

**AWARENESS TO HYGIENIC MENSTRUAL ABSORBENT: A
DETAILED STUDY OF FEMALE IN HARYANA**

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in
ECONOMICS

By
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Dr. Rajender Singh**



Transforming Education Transforming India

**LOVELY PROFESSIONAL UNIVERSITY
PUNJAB
2023**

DECLARATION

I, hereby declared that the presented work in the thesis entitled “**Awareness to Hygienic Menstrual Absorbent: A Detailed Study of Female in Haryana,**” in fulfilment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision **Dr. Rajender Singh** working as Associate Professor in the Economics/ Mittal School of Business of Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of another investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.



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CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled “**Awareness to Hygienic Menstrual Absorbent: A Detailed Study of Female in Haryana,**” submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy (Ph.D.)** in the **Economics/ Mittal School of Business**, is a research work carried out by **Anju (41801031)**, is bonafide record of his/her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.



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Abstract

The present study aims to analyze the awareness level of menstrual health and barriers related to hygiene among women. Along with this perception of different aspects of menstrual hygiene and government schemes meant for menstrual awareness among women are also examined. For this, five districts are selected from Haryana- Palwal, Jind, Hisar, Mewat and Panipat from which total 700 respondents are administered, the questionnaire and data are collected and door-to-door survey is also conducted. Findings reveal that majority of Haryana women faced menstrual disorder problems such as excessive bleeding and irregular periods, sexually & reproductive tract infections (STI, RTI), urinary tract infections (UTI) and Cervix cancer & Dysmenorrhea etc. However, respondents are found to have the little knowledge of problems associated with menstrual disorders as they do not know that excessive bleeding leads to problem of anemia. The study highlights significant differences between use of different types of pads among women with respect to economic status as most women with lower economic status are using cloth/husk pads however, women from middle or upper economic class are using sanitary pads or tampons/ menstrual cups. Similarly, family occupation also reveals a significant effect on material used during menstruation. For instance, a majority of respondents from farming families are using cloth pads; whereas a majority of the respondents from business-families use sanitary pads. Moreover, education of mother also impacts the use of various types of absorbent material among women as a majority of the respondents whose mothers are graduate are found using tampons/ menstrual cup; whereas a large majority of respondents whose mothers having higher secondary qualification, are found using sanitary pads. A majority of respondents from government schools use cloth pads and most respondents with no school are using pad made form husk/sand. The proportion of respondents using different types of pads varies as per the type of house they live in. For instance, a large majority of respondents living in huts were found using pads made from husk/sand during menses. Respondents above 40 years have stronger perceptions that they are considered impure/ unclean during menses in comparison to respondents with younger age.

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Anju (41801031)

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1.1 Introduction of the proposed work

The 21st century has its own set of problems like social issues, political issues, economic crises and out of these problems health issues are more critical especially for women. As the saying is, if one lose wealth, nothing is lost, but if health is lost everything is lost. In 2016, World Economic Forum formulated a list of several problems that the world is facing today which include food security, inclusive growth, unemployment, gender inequality and problems related to future health attention (Hutt, 2016). Problems related to health care may be different, depending upon the location of the countries, communities and individuals. Socio-economic conditions play important role in affecting health policies. Economic development of a country is largely depending upon not only industrialization but also on efficient health care system. All credit goes to medical advancements and new technologies, the life-span of man has increased to a great extent so, we tend to have long life span than our forefathers. It is being said that women live longer than men but this does not necessarily is associated with living better. In developing countries, they have to face many health issues related to childbirth, anemia, poor menstruation hygiene than developed countries. It is observed during survey that it is not only man who ignores the basic rights of women but women also do not want to register their claim over any issues. A woman has always ignored their health issues due to lack of awareness. Woman has been bestowed with the gift of giving birth because of the reproductive system and this makes her unique. Menstrual hygiene is a prominent part of the reproductive system which regulates it properly. That is why it needs to be celebrated and feel proud of, but strangely billion of girls all over the world leave their studies because of menstrual cycle. Importance of health education in the transmission and advancement of knowledge that conveys huge advantage not only to the child but the society that cannot be underestimated. Educated women are advantage to society such as better child care, elevated life style and general knowledge of health issues. The increase in girls' education can improve the life conditions accompanied by a number of important health, social and economic outcomes of society. Health education play an important role in improving and promoting the health capital. The awareness of behavior and perception on the use of absorbent devices (feminine pads) at the time of their monthly cycle in school going young females is an essential part of health. Though, many factors affect the acceptance in society and

development of a girl child at school such as poverty, child marriage, social and cultural perception of girls' education and the biological and psychological changes of adolescence. At puberty certain hormones start their functioning in the human body. They are called as sex hormones and are responsible for developing secondary sexual characters in both boys and girls. In boys this stage may last from 12-16 years and in females it starts a bit early 10-14 years. The body starts becomes mature and have regular monthly periods is a healthy sign of it.

Women's reproductive health profile is strongly influenced by women's beliefs and attitudes about menstruation. Menstruation is a biological process which has been arranged by the nature to mark the onset of child-bearing capacity in a girl. It occurs every month to healthy female and as it is a repeated cycle that repeats at a certain period (usually 28-30 days) it is also called as 'monthly cycle or periods'. A certain amount of blood is shed from the female body and number of days vary but generally it is a 3-5 days phase. At this time various devices meant to absorb the blood like sanitary pads/ tampons or devices like menstruation cups that collect the flow (which is later discarded and the cup is reused) can be used according to choice/ convenience/ availability/ preference. All these devices are meant to let the flow properly discharge off the body. Cleanliness and personal hygiene are vitally to be maintained otherwise serious health issues and infection may happen.

In some cultures, especially in north India, menstruation is still considered offensive, used a prohibited topic to be talked about and women are considered "unclean". These customary people are just so arrogant about how rich and important this blood is scientifically; but in certain cities it has marked its presence there are centers where this blood can be donated/sold. This blood is a rich source of stem cells which are undifferentiated cells and have great medical significance. Because of the various monopolizes of religion and other beliefs this topic has been yet another proscribed one just being at number two (the first one being sex). Other restrictions that are imposed hindering normal activities such as not being allowed to bathe, forbidding from changing clothes, enter the sanctuary and the kitchen. Many limitations on food intake like rice, curd, milk, onions, potatoes, etc. during menstruation are also prescribed. The unwelcomed nature of the issue prevents females to express their concerns/issues and related crisis. This seed of inferiority is generated from a very young age. Menstruation and period have also been a very hush-hush issue in modern society, what to talk about rustic people. Boys are always taught to consider it a girl's matter in which they are not supposed to interfere.

The research study is assumed to recognize the key factors affecting the use and acceptance of low-cost sanitary napkins by target consumers. This would support to understand the factors affecting the less use of sanitary pads, a relative study of usage girls in rural-urban areas and to create a better world through the positive power of social action and thus progress the quality of life and living standard contribution of society living at the bottom of the pyramid. Being a citizen of Haryana and a woman coming from a rustic society, I am well experienced of the problems related to women not only in my vicinity but also in my household. I have observed the attitude of my mother, mother-in-law, sisters, sister-in-law, and other old-aged women towards this issue. Quite funny, they count sanitary pads as a luxury or rather wastage of money. For them, a piece of cloth or something like that is enough to hide this disgrace and they feel no hesitation in washing those clothes and reusing them.

On top of it, Haryana is a male dominating society with the highest unbalancing of sex-ratio which is 877 girls for 1000 boys (census 2011). In Haryana, adolescents constitute 21 percent of the total population (census 2011). Haryana came to existence on November 1, 1966 and ranks seventh in the Indian subcontinent in terms of human development. Chandigarh is the state capital. It mainly constitutes of 6 administrative units further divided into many sub units. Government of India has listed Jind, Hisar, Panipat, Palwal, and Mewat (Nuh) as among 184 HPDs [high priority districts] (pib.gov.in)

In accumulation to the above approach to monitoring NRHM implementation, HPDs are increasing and focus on resourcefulness and supportive guidance including development and information. So, in this study selection of these districts is based on Composite Health Index reports. Haryana is one of the first provinces in the country to launch a separate ARSH program that provides ‘Adolescent Friendly Health Services’ in public health facilities (Times of India 2007)

1.2. Concepts related to the study

Women empowerment is the latest fad attracting attention in India and globally. This means providing an environment where in women can make independent decisions on matters about their development and adores a position equal to men in society (Ahuja, 2016; Krishnadas, 2016). Though women, the backbone of any society, do play multiple roles, they have been ignored. They often bear inequality, oppression, and financial dependability. The sustainable development of any society requires the full potential of women and girls (Shettar,2015).

Empowerment is a multidimensional process that helps people to maximize the social, economic, political, and spiritual strength of individuals and communities. Major principles supporting

women's empowerment include health and wellbeing, education, gender equality, and respect of human rights (UNWomen,2016). Moreover, the empowerment of Indian women is dependent on various factors like geographical location, educational status, social status, and age. However, women are denied freedom of expression and life. This has been well recognized remedial steps have been taken at all levels. Women's empowerment is mainly determined by three factors, namely security, decision-making power, and mobility (Upadhyaya, 2010). School years are a remarkable period in the life of girls. They go to school about the age of five or six and dropout at about 16-17 years. This is a transitional period from girlhood to womanhood. Apart from academic achievement, the girls undergo many physical, physiological, and emotional developments during the school years. Puberty is a major milestone in a girl's life, which is associated with adolescence (Gilles,2014). Girls attain reproductive maturity during this period. Menarche, the beginning of menstruation, is a challenging experience, which is usually associated with taboo by silence and shrouded by myths (Pandey,2014). Even menstruation and menstrual hygiene are emerging as pivotal issues for gender equality, human rights, and development (Patker, Aidara &Winkler,2016).

1.2.1 Health

Health is the most essential part of our life. It is considered as the most precious value in life so it must be protected and improved in so far as possible. As per WHO a state of complete wellbeing is called health and its simply not dearth of disease (WHO, 1948). The WHO definition correlates health clearly with welfare and conceptualizes fitness as a human being right requiring the physical and social property to accomplish and sustain. Health and happiness denote will vary from one person to another and depending on the circumstance and their necessities. Hippocrates described life as a matter of nature and health. Hippocrates was the originator of the concept of 'Good Health', based on the basic constitution of man, diet, and exercise. For any individual to be healthy there must be a balance between the body and the mind (Nordenfelt,2007). A person often requires high-level wellness to have a higher level of functioning and to have a holistic integration of the body, mind, spirit, and society (Black &Hawks, 2015). A healthy person can do all the activities of daily life and pursue goals that enrich their lives. Often the meaning of health is misunderstood and misinformed by many people. The health care personnel often identify abnormalities and give therapeutic care, even though the current trend is on preventive and promotive aspects of care (Gulani,2013).

