Adolescence is a critical stage of human development, as it indicates a time of life span, when an individual outgrows from childhood to adulthood. Puberty has connotations for both the physiological and psychological maturity and hence signals an important transition. Adolescence spanning from about 12 years to 18 years, is crucial for reproductive maturity among both males and females. Yet, empirical evidence point towards lack of education and training about these changes- both physiological as well as psychological. Female adolescents are especially vulnerable on account of menstruation and its significance for human reproduction and procreation. Menstrual experiences vary according to popular beliefs, cultural characteristics and information received on this within the social group where the woman lives. Even though menstruation is a biological process, yet its interpretation is strongly linked to the cultural factors, hence making it a social process as well. Abundant research literatures highlight how menstruation is viewed among different culture and nations.

2.1 Cross-Cultural Visualization of Menarche and Menstruation

Globally, approximately 52% of the female population (26% of the total population) is of reproductive age. Most of these women and girls menstruate each month for between three to seven days (Population Reference Bureau, 2011). Abioye (2000) in his study reported that there are many misconceptions and superstitions associated with menstruation in the world. Ignorance has led to many kinds of practices especially among the school girls, some of which are very much harmful. Menstrual problems have also been reported in about 87 percent of school girls in Nigeria. Cultural critic, Kissling (2002) mentioned that the most fascinating thing about menstruation is its paradox. Women often feel joy in their ability to reproduce, but shame and sadness at living in a society that considers menstruation as a taboo and prohibits women from talking openly about normal bodily processes. In many low-income countries, women and girls are restricted in mobility and behaviour during menstruation due to their “impurity” during menstruation. Menstruation is still related to a number of cultural taboos and is usually associated with feelings of shame and uncleanliness. Even today it continues to be a secret of mother and daughter in many families. It is not discussed in the open (Costos et al, 2002; Charlesworth, 2001; Houppert, 2000; Cronje & Kritzinger,
A cross-cultural analysis of menstrual taboos shows that this same ambiguity surrounds many of the actual taboos. Ethnographers, especially male ethnographers, have often reported that menstrual blood and menstruating women are viewed as dangerous and/or offensive, particularly to men. They also report that there have always been prohibitions surrounding menstruation aimed at controlling or confining it and that it has always been interpreted as dangerous or offensive (Buckley and Gottlieb, 1988). Kaiser (2008) also reported that cultural norms and religious taboos on menstruation are often compounded by traditional associations with evil spirits, shame and embarrassment surrounding sexual reproduction. Kaundal and Thakur (2014) reported that discriminatory practices against women are common during their menstrual periods like considering women as "Chhue, Chhaupadi and Chueekula Pratha" means "Impure" or “Unclean". During periods, women are prohibited from taking part in many normal aspects of their lives and such practices are continued through cultural norms, social taboos and superstition. These women believe that any breach in such practice will bring bad omen upon their family, community or society. However, these practices are a violation of human rights and are a form of gender discrimination against women and children, in turn leading to negative effects on health, education and the country's socioeconomic development.

MacDonald and Shauna (2007) acknowledged that perceptions about menstruation, both negative and positive, are constructed primarily by young women's introduction to menstruation and are perpetuated by the influences of their peers, family members, and the media, among others. A study on connection between girls schooling and menstruation in Uganda revealed that menstruation affects girl’s participation especially in the rural schools. This connection was realized from the different feelings
of concealment, embarrassment, fear, shame and sometimes anxiety towards menstruation. This is more so because the situation in rural areas is worse in terms of menstrual management than in urban poor areas which in turn leads to discrimination and stigmatisation which lowered the self esteem of these girls and interfere with their confidence and feelings, hence bringing a negative impact to their schooling (Matovu, 2011).

Menstruation also has an extensive history of strict cultural taboos across the globe as well as in India. Every culture follows their own beliefs, myths and taboos related to menarche and menstruation which often have been transmitted from generation to generation.

In India even the mere mention of the topic has been a taboo in the past. Many cultural and social influences appear to be a hurdle for advancement of knowledge on the subject. The belief related to menstruation was investigated by (Patil et al, 2011) in rural Pondicherry and the results reveal that nearly two third of the respondents (65.4% illiterates as well as 62.1% literates) believed that menstruating blood is dirty and also believed that “Placing broom stick, Neem leaves & footwear around the girl would prevent intrusion of evil spirits” and “woman after menstruation must have a purifying bath”. Kumar and Srivastava (2011) conducted a study on cultural and social taboos related to menstruation in 117 adolescent girls (age 11–20 years) and 41 mothers from various communities and classes in Ranchi, Bihar comprising residential colonies and urban slums. They found that a number of myth, taboos and restrictions encircled menstruation. The finding shows that socio economic status of the family and education of parents and girls influences the menstrual practice among adolescent girls. The event of menarche associated with taboos and myths existing in traditional society have a negative implication for women’s health, particularly their menstrual hygiene. It concludes that cultural and social practices regarding menstruation depend on girls’ education, attitude, family environment, culture and belief.

The stubborn social myths around menstruation that cause so much distress to girls and women are much tougher to get rid off. The taboos about menstruation present
in many societies impact on girls’ and women’s emotional state, mentality and lifestyle. Sadly such myths have led to 48% of girls in Iran, 10% in India, and 7% in Afghanistan believing that menstruation is a disease, e.g. the removal of bad blood from the body, rather than a natural and healthy part of adolescence or young adulthood (SOS Children’s Village, 2014).

Bharadwaj and Patkar (2004) reported that in countries such as Nepal, Bangladesh, Pakistan and India, women have been taught that menstruation is shameful. Even though the menstrual flow is natural, harmless, and a necessary physical process, girls and women are often made to feel that menstrual blood is dirty, smelly, and unclean, and that they are to be shunned or isolated during their menstrual period.

