-2019.
[102] https://www.unicef.org/india/what-we-do/adolescent-development-participation.

This has often resulted in anemia, under-nourishment, reproductive morbidity, menstrual abnormalities, etc. to name a few.

It is very important to bring the health condition of adolescent girls into the limelight as it has been neglected by society and family and despite the government's efforts towards formulating many policies to empower them. Therefore, present study endeavours to argue and understand, based on the primary data, both qualitative and quantitative; that there is an urgent need to address adolescent health needs. In India, adolescent health is still considered a family-related issue and not to be discussed 'openly'. When the issue of health, particularly menstrual, is linked with cultural and religious taboo, it will not wipe out entirely for a long time to come. Adolescent health is an ambiguous subject as it is associated with menstruation, socio-economic, intra-family communications, early marriage, anemia, nutrition deficiency, self-confidence, the role of parents, self-esteem, decision making, and others. But India is still embedded in its traditional cultural and religious practices more which reflect in the process of rearing our child to adolescence and adulthood. However, our traditional and cultural practices differ in socio-economic and intra-family communication within the family which we have seen in the chapters. The present study attempted to bring out the different challenges of socio-economic and intra-family communication in different houses of the urban village which tries to provide innovative analysis to look at adolescent health. It is important to discuss because adolescent health is one of the significant demographic indicators in Public Health research. The study aims to assess the effects of socio-economic factors on the health of adolescent girls and to understand the effects of lack of intra-family communication in the National Capital of the territory of Delhi. The thesis is organized into six chapters which are summarised as follows.

VII:3. Chapter one: *Adolescent Health Issues and Concern in India: An Overview*

The health profile of adolescent health in India at the macro level and the micro-level in the National Capital Territory of Delhi forms the core of the chapter. To successfully achieve Sustainable Development Goal (SDGs) target by 2030, adolescent health needs to improve by revisiting the policy and programs, adequate accessibility, and awareness among adolescent girls. The chapter tries to formulate the

argument by listing out the kind of problems related to adolescent health. During this transitional phase, Adolescents need proper support from their elders to become the liable adult in society. At this distinct phase of adolescent development why there is a need for proper guidance and special attention, what are the missing areas which need to cover for the long-term consequences chapter discussed broadly? The adolescent is neither a kid nor an adult to understand the risky behavior related to their age thus chapters tried to point out its related determinants. Chapter one named "Adolescent health in India: An overview" looks at the nature of changes that take place during adolescence in young females, which are not only limited to physical and sexual maturation of the body but, an individual also experiences development of identity and movement towards social and economic independence. These changes suggest certain outstanding observations like adolescents need explicit attention, with some adolescents being particularly vulnerable. A transitioning adolescent must understand this process. The development process also has a huge impact on the health of an individual particularly girls in this case. In India adolescents constitute roughly 21.4 percent of its population, it is essential to study the importance of adolescent health here. Adolescents determine the social structure, economic productivity, and well-being of the country making it influential in achieving the goal of population stabilization. Issues like malnutrition, anemia, poor physical, social, and psychological development, and low self-esteem are central to adolescent girls in India. The study analyses these issues and highlights the importance of early intervention and prevention-related programs to identity family and community involvement which can aid in promoting the development of this group along with reducing health risk behaviors.

Substantial research has shown that socio-economic conditions and demographic behavior often influence accessibility to health care services. The socio-economically poor sections of the society are the worst hit lot when it comes to health. Access to health care facilities is directly proportional to the rising income inequalities. This also affects the social beliefs, family planning practices, lifestyle, health practices, and healthcare-seeking behavior. Immense financial stress often leads to an early marriage of adolescent girls which further damages their health and poses risk to their reproductive life. In most sociological and psychological studies, the family is an important and intervening variable. Communication forms the basic structure of

human society, and it is a major factor that gives direction to the development of the new generations. The intra-family relationship is of the utmost importance when it comes to the behavioral and mental development of an adolescent. Healthy development of familial, interpersonal, and institutional relationships at this stage plays a crucial role in life and can have a lasting effect throughout life.

Along with the contribution of intra-family communication the importance of the government's efforts to address the issues of its population cannot be downplayed. The chapter further looks at the various programs and policies that have been initiated by the government in this direction. These steps have been carried out to change the negative attitude towards girls by focusing on their education, employment, and overall empowerment. Early intervention and prevention can have a positive impact on the life of an adolescent. The research analyses the success and impact of these initiatives in this chapter.

As the study focuses on understanding the scenario of urban villages in the National Capital Territory of Delhi, the areas of Munirka, Katwaria Sarai, and Ber Sarai have been chosen as the areas of study.

VII:3. a. Chapter two: *Developing Conceptual Framework, Research Question and Study Design*

The first part of this chapter reviews existing literature on adolescent health in India. The literature has been organized under various categories like family communication, psychological health, education, early pregnancy, marriage and menstrual hygiene care, socio-economic impact on adolescent health, and health care utilization programs for a better analysis of the work. Through this review, it has been observed that:

1. Adolescents are differently vulnerable. Living spaces and family characteristics are important in their development. it has been found that adolescents aged 10-14 years have been understudied. There is a paucity of available data for this group on issues related to reproductive and sexual health.
2. Intra-family communication plays important role in the transition to adulthood. There is a dearth of literature on interventional research

conducted on the effects of programs targeting behavior change communication at the community level to increase awareness among parents, adolescents, and other members of the community concerning the availability of existing services focussing on adolescent health, the importance of delaying marriage and childbirth and nutrition.

3. Lifestyle habits and living environments are important for the growth of adolescents.
4. The psychological stress redressal mechanism helps adolescents to overcome problems.
5. Sanitation issue, personal hygiene, personal health care, crowding issue, living environment, and socio-economic background of the family plays an important role during the rapid transition phase in adolescent girls. An outstanding finding is that many adolescents do not have the right to decide their pregnancy.

This chapter discusses the existing problems related to the health of adolescent girls and the various health aspects that impact their life. The problems that have been established concerning the health of adolescent girls are:

- Sexual and reproductive health: the lack of knowledge about reproductive and sexual health largely leads to unwanted pregnancies, unsafe abortions, vaginal infections, etc. Despite government programs and policies targeting these issues, awareness, and access to proper advice is absent.
- Menstrual hygiene: taboo and shyness associated with menstruation in India, has made it uncomfortable for many females in understanding menstrual hygiene.
- Child marriage, teenage pregnancy, and motherhood: in most cases, it has been seen that child marriage leads to early and unplanned pregnancies which not only impact the physical and mental health of the young mother but further lead to issues like low birth weight, premature delivery, miscarriage, stillbirths, and risk of the health of mother and child.
- Adolescent and coexisting underweight problems: to transition to adolescence a body requires a healthy intake of proteins, vitamins, and other nutrients, which is lacking among a significant number of adolescents in India.

Undernutrition and being underweight among adolescent girls impact their future health leading to a higher rate of maternal mortality and infant mortality. This difference is stark when compared to the health of adolescent boys in India.

- Anemia: Patriarchal mindset in Indian society is one of the leading contributors to the increasing anemia experienced by girls. Attention to the food and nutritious diet of boys is greater than that of girls leading to iron deficiency among them.

The conceptual framework of the study is designed to address the issues found through a review of literature, for which dependent and independent variables affecting the health of adolescent girls have been constructed. Adolescent health depends on demographic aspects like age, sex, religion, education, and independent aspects like intra-family communication, peer group interaction, lifestyle, and awareness of programs for adolescents. Through these variables the study has aimed to answer the following research questions:

1. What are the determinants of adolescent health?
2. Does intra-family communication help adolescent girls to understand their health issues especially menstrual health?
3. What are the levels of awareness about the program for adolescent girls?
4. What are the factors which affect the utilization of health care services, and government schemes and programs for adolescent girls?

These research questions have been constructed to fulfil objectives to examine the demographic and socio-economic characteristics of adolescents, to understand the background characteristics of the families of adolescents, to understand the crowding in housing units and its association with feminine hygiene, to map the government schemes for adolescent girls and lastly to analyze the factors which affect the utilization of health care services and government schemes and programs.

Study area: the study has attempted to reflect on the status of adolescent girls at the macro level and then connect it to the micro-level. For this purpose, the urban villages of Munirka, Katwaria Sarai, and Ber Sarai have been chosen. Each of these areas consists of a non-migrant population going through the process of urbanization which also allows space for migrants which in turn evolves in a unique interaction among

different groups of the population. These areas have been assessed under various categories like education, healthcare, and livelihood (which is further sub-divided into categories like the living style and building formation, lack of green space, struggle of life and transport, and communication system).

Methods: Both qualitative and quantitative methods have been used to collect data for the study. The qualitative data has been gathered from selected key informants, case studies, focus group discussions, observations, and individual interviews. The quantitative data have been collected from adolescents and senior members of the various household through a structured questionnaire. The selection of the households for the fieldwork has been done through house listings and social mapping. The selection of each stratum has been of key importance during this study.

VII:3. b. Chapter three: *Socio-Economic Factors and Migration in the Study Area*

The first part of this chapter outlines a brief history of the study area explaining the social composition of the population residing here. An attempt to understand the socio-economic characteristics of the individuals has been made through the distribution of samples based on religion, social composition, type of residential units, number of living rooms in these units, distribution of rooms according to the age groups, access to toilet and cooking space. This data has helped the researcher to understand the living conditions of the respondents and how this has affected their health. To examine the health of adolescent girls, the chapter looks at the living conditions of these girls through understanding the difference between their previous and present living spaces. An idea of their family profession, monthly income, and working conditions has also been formed through fieldwork data. At the same time, the chapter also focuses on understanding the background of the family studied through analyzing their migration patterns and how this has affected the health of the adolescent girls present in these families.

Education is one of the most important aspects of achieving future goals, having said that it is also important to understand the type of education received also depends on the family background and family history. Fieldwork data concerning girls attending schools, the number of dropouts, and the reasons for dropping out of schools have

been analyzed in the chapter. In the case of health analysis of adolescent girls in India, it has been observed that early marriage and early motherhood have been some of the major causes of concern. Early marriage not only leads to physical health issues but also disrupts the mental health of an adolescent. The chapter analyses the data collected concerning the marital status of the adolescent girls chosen for research and determines how early marriage and motherhood have impacted their health. The analyses of the fieldwork data are followed by one case study of Sandhya Devi, a resident of Ber Sara, to get a clearer picture of the effects of socio-economic and environmental conditions on the health of adolescent females.

VII:3. c. Chapter four: *Adolescent Girls and their Health Concerns*

Health conditions of the adolescent girls, this chapter has been focussed on understanding the general health issues faced by adolescent girls in the urban villages understudy, simultaneously the chapter also attempts to trace the treatment-seeking behavior of the families of these girls. For study general health has been understood with the help of ten health problems like cough, seasonal fever, weakness, body ache, leg pain, irregular periods, heavy bleeding, stomach pain, white discharge, and loss of appetite. Living in cramped homes in urban villages with low family incomes is the underlying reason for the problems in the early stages of adolescent life. Alongside this, it was also found that there is a lack of interest when it came to seeking treatment for the health problems faced by adolescent girls on the part of the family members. With this background, the chapter moves on to look at anemia, which is one of the most common problems found among young females throughout India. Likewise, large numbers of girls in the study area were found to be anemic and one-fourth of these girls had not sought any medical treatment for anemia. The reasons were related to the socio-economic and psychological conditions of these adolescents. Another interesting factor observed in this chapter is that the decision to seek treatment for a health problem for adolescent girls is mainly taken by their family members i.e., spouse, mother, and father. Due to this, most girls have not been allowed to seek treatment on their own, and their health has not been prioritized, further impacting the overall being of these girls. The chapter also highlights the menstrual health problems faced by adolescent girls in urban villages. The chapter further moves on to understand the health problems through the help of a case study of Rukhsana aged 17 years, a resident of Munirka village.