During the Industrial Revolution, health became an economic sector, which allowed for better conditions and working capacity and reduced working days lost due to illness. All modern views of health classify life as more than the absence of disease, which means a

greater capacity for human self-awareness and self-esteem. The various view points on health includes it are dynamic, meaning the healthy person has to make a continuous adjustment to stressors; it consists of culturally known beliefs that are preserved to maintain well-being adaptive changes; harmonious wellbeing of parts and sub-parts; manifestation of the interaction between person and environment; and harmony between the mind, body, and spirit (Black & Hawks,2015).

1.2.2 Adolescent Health

According to WHO adolescence includes all types of bodily and mental changes that occur in age of 10-19 years. The American Association of Pediatrics looks at adolescence between the ages of 11 - 21 and is divided into three categories: premature adolescence - eleven years; middle age - fifteen to seventeen years, and later - eighteen to twenty-one years. This adolescence is accompanied by dramatic physical, mental, emotional, social, and behavioral changes that reflect both the opportunities and challenges of youth, families, health professionals, teachers and communities. Globally, adolescents constitute about 1198 million (17.3 percent) population out of which 236 million (19.70 percent) are in India. The Indian adolescent population around 236 million. In India, a higher proportion of adolescents, nearly 20 percent is mainly due to the high fertility rate. For this huge population, menstrual hygiene is an important health issue and requires maintaining otherwise likely to put a major health problem in the future. Among the transitional period of girl adolescence, menstruation is the first sign of puberty which is considered as impure in Indian society from its history that resulting in the separation of the menstruating girls and are imposed restrictions like playing, bathing, worshipping and kitchen activities that reinforce a negative attitude towards this phenomenon (Bobak et.al;1991, Dhingra and Kumar 2009). Even today menstrual observes are concerned by beliefs, taboos, social and cultural boundaries and are prevalent much more in traditional societies, hence menstruating girls remain unaware about the science that guides it and personal health practices that should be followed during this time which are important and integral component of maintaining positive reproductive health (Rajaratnam, Halland, 2010). During menstrual bleeding, the genital tract becomes wet and lowers the acid in the vagina which puts them at risk of infection with other germs and organisms in the reproductive tract which can cause discomfort, pain, bad breath, and a feeling of embarrassment between them. In the absence of menstrual hygienic practices, adolescents in their early phase of growth can affect their health (Dasgupta and Sarkar, 2008). Various studies have reported that girls lacking correct knowledge about menstruation and those with poor hygiene habits they

may be exposed to RTIs (Mudey et.al 2010; Bhatia, 1995; Mehara, 1995).

Adolescence is a period of life that represents a change over from being a kid to becoming an adult. In chronological order, it begins when she is 12 years old and extends over 18 years. The onset of puberty often occurs in the early stages of adolescence; like this time, people are sexually mature and able to reproduce (Bigner, 1998). Adolescence means many physical and mental changes occurring in the body at the same time. A child/kid completely getting transformed into a fully-grown, responsible adult (Shahani, 2014). During the transition, whatever decisions young people make affect not only the well-being of the people but also the health of all communities (UNFPA, 2012).

1.2.3 Adolescent Reproductive and Sexual Health

According to the WHO definition in India live maximum number of youth although it stands at lower rank as compared to China on account of total population in the world (The Economic Times, 2014). The idea of reproductive health was born in the 1980s when the main idea of population control got shifted to attain a holistic female living standard. Reproductive health embraces both intimate well-being and reproductive health services and programs ought to be tailored as per the demands/situation keeping in mind that the rights of individuals especially women and girls are well protected.

WHO defines health as a stage of overall wellness and it's not only disease-free living. Reproductive health deals with total reproductive wellness throughout life. That allows people to enter a wedlock; enjoy normal sex-life; give birth to healthy children (WHO, 2011).

1.2.4 Menarche & Menstruation

A girl's first period – menarche approximately starts at the age of 12 years and it may begin anytime from 9 to 16 years. Genetic factors play an important role here. Girls naturally start puberty a year or two before boys. Everyone is different and may begin puberty at different ages. Menarche is the first period of puberty that occurs during puberty and is an important lifestyle and development in the life of a female. It starts at the age of 10-16 with average age in India being 12 years and includes all types of intrinsic and extrinsic changes (Dambhare, et.al. 2012). Girls attain menarche, the first menstrual period anytime between 09 to 14 years (Jamadar, 2012).

The duration of the period varies from 3 - 5 days and repetition pattern may range from 23 to 35 days. It is a very individual concept and flow and duration of it differs in each and may reach up to days. During these days number of days, a woman menstruates varies. Duration 3 to 5 days is the average and some is 7 days. Each cycle is marked by ejaculation of blood flow from the vagina, it starts gradually with steady flow/ patches, progresses to heavy flow then

gradually diminishes and ends each month. It may sometimes appear that a large quantity of blood is being lost but actually it is not more than 1/4 cup of blood only during each month. On an average about years or 2100 days of a women's life are spent in this. These days are magnificently distributed among fertile years of a woman's life after which she attains menopause and this process stops. The length of the fertility period and its cessation depend on a variety of factors like genes, health, presence of other health ailments, life-style pattern/diseases, levels of stress/anxiety/ incidences of depression.

Now-a-days all forms of media- T.V., print media, digital media are flooded with marketing products and messages about mensuration; but only in urban and metropolis regions of India. Women in rural and remote areas are still toiling to get the basic information and amenities to manage for which it is good as a curse. The average woman will use about 15,000 napkins during her production period. Menstruation is often regarded as an insult in Indian society. The separation of the girls from the menstrual cycle; boundaries and limitations set by the family have deepened a cynical way of thinking about it among the females. Most mothers and girls happily accept menstrual education from school. The best place to translate programs related to menstrual hygiene are educational institutions. In India Menstruation is traditionally associated with myths and superstitions and teenage girls find it very difficult to discuss the matter with their parents or family elders.

Menarche is one of the most notable and defining moments for adolescent girls. It is the actual event that marks puberty. Unlike breast growth and pubic hair growth, which are long-term changes in puberty, menstruation is unique because it appears suddenly in the life of a female. However, it comes and however it is accepted but it's a sure shot indication of a female productivity and fertility (White, 2008).

The word menstruation has been derived from derives from the Latin word *menses*, meaning moon, pertaining to the lunar month. The onset of menstruation profoundly changes a girl's life (Thakur et al.,2014). The first menses normally occurs at the age of 12, but it can be premature as nine years and as late as 15 years. The happening of menarche is related with many taboos and myths remaining in the society, which generally affects women's health, and their menstrual hygiene (Kamath et al., 2013). This seed of inferiority is generated from a very young age. Menstruation and period have also been a very hush-hush issue in modern society, what to talk about rustic people. Girls who know how to deal with menstruation often cope better than those who are caught unawares. Preparation gives girls the strength to deal with their maturity and to feel confident that there will be no disappointment from these very secret

moments. Menstruation planning is often celebrated in many cultures and during this time there is a tradition of preparing and delivering foods rich in iron and protein content. Modern practice has seen a change in the practice of celebrating to some extent but many families still follow the practice of providing nutritious food during menstruation (Jamadar, 2012).

It is part of a complex process of growth and continuously requires special attention due to the accompanying problems. Stepping on this step of life girls become anxious and curious (Tarhane and Kasulkar, 2015). It is disturbing that, youth that is already struggling amid his/her hormones and child-like conduct feels lost an environment of confusion and commotion. They have no one as a salvation to answer their queries/doubts/ confusions which might ease their transit to adulthood. It has already mentioned that it is one of the taboo issues and least conversed. Owing to problems and associated emotional stress youth make their way to whatever means are available at hand (quacks/ their friends who are as ignorant as they are etc.) (Singh et al 1999). Menstruation is a milestone in the history of puberty among many women. Process of Menstruation is very normal governed by nature where bleeding from uterus occurs because of blood rich endometrium is being expelled out of the body as it is no longer needed inside the female body. The very first time when it happens it is called menarche and may occur anytime between 11-15 years usually it is at the age of 13 (Dutta, 1994). In the United States the average age of menarche is 12.7 years (Neinstein, 2000). It is a very important event in the life of a female prior to it she just lives and behaves like a child and is considered as a kid by people surrounding her. Be a substantial imperative pubertal event in life of a female. But it comprises a serious life event and any ignorance my result into severe infection/ internal damage/ fatal incidence the role of a medical expert becomes highly significant here; who can talk/explain/ discuss/ answer the doubts and let the girls accept the situation finally making a peace with it. Being an utmost private and sensitive issue, this should be handled very judiciously yet tenderly. (Mitan and Slap, 2000). Girls attain menarche with much confusion and in situation of grave dilemma, following some myths and unscientific beliefs with gloomy information from here and there. (Abraham et al, 1985). In the cultures of many cultures, menstruation, and everything related to it, has been viewed as a vicious cycle. In short, in multiculturalism, menstruation, and everything related to it, is a bad thing.

1.2.5 Menstrual Hygiene

Hygiene is a personal affair that embraces all prerequisites that favor health and curbs disease transmission. Hygiene means science of health and embraces all factors contributing

to healthy living. So menstrual hygiene contains a specific set of performs during menstruation related with the protection of health (Arunmozhi and Anitharam,2013). Menstruation is an elemental concept which is a healthy sign that in future the female will be able to bear children, that her reproductive organs are healthy and normal and have come into action now after attainment of puberty. It becomes essential here that she bleeds each time under healthy and normal conditions and does not acquire any kind of external/ internal harm/injury hence a complete understanding of her cycle by herself and availability of medical help whenever required is mandatory. (Gultie, Hailu and Workineh, 2014).