Khanna et al (2005) also reported that menstruation is associated with many myths and misconceptions. Health behaviours and practices vary from culture to culture, and ignorance of culturally divergent beliefs and practices may lead to failure in health care delivery, thereby contributing to various reproductive health problems. Menarche and menstruation are considered a taboo and thus rarely discussed even between mother and daughter (Singh, 2006). The reason for mother’s reluctance to discuss menstruation and related issues with their daughters can be partially related to their own lack of knowledge of the physiology of menstruation (Garg et al, 2001). Kaundal and Thakur (2014) in their review article “a dialogue on menstrual taboo” concluded that myth, mystery and superstition have long enveloped the facts about menstruation. It is crucial to understand the various restrictions and views of menstruating women in different religions. Kareem et al, (2016) and Nemade et al, (2009) have also noted that even today many school going adolescent girls feel that menstrual blood is impure. Girls continue to have poor perception towards menstruation. Anjum et al (2010) found that most adolescent girls in Hyderabad (87.6%) regarded menstruation as a natural process; whereas, 62 (12.4%) perceived it as a disease and curse from God. 83% of the participants responded that the menstruation process is good for health; however, 17% felt this process was not healthy for them.
2.2 Menarche and Menstruation among Tribal Adolescent Girls

The term tribe is derived from the Latin word 'tribes' meaning the 'poor or the masses'. In English language the word 'tribe' appeared in the sixteenth century and denoted a community of persons claiming descent from a common ancestor. Tribal groups across the world have had a long and distinct cultural history, which they have tried to preserve in spite of technological advancement. Menarche and menstruation have been defined specifically by many of the tribal groups around the world (Kumar, 2016). The present section deals with the description of the various tribal rituals and customs associated with menarche and menstruation.

Menstrual blood was perceived as a gift, accepted with joy and gratitude by the whole community among Pygmies of Africa. The girl went with her friends to Elima House, a special hut. An elderly woman from the tribe taught girls and prepared them for the first Blood ceremony, called the Elima ceremony. The whole community takes part very joyfully in this ceremony. Girls learn women’s songs and sang them loudly in the forest. After the ceremony there ensued two months of celebrations, meetings, feasts, dance (Naya, 2008). Initiation of menstruation among girls is an important celebration for the whole Nootka tribe. After attaining menarche a huge celebration is thrown for the girl and later comes an endurance ritual, during which the girl is taken far from the shore, into the sea and she must come back alone, swim back to the shore. The whole village is waiting for her. From that moment on she has the rights of a grown woman (Naya, 2008). In many North American native tribes oral tradition, rituals, ceremony involving menstruation are there. While women might have been prohibited from food preparation or sleeping with men during menstruation, this had nothing to do with shame or embarrassment. In fact, menstruating women were treated with an amazing amount of reverence among Native Americans. They believed women were more powerful, spiritually, during their periods and that they even had special intuitive powers. Some Native American tribe members would call upon menstruating women for their guidance and suggestions, or to connect them to higher powers. Among these tribes menstrual huts were also big. During the first four days of their cycle, menstruating females left their homes and went to separate menstrual lodge to commune with other
women. For them menarche rituals were big celebratory events for a village, often announcing a girl’s first period to the entire village with pride (Shannon, 2013). Menstrual taboos also served to underline the gender segregation which was characteristic of many tribal cultures. Among Maori of New Zealand or the Arapesh of New Guinea, menstruating women were forbidden from poking the fire or cooking for their spouse due to their polluting occurrence (Carr, 2013).

Zulu tribe and Bobo fing tribe are the two predominant tribes of Africa. Here, women have different levels of status and value. Apart from other tribal culture rituals and ceremonies, all women in the African tribe must follow and obey the rules of the “21 day purification.” Some tribes have more rules than others to follow. In the Zulu tribe the women have to do more tasks for their purification. In both Zulu and Bobo tribe the menstruating women has to undergo “21 day purification” and if the women do not practice the ethics of this purification, they are looked at to be impure. When the Zulu women have “become of age” and their menstruation began, this is when they start purification. The women, before starting this process must collect the roots of Rubia Cordifolia shrub (a type of plant) which is mixed up with porridge and they would have to eat it for seven days. During the period the women stay in the hut only with their mother, if the mother is unwell, another woman of the family accompanies her at that time. The women are not supposed to be seen by anyone else, but they do have the option to have one friend to stay with them during that time to give support. It is expected that when the women come out she should look clean and renewed. However, Bobo woman cannot participate in activity before her purification. During purification, there are some customs that limit the women to interact with males for number of days. The restrictions are also on entering the tabernacle and participating in ceremonies. According to them, the body is undergoing a process of cleansing and she must be left alone for a seven day window deemed fit for sexual intercourse. The women simply receive food from her Kingman passed through a small aperture (Carr, 2013).

Tribes from Kerala, India also have ceremonies related to menstruation. These rituals take place in all social group and communities. In several tribes it is the most costly but most essential ceremonies. Celebrations are planned for all those girls who
started menstruating within the last twelve months. In this ceremony adolescent girls are especially dressed and painted; they have gathering with women as well as the whole family. Each girl undergoes a short separation time, when she is fed special food that is supposed to give her strength. She is visited by friends during that time. Older women sing songs for her and gave her a scented bath. She is typically wrapped in wonderful, red fabric and she gets lots of presents like, clothes and jewellery among them. After partying with women, there comes time for family revelry. The young girl sits on a special seat decorated with flowers. Everything concludes in a procession of young girls through the city. The girls whose families can afford it, ride an elephants (Naya, 2008).