VII:3. d. Chapter Five: Adolescent Health and Nutrition- Access and Use of Schemes

Health conditions and access to care services, having looked at the health, family, and living conditions of adolescent girls in the previous chapter this chapter moves on to discuss the awareness of health issues among adolescent girls. These girls need to be aware of potential health problems that they can face during this age. Awareness is the first step towards creating interest in any issue. Adolescence is an age when various physical and psychological changes are taking place in the body. To gauge the level of awareness among adolescent girls in the study area, a list of 15 health problems was incorporated into a questionnaire. The responses to these questions helped the researcher to evaluate the level of their awareness. At the same time, an effort to analyze the awareness level based on age was also made. The outcomes of these have been discussed in detail in this chapter. In Table 5.6 pointing out the difficulty getting benefits, total 17.6 percent adolescent girls said 'no' there were easy process which was done by some paperwork. Currently they are part of the Ladli Scheme which will be over by class 12^{th}. Following this is an attempt to understand the awareness level concerning government programs and schemes targeted to cater to the issues faced by adolescent girls in India. A total of nine such schemes have been listed in the questionnaire, and the data collected through the fieldwork has been discussed here. The chapter then moves on to look at the availability of health care facilities in the study areas. A list of three health facilities was provided in the questionnaire, and it was found that most of the respondents were unaware of any such facilities in the vicinity. The importance of the role played by nutrition in the management of health cannot be undermined. The study moves on to understand the situation of adolescent girls from a nutrition point of view. This part of the chapter analyses the answers of the respondents about their opinion of a balanced diet. A balanced body mass index indicates a balanced diet and nutrition intake. Due to a lack of anthropometric data, the chapter analyses the BMI, height, and weight of adolescent girls to determine their nutritional status. The conclusions of the findings are discussed in the chapter.

VII:3. e. Chapter six: Intra-Family Communication and Social Environment

Chapter Intra-family communication and outcomes, having analyzed the awareness level of the adolescent girls concerning health care services and utilization of health care schemes, this chapter moves on to discuss the social relationship with family members and the independence to take decisions for mobility and participation of this age group in decision making. Every member of a household has an important role to play in the socio-economic and behavioral relationship in the house. The chapter examines the data collected about the relationship of adolescents with parents and their comfort level in sharing their problems with their family members. This has helped the researcher to gauge the intra-family communication that the girls share with their families. The data gathered for moral support from the mothers of the respondents has also been inspected in the chapter since the presence of moral support has been a major contributing factor for the mental wellbeing at this tender age. Another significant factor contributing to the behavioural formation of adolescent girls is the peer groups and company that they are allowed to keep. The chapter looks at the peer pressure faced by the respondents and the family violence experienced by them resulting in restrictions of mobility. The data collected through the field visit has been analyzed with the help of a case study of Sonia aged 19 years, a resident of Katwaria Sarai, in the concluding part of this chapter.

VII:4. State response to Adolescent Health Care on Normalise the Menstrual Cycle

In some states like Kerala where government distributing free menstrual cups among the community under Alappuzha Municipality 'Project Thinka'[103]. It is a collaboration work with HLL Lifecare Limited (Formerly Hindustan Latex Ltd.) who produces menstrual cups. The main problems faced by HLL were that it is not available at shop girls only can avail by e-commerce. So, they decided to join hands with local stakeholders or Anganwadi Centres to a received good amount of response. Further, they are planning to distribute free sanitary napkins to women prisoners as well for their menstrual day easy. The family planning association of India office took awareness classes on menstrual hygienic and care practices too.[104] So why just in one state India needs these kinds of initiatives in other states to aware people that it is just a 'normal natural process. Kerala Government also announced to distribute free

[103]http://www.newindianexpress.com/good-news/2019/jun/18/a-kerala-civic-body-is-distributing-5000-menstrual-cups-for-free-heres-why-1991887.html
[104]https://www.oneindia.com/india/free-sanitary-napkins-distributed-women-prisoners-2035522.html.

sanitary napkins "She Pad" among schoolgirls[105]. The menstrual cycle happens with all girls everybody should know especially before age of puberty adolescent boys and girls. One broad step was taken by Jaipur-based artist Lyla Free child who painted on canvas using menstrual blood to make people understand its purity and relationship which connect[106]. She uses a menstrual cup in the year 2014 for the first time and realized that without throwing menstrual blood we can use it and she found one alternative as started painting on canvas and in the year 2017 she exhibited her painting in public first time hoping for the positive response. Although it is just painting, however; it can count as one positive initiative by women to normalize the menstrual cycle in public and tries to say it is not dirty blood it is the blood of life.

VII:4. a. Menstruation is not a Taboo

On one side we say we are living in a modern civil society but on another side, we have an old thinking process in our mind which is embedded in us rigidly. The strange incident happened in Bhuj small city of Gujrat where undergraduate students at Shree Sahajanand Girls Institute (SSGI) were forced to show their undergarments to check to menstruate or not. Just because students were not following institute rules related to their menstruation, they faced this insult. All human beings must live their life freely in society and this right is given by our constitution that; nobody can discriminate against you based on their caste, colour, ethnicity, religion, disability, national origin, race, and gender. But this abusive incident leaves us million years back again where menstruating women not even allow to enter the temple, kitchen, sleep separate, eat separate, clean their cloth separates, wash their utensils outside the house and not allow to touch anyone. It is now trends to discriminate against girls and women impure during specific days, people say it's impure blood. Therefore, she should not enter the temple, kitchen, prayer room[107], avoid touching pickles, and do not sleep on the bed (some houses follow strictly). Our life starts when girls reached their menarche it gives lives to us even God never enlightens any person to discriminate against girls and women when they are menstruating. But the case of Sabarimala temple entry in Kerala state became a historic incident after the Supreme Court

[105]https://indianexpress.com/article/india/kerala-to-distribute-free-sanitary-pads-to-schoolgirls-4928875.

[106] https://timesofindia.indiatimes.com/home/sunday-times/the-red-on-their-canvas-its-not-paint/articleshow/74262583.cms

[107] Worship room or some corner in the house where we pray every day with some idol and pictures of the God.

mandated that the temple door should be open for all girls and women. The huge protest happened against the Supreme Court and opposed the order at any level to stop girls and women to enter the temple. Other Indian temples allow girls and women to enter the temple when she is not menstruating. Protestors at Sabrimala Temple against the Supreme Court order[108] that there is the history of Sabrimala temple's Lord Ayyappa who was born out of the union of Lord Shiva and Mythical Mohini, they abandoned the Lord Ayyappaon the river of Ganga, but later King Rajasekara accepted him as a divine gift. But his queen was not able to accept him. So, Lord Ayyappa returned to heaven and was promised by king Rajasekara to build one temple in his memory. There are strict rituals of holy worship followed in the temple every day, because of Lord Ayyappa's oath to be a Brahmachari[109]. Thus, he only blesses those devotees who sacrifice the 'greed of women'. Therefore, an entry of menstruating girls and women into the temple is banned. This is the entire debate of religious sentiments that the court even became a separate entity or 'Alien body' if it goes against the faith of trust in God. This is the question of women's dignity over religious faith; women's rights are unsuccessful again in the matter of religion, now we must see how far women can go to get their struggle over.

Such myths related to worship give us a picture of how women are shamed and discriminated based on their menstruation age disgracefully practiced in the name is of religion. An additional mythological story gives us a different perspective of thinking whether menstruation is pure or impure in this regard? Near the city of Guwahati in Assam state is the *Kamakhya temple,* which celebrates God's natural process of menstruation. The presiding deity is known as the 'Bleeding Goddess' because it was believed that; "every year during June, the Brahmaputra River near the temple turns red. The common belief is that the Goddess is bleeding, ie, menstruating, during this period." Goddess is known for her *Shaki* [110] which is present in every woman and should be respected by all. The mythological story behind this temple shows the demeaning perception and status given to the woman. The legend illustrates as follows-

[108]https://www.bbc.com/news/world-asia-india-45901014.
[109]Celibacy.
[110] Power.

"*Legend has it that Sati fought with her husband to be part of the grand yajna that her father was offering to appease the gods of which both were purposefully not invited to. Paying no heed to her husband's advice, Sati headed to the yajna nevertheless, only to be insulted by her father. The last straw was when he spoke ill of Shiva as well. Unable to bear the insult, Sati leaped into the very sacrificial fire of the yajna. When Shiva came to know of what had happened, his anger knew no limits. Carrying his wife's burnt corpse, he went on a rampage with his 'Tandav' or the dance of destruction. While all other gods cowered in fear under Shiva's rage, it was Vishnu who sent his chakra and cut the body, to calm the aggrieved deity. It is believed that Sati's body parts fell in 108 locations across the country, which is today known as Shakti peeths*[111]*".*

Kamakhya is the only Holy place where a Goddess' vaginal parts are believed to have fallen. Therefore, people worship this place as 'bleeding Goddess' nomenclature as *Jag Janani Mata*[112] who created this whole world. Therefore, in one story we disgrace women by not permitting them to even touch or enter the temple premises and consider them as '*Durbal*[113] and impure'. By another legendary story, she is worshipped as a bleeding goddess who is revered as the creator of the world- the '*Shakti*[114]. Thus, the contradictory concepts of *Durbal* vs *Shakti* are associated with women and girls. It is preoccupied in every mind and applied accordingly. Thus, the girls and women as a '*Durbal'* or *abla* are significant. As per the National Crime Records Bureau's (NCRB) 'Crime in India' 2019 Report[115], a total of 4,05,861 cases of crime against women were registered during 2019, showing an increase of 7.3% over 2018. Every 16 minutes, a woman is raped somewhere in India, and every four minutes a woman experiences cruelty at the hands of her in-laws. In 2019, the country had recorded 88 rape cases every day. As *Shakti*– the empowered Goddess who kills the Demon *Mahisasur*, is put on the pedestal in the temple and worshipped.

[111]https://www.thebetterindia.com/114044/the-legend-of-kamakhya-temple-assam-bleeding-goddess-assam/.
[112] Mother who created this whole world.
[113] Weak.
[114] Power.
[115]https://www.india.com/news/india/no-country-for-women-one-rape-every-16-minutes-in-india-ncrb-data-highlights-countrys-deteriorated-law-order-4159540/

VII:4. b. Menstrual Hygiene Practices: Mother Vs Father

As a Public Health researcher, it is no shame to talk about menstruation. When it is important to know about our body why should only the females take these responsibilities, why not men too share the burden? Parents have the same responsibilities towards their children to give them adequate information about their physical selves. But when it comes to menstrual hygiene fathers' step back. In Indian society talking about menstruation is a subject of shame and limited to females only. As we know Indian society is based on a patriarchal mindset, which gives women lesser participation in decision making and therefore, also lesser 'equality'. Menstruation-related matters lead to future reproductive and sexual health. Taking about all this in a house openly is not 'our culture', if any question related to sexuality and reproductive health is asked by the adolescents, parents just ignore and at best give a false interpretation. In the field, it was observed that fathers' involvement in child-rearing responsibilities gave lesser effective results compared to mothers. During fieldwork, one respondent shared her menarche experience when her mother was not at home. She was guided by her father which she found neither shameful nor shy, she was comfortable with her father as well; thus, it is the parent's responsibility how they shape their daughter's ideas and make them comfortable about their hygiene and health. It is also true female to female talk makes adolescents girls more comfortable and she can deeply ask about its related issues. There is a need for a more friendly relationship and conversation than to be strict; it is just like the more you tighten the thread it will break therefore the reciprocal relationship is needed essentially at this growing age.