Globally about 52 percent of women of childbearing age, that makes this process a vital part their life that needs to be taken care of with cleanliness and safety measures (House, Mahon and Cavill, 2012). On an average about 6-7 years of a woman's life is spent bleeding (3-5 days monthly average), yet its significance is not well absorbed by people as well as concerned authorities. These include comprehensive information about personal cleanliness during going through monthly cycle, availability of required amenities and contraptions, and community awareness to understand and let live menstruation with pride and a head held high (Mahon and Fernandes 2010).

1.2.5.1 Menstrual hygiene management (MHM)

Menstrual hygiene management (MHM) is a basic human right, which contributes to many of the Sustainable Development Goals (SDG) set by the United Nations (UN). These goals are aiming to achieve good health and wellbeing, quality education, and gender equality. Menstrual hygiene management is said to be a key factor in implementing the global strategy for women's, children's, and adolescents' health (Weinstock and Singer,2016). School years area highly significant period when adolescent girls and boys can be equipped with practical, accurate, and age-appropriate menstrual, reproductive and sexual health, and rights education (Roy,2014). Menstrual hygiene challenges incorporate many broad aspects like gender norms, sexual violence, behavior change, and cultural and social attitudes and stigma. Other aspects that gain attention are adequate water, sanitation and hygiene, infrastructure and products, privacy and safe disposal, safe environment, and policy (Pugalenthi, 2013). Recently the need to strengthen the evidence linking. MHM to health, education and empowerment have been recognized. Menstruation, although normal physical activity can cause serious problems such as pelvic infections, urinary tract infections, reproductive tract infections, increased risk for Human Immunodeficiency Virus (HIV), and cervical cancer

(Nielson, 2010). School dropouts are a major issue during menstruation. Safe menstrual hygiene management is crucial to achieving educational and financial equity. It is estimated that in India, 23 percent of girls drop out after attaining puberty (Sohn,2014). Studies have shown that awareness and awareness about puberty, menstruation, metabolic changes, childbirth, contraception, pregnancy, childbirth, infections that spread due to unprotected sex with infected individual (i.e. hepatitis, syphilis, HIV) are low in teens, 40 percent and very less learning about genitals and majority of them were kept in complete darkness before its onset. About 10 percent of teens were unaware of condoms & had several doubts regarding different routes of HIV transmission. Research had shown, that a bit matured teens (15-19 years old) had more information; where almost 80 percent knew about sexually transmitted diseases, like HIV. Matured girls had better understand than younger ones regarding the various kinds of changes that occur during this time in the body and their counter impact on the mind (Gupta, 2003).

1.2.5.2 Socio-Economic perspectives on Menarche and Menstruation: Unspoken culture

Taboo is something prohibited, forbidden, or restricted, something not allowed by a culture. Breaking a taboo is usually not allowed in a society because it is a subset of culture. Something that is considered inappropriate is deception, something that society considers to be wrong (www.dictionary.com, 2016). Taboos are driven by myths surrounding the time of a young woman and transcend the boundaries of culture, race, nationality and history. The history of menstruation reveals that the menstrual cycle of women, from ancient times, has been regarded as unacceptable in many cultures.

The feeling that menstruation is dirty is and is a kind of pollution is widespread (Walker et al, 1982). The Roman writer Pinoy, in his book Natural History, wrote that the menstrual cycle could cause wine to become bitter, cause the seeds to germinate, dry out and wither, cause the plants in the garden to dry out, and the fruit to fall off the tree under it. A Hindu woman is not allowed to take part in religious activities and is denied cooking in the kitchen; she lives far from her family. Jew people declared that a female on her periods is impure. And any person coming in contact of her will to become filthy. In Islam, any female undergoing her monthly cycle is restricted from praying, fasting, or having sexual intercourse. She should not touch their religious book in its original version. (Sherlock and Payne, 2004).

Menstruation is a reality of life of every woman starting in her teenage and extending up to her attainment of menopause in her 40s (UNICEF India, 2008). Menstruation is not unusual or unusual; in many cultures, though, it is more private and more secretive. Menstruation was unspeakable because there were no words in man-made language that could be used to describe what happened in a dignified manner. Lovering (1995) found that teens say nothing about menstruation.

Some American Indian cultures mark the menarche with an elaborate celebration, such as the Apache Sunrise Dance. For these tribes, the menarche seats the girl in an empowered state in which she can influence the well-being of others (Nelson, 2010).

In Malekula, an island of New Hebrides, a menstruating woman is not allowed to enter a garden where small plants grow. Women in modern times from the Kaulong tribe of New Britain have been banned from going to the forest. Although many cultures consider menstruation to be a curse, others see it as a blessing (Robb, 2011). From the point of view of menstruation as a curse, menstrual housing is considered as evidence that women in these societies are considered dangerous during menstruation (Hardening, 1989). In ancient times menstrual blood was considered to be very powerful and powerful (Joseph, 2014). During menstruation, women were considered to have special powers. The reason may be that the bloodthirsty predator can come and kill it. As a result, these women are kept in separate houses for the protection of the community (Joseph, 2014).

According to Merskin (1999), the history of abstinence and anti-menstrual beliefs was also evident in Western Europe. In pre-modern Europe, a woman in her monthly cycle seemed to be able to turn a food into a stagnant/stale stuff by her touch (Thuren, 1994). In Western Nepal, a woman's condition is lower than that of a dog. In New Guinea and New Zealand, it is said getting in touch with menstrual blood/ menstruating women will cause homicide of a man, thereby causing the slow and painful death of a man (Meggitt, 1964). In Ethiopia, menstruating women should abstain from living inside their home because it is believed that menstrual blood contaminates the home. In Burkina Faso, hygiene items are carefully hidden for fear that some women may use magic to cause infertility (SOS Children's Village). Thus, it is regarded as a sin (Delaney et al., 1988).

1.2.5.3 Indian Practices Related to Menarche and Menstruation

The onset of menstruation is often accompanied by various reactions. In the context of Indian culture, the discovery of girls' menstruation is considered a signal that now her body is receptive to sexual intercourse. It can be linked to *Gauna* tradition where women were married

off at early age but they stayed with their parents until menses began. After it started, they were sent off to live with their husband and were allowed to raise their kids/family (Jamadar, 2012). In some suburbs of Assam, Pathsala, when a girl begins to menstruate, she is not given food and is not allowed to see the men of the family until the fourth day and on the fourth day, she is given a traditional bath, like a bride. She is then married a banana tree as the tradition went on, with a great feast and fun (Devika, 2014).

Different cultures have different beliefs and myths related to menstruation. It is referred to as sin/curse/sickness etc. (Costos et al, 2002). Menstruation also has a long history of strict cultural norms throughout India, resulting in real harm. In some tribes, women are forced to live in cattle shed during their menstrual period. There are health problems, such as diseases caused by the use of contaminants, and the horrible issues associated with them (George, 2012). Our cultural superstitions include avoiding spicy foods for fear of bad breath, not touching certain foods to prevent contamination, and the common belief that menstruation expels polluted / toxic blood. There is also the belief that the body emits hot negative energy and that warm bathing can be harmful to the body and / or the environment (UNICEF India, 2008). Among Lohra tribe of Jharkhand, going by an old saying the mothers still abstain conservation about menstruation with their growing up daughters (Global Hunt Foundation, 2014). In Marwari (Indo-Aryan in Rajasthan) households, a girl having her periods is not allowed to go for courtesy/ friendly visit to any relatives nor is allowed to face and serve food to guests that visit her home because she is impure. Bleeding females had banned entry to the kitchen and storage room or to sit on the couch or sofa. I mean, touching new groceries in the kitchen is not allowed. The girls also reported that they should tie a black cord around their feet (like the ankle) to relieve cramps. In the Harijan family (the schedule castes), it is believed that if a menstruating woman touches a tumbler/pitcher of water, a hole will develop in it, means it will start to leak and will eventually get destroyed as it will become unfit for its role of holding a liquid in it. It is also believed that if a girl is menstruating and slows down, 212 times will reduce her abdominal pain. In Muslim families, after using the loo each time she has to wash her hands using mud to become 'pakk' (pure) (Kumar and Srivastava, 2011).

In the cultures of many cultures, menstruation, and everything related to it, has been viewed as a vicious cycle. Menstrual bleeding and menstrual cramps have been identified as dangerous, toxic, and contagious. Menopausal women were believed to contaminate anything they came in contact with: horses, food, hunting supplies, weapons, boats, water, and especially men's wealth and spiritual possessions. It was believed that they wasted men's "luck" in hunting and gambling (Buckley, 1982). These are just some of the behaviors that

make menstruation unacceptable for teenage girls. Many of these practices are related to the understanding whether a female is actually clean/ unclean at the time of menstruation. These myths, are so much flowing in the air that not only the general masses but also many health care professionals believe and practice them at their home (Kumar and Srivastava, 2011).

1.2.5.4 Religious Interpretation of Menstruation

When it comes to religious activities, women secreting out menstrual blood cannot attend sacred/ religious ceremonies, and have to follow prohibition against touching of religious objects or personalities. In traditional African religion, for example, one of the rules for trained nuns was to abstain from temple attendance for seven days each month as it is feared that menstrual blood can destroy the potential purity and piousness of sacred things. (Shuttle and Redgrove, 2005; Weideger, 1976). Similarly in India, the two major religions - Hinduism and Islam - are rooted in many of these customs and beliefs. In Islam all the time of menstruation, a woman is considered culturally unclean. Menstruating women should not perform certain types of prayers, live away from husband and family, not touch religious books/artifacts. And should re-join family only after proper bath and ornamentation with perfume/musk (House et al, 2012). In strong Hindu families menstruating women are kept separate from their families, considering them filthy and denying them touching grains/food/ cooking etc. They are not allowed to go to the temple or do pooja (prayer), they should stay in different places during ceremonies / religious weddings and sprinkle tulsi water or cow urine in the house after bathing to get pure again (Pednekar, 2010). Young girls from rural areas view this monthly activity as a punishment from God (Dasgupta and Sarkar, 2008).