Many researches in India have been based on tribal economy, land alienation, socio-economic development, tribal culture etc but comparatively there is lesser literature focussing on the lives Indian Tribal Adolescent Girls. An analysis of researchers have pointed out that tribal adolescents especially the females are disadvantaged not only due to their poor socio-economic conditions but also because of lack of health facilities and lack of health and family life education. A study was carried by Sangeetha et al (2012) on two different tribal groups namely Kanjarbhat and Lamani from Dharwad and Bijapur Districts of Karnataka. This study reveals that, 98% girls of Kanjarbhat and 89% of Lamani girls felt bad during menstruation but their family’s attitude was positive. All the Kanjarbhat girls and majority of the Lamani girls ate whatever was cooked at home, but 96% of Lamani girls and 79% of Kanjarbhat girls avoided eating sesame seed, jaggery, sour food and sweets during menstruation. 11% of Kanjarbhat and 09% of Lamani girls avoided going to kitchen at the time of menarche. 08% of Kanjarbhat and 03% of Lamani girls kept their utensils separate during menstruation. 78% of the Kanjarbhat and 63% of Lamani girls were prohibited from social interactions at the time of menstruation. Both groups’ girls avoided going to the temple during their period. The study highlighted the necessity of broad knowledge regarding menstruation and personal hygiene. This study recommended psychological interventions and counselling regarding menarche. In an another study carried by Nagar & Anmol (2010) awareness about menstruation and related aspects among 100 school going adolescent girls in tribal areas of Meghalaya was assessed and found that the
respondents had an average level of awareness of menstrual aspects. Majority of girls were lacking knowledge about the importance of menstruation and associated it with bad/impure blood. Even if, the social and cultural custom and practices in the Indian society are changing gradually, but the girls and women especially living in the tribal setting have less access to health care amenities. Their information is often incomplete, incorrect and confusing which construct the adolescents especially young girls to have incorrect concept and ideas which may lead to hazardous health practices. George (2012) also explored menstrual taboo in India and found that women in some tribes are forced to live in a cowshed throughout their periods. There are health problems, like disease caused by using dirty rags.

2.3 Restrictions/Taboos faced by Females during Menstruation

Menstruation in India and elsewhere has been defined by many taboos and restrictions. Till date at many places these taboos are very carefully reinforced. Tiwari et al (2006) conducted a survey in Anand District, Gujarat and found that many families continue the custom of celebrating the first menarche and observing the social restriction during menstruation. In Cuddalore district of Tamil Nadu, the Socio-cultural taboo Index developed classified women into three categories as low, moderate and high practice of social taboos. The results show that there is a very strong practice of keeping women away from religious and ceremonial participation. Surprisingly, this practice is comparatively high among urban respondents. Except religious and ceremonial related taboos, women do not seem favourable to practice any other social taboos (Selvi and Ramachandra, 2012). Puri and Kapoor (2006) found in their study that 41.5% of adolescent girls told that Pooja (prayers) room entry is forbidden. Majority of the adults believed that during menstruation woman should not go to a temple. Singh (2006) reported that majority of women indulged in various taboo during menstruation. The study concluded that women in rural north India still hold traditional beliefs regarding menstruation. Dube and Sharma (2012) assessed the knowledge, attitude and practice regarding reproductive health among 200 school girls in the age 15-19 years from rural and urban settings of Jaipur showed that majority girls had several taboos regarding reproductive health.
Vaswani (2014) also analysed the socio-cultural practices and attitudes regarding menstruation among mothers of adolescent daughters in Mangalore, South Karnataka (India). The results reveal that majority (93.9%) of the respondents had religious restrictions. Religious restrictions included restriction from entering temples and prayer rooms, conducting poojas (prayer), touching holy scriptures (e.g. Quran), performing Namaz, Ramadan fasting, performing any religious rites, touching any pooja materials, lighting diyas (clay lamps), not participating in any religious functions, etc. Daughters of current generation face both religious and social restrictions, and further these are more common in rural areas daughters. Jogdand and Yerpude (2013); and Patil et al (2011) also found that majority of girls were restricted to attend religious occasions during menstruation and entering temples during their periods. Kareem et al (2016) showed that among Muslims menstrual restrictions are followed by the girls. They do not visit holy places during menstruation, and are kept in isolation at home during menses. The researcher points out that the socio-cultural beliefs and taboos regarding menstruation have serious influence among these girls. He also found that even literate females find it difficult to go against the restrictions, owing to such strong socio-cultural beliefs and practices.

Cultural taboos also include avoiding sour foods for fear of a smelly period, not touching certain food items to prevent contamination and the general belief that menstruation dispels contaminated/toxic blood. There is also the belief that the body is ridding itself of hot “negative energy” and warm baths can be harmful to the body and/or the environment (UNICEF, India 2008). In some parts of India, some strict dietary restrictions are also followed during menstruation such as sour food like curd, tamarind, and pickles are usually avoided by menstruating girls (Kumar and Shrivastava, 2011 and Pure & Kapoor, 2006). It is believed that such foods will disturb or stop the menstrual flow (Sadiq & Sahil, 2013). As far as the exercise is concerned, many studies in India and elsewhere have revealed that many adolescent girls believe that doing exercise/physical activity during menses aggravates the dysmenorrhea while in reality exercise can help relieve the menstruating women with symptoms of premenstrual syndrome and dysmenorrhea and reduces bloating. Exercise also causes a release of
serotonin, making one feel much happier (Poureslami & Ashtiani, 2002; Sadiq & Sahil, 2013, and Morley 2014). Researchers like Talwar (1997), Paul (2007) have also found restrictions in daily activities like taking bath, changing clothes, combing hair, cooking food and entering holy places. A woman is not allowed to even touch pickles. It is also thought that if a snake is present in the vicinity of a menstruating woman, it can becomes blind and not be able to move.

A study conducted in Riyadh in Saudi Arabia revealed that nearly two-thirds of the girls avoided certain foods, drinks and activities, including showering and performing perineal care, and practised several indigenous rituals during their periods (Moawed, 2001). A study in Baghdad conducted by Sadiq and Salih (2013) concluded that certain practices were restricted during menstruation such as bathing and physical activity often leading to and absenteeism from school.