VII:5. Findings of the Study

VII:5. a. Intra-Family Communication for the School Adolescent Girls

Intra-family communication among adolescent girls gives strong positive effects on their physical psychological and mental illness. It was very well known that if a child undergoes a different illness family also goes with them. Family is the 'first clinic' for children based on communication with parents' adolescents can come out from numerous physical, mental, and psychological problems (Geiselhart 2008). In the field, it was observed that many adolescent girls' age groups between (10-12) more

relaxing with their family to share anything with their parents compared to the age group between (16-19). When researchers ask the discomfort level they told *"we can ask with our friends, what parents will tell us, we do not want to give them any tension they already have many issues"*. Some adolescents found themselves behaving like an adult in solving their problems by themselves. In school, they are learning about menstruation and the reproductive health of women at some level at least. So, we can say those girls who are school going know what steps they should take at that time if they are at home and see themself bleeding; 'tell your neighbor or friend', 'tell elder sister or aunt", if the mother is not around. If they are at school; 'directly go and tell your class teacher', 'if the class teacher is not available you can share with any female teacher according to your choice'. It was also discussed if the illness is big, and it is related to her reproduction which affects their future marriage, parents may always be concerned. Few adolescents were discussing that; if parents hear their problem patiently, they always go to them first whenever they find themselves in trouble. If parents start taking adolescent's problems lightly as "it happens with every girl", it has a terrible impact on them. They may silently distance themselves from them or sometimes argue with them or act as confused characters in public places. Parents should understand that every person is different, so they should handle them differently. In this situation, they start losing their friends, do not perform well in school which makes them more aggressive than before (Sanberk 2018).

VII:5. b. Intra-Family Communication for the School Drop/ Out of School Girls

It is very difficult for girls to exchange their thoughts and imagination when they are not in school. There is always some question in their minds for which they are unable to get answers at the right age and time. As we know the urban village is very much dense in terms of size of the population and compact housing structure her communication exchange is also impacted widely it is a very limited and nuanced thought development process which makes her unanswerable. The Ministry of Health and Family Welfare launched a program in 2012-2013 to prevent severe anemia prevalence cases in India by distributing weekly Iron Folic Acid Supplement tablets at the community level and sanitary napkins 'Free days' for adolescent girls but there was no provision in the field area aforementioned program. According to the given

explanation in the field area, adolescent girls who are out of school are more vulnerable have no information from anyone. In all the three urban villages-Munirka, Ber Sarai, and Katwaria Sarai field areas there were no friendly clinics available for those girls who are out of school. Even if we talk about menstrual health practices and menstrual hygiene practices that are provided by Adolescent Friendly Health Clinics failed in these areas because nobody even heard about it. Adolescent Friendly Health Clinics works at the community level after inquiring about such clinics it was missing. The notions of pure impure are related to menstruation are rooted in minds of every person but beyond this, they have restricted knowledge for adolescents like "*aree sab ladkiya to badi ho hi jati hai shaadi bhi ho hi jati hai, fir sab samjh jati hi hai aur jaisa ki hota aaya hai*[116]."

The adolescent health of girls is still not recognized by government policymakers. As is evident from the field reality no adolescent health counselling, health clinic, and guidance were provided. Even in the Anganwadi centers, no medical help is present for adolescent girls, no nutritional information or sanitary napkins are there for the community. Even there is a menstrual hygiene day on 28th May the motive behind this day is to educate and spread awareness about menstrual cycle. This day is celebrated as menstruations are not taboo or dirty blood by which one can differentiate girls on some days. Also, what is the importance of menstruation in a girl's life, and how they can be aware of it before menarche? But when researcher asked about menstrual hygiene day surprisingly no Anganwadi centers were aware of it nor schoolteachers. It seems like everyone has got used to living like this, no one wants to talk about change.

VII:5. c. Kitchen and Household Conflicts based on Socio-Economic Factors

The following observation is based on the adolescent girls in the urban village who lives in the rented house. There are two different surroundings and living lifestyles in the Munirka Village, Katwaria and Ber Sarai and it can be easily differentiated by housing style. These are Delhi Development Authority (DDA) housing and other side it is local landlord's housing as well as marketplaces that are made up purposively for renting. Adolescent girls in the rented house showed a more vulnerable state of living

[116] All the girls grow up like this only what new in that, they get married too one day, and then ever girls understand why it has happened.

as compared to adolescents in the DDA flats which was already seen in the chapters. Their lifestyle, thought process, upbringing, and moral responsibilities are imposed by the family and surroundings where they live. These daily practices of household and kitchen duties are badly affecting girls' mobility, functionality, psychology, and physical development in a longer perspective.

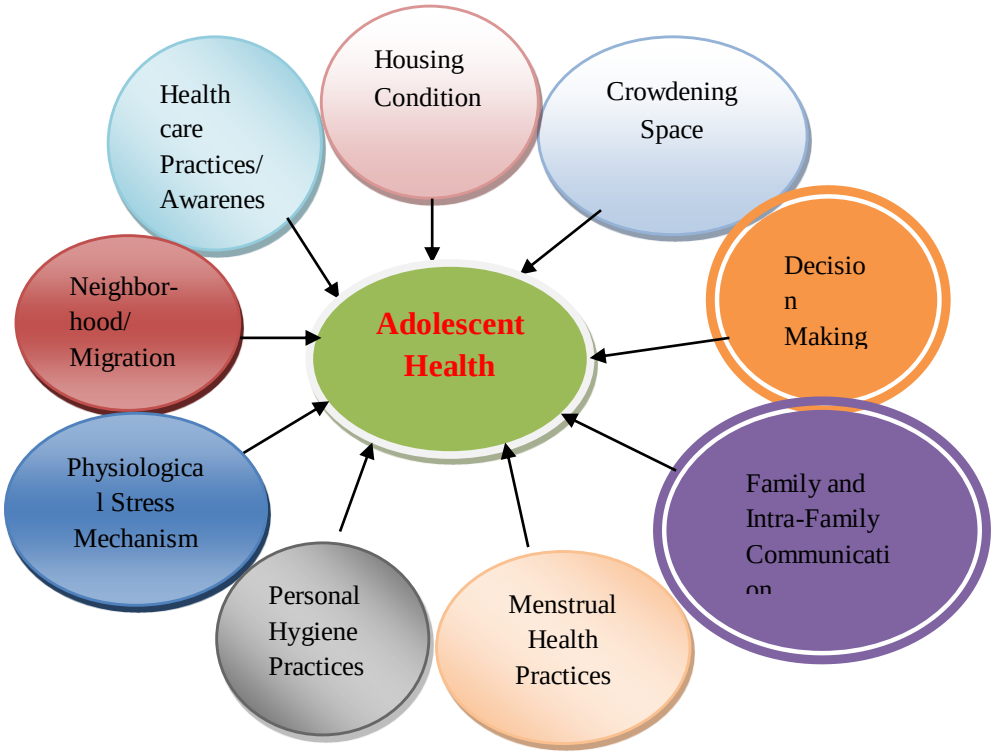
Table VII.1 Socio-Economic Factors on the Adolescent Girls

Sr No.	Kitchen Conflict	Household Conflicts
1	Adolescent girls involve in kitchen duty mostly.	Similarly, Adolescent Girls also involves in household duties.
2	The whole upbringing drags her to the kitchen unwillingly.	She cannot think beyond it because the role, duties, and responsibilities pull her back.
3	Working mother and father fully depended upon the eldest child in the house no matter how she was able to concentrate on her school.	At the age of carrier planning, exam preparations, picnic plans, cycling, movies and outing, etc adolescent girls in the urban village remains complicated with household duties.
4	Her psychological development putting her victim if she thinks of her own choice of living beyond the kitchen.	Her mobility and functionality are badly affected by being the eldest girl child in the house.
5	She knows all the necessary ingredients which use in the kitchen but hardly knows the importance of education in her life.	She is the moral responsibility of the house. Gradually she becomes stubborn and insurgent towards her own family because she suffers a lot from being a girl's child.
6	Her neighbour asks her about “what did you cook today for your siblings?” This showed people look at her as a caring mother, not an adolescent girl.	She easily gets involved in the early relationship because she thinks this is the only choice of getting rid of household duties.
7	Working in a matchbox size of	Witnessing the problems of the gender-

	kitchen explaining the cause of vulnerability of the adolescent girls.	based role which followed by certain patriarchy believed in the family.
8	There is a series of contradictions on the adolescent mind for an instance: "Why mother always put works on me, Why I have to take care of all the necessary groceries every day?"	Similarly cleaning the house, arranging clothes, take care of siblings, which affecting her psychologically. She is aware of her state of suffering, but the socio-economic declaration of her role bonded mentally and physically.
9	Kitchen duty is only followed by girls and a woman in the house is the product of the patriarchal process.	India has more than 50 percent of the adolescent population among them mostly struggling with household duties and away from education.
10	Although she does all the activities in the kitchen but not allow to eat first. She must wait for the other family members because she cooks limited food.	Similarly, she is responsible for the take care of the household nevertheless; she is not allowed to go outside the house without permission. This makes her alienated from her own house and family.

Therefore, these points show the ill figure of the adolescent in the urban village it is controlled by the family and the surroundings where they live. Their ill-treatment directly shows the reflection of Social and physical abnormality which is the product of socio-economic factors in the field.

Figure VII.1: Factors affecting Adolescent Health



Socio-Economic ⇨ Status ⇨ Health Outcome

⇕

Affecting Intra-Family Communication

Source-compiled by the researcher

VII:6. Discussion

On one side we considered adolescents as a future and important in the economic development of the country but, adolescents in the urban village show the reality of our society. As one moves away from DDA flats to the urban village the everyday social construction changes and behavioral changes which are seen as noted by the above Table VII.1. When small flowers started growing on mango trees during the autumn season, the mango tree needs special care and protection with more fertilizers, daily water, and soil digging properly. Overheating by the sun, heavy rain, and strong wind can be responsible for damage to mango flowers and prevent making mangos.

Proper care and protection are needed by someone who guides us to know about the care process for mango trees because the flowers are very fragile easily get destroyed. Similarly, Figure VII.1, the various factors which are affecting adolescent age are shown. During adolescence age when kids come to the transition phase from childhood to adulthood, they need proper care, attention, nutrition, and diet so that, they can go to the correct path of life. The parents and family interest in adolescent health needs to be discussed here. How important is their studies and education for the life to come? Is the care of adolescent girls by the natal family limited till their marriage or reproductive process only? Why does the society not think of their health beyond marriage and household norms? The above picture showing the various aspects affecting adolescent health throughout their life; can be responsible for health variation among many. Adolescence age is not just a common transition phase but the whole future health depends upon how at the age of adolescent care and guidance provided. This study was conducted in an urban village and the above figure 1 points out the various factors which play a crucial role at this age.