Buddhism considers menstruation as a regular part of female human body bound to happen each month (Buddha Dharma Education Association, 2004). Taiwanese Buddhists view menstruating women as unclean, and they improperly set boundaries. Women were taught that menstruation was a serious risk factor. Menstrual blood, itself, was considered smutty (Furth & Shu-Yueh, 1992). Buddhism, especially in Japanese, has been characterized by a persistent attitude toward women (Jnanavira, 2006) Meditation is not allowed for Menopausal Women (although some women do, as they feel “especially connected”), and are unable to communicate with pastors. They cannot participate in ceremonies, such as weddings, or (Furth and Shu-Yueh, 1992). According to Buddhists, it is believed that ghosts consume blood; and as menstruating woman, is secreting out blood she will probably attract evil-spirits and therefore, such women is a potential danger for her and others around her (Lhamo, 2003). Russian Orthodox Christians believe in the rules of menstruation and do not attend church

services, cannot communicate with men, and cannot touch raw or fresh foods (Morrow, 2002).

1.2.5.5 Menstrual Health Schemes in Haryana

Menstrual health is defined as the state of “complete physical, mental, and social wellbeing” during menstruation. Existence of commensurate sanitation and water facilities, access to period products and disposal systems, valid information channels, and community participation comprise the comprehensive set of services that promote and enable menstrual health. Greater emphasis on menstrual issues means improved health for India’s women, which automatically translates into a rise in education, employment, income and development. Menstrual health services in India are provided at the level of Union, state, and local governments (Babber K. et.al., 2021).

On 15 August 2020, Prime Minister Narendra Modi became the first Prime Minister of our country to address menstrual health as not just a problem affecting women, but as a matter of public health. A much neglected but necessary part of public health, his remarks gave renewed impetus to our healthcare system to focus on this issue. There are also wide disparities between the condition of women in urban and rural areas. Sanitary napkins are still a luxury for many women, especially in rural areas. The accessibility to menstrual hygiene products is correlated to one’s income.

While in the last decade, our policymakers have started focusing on menstruation and related issues, the improvement is not praiseworthy. In 2011, menstrual hygiene scheme was launched under the National Health Mission (NHM) to promote menstrual hygiene amongst girls of 10-19 years. In 2014, Rashtriya Kishore Swasthya Karyakram (RKSK) was launched to educate adolescent girls about menstruation and increase their accessibility to sanitary pads. State governments have also launched their own schemes such as in Uttar Pradesh, Rajasthan, Maharashtra, Odisha, Chhattisgarh, Andhra Pradesh and Kerala, state governments distribute free sanitary napkins in schools. In Bihar, adolescent girls are given Rs 300 under the Kishori Swasthya Yojana to buy sanitary pads. In fact, the Bihar government offers two days of menstrual leave to its female employees every month — women can take their days off on any days of the month with no justification (Jha B, 2022).

Mahila Evam Kishori Samman Yojana was launched by the Haryana government led by CM Manohar Lal Khattar on 5 August 2020. In this scheme, the state govt. will provide free sanitary napkins for women / girls belonging to below poverty line (BPL) category in villages. The main purpose of Haryana Mahila Evam Kishori Samman Yojana is to promote menstrual hygiene & women empowerment. Each women/girl b/w the age of 10 to 45 years will get a packet of 6 sanitary pads absolutely free each month. In the Haryana state, there are 11,24,871 BPL families. In order to

provide sanitary napkins to each girl in these village families, Rs. 39.80 crore amount has been allocated. With this scheme, the state govt. is focusing on promoting menstrual hygiene among women and even protect environment with the use of biodegradable pads. Biodegradable pads are of high quality and will promote Swachhta, Swasthya and Suvidha for poor women (SarkariYojana, 2023).

Girls from rural Haryana suffer a lot due to poor access to menstrual hygiene facilities. According to a 2018's study conducted by the School of Public Health, Post Graduate Institute of Medical Education and Research (PGIMER), only 30 percent of women use sanitary napkins in the state. They also face numerous challenges while disposing of the napkins after use, reveals the study which claims that it is still considered a taboo in the state, Times of India had reported.

National Health Mission (NHM) Haryana also launched this scheme (MHS) in February 2014 in 8 districts to start with as per GOI guidelines. Beneficiaries were 2,08,981 rural adolescent girls and 8207 ASHA's 8 districts of Haryana- Jind, Hisar, Sirsa, Sonipat, Bhiwani, Karnal, Mehandergarh and Mewat. To boost proper sanitation and period hygiene in the state, a new scheme has been announced by the Haryana government that will provide free sanitary pads to about 22.50 lakh below poverty line women and girls- aged 10-45 every month, that too for a year. A year before that, the Chief Minister had announced free distribution of sanitary napkins and allotted Rs. 18 crore for the same. The initiative was promoted by Miss World 2017 Manushi Chhillar, who is from Haryana, and was spreading awareness about menstrual health through her project 'Shakti' at that time (Das R, 2020).

1.3 Research gap

The previous studies on menstrual hygiene were undertaken in western markets where women are already aware about menstrual hygiene and potential problems associated with it. The governments in western markets are very pro-active in providing support to women during menstruation. It appears that most women in developed markets have knowledge and access to resources required for maintaining menstrual hygiene. However, women in India lack basic knowledge and resources that are necessary for a woman to maintain menstrual hygiene. Previously, very few studies relating to menstrual hygiene were undertaken in India, some of such studies were conducted in Southern part of the country which seems to be fundamentally different from northern states. It is argued that both central and state governments have launched schemes aiming to promote menstrual hygiene among women but effectiveness of these schemes may be questioned because rural women still are not able to avail benefits of

such schemes.

Therefore, the above discussion suggests that there is a strong need to undertake a study addressing issues like awareness level of menstrual health, barriers to menstrual hygiene among women, women's perceptions of different aspects of menstrual hygiene and effectiveness of various government schemes meant for menstrual awareness among women. In the light of the above, the present study was undertaken which is an attempt to achieve the mentioned objectives.

1.4 Research Objectives

- To assess the awareness level of menstrual health among female in Haryana.
- To identify socio-economic barriers to hygienic menstrual absorbent use among females of Haryana.
- To compare the perceptions of different aspects of menstrual hygiene in different age groups.
- To study the government scheme on menstrual hygiene.

1.5 Schemes of the thesis

The whole text of the thesis has been organized in five chapters.

Chapter I is the introduction that explains the context of study.

Chapter II focuses on the relevant literature reviewed for preparing the tool as well as to formulate the whole text of the study.

Chapter III delivers information on the approaches adopted in the present study, which outline the statement of the problem, title of the present study, conceptual framework, objectives, hypotheses, research designing, size of population, sample, sampling tools & technique, tools used to measure the variables, method of data collection and scheme for data analysis.

Chapter IV & V elaborates on the analysis of the data and interpretations.

Chapter VI represent the results obtained from the study. The section on discussion compares the findings from the present study with that from the literature already reviewed. Implications of the present study findings have been added which might be useful for the future generations.

Chapter: 2

Review of Literature

As per the statement of Polit and Hungler (1999) no research has ever been undertaken in void space; some foundation/base/ platform is needed. All researchers usually perform an intense literature review to get acclimated to the topic that what all aspects have already been covered what were the results obtained and what else/more is to be dug out. Thus, it helps the scholar to set the initiating limits and gives a vision about the destination that needs to be achieved about the topic under study. Previously written material available about a given topic prevents repeating of work. It helps in alluring information related to research topic from the scholarly work in the form of peer review journals, books, articles, government documents, dissertation etc. written by different researcher and scholars that provide guidance for the research and help a researcher to work efficiently. The review also provides new dimensions in the research. This chapter reviews menarche, menstruation, knowledge of menstrual hygiene, socio-economic factors which are affecting menstrual hygiene, perceptions regarding menstruation, related recent government schemes currently running in developing countries. Basically, it will explain the literature review related to application of sanitary napkins at the time of menstruation. This chapter is divided as:

2.1 Studies referring to age at menarche

2.2 Studies that focused on awareness about menstrual hygiene

2.3 Literature related to socio-economic factors which are affecting to menstrual hygiene absorbent

2.4 Literature pertaining to perceptions on menstrual hygiene

2.5 Relevant work available on government schemes on menstrual hygiene

2.1 Studies referring to age at menarche

Omidvar et.al (2010) conducted a study from South India during 2009-10 on 350 unmarried female students aged 15 to 22 years to assess hygienic behaviour and factors affecting their behaviours. The girls who were chosen were students ranging from class 12 to under-graduate level belonging to a well-developed city of South. Average age of menarche as identified by the study 13.4 ± 1.2 years; single-time-usage pads were mostly used but multiple use cloth pads were also reported. Most changed 2-3/day. The two dominant factors that decided major turn of events like choice of napkin/pads; their storage place; frequency of getting it replaced

depended on their age and their socio-economic status. Matured females practiced better hygienic in contrast to younger ones. Found that most of the participants 76 percent of the participants wished having better understanding regarding about how to better deal with periods.

Ud giri et.al. (2010) undertook this study in Bijapur. Data was collected was done by using questionnaire. Most girls although being educated only a few had prior info about menstruation until it started on them; this indicated the dark side of the society. It was the mother who delivered what-so-ever knowledge the girls had.

Omidvar et.al (2011) conducted a study from South on 194 unmarried girl students of age 18 to 27 years to assess the menstrual pattern i.e., their age at which it began, its normal pattern, incidences of dysmenorrhea etc. Girls who started it at younger age had more blood loss. Severe dysmenorrhea was found in 6.7 percent. Awareness of it was in 60.4 percent of the girls (before it happened to them), though varied source for information was found but significant info came from either mothers or peers as 47.8 percent.

Verma et.al. (2011) examined Bhavnagar city reported mean age to be 14 years & majority of them were informed before it happened. The most commonly menstrual cycle was of 30 days and the commonest disorder reported was dysmenorrhea, at number two was irregular menstruation. Most were not using pads and household cloth was prevalent. It was suggested that all girls should be informed in schools.

Keerti and Pravin (2011) conducted a slum based cross sectional study from Guntur, Andhra Pradesh in 2008 on 257 adolescent girls who have attained menarche had started bleeding by 12-14 years. A bleeding period that lasted for more than 5 days was reported by 15.96 percent girls. For most of them repetition was at 28-32 days; only fewer were aware that it would happen someday. For most it was the mother who gave the preliminary info. Others included peers, teachers, companions etc. Sanitary pad during menstruation was in use by 53.7 percent girls, while many also depended on worn out linen. Restriction to attend religious occasions was reported by 78.99 percent girls; while many others were disallowed from rendering help for regular domestic work and sports.