### 2.4 Preparation for Menarche and Menstruation

Starting of a girl’s menstruation marks her change from a child to an adult, as it is an important transition but it is the girls’ culture or religious practices which decide it as an important or unimportant stage of her life (House et al, 2011). Prior information about menarche and menstruation among girls is generally low in many cultures. Besides cultural constructs which lead to formation of a certain notion, the reaction to menstruation too depends upon understanding and knowledge about the issue. There are considerable lacunae in the knowledge about menstruation. Several research studies have revealed this gap (Dasgupta & Sarkar, 2008; Koff & Rierdan, 1996; and Rierdan & Koff, 1995). Results from a preparation for and expectation of menarche survey of 224 sixth grade girls revealed that girls have many preferences as to how they would like to be prepared for menarche (Koff & Rierdan, 1996). Jogdand and Yerpude (2013) found that only 36.19% girls were aware regarding menstruation prior to the attainment of menarche. For 61.29% of girls, mother was found to be the first source of information regarding menstruation. Shanbhag et al (2012) found that 99.6% of the students had heard of menstruation and 57.9% had acquired this knowledge even before attaining
menarche. 73.7% knew that menstruation was a normal phenomenon but only 28.7% had knowledge regarding menstruation.

Girls are directly and indirectly educated about (largely negative) the cultural beliefs regarding menstruation and the ways in which they are expected to behave in ways to sustain these beliefs. The perpetuation of cultural menstrual taboos that menstruation is “dirty,” that it must be hidden and should not be discussed in “mixed company”, often manifests in a focus on menstrual products (Merskin, 1999; Havens & Swenson, 1989). Bartky (2002) stated that the changes at menarche are constructed through language and practices loaded with signifiers of cultural meaning. Girls from the remote areas were more aware of the cultural constructions than girls from the urban areas. Young girls in developing countries often receive limited information on menstrual hygiene management because menstruation is visualized as taboo, which makes it very hard for adolescent girls to acquire needed information and support from family and school teachers (Shannon et al 2011; Zinash et al., 2011; Kirk and Sommer, 2006). It’s indeed true that much as the instance of looking at menstruation as a taboo is fading in most western countries, many countries in the south still have this perception (Kirk & Sommel 2006). Despite the many sources of information, girls often report that the education they receive is insufficient in preparing them for menstruation (Koff & Rierdan, 1995). Shannon et al, (2011) conducted a research in Kenya and observed that young girls are not generally taught how to control or manage their menstruation, which is a monthly aspect of their lives and has a tremendous impact on the way a girl views herself and her roles within society. As a result their experience has been confusing, frightening, and shame-inducing (Ten, 2007; Sommer, 2009; McMahon et al, 2011) and can result in stress, fear and embarrassment, and social exclusion during menstruation (Water Aid, 2009).

Messages of menstruation as shameful and dirty (Simes & Berg, 2001; Houppert, 2000) coupled with inadequate information about menstruation (Kieren, 1992), paint a daunting picture for girls at menarche. Not surprisingly, several authors (Gillooly, 1998; Rierdan et al, 1983) have argued that because of the vital role the mother plays in preparing her daughter for menstruation, mothers should be emotionally supportive and
knowledgeable about menstruation. However, many mothers, themselves, are unprepared for this task (Costos et al, 2002; Houppert, 2000; Brumberg, 1997; Janes & Morse, 1990).

Indian society is mostly silent about menstruation. Girls continue to be confused about menstruation and its associated changes. A study conducted at Karnataka has shown that about 75% of the girls did not have prior knowledge about menstruation (Dorle et al, 2010). These findings are similar to another study conducted in Delhi, where most of the young girls were previously unaware that it would happen and the information they are given is sparse (Garg et al, 2001 and Nair et al, 2007). Similar findings are also seen from other parts of India like Rajasthan (Khanna et al, 2005); Gujarat (Tiwari et al, 2006); Kerala (Unni, 2010); and Haryana (Goel and Kundan 2011). Shanbhag et al (2012) studied the perception regarding menstruation and practices during menstrual cycles among high school going adolescent girls around Bangalore city, Karnataka, India. It was found that 99.6% of the students had heard of menstruation and 57.9% had acquired this knowledge even before attaining menarche. A study that compared the menstrual attitudes and experiences of 67 Indian college students to 61 American students concluded that Indian women tend to describe the experience of menarche as horrifying (Skandhan et al, 1988). Reasons for the difference between the two cultural groups may result from the fact that the Americans in the study had more knowledge about menstruation and had better preparation for menarche than did the Indian women. Sehar et al (2012) found that the information provided to girls was need based and related to occurrence of menarche; no prior information was shared regarding it as a taboo. It was also found that there was no space available for unmarried girls where they can sit together and discuss amongst themselves about the problems and issues related with puberty. The researcher reported that, norms and taboos surrounding the issues around puberty and menstruation were complex and were handled in a particular manner that the adolescent girls faced a number of issues that at times had serious impacts on them. This practice was going on for generations which needed change, and the way forward was through education, awareness and building trust amongst each other.
The communication received by Indian girls continues to focus on restrictions and advice related to menstrual management. Khanna et al (2005) carried out a study on menstrual practices and reproductive problems in Rajasthan and found that a significantly large proportion of girls were not aware of menstruation when they first experienced it. The major sources of information were found to be mothers, sisters and friends. However, most of this information imparted to a young girl is in the form of restrictions on her movements and behaviour. In another study by Kamath et al (2013) in Udupi Taluk, Manipal, India found that around 34% participants were aware about menstruation prior to menarche, and mothers were the main source of information among both groups. Kamaljit et al (2012) also found that 61.3% adolescent girls of Amritsar, Punjab had awareness about menstruation prior to initiation of menarche. Mother was the first informant regarding menstruation in case of 53.3% girls. Dube and Sharma (2012) found that awareness among rural girls was significantly more as compared to urban girls of district of Dehradun of Uttarakhand state. Similar findings are also seen from studies in other parts of the world like Egypt (El-Gilany and Badawi, 2005) and Pakistan (Ali & Rizvi, 2010) where it as seen that either inadequate or poor information was passed to the young girls through improper sources.