Majority of the girls come from the rural area and migrated from one place to another place which is responsible for the change in the social-cultural context. They are not aware of the health care system properly and various basic amenities by the state, therefore they stick to using private health care providers more. Given these shortcomings, we can promote adolescent health in a way by which it can facilitate every adolescent girl in the urban village. Some relevant points for this are:

1. Try to promote an active lifestyle among adolescents where they can avoid just sitting at home during the Covid-19 era and involve themselves in physical fitness because of the emerging health challenges like PCOD (Polycystic Ovarian Disease) or PCOS (polycystic ovarian syndrome) is rampant in urban cities among girls and women.
2. They should understand the meaning of a balanced diet and its importance in their growth and development process.
3. What kind of negative health impact from unhealthy drinks, junk foods, and sweets is necessary to understand by them especially when there is the fear of the Coronavirus.

4. They should understand the emerging issues related to Covid-19 which are money crises, no physical meetings with friends, and peer groups on how to handle these issues, and involve more communication with family members.
5. New engagement like mobile phones, online entertainments, more active in social media, and virtual educations affecting them mentally and physically.
6. A basic requirement like water, sanitation, housing, nutrition, education, and personal hygiene should be maintained by adolescent girls that can be adopted by community health care provides.

VII:7. Major Observations

Adolescence is a period that acts as a bridge between childhood and adulthood. India is home to the world's largest adolescent girl's population and these girls are an important part of the nation's population. Socio-economic factors and intra-family communication are important markers of the well-being of adolescent populations. The study attempted to reflect on the status of adolescent girls at the macro level and then connect it to the micro-level. To gain a macro-level perspective the study aimed to understand the demographic and socio-economic characteristics of adolescents, along with, examining the awareness level among these girls about the various health services and the welfare programs targeted to address this age group.

Throughout the country we are all are talking about COVID-19 a pandemic and life-threatening communicable disease. However, adolescents' health is also threatened by COVID-19 as much as others but nothing much is being discussed. Adolescent health issues affect millions of adolescent girls all over the world. There is always an ignorant attitude when adolescent health comes at the ground level. We already discussed many health consequences which are occurred with girls and die count as unnatural death. We will understand the seriousness of Adolescent Health only when we take it seriously. Or we can say that this issue is related to gender, so no one takes it seriously. Or just expect educated people to expect its seriousness because there is less inequality in health where there is knowledge. We can see luxurious cars like Audi, Mercedes, Porsche, and so on in these urban villages but on another side, there is health inequality at a personal and societal level which shows materialistic values over lives. Coming from the village expecting some visions here to do something for their family but the absence of money and support they must live in a small room like

houses which brings severe health issue for adolescent girls. People want to westernize their lives with the help of new technology and business. However, the concept of purity, pollution, and several cultural aspects become a barrier to the growth and development of adolescent girls. It is necessary to have a balanced diet at the age of adolescence but some cultural reasons for an instance,

"*Aaj Tuesday hai non-veg nahi kha skate. Aaj Thursday ke din to bilkul hi non- veg nahi kha sakate paap lagega. Parv tyohaar ke din to bina nahaye nahi khana kha sakate, chahe khane mein der hi kyu naa ho jay*e *pooja karke khana zaruri hota hai. Navratra ke time to bilkul hi non-veg khana mana hai, kabie kabie to bas ek time khate hai ya fruits kha ke rehna padta hai pure 9 din isse pooja safal hoti hai.*[117]*"*

Therefore, we can say often resources are available, but our belief system and cultural boundaries prove to be the main obstacles. We have temples on every corner of the road but a shortage of toilets and piped water connections even no automatic sanitary vending machines are installed at the community level. In the urban village adolescent girls still suffer from daily water crises. We need to understand the collective value of the natural process in the human body. Menstruation is a natural process, and it is not related to any rituals man-made process; it is as simple as the rising sun in the east every day. During the worship of Goddess, *Durga* in *Navratri festival* Hindu holy rituals believe to do *Kanya Pooja on eighth or ninth days. This Navratri* festival celebrates nine days with faith in Goddess *Gurga* and her different nine incarnations[118]. According to Hindu belief,

"Kanya puja is celebrated on the eighth and ninth day of Navaratri. Nine young girls who represent the nine forms of Goddess Durga are worshipped on this occasion. According to this day, the girl child symbolizes pure creative force. According to custom, the feet of these girls are washed as a mark of respect to the goddess, after

[117]Today is Tuesday, you cannot eat non-veg. You cannot eat non-veg at all on the following day. It will be a sin. On the festival days, you cannot eat food without taking a bath, even if it is too late to say, it is necessary to eat food by worshiping. At the time of Navratri, it is absolutely forbidden to eat non-veg, sometimes we only eats one time or has to stay for eating fruits, by this nine days puja is successful.

[118]https://en.wikipedia.org/wiki/Kanya_Puja. Accessed on 25-10-2020.

which they are offered new clothes by devotees. Kanya puja is a way of recognizing the feminine power within a girl child and honor them on this day.[119]''

Girls are pure until their menstruation begins. People worship her as if she is a Goddess. After menstruation, they suddenly get counted in the elders. Due to this, their standard of living has a lot of effects; they do not get proper food, because now they are stopped on everything. She is not ready for this sudden change, but people give them a feeling that no you have grown up and you cannot match yourself with boys. She becomes a victim of the inferiority complex, which causes her confidence and self-esteem to loosen up. If we talk about her health, it simply depends on the knowledge of the family.

Major observation in the field is about the healthcare system showing the wider structural control and power role which is in the hand of the dominant caste at filed study. All the Anganwadi centers are run by the upper caste lady in the study area which is regulated and functioned by them only. The infrastructure of the Anganwadi Centre is so neglected by its working authorities. In Plate VII.1, we can see the arrangement and maintenances by the glimpse of the outer look of the Anganwadi Centre. It was a precise small, congested, and dirty lane where it is located. It was non-functional when the researcher asked about the working days and hours the Anganwadi helper replied, keeping women and children in mind is always open and helps them regularly basis. But when the researcher saw the inside view, it was very small and untidy. It seemed that it was made as a formality so that the entry would remain in the register.

VII:8: Major Findings and Observations of the study

1) Most of the girls in the urban villages were found to be very shy and muted.
2) It was observed that girls kept under pressure of being civilized and cultured.
3) It was noticed and imbibed from the field that there is suppressed treatment girls are facing which shows from generation to generation.

[119]https://www.hindustantimes.com/more-lifestyle/durga-ashtami-2018-significance-and-meaning-of-kanya-pujan/story-IzQ5HsDVeRkAQ5kWlXKXuI.html. Accessed on 25-10-2020.

4) Only good income and landlord families in the fields showing some concern on girl's education and additional learning requirements.
5) Other activities like computer learning, beauty parlour courses, sewing courses girls are learning only for future earning and security.
6) Sibling responsibilities are taken by girls if a mother is working, and it harms her education and personal freedom.
7) There are gender disparities seen in adolescent's daily activities like accessing mobile phones, decision making, household chores, watching television in their free time.
8) Choice of using sanitary napkins or cloths depends upon family income or traditional belief system on menstruation.
9) After examined intra-family communication of adolescent girls, it was seen there is a lack of personal converse within the family which affects adolescent health.
10) Socio-economic situation and living in urban village these two factors play a major role on adolescent health. However cultural believe systems and the role of patriarchy creating barriers to the health of adolescents.

VII:9. Recommendations Adolescent Health and Policy Development

This recommendation and suggestion are being written with the Urban Village in mind as follows:

1) Not just in school and college, there is a need to install sanitary pad auto-generate machines in the community, park, shopping mall, bus stop, and a public toilet.
2) Awareness camps related to menstruation, reproductive health, diet- nutrition, anemia deficiency, the psychological readdressed mechanism should be organized by each Anganwadi center at the community level every week.
3) As was observed in most of the adolescent girls came from rural areas that are disadvantaged in education. Therefore, it is the responsibility of each Anganwadi center to organize a list of girls who came from the village area and try to promote them to enroll themselves in school. The Anganwadi center can discuss education benefits and what kind of services she can avail of in the present and future through education. Rural girls mostly feel shy and keep

mum thus this trend needs no change to get her confidence back in her life with self-motivated and won decision-making women in the future.

4) While it was observed in the field that most of the adolescent girls started working and try to help their families in economic participation this increase the school dropout rate in an urban village. Therefore, there is a need for enormous attention to discontinue this pattern and support every girl their carrier in education.
5) The risk of pregnancy among unmarried and married adolescent girls is more common we have observed in the field also. Lack of access to services and knowledge regarding contraceptives use makes them vulnerable. There is a need for a skill development program in the community, which is related to the age of menarche, sexual activity, contraceptive use, menstrual cycle (Safe and unsafe periods), and proper guidance regarding health services necessary.
6) There is also a need for health care providers and local leaders to organize a camp exclusively for adolescent girls on the importance of adolescent nutrition and the unlikeable area where they live impact on them. They can describe them despite living in an adverse socio-economic space she can practice safe cooking- eating practices, the concept of the kitchen garden, and try to consult nearest Anganwadi workers to identify nutritional problems. Anganwadi workers can tell them how much nutrition
7) Family is the most important area where she can learn about how to take Iron-rich foods and supplements during menstruations. Having diverse cultural, socio-economic, and gender issue in the study area which needs to change and need awareness of each family to take a broad step towards adolescent health. Social customs in communities believe that men earn money they are the owner of the house so they should eat first. Personal likes and dislikes of food come first and respect for elders is different thing that need to change in this regard. Some believe that girls should not eat non-vegetarian foods culturally but there is a need for body demand according to growing age which family needs to understand first. There is also a great matter of quantity of food left for girls when she eats late in the house why she always compromises her food demand over family size. All these factors affect her health largely especially the socio-economic status of the family which always ignores adolescent girls on her nutrition and personal choice of food.

8) There is also a need for community health providers and Anganwadi workers to prepare a chart with the type of food for adolescent girls and distribute them to make them understand the food nutrients such as Vitamins, Minerals, Fats, Carbohydrates, Protein, Zinc, and Calcium which help them in achieving rapid growth and full growth potential. Adolescent girls should have that much freedom to select which food she wants and some alternatives in the house where she can select a better meal for her.
9) Many Adolescent girls in the field do not know how to postpone their pregnancy or how to delay it therefore there is a need to improved access to sexual and reproductive health information and services. Every girl needs to know about their physical changes at right time.
10) The onset of puberty physical changes and the sexual response were found to be different in girls and boys. In this stage health services, supportive environments in the family and communities can construct a healthy adolescent.