Prateek and Saurabh (2011) conducted a study from Mumbai slums found that more than half 54.4 percent of the girls had menarche at the age of 13–14 years and only 20.3 percent girls had knowledge before they experienced it which came from mothers/close relatives. At religious occasions 90 percent girls faced restrictions during menstruation; 29.9 percent in household work; only 10 percent had no restrictions. Around 60 percent girls accepted that they

had feared it. More than 80 percent girls were unaware from which part of the body the menstrual blood oozes out. Though, 72.2 percent girls knew that sanitary pads should be used but out of them only 59.8 percent were using. Around 70 percent girls knew that poor hygiene makes them vulnerable to infection but still only 32.8 percent girls conducted cleaning of outer private parts. Frequency of change of sanitary pad/cloth varied. Girls of higher ages had better knowledge about menstruation than of lower ages. Among uneducated adolescents only 35.7 percent were habitual of proper menstrual protocol but among the educated ones (class 10th) it was good 94.9 percent.

Sachan Beena et.al. (2012) conducted on 847 school girls (593 city dwellers; 254 from rural); belonging to 10-19 years from Lucknow district of north India regarding age at menarche and menstrual problems found that 76.7 percent (73.4 percent of urban and 84.6 percent of rural) reported having their very first period at 12-14 attained menarche with overall mean age at menarche 12.84 ± 1.4 years. About half of the girls from both rural and urban had attained menarche between the age 12 and 14 years; while 17.2 percent girls in urban schools and almost twice 31.6 percent in rural schools falling in the age range 14-16. Around ¼ respondents from all did not report a regular pattern of menstrual cycle. In these age groups, though, 29.4 percent, 25.1 percent and 16.9 percent of urban had irregular cycle, but no statistical significance was found. While, significantly more irregularities were observed in age range of 17-19 years. Overall, 73.7 percent girls had dysmenorrhea with slighter difference between urban and rural (74.3 percent in urban and 72.6 percent in rural). No significant difference was seen between urban and rural for reproductive tract illnesses (3.2 percent among urban and 3.9 percent among rural girls). Study findings emphasized that girls needed to be given detailed and thorough info and parents and teachers have a vital role to play here.

Barathalakshmi et.al. (2014) conducted a school based cross-sectional and detailed study incorporating more than 400 school going girls of belonging to classes 8th - 12th revealed that out of 435 girls 28.2 percent knew about menstruation before onset of menarche. Most girls were either frightened/worried when they saw their first menstruation. They got whatever little info from mothers/sisters. Most said that they bleed from their stomach, very few actually knew its proper route. Most common associated problems were leg cramps and stomachache. Unused pads were kept in bathroom/dress drawer and used ones were discarded by burying/ putting in trash bins. Fewer number of girls used soap/liquid to clean. Majority of them were not allowed nearby/inside a religious premises both outside and inside homes. About 80 percent were restricted a contact with food-grains and 93 percent were not permitted an afternoon nap day time during menstruation. As it was observed previously by Sinha et. al. (2013) in a study that

comprised girls between age range 13-17 yrs. The study analyzed more than 100 Haryanvi girls to disclose their awareness about menstrual and reproductive health. There was little awareness about the process. Major associated problems were dysmenorrhea, and irregular menses by 2.3 percent. Doctor was rarely approached for help/advice and medicines from local chemist shops were sought. Sources of information were T.V./ radio, parents.

Dixit et.al. (2016), a school-based study conducted in Central India selecting students (12-16 years, 50-50 each from private and government schools). Results revealed average age was 12 when it started. Most of them had been informed by the mother that this might happen to them sooner/later. Most students were found to be well-informed; used plain water/ soapy solution to clean; used pads and changed them timely. Out of 100, 81 percent adolescent had limitations like restricted entry to play-ground, temples, kitchen that was highly disliked.

2.2 Studies that focused on awareness about menstrual hygiene

Dasgupta and Sarkar (2008) examined a study on knowledge & practice and problems faced related to menstrual hygiene and various types of restrictions imposed during menses. This work from West Bengal concluded that girl's mother was the first informant regarding menstruation. About 85 percent girls believed the menstrual process as a physiological process. The use of commercial pad was known to many but fewer used it; mostly used old cloth pieces and some even new cloth pieces. Surprisingly, reusing of cloth was common. Disposal by wrapping in paper bag was reported. Cleaning of genital organ was unsatisfactory; very less of them did it with help of soap and water. Various restrictions during menstruation were in practice among 85 percent girls that were not attending religious occasions 70.59 percent, avoidance of eating certain eatables 68.0 percent, not playing 42.65 percent, not performing household work 33.82 percent, not going school 16.18 percent and not attending any marriage ceremony 10.29 percent.

Dhingra, Kumar and Kour, (2009) conducted a study in Jammu and Kashmir (India). Researchers collected the data by interviewing 200 adolescent girls. The study result claimed that the age of 12 was mean age of menarche in more than half majority of respondents aged between 10 to 12 years, while in others it varied from 13-15 years. The researchers observed that 96.9 percent of the adolescent girls managed the menstrual period using dirty cloths and the respondents did not wash and dry the cloths properly and the remaining 3.1 percent of them used fresh cloths each time they changed. It was concluded that most participants were informed that such phase of life would soon become a reality (informed by their parents, mostly their mothers) that menstruation is mandatory to be undergone by each female to ensure that

foul blood gets rid of the body. 83 percent of girls got information regarding menstruation from their friends, 10 percent of them from movies, 6.5 percent of them from relatives, 5 percent of them from magazines and 3 percent of them from television.

Dhingra and Kumar (2009) examined a study from Jammu District carried on 200 tribal (Gujjar) adolescent girls age group 13-15 years. From total 131, 50 percent reported its onset between the ages of 10 - 12 years. Mostly its repetition period was 30 to 45 days; surprisingly, 6.8 percent subjects reported between 60 to 75 days. It mostly remained for 6 days (maximum 12 days). All three types of bleeding- very less, normal and profuse were reported. Majority 96.9 percent of the girls very poorly handled the process. Not many seemed informed about its occurrence to them. Common secondary problems reported were stomach ache, leg cramps, poor appetite, headache. Religious restrictions were practiced, they were disallowed to visit water bodies, looking at reflection in mirror was not permitted. Old cloth was recycled for use; used pieces had to be buried; sun drying was non-functional.

Lawan et al., (2010) examined the knowledge and practices regarding menstruation prevailing in Kano region of Nigeria. The study showed that usually it started at age of 14 yrs. Majority of the adolescent girls were well-informed; had been using pads during recent periods; changed it often and took shower more than once daily. Shipra Nagar and Kh. Aimol R, (2010) conducted their study on 100 girls of 5 villages to figure out their awareness levels about menstruation. Most of them belonged to class 10 and exhibited average level of understanding. They had good cleanliness habits and main problems they had to face during menses were pain in lower abdomen and backache. A positive correlation was seen amid age of respondents and total family income.

Anjum et al., (2010) undertook this study to examine and explain the level of understanding young women exhibited towards menstruating. 500 women who were of menstruating age irrespective of their marital and literacy status were selected by non-probability sampling. Out of 500 participants, 87.6 percent of them regarded menstruation as a natural process; whereas, 12.4 percent of them thought it as punishment. Most felt it was essential for good health; however, 17 percent of them felt this process as unhealthy. The study stated that misunderstanding and disbelief about menses should be carefully dealt with.

Thakre, et al., (2011) studied menstrual hygiene behavior in girls of class 8 &9. Personal interview with close to 400 girls revealed that many were pre-informed by their mothers about it. Both pads and cloth were used; cleaning of body parts was done by many of them; restrictions were imposed which were followed. A major difference was seen in urban/rural behavior dependent on financial and residential standards.

Thakre et.al. (2011) conducted a study on young females exhibited an average age of 13.82 ± 0.83 years from both rural and urban assessed the knowledge and the practices of menstrual hygiene. Mothers of the majority of girls 92.5 percent were educated. The average age at menarche was almost same in both rural and urban girls (12.76 ± 0.09 in urban and 12.86 ± 0.9 in rural girls). Excessive bleeding was reported in found in some subjects. Significantly more urban girls used sanitary pad than rural ones. Overall practice of old cloth was nearly among half 45.7 percent of the girls with a significant difference between rural 62.3 percent and urban 35.7 percent. Incineration of used materials was observed along with normal trash disposal. While urban girls did not frequently clean the outer part of their organ; rather rural girls were better in this case than urban girls. Material used for cleaning were water/soap/antiseptic in combinations or else water alone. No diversity among village and city dwellers was seen as regards to the material used to clean the external genitalia.

Khan (2012) a cross-sectional exploratory work explained that encompassed around 200 adolescent girls living in village areas in Bellur. Majority used cloth pads but those who were married used commercial pads more. Girls who were educated used market-made pads but did not change it often. Surprisingly here friends were more common source of info followed by mother and teachers.

Datta et.al. (2012) conducted a study Howrah, (West Bengal) 155 adolescent girls (68 from urban and 87 from rural) of classes VII to X girls (aged 14-16 years) which was carried out in found out the average age of menarche was 12 years. Major associated problems discovered were 'pain in abdomen, weakness, itching around genitalia, headache, nausea/vomiting and breast pain'. Restriction imposed were few yet were more (denial to play and regular schooling). School was missed because of abdominal pain and excessive bleeding. in both urban and rural population. Sanitary pad was accepted to be best suited to absorb the flow yet was mostly found to be used by urban girls. Trash bin was the site of disposal.

Juyal et.al. (2012) conducted study from State of Uttarakhand on 453 menstruating adolescent girls studying in 9th to 12th standard in which about half were of age between 15-16 years found that about two third were knowing about menstruation; with more prevalence in urban girls. Among these girls' peers provided primary information followed by mothers etc. Very few knew that blood loss is from reproductive tract. Knowledge of girls was better of urban area than that of rural. Use of sanitary pad was common in city and cloth was popular in

villages. Surprisingly use of sanitary pad among rural girls was almost twice than that of urban girls' 33.9 percent. The reuse of cloth pad after washing was found in about half of the girls and this practice was significantly higher among rural girls. About two out of three girl's 64.0 percent used to take bath daily during menstruation and was more practiced by urban girls ($p < 0.05$). Washing of genitalia daily with water was found in majority of the girls' 94.0 percent irrespective of place of residence.