A research was conducted out to determine the psychosocial correlates of emotional responses to menarche among Chinese adolescent girls. A sample of 1573 post menarcheal Chinese girls was given questionnaires on knowledge and preparation of menarche, and emotional responses to the onset of the first menstruation. The results reveal that their emotional reactions to menarche were largely negative, with almost 85% reporting feeling annoyed and embarrassed. The study also showed that negative emotional responses to menarche were correlated with perception of menstruation as a negative event and inadequate preparation for menarche (Tang et al, 2004)

Another study was conducted among a sample of 224 sixth grade girls to evaluate about their preparation for and expectations about menarche, their parent’s role in preparation and their understanding of the biological basis of menstruation, characteristics of the menstrual cycle, menstrual hygiene and menstrual related physical and psychological changes. Although girls think themselves as ready for menarche and
claimed they had talked about it with their mothers, their description of menstruation reflected partial knowledge and more typically a variety of misconceptions or lack of knowledge. Girls associated menstruation with a variety of negative physical and psychological changes, signifying that although they had not yet learned the biology of menstruation, they already had learned and internalized the cultural beliefs, myths, taboos and stereotypes about menstrual symptoms (Koff & Rierdan 1996).

Similarly, a study was conducted among a sample of 113 preadolescent girls, in order to prepare the girls for menarche. It was found that there is a need for the health personnel to take active part in preparing the preadolescent girls for menarche. Health education programmes on menstrual hygiene for adolescent girls help in maintaining healthy practices during menstruation (Minimol, 2003).

This entire account shows that negativity towards menarche and menstruation is not unique to India alone. In many other countries the attitude and construction continues to be negative and girls continue to be unprepared to handle menarche and menstruation.

2.5 Knowledge about and Attitude towards Menstruation

In spite the fact, that menstruation is an essential physiological process which all girls will experience with the onset of puberty, yet majority of the girls continue to have incomplete knowledge and in some cases even faulty information about it. This knowledge level if improved can have implication for better reproductive health and positive attitude towards menstruation. Dube and Sharma (2012) assessed the knowledge, attitude and practice regarding reproductive health among 200 school girls in the age 15-19 years from rural and urban settings of Jaipur. It was found that 40% rural girls and 60% urban girls considered menstruation as natural phenomena while 39% of urban girls and 56% of rural girls took it as disease. 11% of urban and 28% of rural girls was not aware about the gap of periodic menstruation cycle. Differences were evident in the perception of urban and rural respondents regarding the right age of menarche. 33% urban respondent had prior information regarding menstruation, 62% rural respondent were unaware of the right age of menarche. Awareness among rural

*Socio-Cultural Constructs Related to Menarche and Menstruation among Tribal Adolescents of Kargil District*
Socio-Cultural Constructs Related to Menarche and Menstruation among Tribal Adolescents of Kargil District

girls was significantly more as compared to urban girls of district of Dehradun of Uttarakhand state. Friends were the first informant in about 31.8% girls. But most of the respondents did not know about the cause and source of bleeding during menstruation. Likewise, Patle and Kubde (2014) also found that, awareness regarding menstruation is also more in urban adolescent girls (63.38%) as compared to rural (47.57%). The variation in the awareness may be due to socio-economic status and also literacy status of the adolescent girls and their mothers.

Anusree et al (2014) analysed knowledge regarding menstrual hygiene among adolescent girls in selected school of Mangalore. Results show that 46.7% had good knowledge and 48.3% had average knowledge. Analysis of the association between the level of knowledge regarding menstrual hygiene among adolescent girls and their selected demographic variables reveals that there was significant association between the level of knowledge and religion (p < 0.05) and mother’s occupation (p < 0.05). It was also evident from the study that there was no significant association between the level of knowledge related to menstrual hygiene and age, education, family, occupation of father, family income, and age at first menstruation, pre-existing knowledge and source of information (p > 0.05). Nemade et al (2009) found that the knowledge regarding the organ from where menstrual blood comes was correctly reported as uterus by 73 (33.64%) girls whereas 113 (52.07%), 16 (7.38%), and 15 (6.91%) reported urethra, ovary and stomach respectively. The girls were not able to differentiate between urethral and vaginal opening. This shows the low level of knowledge among girls about female anatomy.

Another similar study in village Limbgaon, District, Maharashtra about knowledge regarding menstruation shows that 28.33% of the respondent said that the menstruation starts at the age of 14 years while 25% had knowledge of normal age of menstruation of 13 years. Most of them i.e. 83.33% and 96.67% were aware of the normal flow of menstruation to be 2-5 days and that next cycle comes after 28-35 days respectively. 28% of them thought that the cause of menstruation is hormonal change and 26% of them thought it to be due to aging. Mother (24.64%) was the most common source of information about menstruation among girls followed by teachers (16.57%).
friends (10.45%) and relatives (3.34%), however many of them 45% did not have any prior knowledge about menstruation (Akanksha et al, 2014).

A study on impact of health education on knowledge and practices about menstruation among adolescent school girls of rural part of district Ambala, Haryana by Arora et al (2013), shows that, in the pre-test, menstrual perceptions amongst them were found to be poor and practices were incorrect while in the post-test, there was a significant difference in the level of knowledge (P<0.05). The study also found no significant difference in pre and post-test with regard to restrictions practiced during menses (P>0.05) whereas in the post-test following health education, significant improvements were noticed in their practices. Again, Bilas et al (2013) conducted a study on assessment of self-awareness among rural adolescents in Beri Block of Jhajjar District (Haryana). Results reveal that adolescents greatly lack correct information related to their bodies' physiological, psychological and sexual changes. 66.3% adolescents are aware of changes, which occur during adolescence. Awareness regarding emotional/social change(s) is very less i.e., only 7.19% among adolescents. 8.82% adolescents do not recognize these changes as normal. Female adolescents (65%) are more aware of sexual developmental changes in comparison to male adolescents (33.13%) (P = 0.015). Furthermore, more females, in comparison with male adolescents, have correct knowledge of the sexual changes (P = 0.015).