Plate VII.1: Condition of the Anganwadi Centre in Study Area

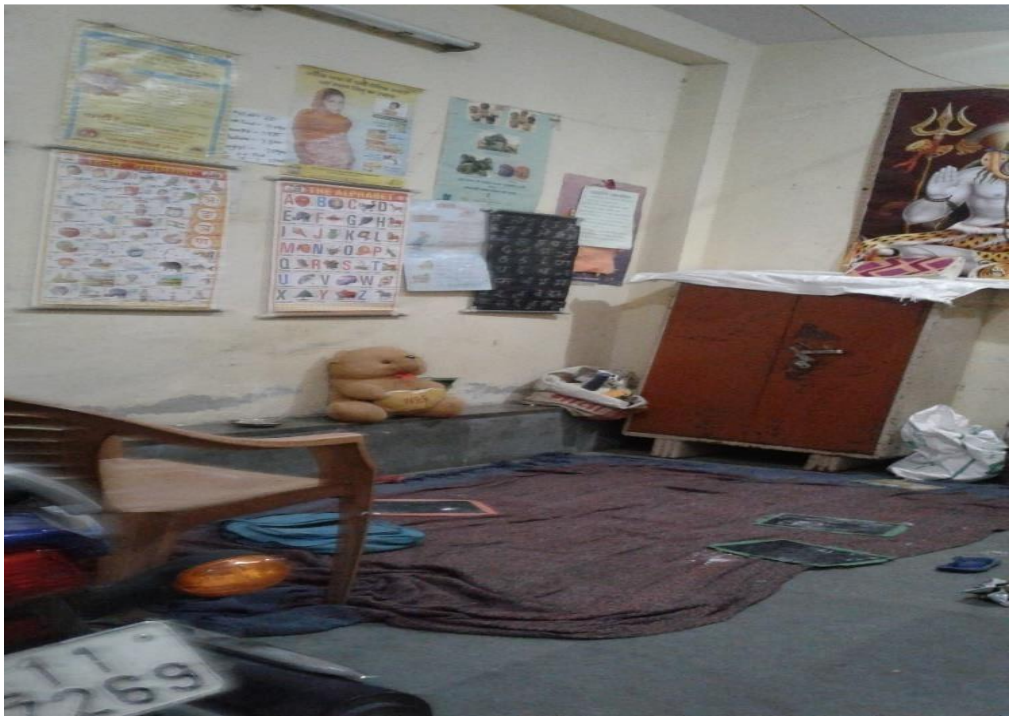
Source: Fieldwork

In Plate VII.2 we can see the inside view of the Anganwadi center, and the biggest surprise was that the same condition was identified in the Anganwadi center of the three field study sites. A bike is placed in the corner of the picture, there is a thin carpet, and the slate is provided for children to study. This Anganwadi center was also made in a small space under the house. Thus, we can say even the basic providers are

not working well in these urban villages which need to be regularised. The urban village is an area where all households are showing different socio-economic conditions, so the kind of adolescent health varies. Health care providers and policies are made in a way by which it understands the surroundings as well as the need of every adolescent then only it will give the equal outcome of the health.

Having said this the study also aimed to answer questions like what are the socio-economic determinants of adolescent health? Does intra-family communication help adolescent girls to understand their health issues? Is there any awareness about programs for adolescent girls? And what are the barriers that hinder the utilization of health care services and government schemes for adolescent health? The answers to these questions have been formulated based on detailed analyses of the available literature, which have been verified through quantitative data gathered through a field visit to the area of study. The conclusion given in the following part has been carefully reached through careful examination of the variables identified for the study.

Plate VII.2: Inner view of the Anganwadi Centre



Source: Fieldwork

The socio-economic determinants chosen for this study were: social composition of the study area, type of residential units, number of rooms per unit, access to toilets,

cooking space, family profession, monthly income, and migration patterns. It was observed that the social composition of the study area largely comprised of scheduled castes and few residents belonged to other backward castes and general categories. At the same time, many these people were living in *pucca* houses. Although it was found that the houses were in narrow lanes with very little space for ventilation, with most of the units comprising of single rooms and common community toilets. These houses receive minimal daylight and have very small spaces to cook or move around freely. With the number of rooms per house being one, all age groups were seen to be sharing common living space. As is known adolescence is an age that requires an individual especially girls to have her freedom so that her physical, mental, and emotional development is not affected negatively, but living in cramped spaces like these hardly provides an ideal environment for optimal growth. It was noticed that the respondents were shy and hesitated in sharing their problems, this situation is further impacted during menstruation when it is difficult to live in a single room and experiencing mental pressure and stigma. The fact that these girls must share common toilets adds more stress to them. The study revealed that most of these girls lacked any kind of sanitation awareness and hygiene. The common toilets in the urban villages have an absence of running water which leads to open defecation. With single room living units, most families have to cook and live in the same room. A lack of proper ventilation has led to an unliveable environment in the houses. Although it was also found that some of the houses had more than one room giving them some space for other activities. But a larger portion of the population in the study areas comes from deprived backgrounds leaving them with only limited space for studying, sitting, sleeping, cooking, etc. It was observed that limited living space in the house for every member of the family most of the children spend most of their time outside the house leading to limited interaction with other members of the family. This has directly affected their physical and mental development.

Migration is one of the most prominent aspects when it comes to analyzing health. In the study area, most of the people were seen to have migrated in search of better lifestyles, employment, and marriage. The positive outcomes of migration are understood to be better healthcare, education, and other basic amenities. Living in the capital city these migrants have access to dispensaries, schools, parks, and other benefits. But on the other hand, they also must live in suffocating houses with tiny

rooms, shared toilets, no privacy, and crowded spaces that make them vulnerable to diseases. People move from rural to urban areas in search of better livelihood and education for their children. Income is understood to be directly linked to health through the provision of good health care and is indirectly linked by producing an unjust social climate that has negative psychological effects. A Survey of the study area revealed that despite moving to urban areas in search of a better lifestyle, most of the migrants in these areas must adjust to living in unclean, congested, and cramped houses. The absence of bank accounts shows that they do not earn enough to save money. Lack of money also leads to adolescents dropping out of school to earn for their families. The dropouts consist of a larger number of girls since the education of boys is prioritized leaving girls to look after their siblings and do house chores.

A study of the health profile of the respondent adolescent girls in the study areas revealed that most of the respondents reported experiencing multiple health problems. It was found that many girls suffered from seasonal fever, cough, body ache, leg pain, heavy bleeding, stomach-aches, loss of appetite, and white discharge. Almost half of the respondents experienced irregular periods. Living in urban areas with low-income status is the primary reason behind the ill health of these respondents. It was also noted that those who were using shared toilets had increased incidents of urinary tract infections and itchiness in the vagina. Upon inquiring about seeking medical treatment for such ailments it was discovered that a significant number of these girls did not seek any medical treatment and were given home remedies or over-the-counter medication on the advice of their mothers or other members of the household. The research also disclosed that 65.2 percent of the respondents in the study area have suffered from anemia. The treatment for the same has been ignored in most cases. Another interesting fact discovered during the study was that adolescents from lower-income backgrounds were found to be reluctant when it came to answering the question regarding their health. On observation, it was found that the respondents had dry skin, discoloured hair, and pale skin. The study clearly shows that seeking treatment largely depends on the socio-economic status of the respondents and the geographic location of the clinic. Simultaneously, it was found that many of the respondents were unaware of the fact that anemia can be medically treated and have considered anemia to not be a serious condition. These individuals have accepted the fact that their poverty is the cause and so it cannot be avoided or treated. The

decision-making power to seek treatment or medical advice is largely in the hands of the parents of these individuals. Although some of the respondents did indicate that they were free to visit medical clinics but have failed to do so because they lack proper knowledge, are fear of going on their own, clinics are far, parents do not have the time to go along with them or lack the money to do so.

Menstruation is an important biological process that starts after a certain age of puberty. Most of the respondents (69 percent) indicated that they have experienced menstrual cycles. The respondents also indicated that they were not aware of what was meant by menstrual cycles before they experienced it and relied on cloth instead of sanitary pads. A large number reported period-related problems. Although 24.8 percent of respondents indicated that they use locally prepared sanitary pads. The girls responded to have experienced restrictions based on spirituality during periods like no entry in the kitchen or temple, no sleeping on the bed, no washing hair, etc. These restrictions are a cause of mental stress at such a tender age. During the survey, it was also revealed that many girls became aware of the menstrual cycle from peer groups and friends in school. Physical and mental development not only depends on a good diet and medical care but also on positive environments.

Awareness is the first step to creating interest in any issue. Adolescent girls must be made aware of health problems that come with age. The study listed 15 such health problems to understand the physical condition of the respondents and studied these problems in girls according to age groups. The study revealed that girls 16-19 years of age were aware of weakness, irregular periods, heavy bleeding, and body aches. While girls in the age group of 10-12 years were aware of weakness and stomach pain, and the girls in the 13-15 years category were aware of the weakness, body ache, irregular periods, heavy bleeding, and leg pain. This has indicated that the girls are becoming aware of health-related issues with age. The girls aged 19 years who participated in the survey indicated awareness about all the listed health problems whereas girls aged 10 years showed awareness about stomach pain and weakness only. This shows that most of the health problems are directly linked with menstruation. The bivariate analysis shows the gross effect of the dependent variable on independent variables (Predicted variable), but multivariable analysis indicates the net effects of the dependent (response) variable on the independent variables. Likewise, this has been revealed in the awareness level of the adolescent girls about

the various selected health problems. The study has selected health problems as dependent variables and regressed with age group, marital status, and education levels. It has been kept in mind that after 14 years of adolescents has experienced menarche that is why age groups 14 to 16 and 17 to 19 years have been selected for the study. Correspondingly, girls in 11and 12 grades have been selected along with illiterate adolescent girls. 16 years old girls are more likely to be aware of all health problems as compared to the reference category (14 to 16 years). Similarly, unmarried girls were less likely to be aware of health problems than married girls. This was expected as married girls are more mature and aware of these health problems. The graduate girls were more likely to be aware of the weakness, stomach pain, and white discharge, and fainting as compared to girls who have educated up to 11-12 classes. Marriage is a social and cultural milieu of each community, but it should happen at a certain legal age for both males and females. Adolescent girls should be aware of the legal age of marriage to avoid marrying at an early age. The survey revealed that girls were aware of the legal age for marrying. At the same time, these girls should also be aware of the social and political organizations working towards their cause in their vicinity. The study showed that only 12.4 percent of girls interviewed were aware of the NGOs working in their locality.

To gauge the awareness of the adolescent girls about government schemes and programs, the survey questionnaire listed 9 such popular schemes. It has been observed that the Ladli scheme and *Beti Bachao Beti padhao* were the two most known schemes among the residents of the study areas. About being asked if they had secured the benefits of the schemes only 10 percent responded positively. 13-15-year-old girls were seen as more likely to secure health benefit schemes. Surprisingly unmarried adolescent girls were more than three times more likely to avail health benefits of schemes than married girls, the reasons being unclear. Awareness and accessibility of health care are dependent upon the availability of health resource facilities and other health components. The most important condition of accessibility is that it should be situated in the locality and the health facilities should be affordable to the masses. The listed health facilities in the questionnaire were not known to many respondents. Upon being asked if it is right for adolescent girls to seek health care for reproductive as well as sexual problems? The respondents responded positively indicating that they were interested in understanding their bodies.

Nutrition plays a vital role in health management. It becomes more important for an age at which the body is growing and undergoing physical changes. Adolescent girls should be made aware of a balanced diet and that they must consume food in sufficient quantity on time for proper anthropometric growth and development. Upon being asked about the importance of a balanced diet two-thirds of the participants believed that it was a vital part, although a detailed study of the eating patterns and nutritional levels reveal that they are not taking balanced meals which is alarming. Due to the lack of anthropometric data, the study relied on body mass index with average height and weight of adolescent girls to understand the fitness profile of the respondents. More than half (52%) of the girls (10-12 years) were found to be overweight according to their BMI. The average age of adolescent girls who are overweight, normal, and malnourished is 13.6, 15.1, and 14.3 years respectively. The maximum number of malnourished girls was 10 years followed by 19 and 12 years. Overall average BMI has been found at 20.4. More than half (50.8%) percentage girls were malnourished and 10 percent of them were overweight. They were not found to be of a healthy weight and height although none of the participants were stunted or of low weight.