Dube and Sharma (2012) found that Menstruation is a natural cyclic process was stated by many urban & rural girls; some even thought it was a disease. Much were not aware about why this happened and how to behave when having it. Most urban girls used good quality brands of pads while their rural sisters relied on cloth pads (both disposable and re-cycled); they wished to use commercial ones if their budget allowed. Both medical treatment and grandma remedies were adopted for taking care of secondary associated problems. Main sources of info were relatives/ media/ peers etc.

Tania et.al. (2013) following the same train of the thought a community based cross sectional study in Sidon city and suburbs on 389 post menarche adolescent girls aged 13-19 years during 2010 had reported mostly 89.5 percent did not follow at all menstrual hygiene practices; which was due to dominant socio-cultural beliefs. The need for health school education programs during puberty and designing appropriate intervention strategies was emphasized.

Shamima et.al. (2013) carried out a study in Kolkata reported that the mean age of menarche of the girls was 11.95 ± 1.08 years with range between 8-14 years. About half of them knew about it and also that the blood comes from uterus, informant was their peer. Use of sanitary pad was found in 82.3 percent while 15.7 percent were using cloth and faced problems of privacy 93.7 percent and because of this drying and storing was in un-hygienic places. During menstruation almost all 98.6 percent followed some restriction or taboo. Practice of daily bath was among 85.7 percent girls; it was misconceived that bathing will exaggerate blood flow particularly in first two days. Though hand washing with soap and water was done but cleaning of private parts was not often done. All types of washing behavior depended on availability of water and access to toilet. Religion based denials were more frequent in Islamic families rather than Hindus; even when the mothers were highly educated. Excessive white discharge was reported by 10.2 percent of the girls.

Naruemon et.al. (2013) conducted an explanatory quantitative study on 150 Nepalese school adolescent girls conducted during 2012 reported that girls slept in isolation during periods. Three quarter girls agreed that they go to see medical personnel during dysmenorrhea. Overall, half majority had information about it, has access to shops selling pads though all could not

bear its affordability. The mother of the students was the best informant followed by their friends and teachers. Menstrual hygiene practices were found significantly associated with knowledge, availability of shops and accessibility of pads, social support. Authors concluded need to encourage menstrual hygienic practices among adolescent school girls through health education to fill the knowledge gap and promotion of sanitary facilities and products for accessibility and availability. Further, stressed on management of dysmenorrhoea, proper time for sanitary changes, and provision of proper disposal kits.

Singh et.al. (2013) conducted a cross sectional study from Garhwal carried on 200 randomly selected adolescent females to learn their depth of information, source of information, behavior regarding menstruation found that only one third respondents were well-acquainted before it stepped-in their life and approximately same 32.0 percent stated uterus as the organ of source of bleeding; while 39.0 percent reported from kidney and 29 percent said from stomach. More than two fifth 41 percent had knowledge that excessive bleeding leads to anemia. Mothers and sisters were the informants about menstruation to 43.5 percent and 20 percent girls respectively. More than two fifth 43 percent were of the view that menstruation is good for health; while 77 percent also viewed that menstrual blood is dirty and makes them impure. Majority 84.5 percent stated menstrual flow is the influence of hot and cold foods. More than half reported menstruation is essential to become a mother. All the girls were restricted to visit holy places, 5 percent do not bath, 16 percent do not perform household work, 43 percent girls do not attend social activities and majority 82.5 percent are kept in isolation. Overall, 45 percent girls do not feel good to such restrictions. Majority 62 percent girls were using cloth pieces (69.4 percent cotton and 30.6 percent other cloths) and rest 38 percent sanitary pads during menstruation. Change of pad twice, thrice and four times was reported by 37.9 percent, 41.9 percent and 20 percent of the girls. Out of those reusing the cloth pads, mostly washing only with plain water was done only and little number of them used a soap along with water. More than three fifth 63.7 percent dried up washed cloths in the corner of the house; while rest in sun light. Out of those using sanitary pads 32.2 percent, 44.7 percent and 17.1 percent were changing twice, thrice and four times respectively. About one third 35.5 percent girls disposed used cloths/sanitary pads in dust bins while rest threw on the road side.

Geeta et.al. (2013) conducted a slum based cross sectional study from Hubli conducted among 15-49 years age group menstruating women during 2012 assessed the menstrual hygiene practice, knowledge and beliefs. More than three fifth 69 percent were Hindus while 29 percent were Muslims and majority 80 percent were Homemakers and 82 percent were married and half were educated. Use of cloth as the observant was 83 percent and 61 percent in married and

unmarried women and rest were using sanitary pad. Frequency of infection in cloth users was higher. Comfort feeling was the reason to use cloth stated by 80 percent women and cost of the use of sanitary pad was one of the reasons not to use but was found in 18 percent women.

Kotwal et.al. (2014) examined a school-based study in Jammu on 150 adolescent girls aged 14-19 years from class 8th, 9th and 10th representing three zones of Jammu city found and were mostly from middle class. This study featured the occupation of fathers which came out to be job/business/ labor class etc. Most participants were able to recognize female reproductive system but very few were able to identify its parts. Girls seemed informed about having periods and that use of soiled cloth could lead to infection.

Divya and Geeta (2014) observed a study from Dehradun, Uttarakhand, was devoted to rural women's understanding of menstruation. Only some girls were informed about menstruation before they had it. Mother/sisters followed by friends and teachers were those people who talked about menstruation with the growing-up girls. Few girls thought it was a punishment (sent by God) to any kind of sin done by them. Most rural girls used cloth (both old and new). Water only was mainly used for clean-up. Disposal of used material varied from burning to hiding away. Majority of the girls were not able to change it during school hours. Most were restricted visit to religious function/ store; and even schools were to be missed.

Dudeja et.al., (2016) A slum based descriptive cross-sectional study from Western Maharashtra to assess knowledge and practices about menstruation among 250 adolescent school girls. It was reported that about 50 percent of them were informed by their mommy about it. Half of the girls 50.7 percent correctly reported that uterine bleeding was responsible for it; as the organ for the menstrual flow and mostly 90.5 percent used sanitary pads. Mainly imposed were religious restrictions along with came others.

Dabade J and Dabade K, (2017) study was undertaken on 230 adolescent girls (123 from urban 107 from rural) in urban field practice area Khaja Bazar and rural field practice area Aurad, during 2015. It reported that majority of the participants 46.3% form urban and 57.1% from rural area falling in the age category 13-15 years followed by 16-18 years (30.9 percent, 28.9 percent). About 70.9 percent girls were familiar to it at time of menarche (urban ones were more aware). It was the mother who was identified as the primary means who informed about menarche / having monthly periods in urban 51.2 percent as well as in rural 53.2 percent area. Majority of the girl's 70.7 percent from urban area and 64.5 percent rural said that cause of

menstruation was physiological followed by 9.7 percent from urban 15.9 percent from rural area due to curse of God. Most of the adolescent 67.5 percent from urban area used sanitary napkin during menstruation compared to only 52.3 percent from rural area. It also observed that 74.8 percent urban participants clean their external genital daily followed by 81.3 percent rural and only 17.1 percent (urban) and 13.1 percent (rural) uses water for cleaning.

Kapoor and Kumar (2017) following the same train of the thought work in Jammu district was carried out on 132 rural school going adolescent girls of 8-12 classes. Around 50 percent adolescent were aware about menstruation before menarche and the source of information was mother 66.15 percent. Around 60 percent used sanitary pads followed by 27.27 percent and 13.64 percent girls who used new clothes and old washed clothes respectively. Those who used cloth faced problems of washing (due to water) and lack of drying space. Most of the girl's 98.4 percent followed some restrictions/taboo during menstruation like attending religious function, not doing regular domestic chores, avoidance of certain foods, etc. More than 90 percent girls used to take bath daily during menstruation, 65.91 percent cleaned their external genitalia of which 66.67 percent used soap and 33.3 percent used only water. More than three fourth 76.52 percent girls had toilet facility in their houses. Disposal of absorbents by throwing was found in 70.45 percent, while 7.58 percent burned it and 21.97 percent used other methods.

2.3 Literature related to socio-economic factors which are affecting to menstrual hygiene absorbent

Duflos and Thiband, (2004) determined the menstrual cycle disorders among adolescents between 12 and 19 years of age. Primary data were collected using a pretested schedule regarding menstruation. They observed in the result that 76.7 percent of the girls had attained menarche, in that 73.45 percent from urban schools and 26.55 percent from schools in village areas. Average age when it began was 12-13 years. A maximum of 48.9 percent and 46.1 percent of the girls had their menarche between ages 12 and 14 years in urban and rural schools respectively. One-fourth of the girls had irregular menstrual cycle in that 73.7 percent of the girls had dysmenorrhea. Duration of menstrual flow was normal and significantly more in rural schoolgirls and vaginal discharge was the main complaint of adolescent schoolgirls. The study concluded that girls residing in city/villages of Lucknow District were facing many menstrual problems and there was a need to implement intensive health educational activities to the adolescent girls, their parents and teachers for the effective management of menstrual problems. Lee et al., (2006) in their Malaysian study on more than 2000 females observed that having an abnormal cycle was common there; many females suffered premenstrual syndrome

and dysmenorrheal. About 18 percent complained about heavy blood loss and very little 11.1 percent number of them reached out to get medical advice. These problems were more frequent with those who were habitual of smoking or had suicidal behaviors. A similar study again from rural Maharashtra by Mudey et al. (2010) concluded that it was considered the duty of a mother to impart info about periods to her daughter/s. then it was seen that TV/films provided the knowledge, teachers were ranked third. Girls followed religious restrictions and even stayed back home not attending regular schools. Most girls used cloth, but also reported infections as compared to those who used sanitary pads.

Mishra et. al. (2013) explored rural women of Haryana covering almost 1000 houses where one female from each was interviewed. Results revealed that most of them did not know the significance of having monthly periods. Very little number of those women had been using pads and other were lesser willing to buy it in future.

Maya et al (2016) in their work analyzed the status of hygiene and practices regarding menstruation among adolescent girls. Area of study was a rural area of Maharashtra. About out of 200 participants only little more than half majority used pads. Many females had open toilets or no toilets at their disposal. They had to follow restrictions and miss school and regular sports while on menses. Menstruation is still a subject of dark, loaded with tones of misconceptions & taboos. Regular absence from school and deliberate distancing from pious events was also reported.