Several studies Khanna et al (2005), Kamath et al (2013), Kamaljit et al (2012) found that mothers, was the first informant regarding menstruation followed by friends and sisters. Similarly in Nepal the menstruation cycle physiology, sanitation habits and its management are introduced to adolescent girls mainly by their mother, elder sister at home and female teachers or friends at school. However, internet access is the next option for the source of information (Koirala and Sona, 2013). Mundey et al (2010) carried out a study among 300 school going adolescent girls (10-19 years) in the rural area of Wardha district, Maharashtra, India. Majority of the girls received the information regarding menstruation from their mothers (41%), followed by media (24%) and friends (19%). However, Bayray, (2012) found that friends were 50% the main
Review of literature

contributors for getting the knowledge followed by mothers (36%) and aunts/relatives (19%).

A study conducted by Adhikari et al, (2007) on the adolescent girls evaluated the knowledge and practice on different aspects of menstrual hygiene. Results reveal that the sample adolescent girls did not maintain proper menstrual hygiene. Only 6.0% of girls knew that menstruation is a physiologic process, 36.7% knew that it is caused by hormonal changes. In rural Western Kenya girls were unprepared and demonstrated poor reproductive knowledge, but devised practical methods to cope with menstrual difficulties, often alone. Home and school support of menstrual requirements is incomplete, and information provided is inaccurate. Girls remain absent from school during menstruation, due to physical symptoms or inadequate sanitary protection. They face difficulties while in class, due to fear of smelling and leakage, and subsequent teasing. Sanitary pads were valued resource and time constraints result in prolonged use causing chafing. Improvised alternatives, including rags and grass, were prone to leak, caused soreness, and were perceived as harmful (Mason et al, 2013). In a similar study among urban adolescent females of Washington, it was found that, there is a lack of information concerning the knowledge and attitudes of urban adolescents regarding menstruation. Only 2% of teens reported receiving information about menstruation from their health care provider. Negative attitude regarding menstruation were linked with higher rates of school absenteeism and missed activities (P > 0.0790 and P >0.0297 respectively). Morbidities, including school absenteeism, are higher among those with negative period expectations (Houston et al, 2006).

These researches have pointed out that mothers are an important source of menstrual knowledge and information. Sustainable changes and menstrual knowledge and hygiene can be ensured through the involvement of mothers. Tiwari et al (2006) conducted a survey on knowledge, attitude and beliefs towards menstruation, in Anand District, Gujarat and found that only 31.0% believed that menstruation was normal physiological process. The major sources of information were the mother (60.7%) or an elder sister (15.8%), teachers and other relatives play a small role.
A study on menstrual attitude and knowledge among Egyptian female adolescents in Alexandria Governorate in Egypt revealed that Egyptian female adolescents were influenced by their mothers as they were the main source of information, followed by mass media; this may consequently affect their knowledge and attitude toward menstruation. Knowledge that preceded menstruation is one of the important factors that affected positively the Egyptian female adolescent’s attitude toward menstruation (Eswi et al., 2012). A family in which the mother holds a positive and open attitude towards menstruation, the daughter seems better able to identify with her mother as a positive model for mature womanhood (Danza, 1983).

In order to identify the types of ideas and attitudes that mothers conveyed to their daughters about menstruation, Costos et al. (2002) conducted interviews with 138 women between the ages of 26 and 60. Their analysis revealed that the majority of the mother-daughter menstrual conversations were negative in tone. The negative messages presented by mothers were conveyed in various ways, including being unwilling to talk about menstruation, only giving instructions on the use of menstrual products, using negative labels, such as “the curse,” to refer to menstruation, and urging discretion and secrecy where menstruation is concerned.

Attitude towards menstruation is shaped mainly through knowledge and experience. Other factors such as age at menarche, maternal support, level of education also tend to shape attitude towards menstruation. According to Costos et al. (2002), "menstruation is experienced by all healthy women yet it is a topic cloaked in secrecy, taboo, and negativity". If a young adolescent girl is not educated before the onset of menarche, she may feel that something went wrong with her that generates negativity and fear towards her gender (Katheryn, 2004) and lowers her self-esteem (Mathews, 1995). Negative views of menstruation like considering it as a misery and pain are common; therefore, their sources and implications deserve increased consideration (Fredrick, 2004; Water Aid, 2009; Mathews, 1995). Most research on menstrual attitudes used the Menstrual Attitude Questionnaire (Brooks-Gunn & Ruble, 1986), examining different groups of women’s reactions to attitude subscales. A common thread across these studies is the tendency for women to report negative attitudes toward menstruation.
menstruation (Lu, 2001; Chaturvedi & Chandra, 1991; Rierdan, and Koff, 1995; and Brooks-Gunn and Ruble, 1986). Recent research explores women’s attitudes toward suppressing their periods (Johnston-Robledo, 2006) and finds that women with more negative attitudes toward menstruation are more likely to support menstrual suppression. There is some evidence that women may view menstruation more positively if they are exposed to more positive and affirming aspects of menstruation (Chrisler, 2008). It is, therefore, essential that women be prepared in a positive way for menstruation. More prior knowledge about menarche, the more likely they are to have positive attitude towards this phenomenon (Marvan & Trujillo, 2009; Ruble & Brooks-Gunn, 1982).

Adinma and Adinma (2008) reported that the information on menstruation given by mothers is often incomplete and incorrect, usually being based on cultural myths, and therefore probably perpetuating negative and distorted perceptions and practices of menstruation. Studies have shown that many taboos are internalized at a young age and influence menstrual behaviors and attitudes (Roberts et al 2002; Hewitt, 2000; Houppert, 2000; Britton, 1996; Kissling, 1996: Williams, 1983).