An individual is a unit of a family, and a family is a unit of society. Every member of a household plays an important role in socio-economic and behavioral relationships in the house. During the field survey, it was observed that the maximum number of adolescent girls was attached to their mothers. The participants displayed cheerful and affectionate behavior. The study revealed that with progressing age the girls became selective in terms of sharing problems with, and they are not comfortable with each member of the family. The girls displayed shy and dull behavior when it came to talking about their problems, it was understood that this largely depends upon the nature of the family members and how they treat their daughters. Moral support is compulsory for the overall development of adolescents, especially girls. Most of the girls revealed that they received moral support from their family especially during exams, sickness, and when they were stressed.

The adolescent girls who participated in the survey revealed that they faced various restrictions when it came to the type of clothes they were allowed to wear, friends that they were allowed to go out with, going out for movies, going out at night, or earning pocket money. As has been mentioned previously the surrounding environment is the

primary factor for an adolescent's mental, physical, and psychological transformation. Sadly, for most of the individuals interviewed there was no such role model image to follow. Despite living in the capital city, very few girls have received higher education. Most of the girls indicated they experienced physical, verbal, sexual, or other forms of violence. Some of the girls have been allowed to participate in family decision making but they are still not allowed to have a say in their marital decision.

Overall, it can be said that the nutritional and health status among adolescents in urban villages of Munrika, Ber Sarai, and Katwaria Sarai was found below. Adolescent girls are expected to enjoy good health even though as has been observed through the study, problems related to menstruation are quite frequent and largely result in the daily routine of adolescent girls. Poverty, poor health, and malnutrition are rampant in developing countries like India. Most of these problems can be solved with the help of community-based programs, awareness programs, food fortification, and health education. The study recommends addressing specific needs of the studied population through programs and policies especially by prioritizing the most vulnerable groups like adolescent pregnant girls, girls without education or employment, and girls living in difficult marital relationships. Fostering social networks with the help of frontline workers and self-help groups can create awareness about opportunities and benefits thereby ensuring proactive and consistent outreach. Simultaneously, future schemes and programs should also concentrate on how best or whether to include males (brothers, fathers, husbands, etc.) to create a supportive and gender-sensitive environment to empower urban adolescent females.

It is a common understanding that investing in young people is important, at the same time it is equally vital to focus on working on areas of empowerment so that they can make informed choices in their life. Likewise, it is also important to make sure that their educational development, health, and skill are up to the mark so that they can be confident citizens, meanwhile investing in them as a resource of the country. Hence, there is a need for policymakers to address each domain of their life and to adapt schemes and programs that ensure a life cycle approach yielding long-term results. This is possible in today's world as the governments have all the necessary resources and evidence to tackle the challenges outlined in the study. The government of India has a strong economy and a well-established human rights wing to do so. Through a

careful and planned approach, our country can ensure the triple outcome of benefits for the adolescents: their present, their future as adults, and for the next generation.

VII:10. Conclusion

This thesis has been done on Adolescent Girls so that researchers can study the problems coming at the time of their growing age while living in Urban Villages Munirka Village, Katwariya Sarai and Ber Sarai. In chapter four case study of Pinky shows the remarkable father-daughter relationship. Being a father got the daughter medical treatment when the mother is not at home shows that even a father can give a good upbringing to his daughter. Helps daughter in her first period it is a commendable reach in an urban village. This seems to be thinking that while living in a patriarchal society, the health of the daughter is more important. Another case study of Chhaya Kumari in chapter three shows that if the dreams are unshakable then the family members can also be persuaded. The small art of applying Mehandi came from the village to city. Being a girl and living separated from the family is a matter of great step against the Patriarchal society. However, supporting by the family shows high thinking which gives more value to the daughter's dreams.

Our society still believes in patriarchy, but if the parents stop making a difference between daughter and son, then the life of an adolescent girl will become very easy. Socio and economic conditions and living in the urban village is a different thing, but instead of sanitary napkins, advice daughters to use cloths is shows backward thinking. There are various schemes where the government gives free sanitary napkins for every girl, but this awareness is almost missing in all three urban villages. Those are capable enough they directly buy from the shops. Along with the adolescent girls, we should also request the parents that talk to the children as much as possible, be friendly so that the child never feels lonely, they can share anything without fear. We should adopt the new thinking with an open mind while respecting the old thinking too. Do not allow girls to eat non-vegetarian food, as a girl she cannot eat first if this thinking has changed, then girls can also move forward. It is important for elders to understand that only a healthy girl can make the next generation healthy. Having a friendly environment, it is important to have a good living space and a separate room is a basic requirement for every girl. We should raise girls with equal rights so that they learn to give importance to themselves. Living in an urban village should not be

a misfortune, anganwadi centers and other adolescent's girl organizations should go ahead and help them.

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Appendix I

Percentage distribution of Ailments among the adolescent girls (10-19 Yrs) in India, 2014

	Age(yrs)										
Nature of ailing- group	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**Total (N)**
Obstetric	34.3	-	4.4	-	-	-	8.6	7.2	2.7	42.7	20153
Cardio-vascular	26.0	-	-	15.9	5.8	3.2	16.3	11.4	19.8	1.6	29946
Blood diseases	19.9	-	11.6	3.8	5.1	11.7	11.6	16.8	2.8	16.6	6434
Skin	15.4	-	-	-	-	-	-	-	81.9	2.7	2836
Gastro-intestinal	11.9	10.1	9.7	-	7.7	-	18.7	4.1	31.0	6.7	27301
Genito-urinary	11.7	-	10.9	-	5.7	62.4	3.8	3.1	.4	1.9	15682
Cancers	6.7	-	7.2	.9	16.4	3.1	25.6	18.4	13.7	8.0	14371
Injuries	6.2	4.3	3.0	2.6	48.1	3.2	1.9	1.8	7.1	21.6	75609
Endocrine, metabolic, nutritional	3.5	-	-	-	27.9	-	5.5	-	11.2	51.9	9285
Psychiatric & neurological	2.4	2.3	11.4	9.5	2.9	1.9	24.6	12.2	12.8	20.1	32856
Infection	1.7	-	4.3	8.4	7.4	-	.5	16.9	33.9	27.0	66083
Eye	-	-	-	-	16.2	-	-	-	83.8	-	2063
Respiratory	-	6.5	-	13.0	34.9	-	7.1	12.4	9.0	17.2	19666
Musculo-skeletal	-	-	7.8	32.8	-	-	-	20.6	26.0	12.8	8250
Individual disease											
Discomfort/pain in the eye with redness or	-	-	-	-	10-	-	-	-	-	-	334
Childbirth _ Caesarean/ normal/ any other (for both live birth and stillbirth)	-	.1	.8	-	64.6	2.4	-	1.7	8.0	22.4	56336
Cough with sputum with or without fever and not diagnosed as TB	-	29.6	-	-	53.9	-	-	-	-	16.5	987
Diabetes	5.5	-	-	-	43.0	-	8.5	-	17.3	25.8	6017
Bronchial asthma/ recurrent episode of wheezing and breathlessness with or without cough over long periods or known a	-	-	-	15.5	38.3	-	8.4	14.8	3.5	19.5	16499
ulcers/ acid reflux/ acute abdomen Lump or fluid in abdomen or scrotum	-	-	-	-	21.3	-	78.7	-	-	-	3101
Jaundice	-	-	13.2	28.5	20.3	-	-	3.9	17.0	17.2	19397
Tuberculosis	-	-	-	-	18.5	-	-	71.0	-	10.5	5068
Cancers (known or suspected by a physician)	6.7	-	7.2	.9	16.4	3.1	25.6	18.4	13.7	8.0	14371
Any difficulty or abnormality in urination	22.2	-	-	-	10.9	55.2	7.2	-	.8	3.6	8260
movements Stroke/ hemiplegia/ sudden onset weakness or	-	-	6.2	13.2	7.4	-	43.3	20.5	9.3	-	12889
Heart disease: Chest pain, breathlessness	-	-	-	28.3	7.3	5.6	29.0	10.4	18.4	1.1	16859
Pain in abdomen: Gastric and peptic	13.7	11.6	11.2	-	6.0	-	11.2	4.7	35.6	6.0	23781
Anaemia (any cause)	19.9	-	11.6	3.8	5.1	11.7	11.6	16.8	2.8	16.6	6434
Hypertension	59.4	-	-	-	4.0	-	-	12.7	21.6	2.3	13087
Pregnancy with complications before or during labour (abortion, ectopic pregnancy, abortion, hypertension, complication	67.6	-	8.8	-	-	-	-	14.3	-	9.3	10221
Accidental injury, road traffic accidents and	47.	-	-	19.8	-	8.4	14.7	-	4.6	5.3	9692

Mental disorders	22	-	-	-	-	29.0	23.0	9.5	18.6	-	2113
Skin infection (boil, abscess, itching) and other skin disease	-15.4	-	-	-	-	-	-	-	81.9	2.7	2836
Weakness in limb muscles and difficulty	44.4	-	-	-	-	-	23.3	13.5	30.4	28.3	8613
Poisoning	3.5	46.5	5-	-	-	-	-	-	-	-	3559
All other fevers	53.1	-	-	-	-	-	1.0	17.9	45.7	32.3	36044
Fever with rash/ eruptive lesions	-	-	-	-	-	-	-	-	10-	-	862
Diarrheas/ dysentery/ increased frequency of stools	-	-	6.1	-	-	-	-	7.0	38.2	48.7	4713
Under-nutrition	-	-	-	-	-	-	-	-	-	10-	1568
Others (including obesity)	-	-	-	-	-	-	-	-	-	10-	1700
Mental retardation	-	-	-	-	-	-	-	-	-	10-	4151
Headache	-	10-	-	-	-	-	-	-	-	-	744
Seizures or known epilepsy	-	-	67.6	32.4	-	-	-	-	-	-	4349
swellings/ boils Cataract	-	-	-	-	-	-	-	-	10-	-	1729
Acute upper respiratory infections (cold, runny nose, sore throat with cough, allergic colds included)	-	45.3	-	-	-	-	-	-	54.7	-	2179
Diseases of mouth/teeth/gums	-	-	-	-	-	-	-	-	-	10-	103
Gastrointestinal bleeding	-	-	-	-	-	-	-	-	-	10-	316
Joint or bone disease/ pain or swelling in any of the joints, or swelling or pus from the bones	-	-	1-	42.1	-	-	-	-	33.4	14.5	6426
Back or body aches	-	-	-	-	-	-	-	93.1	-	6.9	1824
Pain the pelvic region/reproductive tract infection/ Pain in male genital area	-	-	24.8	-	-	75.2	-	-	-	-	6935
Change/irregularity in menstrual cycle	-	-	-	-	-	-	-	10-	-	-	487
Complications in mother after birth of child	-	-	-	-	-	-	41.3	-	-	58.7	1069
Illness in the newborn/ sick newborn	-	-	-	-	-	-	14.6	-	6.2	79.2	8862
Burns and corrosions	-	-	-	-	-	-	-	10-	-	-	65
Assault	-	-	-	-	-	-	-	-	10-	-	426
Contact with venomous/harm-causing animals and plants	-	-	-	-	-	5-	-	5-	-	-	618
Symptom not fitting into any of above categories	-	32.1	-	1.7	-	-	.9	-	-	65.3	4913
Total (%/ N)	**8.9**	**2.4**	**5.0**	**6.4**	**18.0**	**4.5**	**8.6**	**9.3**	**17.6**	**19.2**	**100**
	29405	**8062**	**16548**	**21032**	**59412**	**15000**	**28537**	**30855**	**58181**	**63505**	**330537**