Singh J et. al. (2018) conducted this study in Assam and concluded that Indian women are very much lagging behind in usage of menstrual pads. Major factors that contributed to socio-economic disparity were absence of adequate number of toilets both inside houses and in living space of villages and the level of education of females.

2.3.1 Lack of services and facilities

Education of a girl after attainment of puberty and starting offer monthly cycle is closed interrelated (Fernandes, 2008& WaterAid, 2009). In study from Nepal, it was found that about half majority of girls were reported to be absent on a monthly and regular basis from school because the school was not able to provide enough personal space and accessories like water electricity trash bins that were almost priority of those bleeding females at that time of the month. Sometimes they had to fetch their own water to the loo which was both time consuming and embarrassing as when the reported to their class past the reporting time other pupils of the class came to new or assumed where they had been utilizing their time and if it was a co-education system then the humiliation was even greater. A large part of time energy and

concentration of menstruating females got diverted towards how to avoid the site of their male counterparts, it became a cause of significant anxiety and stress resulting into poor academic performance because of less input in study hours (WaterAid, 2009).

Girls also reported academic performance taking a back seat during their periods out of fear of boys. They were alert to not let such distractions affect their scholastic performance (WaterAid, 2009). Similar results were obtained from India where about 28 percent of female students chose to stay behind at home during having their periods, as their schools were incapable to maintain toilet and water supplies required to carry out proper menstrual hygiene (WaterAid, 2009). Similar were findings of Pillitteri's (2011) that was conducted on school going girls of Malawi. The study concluded that declining academic results of girls was due to fact that the schools are not providing required facilities to them to deal with their periods in a clean and cool manner. According to WHO the ratio should be of 1:30 toilets which was nowhere to be met. Nobody actually if the toilets had proper doors or water services. Girls reported of having their meals with unclean hands. Situation in cities was no good and if toilets were enough in number, they were blocked due to irregularities in upkeep.

2.3.2 Health problems including infections

Many previous works have established direct links amid poor menstrual hygiene and severe health issues like infection of urinary tract (Omidvar& Begum, 2010). Bathija et al., (2011) carried out a study in, Hubli area on 100 menstruating women of the age group between 15-45 years. Both Questionnaire and by personal interview technique were implied. It was revealed that most women 91 percent were unaware about menstruation before menarche. According to 75 percent it was a mythical process. Most relied on usage of cloth and only 21 percent were found to be using sanitary pads. The authors found the problem of Reproductive Tract Infection (RTI) and Urinary Tract Infection (UTI) was more among cloth users. At the time of menstruation, the mouth of the cervix opens up and gives easy access to bacteria (to easily reach the uterus and pelvic cavity). It is favored by reduced pH of vagina whose acidic nature gets reduced at that time providing ideal environment for growth of fungal infections like yeast (Candidiasis; *Candida albicans*, *C. tropicalis* etc.) (House, Mahon & Cavill, 2012). Also, the type of device used to absorb the flow plays a paramount role in deciding whether the cycle would be infection-bound or infection free. If re-useable cloth pad is being used there are all chances that- they are not washed properly, they might not be adequately dried and stored (damp, swamp, dark, previously contaminated places used as storage site) (Oche et al, 2012). These incidences are frequently encountered in developing countries, and health risk is

augmented. According to many studies large proportion of rural area girls reported using unclean/unsterilized absorbers like, such old rags/ toilet paper, which can be a major source of infections.

This can be proved from two parallel studies; one from Bangladesh and another from Deccan part of India. All these studies revealed ‘vaginal scabies, abnormal discharge and UTI associated with poor menstrual hygiene’ (Omidvar and Begum, 2010; Shanbhag et al, 2012). These were yet proved by a report from Warha District in India, stating that majority of those females who complained about infection of genital region were found to be regular users of cloth, and not of sanitary pads (Oche et al, 2012).

Other health problems associated with menstrual hygiene like anemia, prolonged, infections of reproductive tracts as well as psychological problems such as anxiety, embarrassment and shame. Namrita Rai et.al. (2019) conducted a study in urban Karachi showed on 391 females and found that most females had access to ‘sanitary pads, tampons, menstrual cups and toilet papers’ that they preferred over cloth. The women had awareness about perils associated with pads and knew its proper use. But they said that discarding of used napkin was a big social embarrassment.

2.3.3 Cross-Cultural Visualization of Menarche and Menstruation

Williams (1983) found more than one-third of the girls responding to questionnaire in the study believed that it was not appropriate to discuss with fathers regarding menstruation and majority also believed that girls should not talk about menstruation with boys. Globally, approximately 52 percent of the female population (26 percent 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.

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 behavior 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.

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.

Kumar and Srivastava (2011) conducted a study on cultural and social taboos related to menstruation in girls (age 11–20 years) and mothers living in Ranchi, (residing in posh localities and city-slums). They found that a number of myths, 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 was seen that conduct of girls during menses depends deeply on their family environment, upbringing and social scenario.

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.

2.4 Literature pertaining to perceptions on menstrual hygiene

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. Culture of India is no exception and it cannot be talked out loud even now, much similar as it was in past. Many cultural and social influences appear to be a hurdle for advancement of knowledge on the subject. Patkar & Bharadwaj (2004) explained that in developing countries awareness, management, and action plan regarding making investment in menstrual hygiene of the population is severely lacking. The scarcity of policy debate was related to the cultural issues particularly in Africa and Asia. This study suggested measures that included medial policy; education and awareness; better public toilet/ amenities; easy access to sanitary pads for women and young girls so that they are able to manage their monthly periods in a better and healthy way.

EIGilanya & AL-Fedawyb (2005) studied from Egypt and concluded that having a daily shower is to be avoided. It has also been reported that taking a cold shower is able to retain blood while using hot water for a shower would augment the flow. Results from Saudi Arabia depict that taking a bath during menstruation can intensify the pain and it may even restrict free flow of contaminated blood.

Nair et al., (2007) conducted a door-to-door survey, in Delhi among single/unmarried girls (10-19 years) and observed most had hit puberty by the age of 13 and few even knew about that. It was the mother who had informed them. There were reported complaints of 'irritability, headache, malaise and tenderness of the breast'. Girls were not allowed to eat cold/spicy food along with pickles.

Ten (2007) mentioned about the laws followed under Islam and according to which a woman on her monthly cycles is prohibited entry into the mosque she is denied touching the religious book The Ramadan fasting and sharing the same bed with her husband. This is not the end; customs far more deadly are being followed in certain places of South America where very high degree of expulsion of such women happens who are not allowed to live in the same house or in the same room along with the partner they are shifted either to isolated hut in the village or are dispelled into isolated nook in the home, they need to cook their own food in their own utensils which are not a part of the daily routine of kitchen, they are supposed to thoroughly clean all they are clothes that they wore during those days and also give themselves vaginal steam bath before they rejoin the family again after the completion of their process. Various cultures prevailing globally and also in our own country India have a major impact on menstrual hygiene of a girl and its deep association with her educational status a study from South India reported that about half of the girls enrolled in a school were unethical happens then it would be disastrous both for them and the family; second attaining menarche was a sign that now their body has become matured and receptive to attend women hood in their future life and hence they can be married off now.

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.

Dasgupta et al (2008) conducted their work in Bengal on more than 150 girls who were studying in class 10th. It was concluded that, only 11.25 percent girls were found to use pads at the time of their monthly periods and most had to encounter a baggage of restrictions. It became evident that personal hygiene should be considered as prime health-concern for adolescent

girls. Findings indicated that there is dire necessity that mis-beliefs/ doubts/ concerns are answered to maximum satisfaction of menstruating females and to embed in their minds the usefulness of hygienic practices.

Sommer (2008) from Tanzania revealed that in Africa girls have to bear much social pressure to enter into a nuptial cord after attaining maturity as a result of which they are withdrawn from their educational institutions. Talking once again about the myths associated with menstruating women and the cause that their blood is polluted a study from West Bengal reports that people of Gujjar community believe that a menstruating female can pollute the water resources in their vicinity. Hence, they are not allowed to wander in the proximity of the water bodies. Which also means that there are restricted their daily bath (Fernandes, 2008).

Dasgupta & Sarkar (2008) exhibited four government secondary schools were selected for study about the perspective of girls regarding their knowledge and their understanding about menstruation. A variety of data collection tools like questionnaires and interviews were adopted and data was collected from more than 200 students. The results revealed that girls were highly ill-informed and confused about information on menstruation and most of the understanding they had of it was based on cultural beliefs and was not scientific from any viewpoint.

Dhingra et. al. (2009) obtained result from a study of state Jammu and Kashmir where Gujjar girls who belong to a Nomadic tribal group were interviewed (about 200 girls of 13 to 15 years). And it was very surprising and depressing to learn that they have been really miss guided about menstruation and the only thought they had about it was that it is certain kind of very bad and impure blood that needs to be removed from the body and if it remains it will lead to various kind of infections. WaterAid (2009) South Asian study reported that knowledge about reproductive health is very diminutive between school going girls.

Mahon and Fernandes (2010) reported that whatever information the girls had regarding menstruation was about the customs, restrictions, traditions, their code of conduct with males; and none of the information was regarding the psychological and scientific basis of this process, the significance of it, and the demerits of not following cleanliness during this phase of the month.

Patil et. al. (2011) investigated the belief related to menstruation in rural Pondicherry and the results reveal that nearly two third of the respondents (65.4 percent illiterates as well as 62.1 percent literates) believed that menstruating blood is dirty and believed that girls can be kept safe from evil spirits by placing things like broom stick, Neem leaves & footwear near to them. Girls had to perform a purifying bath after completion of each cycle.

Matovu (2011) explained 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 stigmatization which lowered the self-esteem of these girls and interfere with their confidence and feelings, hence bringing a negative impact to their schooling.

Adika et. al. (2011) from Bayelsa State chose 140 schoolgirls of 10- 20 years for this study and concluded that most of them used pads during periods and felt confident in doing so. They replied that usage of pads made it easy for them to attend hassle-free school on a regular basis. It was found that there needs to be created more awareness about how to use pads and the safety that came along with them. Kumar & Srivastava (2011) found that there is an age-old myth that menstruating women are impure and polluted and this thinking is wide spread among various cultures religions and countries particularly the developing Nations. It says that secretions excreted out of a women's body at the time of menstruating and also at the time of childbirth are dirty and impure. These things are a part of Bible too which says that such women should be kept in isolation from the community and any person that touch is her or comes in close vicinity shall be called as impure.