A study of sixth graders social constructions of menarche suggested that girls who had limited menstrual knowledge held more negative menstrual attitudes than their counterparts (Moore, 1995). Among Mexican adolescent girls, early matures (menarche before 11 years) were more likely than average (menarche at 11 or 12 years) or late matures (menarche at 13 or more years) to state they had not known what they should do at the moment they got their first period ($P < .01$), that they had not felt prepared to start menstruating ($P < .05$), and that they thought they must keep secret the fact of already having had their first period ($P < .05$). Concerning their emotional reactions to menarche, early matures were the most likely to have felt scared ($P < .05$), worried ($P < .05$) and sad ($P < .05$) and were the least likely to have felt calm ($P < .05$) and also show current secretive attitudes towards menstruation ($P < .01$). Finally, late maturers showed more positive attitudes toward menstruation than their peers ($P < .01$) (Marvan and Herrera, 2014). Likewise 55% adolescent slum dwelling girls of Siliguri City, West Bengal, attributed menstruation as a debilitating event and 37.6% of them agreed that their periods resulted in no negative effect (Bhattacherjee et al, 2013).
Experiences and attitudes related to menstruation among female students were also studied by Aflaq and Jami (2012) in Islamabad among college girls with age range between 16-21 years. Of the total sample 96% had onset of menstrual cycle in early adolescence. The results reveal significant positive correlation between attitude and experiences related to menstruation. By and large, negative attitudes and experiences prevailed among students. The study confirms the hypothesis that those having mothers as a main source of information about menstruation had significantly more positive attitude and experiences. However, girls who used ready-made pads showed significantly more positive attitude and experience than those who used cloth.

Senol et al (2010) examined the attitude, behaviour and knowledge regarding menarche and menstruation in adolescent schoolgirls in Kayseri. 76% of the girls described menarche as a positive change such as “preparation to be a mother”, 21% as “a transition to adolescence”, whereas 62% described it as a negative change such as “discharging dirty blood”. The girls who reported positive menarcheal experiences would tend to show positive current menstrual attitudes/behaviours and the opposite was true for the girls who reported negative menarcheal experiences.

2.6 Importance of Menstrual Hygiene

Good menstrual hygiene practices are crucial during menstruation (UNICEF, 2008). Researchers have shown that the girls lack knowledge about menstruation and due to lack of hygiene; they are likely to suffer from RTI’s (Mudey et al, (2010); and Bhatia and Cleland, 1995). Poor menstrual hygiene, caused by practices like reusing old cloths or using sand, leaves or sawdust to absorb menstrual blood, seems to be linked to India’s dramatically elevated rate of cervical cancer, says Businessweek. This hygiene-cancer link is backed up by a 2003 study, which found that reusing cloths was associated with a 2.5 times greater risk of serious cervical problems compared to clean clothes or menstrual pads. Huge health problems may be the caused due to lack of education, or lack of access to hygiene products like sanitary pads or tampons. Approximately 70% of all reproductive diseases in India are caused by poor menstrual hygiene (Colin, 2014). Women having good knowledge and safe practices regarding menstrual hygiene are less
susceptible to RTIs and its consequences. Therefore, sufficient information concerning menstruation, right from childhood may raise safe practices and help in mitigating the suffering of millions of would be mothers (Kamaljit et al, 2012). Government of India has provide a scheme under the National Rural Health Mission since 2010 to improve menstrual health for 1.5 Crore adolescent girls by distributing low cost sanitary napkins in rural areas. As reported by Kumar and Shristave, 2011 that low cost sanitary napkins can be locally made and distributed particularly in rural and slum areas as these are the areas where access to the product is difficult.

Juyal et al (2012) emphasized on the need to educate the girls about menstruation, its importance and hygiene maintenance; so as to enable them to lead a healthy reproductive life in future. Menstrual hygiene among adolescent girl in West Bengal is far from satisfactory among a large proportion of the adolescents while ignorance, false perceptions, unsafe practices and reluctance of the mother to educate her child are also quite common among them (Dasgupta and Sarkar, 2008). A study was conducted by Khanna et al (2005) on menstrual practices and reproductive problems in Rajasthan. Regression analysis in this study identified schooling, residential status and occupation of father, caste and exposure to media to be the major predictors of safe menstrual practices among the adolescent girls. The occurrence of RTIs was more than three times higher among girls having unsafe menstrual practices. The article makes a strong case that lack of knowledge; wrong perceptions and unsafe practices related menstruation are common. Baridalyne & Reddaiah (2004) conducted community-based cross-sectional study on knowledge, beliefs and practices on menstruation among the reproductive age group women, residing in an urban resettlement colony of Delhi. The findings highlight the need for health education among women so as to increase awareness and correct knowledge regarding various aspects of menstruation and menstrual hygiene.