Appendix II

Adolescent girls have usage hospitals for the treatment of the Diseases, 2014

Health Problems	Type of Hospital		
	Public	Private	Total(N)
Fever with rash/ eruptive lesions 2	-	10-	862
All other fevers 04	27.3	72.7	36043
Anaemia (any cause) 14	12.2	87.8	6434
DIABETES 16	34.8	65.2	6018
Under-nutrition 17	-	10-	1568
Headache 22	-	10-	744
Acute upper respiratory infections (cold, 36 runny nose, sore throat with cough, allergic colds included)	54.7	45.3	2179
Cough with sputum with or without fever 37 and NOT diagnosed as TB	65.6	34.4	988
Pain in abdomen: Gastric and peptic 40	67.3	32.7	23781
Back or body aches 45	10-	-	1824
Any difficulty or abnormality in urination 46	22.2	77.8	8260
Pain the pelvic region/reproductive tract 47 infection/ Pain in male genital area	-	10-	6935
Change/irregularity in menstrual cycle	-	10-	487
Pregnancy with complications before or 49 during labour (abortion, ectopic pregnancy, abortion, hypertension, complicati	5.4	94.6	10220
Complications in mother after birth of child 50	10-	-	1069
Childbirth _ Caesarean/ normal/ any other 88 (for both live birth and stillbirth)	84.8	15.2	56336
TUBERCULOSIS 05	81.5	18.5	5067
Jaundice 10	42.8	57.2	19398
Diarrheas/ dysentery/ increased frequency of stools 11	83.3	16.7	4712
CANCERS (known or suspected by a physician) 13	62.4	37.6	14373
Others (including obesity) 19	-	10-	1700
Mental retardation 20	-	10-	4151
Mental disorders 21	71.0	29.0	2113
Seizures or known epilepsy 23	64.7	35.3	4349
Weakness in limb muscles and difficulty in 24	64.6	35.4	8612
movements Stroke/ hemiplegia/ sudden onset weakness or 25	49.7	50.3	12889
Discomfort/pain in the eye with redness or 27	-	10-	334
swellings/ boils Cataract 28	25.6	74.4	1729
HYPERTENSION 34	62.3	37.7	13087
Heart disease: Chest pain, breathlessness 35	45.1	54.9	16861
Bronchial asthma/ recurrent episode of 38 wheezing and breathlessness with or without cough over long periods or known a	69.2	30.8	16499
Diseases of mouth/teeth/gums 39	-	10-	103
ulcers/ acid reflux/ acute abdomen Lump or fluid in abdomen or scrotum 41	4.1	95.9	3101

Gastrointestinal bleeding 42	-	10-	316
Skin infection (boil, abscess, itching) and 43 other skin disease	83.8	16.2	2835
Joint or bone disease/ pain or swelling in 44 any of the joints, or swelling or pus from the bones	6.3	93.7	6426
Illness in the newborn/ sick newborn 51	73.9	26.1	8862
Accidental injury, road traffic accidents and 52	53.4	46.6	9692
Burns and corrosions 54	10-	-	65
Poisoning 55	10-	-	3560
Assault 57	10-	-	426
Contact with venomous/harm-causing 58 animals and plants	-	10-	617
Symptom not fitting into any of above 59 categories	12.2	87.8	4913
Total (N)	**1720**	**1584**	**33053**
	84	**54**	**8**
	52.1	**47.9**	**100**

Source: NSSO (2016), National Sample Survey Organization, Ministry of Statistics, Planning and Implementation, government of India, New Delhi.

Appendix III

Correlation Coefficient between variables

Sn	Pearson Correlation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	**Age Group**	1																
2	**Body Mass Index value**	-.002	1															
3	**Weakness**	.039	-.028	1														
4	**Body Ache**	.063	.046	.003	1													
5	**Leg Pain**	.036	-.098	-.077	.158*	1												
6	**Irregular Periods**	.170*	.144*	-.011	.083	-.015	1											
7	**Heavy Bleeding**	.095	.125	.029	.166*	-.154*	.249**	1										
8	**Stomach Pain**	-.123	.024	-.033	-.021	.070	-.128	-.058	1									
9	**White Discharge**	-.077	-.011	-.050	.089	.069	-.121	-.073	-.028	1								
10	**Pain during Urination**	-.091	.128	.017	.023	.056	-.023	-.134*	-.046	.037	1							
11	**Loss of Appetite**	.044	-.127	-.011	-.013	-.046	-.055	-.034	-.079	-.070	-.010	1						
12	**Exhaustion**	.059	.060	-.145*	-.056	-.052	.047	.038	-.042	-.051	-.097	-.080	1					
13	**Pain in waist, hand &leg**	.037	.072	.095	-.081	.020	-.105	-.117	-.104	-.016	-.038	-.128	-.235**	1				
14	**Fainting**	-.011	-.050	.047	-.141*	-.051	-.093	-.043	-.009	-.072	.141*	.008	-.021	.054	1			
15	**Low Haemoglobin**	.001	-.146*	-.013	-.119	-.023	-.123	-.063	-.036	-.060	-.045	.033	-.074	.035	-.028	1		
16	**Paleness of Face**	-.027	-.138*	-.126	-.049	-.039	-.092	-.098	-.165*	-.003	-.045	-.088	.025	-.059	.022	-.053	1	
17	**Paleness (Pallor)**	.085	-.101	-.145*	-.072	-.170*	-.082	-.051	-.150*	-.111	-.017	-.109	-.091	-.066	-.052	.192**	.075	1
	Total (N)	**250**	**250**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**	**217**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Fieldwork

Appendix A

Socio- Economic Factors and Intra-Family Communication for Health of Adolescent Girls: A Study in National Capital Territory of Delhi

SECTION-I

PROFILE OF THE STUDY AREA

1) Household interview schedule Number.....
2) Date of interview.....
3) Name of the study area.....
4) Address.....
5) Ward number.....
6) District Code.....

Household Members Profile

Sl. No	Name	Relation to respondent	Age	Sex	Religion	Caste/Sub Caste	Marital Status	Education Level	Reason for not Studying further	Work status	Main Primary Occupation	Income from Primary Occupation
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
01		Respondent										
02												
03												
04												
05												
06												
07												
08												
09												
10												

Housing Characteristics

No.	Questions	Coding Category	Skip
6	Type of House	Semi Pacca.....1 Pucca.....2 Others.....99	
7	Number of Rooms	Rooms.....	
8	Is this house your own?	Own.....1 Rented.....2 Others.....99	
9	Separate Place for Kitchen	Yes.....1 No.....2	
10	What type of fuel does your household **mainly** use for cooking?	Biogas.....1 LPG/Natural Gas.....2 Firewoods.....3 Electricity.....4 Charcoal.....5 Kerosene.....6 Dung Cake.....7 Others.....99	
11	What is the **main source** of water for member of your household?	Piped into Dwelling.....1 Public tap/Standpipe.....2 Tube well or Borehole.....3 Tanker truck.....4 Surface Water.....5 Community water plant.....7 Hand Pump.....8 Others.....99	
12	Do you treat you water in any way to make it safer to drink?	Yes.....1 No.....2 Others.....99	→If No Skip to Ques.14
13	What does this household do to the water to make it safer to drink?	Boil.....1 Use Alum.....2 Add bleach/chlorine tablets Strain through a cloth.....3 Use electrical purifier.....4 Let it stand and settle.....5 Others.....99	
14	Do you have toilet facility?	Own toilet.....1 Share.....2 Public.....3 No Toilet/Open Defecation.....4	
15	What kind of toilet facility do members of your household usually use?	Flush to Septic tank.....1 Flush to pit latrine.....2 Pit latrine ventilated.....3 Dry toilet.....4 Sulabh Shauchalaya.....5 Facility open space or field..... .....6 Others.....99	
16	Main Source of Lighting?	Electricity.....1 Kerosene.....2 No Electricity.....3 Some Times Only.....4 Others.....99	

17 House hold Assets

Availability of Assets											
Radio/ Transistor	Fan/Cooler	Television	Computer/Laptop		Telephone/ Mobile Phone			Two Wheeler	Four Wheeler	Household With TV Computer/ Laptop	Others
			With Internet	Without Internet	Telephone	Mobile	Both				

18 Livestock (In Native Place)

Sr. No.	Livestock	Number of Livestock	Market Value	Use			
				Own Use	Eggs Production	Meat Production	Milk Production
1	Cow						
2	Buffalo						
3	Goat						
4	Horse						
5	Donkey						
6	Mule						
7	Sheep						
8	Chicken						
9	Duck						

19	Do you have any agricultural land? (In your native place)	Yes.....1 No.....2	→ If No skip to Ques. 19
20	If yes specify size in acres.	....	
21	Do you have any livestock? (In your native place)	Yes No Cow/Bulls/Buffaloes.....1 2 Horse/Donkeys/Mules.....1 2 Goats.....1 2 Sheep.....1 2 Chicken/Ducks.....1 2	
22	Does any usual member of this household have a bank account or a post office account?	Yes.....1 No.....2	
23	Is any usual member of this household covered by a health insurance scheme?	Yes.....1 No.....2 Don't Know.....3	→ If No Skip to Ques. 24

24	Who are covered under which scheme?	Please Specify.....	
25	Does this household have a BPL card?	Yes.....1 No.....2	
27	Approx annual income of the household?	....(Rs.)	

Migration

28	Is Delhi is your birth place?	Yes.....1 No.....2	If No Skip to Section-II
29	If yes, where have you migrated from?	Rural.....1 Urban.....2	
30	When did you come to Delhi?	....	
31	When did you come to present location please specify.	....	

SECTION-II

HEALTH PROBLEM AND TREATMENT SEEKING

No.	Question	Coding category	Skip
1	What are the health problems you have faced in last three months?	Cough.....1 Seasonal fever.....2 Weakness.....3 Body Ache.....4 Leg Pain.....5 Irregular Periods.....6 Heavy bleeding.....7 Stomach Pain.....8 White discharge.....9 Loss of appetite.....10 Others.....11	
2	Where did you go for treatment?	Public.....1 Private.....2 Traditional Healer.....3	
3	Reason for not taking treatment?(Probe)	....	
4	With whom did you go?(Multiple)	Yes No Spouse.....1.....2 Father.....1.....2 Mother.....1.....2 Aunt.....1.....2	

		Sister.....1.....2 Brother.....1.....2 Friend.....1.....2 Neighbour.....1.....2 Others.....99	
5	Do you have anaemia symptoms and sign?(Explain what is Anaemia before asking this question)	Yes.....1 No.....2	→ If No Skip to Ques.7
6	What kind of symptom and sign have you observed?	Loss of Appetite.....1 Pain in waist.....2 Pain in legs.....3 Exhaustion.....4 Weakness.....5 Fainting.....6 Low Haemoglobin Count.....7 Paleness of face.....8 Paleness in tongue...9 Paleness in lower Lid eye and nail Beds.....10 Others.....11	
7	Did you get tested for low haemoglobin in last three months?	Yes.....1 No.....2	→ If No Skip to Ques. 10
8	Did you ever seek treatment for anaemia?	Yes.....1 No.....2	
9	Where did you go?	Public.....1 Private.....2 Traditional Healer.....3	
10	Reason for not seeking treatment? Please specify.	....	
11	With whom did you go?(Multiple)	Yes No Spouse.....1.....2 Father.....1.....2 Mother.....1.....2 Aunt.....1.....2 Sister.....1.....2 Brother.....1.....2 Friend.....1.....2 Neighbour.....1.....2 Others.....99	
12	Who took decision on from where to seek treatment? And why please specify.	....	
13	Did you have/had any say on decision making for treatment seeking related to girls?	Yes.....1 No.....2	
14	If no, why were you not parts of decision making? Please explain.	Not a priority.....1 Low priority.....2 Somewhat priority.....3 Neutral.....4 Moderate Priority.....5 High priority.....6 Essential priority.....7 Others (Specify).....99	

15 Illness Profile

	Illness profile of the Adolescent in the Household during last three months							
Sr. N0.	Ill Member	Type of Illness	Duration Of Illness	Mode of Treatment			Treatment	Expenditure Incurred
				Public	private	Traditional healer		
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
01	Respondent							
02								
03								
04								
05								

SECTION-III

MENSTRUAL HEALTH PRACTICES

Now I would like to ask few questions that are related to your personal hygiene. If you are comfortable then please answer the following questions.

No.	Question	Coding Category	Skip
1	At what age your period started?	Years.....Months.....	
2	With whom you share first? (Multiple)	Yes No Mother.....1.....2 Father.....1.....2 Aunt.....1.....2 Sister.....1.....2 Brother.....1.....2 Friend.....1.....2 Neighbour.....1.....2 Others.....99	
3	What was the advice given? (Multiple)	Yes No How to use pad/cloths .....1.....2 How to dispose pad/Cloths.....1.....2 Avoid pickle.....1.....2 Do not play with boys.....1.....2 Do not run.....1.....2 Do not go to temple .....1.....2 Do not cook/ go in Kitchen.....1.....2 Do not take bath with Cold water.....1.....2	

		Avoid wearing white Cloths.....1.....2 Others.....1.....2	
4	How did you feel when you experience it for the first time? (Multiple)	Yes No Sad.....1.....2 Irritated.....1.....2 Anger.....1.....2 Shy.....1.....2 Mute.....1.....2 Feel like crying.....1.....2 Pain.....1.....2 Want to sit only.....1.....2 Want to sleep only.....1.....2 Loss of Appetite.....1.....2 Others.....1.....2	
5	During menstruation do you feel constrained in your work/daily routine?	Yes.....1 Not at all a problem...2 Minor problem.....3 Moderate problem.....4 Serious problem.....5	→ If No Skip to Ques.7
6	What kind of obstacles please specify?	....	
7	Regarding your menstrual relates problems do you ever share or seek help from anyone in your family?	Yes.....1 No.....2	
8	If yes, what type of help? Please specify.	....	
9	What do you use during your menstrual cycle?	Cloth.....1 Locally prepare Napkins.....2 Branded sanitary napkins.....3 Tempons.....4 Others.....99	
10	Does your family have any cultural practices? (Multiple choice)	Yes No Do not cook or enter into the Kitchen.....1.....2 Do not wash your Hairs.....1.....2 Do not sleep on bed.....1.....2 Do not come near pooja room.....1.....2 Sit on specific place In home.....1.....2 Do not go to Temple.....1.....2 Do not touch Pickles.....1.....2 Avoid going school First two days.....1.....2	
11	Are you aware about the role of menstrual cycle in your biological life?	Yes.....1 Not at all aware.....2 Slightly aware.....3 Somewhat aware.....4 Moderately aware.....5 Extremely aware.....6	→ If no Skip to Ques.13

12	If yes, specify?	....	
13	Do you have any rituals at the menarche in your family?	Yes.....1 No.....2	→If no Skip to Section IV
14	If yes, what were they? Explain in details.	....	

SECTION-IV

AWARNESS ABOUT HEALTH CARE AND UTILIZATION PRACTICES

No.	Questions	Coding Category	Skip
1	What are the common health problems among adolescents?	Yes No Weakness.....1 2 Body Ache.....1 2 Leg pain.....1 2 Irregular Periods.....1 2 Heavy Bleeding.....1 2 Stomach Pain.....1 2 White discharge.....1 2 Pain during urination .....1 2 Loss of Appetite.....1 2 Exhaustion.....1 2 Pain in waist, hand And legs.....1 2 Fainting.....1 2 Low haemoglobin....1 2 Paleness of face.....1 2 Paleness (pallor) in Tongue, lower lid eye and nail be.....1 2 Others.....99	
2	What is the legal age at marriage?	For boys.....1 For girls.....2 Don't know.....3	
3	In your area is some NGO or govt. Organisation working (worked in last two years) on adolescent health issues?	Yes.....1 No.....2 Don't Know.....3	→If no Skip to Ques. 5
4	If yes, what work they do? Explain in detail please.	....	
5	Do you know or aware about the health programs for adolescence?	Yes No Balika Samridhi Yojna.....1 2 Kishori Shakti Yojn.....1 2 Nutrition Programme for Adolescent Girls (NPAG).....1 2 Adolescent Reproductive And Sexual Health Programme (ARSH).....1 2 National AIIDS Control Programme Phase-III.....1 2 Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA).....1 2 Rashtriya Kishor Swasthya Karyakram.....1 2 Ladli Scheme....1 2	

		Beti Bachao Beti Padhao.....1 2	
6	Have you secured any benefits from any of the programme?	Yes.....1 No.....2	→ If no Skip to Ques. 11
7	If yes, which one please explains in detail?	....	
8	For how long did you avail?	....	
9	Did you face any difficulty in getting **this** benefit?	Yes.....1 No.....2	→ If no Skip to Ques. 11
10	How did you overcome the difficulty please explain?		
11	What type of health facilities regarding adolescent reproductive and sexual health in your area?	Private.....1 Public.....2 Traditional Healer.....3 Don't Know.....4	
12	How is it working and able to help regarding your reproductive and sexual health?	Poor.....1 Fair.....2 Good.....3 Very good.....4 Excellent.....5	
13	Do you think it is the right for an adolescent girls to seek health care for any reproductive as we as sexual related problem?	Yes.....1 No.....2 Don't Know.....3	
14	If yes, please give reason.	....	
15	In your opinion is it important to take balance diet?	Not at all important.....1 Low importance.....2 Slightly important.....3 Neutral.....4 Moderately important....5 Very important.....6 Extremely important.....7 Don't know.....8	
16	What do you eat generally in a need?	....	
17	Are you taking any nutrition supplements?	Yes.....1 No.....2	If no Skip to Ques.19
18	If yes, please check	Iron.....1 Calcium.....2 Folic Acid.....3 Protein syrup.....4 Others.....99	→

19. Do you normally consume these?

Food Items	**Days**					
	Daily	Sometimes	Rarely	One times in 15 days	One times in a months	Never
Milk						
Dal						
Leafy						

Vegetables						
Seasonal Fruits						
Dry Fruits						
Out Side Food						
Fish						
Other Non-Vegetarian Foods						
Rice/Roti						
Grains						

20. In Order to Understand Adolescent Nutrition Current Weight According to Age.

Age	**Average Weight Ratio for Girls**	**Respondent Weight**	**Average Height Ratio for Girls**	**Respondent Height**
10	31.9 kg		54.5'' (138.4cm)	
11	36.9 kg		56.7'' (144cm)	
12	41.5 kg		59.0'' (149.8cm)	
13	45.8 kg		61.7'' (156.7cm)	
14	47.6 kg		62.5'' (158.7cm)	
15	52.1 kg		62.9'' (159.7cm)	
16	53.5 kg		64.0'' (162.5cm)	
17	54.4 kg		64.0'' (162.5cm)	
18	56.7 kg		64.2'' (163cm)	
19	57.1 kg		64.2'' (163cm)	

SECTION-V

DECISION MAKING AND MOBILITY

No.	Questions	Coding Category	Skip
1	What kind of relationship you have with your parents? (Multiple)	Yes No Friendly.....1.....2 Affection.....1.....2 Comforting Behaviour.....1.....2 Revalry.....1.....2 Over all Negative.....1.....2 Over all Positive.....1.....2 Cooperative...1.....2 Dominating Behaviour.....1.....2 Affection or Close.....1.....2	
2	In your family you are comfortable to share your problems with whom? Please specify.	....	

3	Do you believe the moral support of your mother can lesser your worries?	Yes.....1 No.....2	
4	Which type of moral support?	Specify.....	
5	Did you ever experience family support in the initiatives taken by you?	Yes.....1 No.....2	
6	List of initiatives. (Multiple)	Yes No (Who Support) Studies.....1 2..... Job.....1 2..... Mobility.....1 2..... Relationship .....1 2..... Say no for Peer.....1 2.....	
7	Did you have any peer pressure on for please check?	Yes No Going out for films.....1.....2 Going out with friends.....1.....2 Wearing new western cloths..1.....2 Going out with friend's place for night out.....1.....2 Try some new make up and outfits.....1.....2 Having Boyfriend.....1..... .....2 Earn money for good lifestyle.....1.....2	
8	Have you ever experienced family violence?	Yes No Physical.....1 2 Verbal.....1 2 Sexual (Married)1 2 Others.....99	
9	Have you ever experience mental pressure on issue related to-(Multiple)	Yes No Studies.....1 2 Marriage.....1 2 Earning.....1 2 Others.....99	
12	If yes who support mostly? (Multiple)	Yes No Spouse.....1.....2 Father.....1.....2 Mother.....1.....2 Aunt.....1.....2 Sister.....1.....2 Brother.....1.....2 Friend.....1.....2 Neighbour.....1.....2 Others.....99	
13	How much influence do you feel you have in family decision that affects you?	Great Deal.....1 Little.....2 No influence.....3 Others.....99	
14	How often do your parents talk about important decision with you?	Never.....1 Rarely.....2 Occasionally.....3 Sometimes.....4 Frequently.....5 Usually.....6 Every time.....7 Others.....8	

15. Any other observation/suggestion by you on this issue?

.....

.....

.....

16. Closing remark by the researcher.

.....

.....

.....

Thank you!

Appendix B

Consent Letter

Semi- structured Interview Schedule for the Adolescent Girls

Namaste (Greetings).

My name is Rashmi Kumari. I am a Research Scholar and doing PhD from Jawaharlal Nehru University, New Delhi. I am conducting research about **Socio-Economic Factors and Intra-Family Communication for Health of the Adolescent Girls: A Study in the NCT (National Capital Territory) of Delhi**. The information that I will collect from the interview will help us to understand the status of adolescent girls where they live, how living space, toilet facilities, and crowding in the home affect their day-by-day health. Side by side their intra-family communication within family and outside helps them to overcome everyday health. Menarche is the one of the important phases of adolescent life, how urban village girls managing their personal health care and understand it as a major turning point? I would like to ask you some questions about you. The questions usually take about 25-35 minutes. All the answers you give will be confidential and will not be shared with anyone. Your participation is voluntary. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

If you have any questions about this interview/research, you may ask me.

Do you agree to participate in this interview?

Signature of Respondent……

Date……

Checklist for Interviewer to confirm having done before starting the interview

Details Covered	Yes	No
Informed about purpose of research		
Right to refuse response at any point of time		
Confidentiality of all Information		
Use of Information for Educational purpose only		
Permission for Recording when need		