In another study on menstrual hygiene and practices of rural adolescent girls of Raichur, Anju and Patil (2013) found that the respondents were not properly maintaining menstrual hygiene. It was also reported that though knowledge was better but taking into account the health implications and prevailing socio-cultural and economic factors, there
is need for a continuous school education programme. There is also a need for improving access to sanitary pads and advanced provision of it. Bassiouny et al, (2013) studied the impact of health education program on menstrual beliefs and practices of adolescent Egyptian Girls at Secondary Technical Nursing School. It was found that there was a negative correlation between mothers' education and students’ practices. It was concluded that level of students' knowledge regarding menstruation and menstrual hygiene practices improved after the program. A study to understand the perceptions, source of information and status of menstrual hygiene was conducted by Mundey et al (2010) among 300 school going adolescent girls (10-19 years) in the rural area of Wardha district, Maharashtra, India. Majority of the girls who developed genital tract infections, 66% used cloth. 37% girls do not disclose about their menstruation. Cleanliness of external genitalia was unsatisfactory in most cases. In a city of south India also found that disposable pads were used by two-thirds of the selected girls (68.9%) regardless of age, while 45.1% reported to use both disposable and non-disposable materials. Frequency of changing pads was 2-3 times a day by 78.3% girls. Socioeconomic Status (SES) of the girls and their age influenced selection of napkin/pads and other practices like, storage place of napkins; change during working hour and personal hygiene. Older girls had good hygienic practices than the younger ones. Seventy six percent of the participants desired for more information regarding menstruation and hygienic practices (Omidvar and Begum, 2010). A study on physical growth, puberty and associated problems among school girls in two states i.e. Dharwad district of Karnataka and Khurda district of Orissa states, a high proportion (54.73%) of girls reported that they used homemade pads (cloth) and only 45.26% of them reported the use of readymade pads (commercial one). Further results revealed that majority (83.68%) of the girls used cold water for cleaning of pads. 58.42% of them reported that they reused the home made pads while 37.89% of them disposed sanitary pad in dustbins (Sahoo, 2010). A study conducted by Adhikari et al (2007) on the adolescent girls to evaluate the knowledge and practice on different aspects of menstrual hygiene reveal that the sample adolescent girls did not maintain proper menstrual hygiene. Ninety-four percentages of them used the pads during the period but only 11.3% disposed it properly.
Multiple researchers across the length and breadth of India have found that even today many menstruating women continue to use cloth instead of sterile pads as protective material (Jogdand and Yerpude, 2013; Kamath et al, 2013; Shambarg et al, 2012). A study conducted on determinants of menstrual hygiene practice among unmarried women in India by Pugalenthi et al (2013) revealed that there was positive association between use of sanitary napkins and education. It was observed that the socioeconomic status of family had a great effect on the use of sanitary napkins. Poureslami and Ashtiani (2002) analysed the attitudes of female adolescents about dysmenorrhea and menstrual hygiene in Tehran and found that 77% of the subjects had adequate knowledge of dysmenorrhoea. But only 32% of these practiced personal hygiene, such as taking a bath, and used hygienic materials (i.e. sterile pads). About 33% of the subjects, avoided any physical activity or even mild exercise during menstrual period. Over 67% of the girls reported taking palliative medicine for their menstrual pain without consulting a doctor. 15% of the subjects stated that dysmenorrhoea had interfered with their daily life activities and caused them to be absent from school from between 1 to 7 days a month.

Santina and Nancy (2013) assessed beliefs and practices relating to menstrual hygiene of adolescent girls in Lebanon reported that a significant association was found between menstrual hygiene practices based on socio-cultural beliefs and type of school, religion, both parents’ education levels, as well as family monthly income. Logistic regression analyses indicated that significant variables predicting describe menstrual hygiene practices based on socio-cultural beliefs were mother level education (OR = 2.8; P < 0.001), and religion (OR = 0.7; P = 0.002).

Sapkota and Sharma (2014) analysed the knowledge and practices regarding menstruation among school going adolescents of rural Nepal. It was found that traditional beliefs regarding menstruation still persist and menstrual hygiene among the adolescents was found to be unsatisfactory. It indicates the need of targeted interventions to raise awareness and provision of family health education package to all adolescent girls.
In a study conducted in Rajasthan by Khanna et al (2005) three-fourths of the girls used homemade pads during menstruation and only one-fifth reported using readymade sanitary pads. Other researches done by Khanna et al (2005) and Quazi et al (2006) also documented similar results with most of the rural girls using cloth as a menstrual pad, and reusing the cloth after washing it with soap and water for about 4 - 5 months. Very few rural girls used sanitary napkins available in the market, perhaps due to high prices, less availability and lack of awareness in rural areas. Nair and Khanna (2007) also found 74.8% of the girls used homemade sanitary pads and 24% used ready-made sanitary pads. In contrast to this, Kamaljit et al (2012) found that 68.7% girls used sanitary pads and 10.0% respondents used cloth or rag/ cotton during menstruation. Patle and Kubde (2014) also conducted a comparative study on menstrual hygiene in rural and urban adolescent of Indira Gandhi government medical college, Nagpur on the 310 adolescent girls in the age group of 10-19 years. The results reveal that, 62.03% of urban girls were using commercially available sanitary pads.

In Nepal use of sanitary pads was higher among girls in urban schools (50 per cent in contrast to 19 per cent in rural schools). The survey showed girls’ reasons for not using sanitary pads included lack of awareness about them (41 %), high cost (39%), the fact that they were not easily available (33%), and lack of disposal facilities (24%) (Water Aid Nepal, 2009).

The available review highlights that menarche and menstruation are important symbols of female reproductive maturity. Majority of young females though know about menarche, continue to be shocked and surprised at its onset. Different meanings and characteristics are attributed to menstruation around world. Cultural, social and family environment influence adolescents and women’s beliefs and attitudes towards menarche and menstruation. Most females have experienced some restrictions and superstition related to this crucial biological process at one point or the other in the course of their lives.

Tribal societies have specific customs and rituals related to both menarche and menstruation. The wide array of connotations, ranging from reverence for a
menstruating female to complete labelling of her as dirty and polluted are available. Most western cultures including countries like India denote menstrual blood as ‘dirty’ and the menstrual female as ‘impure’. Probably, owing to the strict customs, beliefs and taboos associated with this physiological process, women themselves dislike it. Secrecy and silence are common responses to any query related to menstruation. Lack of communication and knowledge exchange between mothers and daughters regarding pubertal changes are also found in many researches. This further leads to development of poor menstrual perception and wrong menstrual practices and low menstrual hygiene among young girls which has adverse effect on their health. Majority of the cited studies emphasized on the need to educate the female adolescents about menarche and menstruation. Poor menstrual hygiene and practices continue to pose challenges towards female health and well being.