Nkandi (2011) showing the scary aspects, here blooms this one coming from Nigeria and indicating that women and girls in Eastern Nigeria were well informed about the process and about the measures that should be taken by them to manage it in a clean and healthy way and all this was despite of the fact that this issue was not open for public discussion. During a FGD session that was undertaken as a part of the study. There was a dark silence among the women who participated in it until one of them stood up courageously and spoke that every woman of the village was aware to properly clean the pelvic area using soap and water to avoid foul odor, and this daily practice should be necessarily done at the time of the monthly cycle. Despite of their awareness the woman felt ashamed to discuss this issue on a public platform.

Kumar & Srivastava (2011) studied about Muslim girls and concluded that there is a perception among those girls that daily bath would increase their blood flow and it's me later create a complicated pregnancy hence they to abstain having a bath daily when they are on their monthly cycle. They pointed another important aspect that became evident after many such kind of studies was that it is not only access to water and sanitation along with sanitary pads

that will make the situation better but it is also dealing with disbelief, misconception and religious cultural predicaments of people that need to be cured and healed so that they do not block the access of these facilities to the women who are in dire need of it. Among all these negative reports from all over the world some solace comes over from an Australian study where the traditional healers use menstrual blood soaked in cloth or cotton to put a bandage over a wound believing that menstrual blood has healing powers and it leaves no scars after use.

Bayray (2011) conducted a survey in Ethiopia where many parameters of parents were seen to affect perception of girls towards menses. Many parents worked for the government and were able to read/write a language. Mean age of menarche was 14 and said that the source of information was their mommy. It was seen that girls were complaining that they are not able to lead normal life while on menses and had to rest for most part of the day.

Shanbhag et al., (2012) from Karnataka, assessed the perceptions of class 12 girls on menstrual hygiene. The study observed that the average age was 14.08 with Standard Deviation of 1.06 ranged between 12 and 16 years. It was seen that girls had knowledge about it but were not knowing how this and pregnancy were related. They had heard that something like this would happen to them at some stage of life but they did not have any kind of understanding about this process. Most girls used pads, had a daily shower and washed themselves regularly with help of water and cleaning agents.

Dube and Sharma (2012) in a Jaipur based study amid 200 schoolgirls (both city residents and rural dwellers) revealed about the thought and perception of girls regarding periods. Thirty-three per cent of urban respondents had prior information regarding menstruation and 62 percent of rural respondents were unaware of the right age of menarche. Majority of the girls had several taboos, regarding reproductive health.

Kamath et al., (2013) conducted this study in Manipal region of India and used stratified cluster sampling by which 550 participants were cherry-picked. It was observed that not many participants had information regarding it thus was felt the need to girls need to be enlightened about the process and healthy ways to deal with it.

Yasmin (2013) conducted a study on 147 adolescent girls from class 10th. There was found that hygienic practices depended heavily on availability of water and if a toilet is readily available/present in the close vicinity. Only very miniscule 1.3 percent, number did not felt any kind of restriction. The researcher concluded that aspect of menstrual hygiene, (which can be a very vital causative agent producing reproductive tract infections), is not properly addressed in the country and people also are not willing to accept its various social and mental faces.

Sharma et. al. (2013) average age of first menses was 13. As the respondents were medical line students, most had good habits of regular washing/ changing pads. Secondary problem found were premenstrual symptoms. Even their high education could not relax them from observing restrictions during menses.

Madhusudan et. al. (2014) conducted a study to find out how females studying in class 10th in a remote school of Bangalore deal and behave during their periods. Results revealed that average age of onset of first menses was 13. Most of the girls had a dim idea about what is it but very few of them reported that they know that the source of blood was uterus. The study also reported that out of 309 respondents who were menstruating, 86.7 percent of girls used sanitary pads, 4.2 percent of them used cloth and 9.1 percent of them used both. Their knowledge regarding menstruation was highly dis-satisfactory & not optimal for proper hygiene.

Patle and Kubde (2014) selected 310 adolescent girls (10-19) years to evaluate their awareness regarding menstruation. Results revealed that urban girls were well-informed and used pads as compared to 43.4 percent of rural girls. There was noticed lack of understanding in rural areas. Anna Maria van Eijk, (2016) conducted a secondary study in India taking published papers from 2000 to next 15 years on girls' menstrual hygiene management. Most urban girls were found to be prior informed and were using factory-made pads.

Shantanu et.al., (2017) carried out an analytical work in Delhi on 85 adolescent girls (10-19 years) with average age 16 ± 2.2 years and predominated by Hindus 95.2 percent reported average age at menarche 11.4 ± 5.3 years. More than three fourth girl's 78.8 percent had regular period and duration of the menstrual flow of 3-5 days in 71.8 percent. The most common menstrual disorder found was dysmenorrhea 53.5 percent. Around 62 percent used to consult their mother for menstrual related issues followed by 8.4 percent doctors. 85.9 percent were found to be using commercial pads at the time of menses; 11.2 percent girls did not have toilet facility at home. 40 percent girls were restricted at home or not allowed to go out during menstruation and 46.4 percent were restricted from going temple, eating certain foods, working in kitchen, playing or doing routine household work. Around three fourth 73.08 percent out of 17 girls who reused cloth were reported that washroom facilities were available at home for cleaning cloth used as absorbent. Hence, now we can clearly conclude that studies by wash including that of 10 portray that expulsion of menstruating women from general community is widely practiced in developing nations study conducted by 10 also reported that such women cannot prepare their family mail but only cook for themselves and were not allowed to provide their services at the rice fields.

Hence it can be concluded that proper knowledge and appropriate information about maintaining good hygiene along with behavior practices is very significant to ensure that female undergo a healthy bleeding every month. So, it becomes an important duty of all concerned that adolescent girls are well prepared and informed about menarche before it silently steps into their life so that they can avoid the misery and accept it as a normal part of their growing up.

2.5 Relevant work available on government schemes on menstrual hygiene

A program was taken up by the State to ensure hygiene conduct amid girls of 10-19 years in 2011 with the target to create understanding the concept of mensuration by adolescent girls, to enhance their willingness to use of high-quality sanitary napkins by teaching them that it is safe and it will be available to them at all times. And teaching them safe disposal of used material for the sake of environment. In addition, since 2015-16, the Menstrual Hygiene Scheme is being supported by the National Health Mission through State Programme Implementation Plan (PIP) route based on the proposals received from the States. States/ UTs have decentralized procurement of sanitary napkins for ensuring quality standards.

A novel concept was injected at rural base where sanitary napkins were put on sale to adolescent girls with minimum charges through Accredited Social Health Activists (ASHA). Further, under the Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana (PMBJP), an important step in ensuring health security for Indian women, pads at very nominal charge were made available to all those who needed them at selected stores across the country. Another very noticeable aspect that needs to be mentioned here is that these pads are biodegradable by nature. In view of the easy availability of affordable and quality Sanitary Napkins, the Ministry of Women & Child Development is now considering the installation of affordable sanitary napkin dispensers in Public Toilets and other public places.

Government had allocated an immense budget of for promoting use of pads in very poor, slums and rural areas of India. Those girls who belong to extremely poor families will have to spend a weeny cost of Re. 1 per pack. And others would be charged a bit more but very economically for each pack of Sanitary napkins containing. By the way the states were given the authority to finalize the cost/pack. A weekly meeting on Sunday was organized to ensure regular supply to meet the increasing demand and going one step further the ASHA worker was instructed to

personally contact those girls through home visits who were unable to attend the Sunday meetings. All these endeavors were undertaken just to ensure that the interest and health of young female population is the utmost priority of the state and Central Government. This problem of that involves young girls is a grave concern especially in developing & third world nations (Sommer et.al.,2013). A significant number of women globally are facing problems in dealing with problems that come handy with each cycle of theirs. About 80% of these adolescents are natives of Asia/ Africa (Unicef 2018).

Discussions related to menstrual hygiene involve many related aspects and their associated departments (Keatman et al.,2018). We are lucky that past some years our government had accepted how important this issue can be. In 2005 National Rural Health Mission got inaugurated where menstrual hygiene promotion was shouldered on ASHA workers (Accredited Social Health Activist). In 2011 came up rural promotion scheme for girls (NRHM). In 2015, the Ministry of Drinking Water and Sanitation came up with improved guidelines on MHM (Ministry of Drinking Water and Sanitation., 2015).

Central government launched schemes in 2011-12 that mainly focused on rural schools. Main objectives that were taken care of were making economic sanitary pads available to maximum population, providing awareness about health and cleanliness habits, educating about guilt-free and eco-friendly disposal. A national policy called (2014) aiming to create consensus and render support by applying peer education model. It aimed to extend collective and school-based interventions (MoHFW., 2014). Recently subject of sanitation and hygiene have become most-important for majority stakeholders. In 2015 new guidelines were issued (Ministry of Drinking Water and Sanitation, 2015). This program incorporated 6 elements and aimed to develop period-progressive institutions. Since then, numerous digital media platforms are doing a good job. A Bollywood film called Padman (S Priyadarshani, 2018) beautifully elaborated the issue of menstrual hygiene; other programs like taking trials on biodegradable menstrual products, providing sex education at schools, etc. have also being going on (Geertz et al.,2018). Individuals who menstruate are often neglected, including those in emergency contexts, which directly affects their rights to health, education, non-discrimination, and gender equality. There is a need to recognise menstrual health as a key right within the right to health. This has never been clearer than during the COVID-19 pandemic, as those who menstruated faced barriers to safe, hygienic, private places to manage their menstruation, along with shortages of menstrual products, an essential item for health and dignity.

Chapter -3

Research Methodology

Chapter -3

Research Methodology

A well designed and deliberate effort to systematically carry out research efforts is elaborated through its Research Methodology. It is a means to address the research dilemma on a systemic basis. It can be understood as a science of understanding how research is conducted scientifically, here we study the different steps taken by the researcher to study the research issue and its reasoning. The researcher designs a methodology for the problem to apply it. The critical aspects of the research approach are the effective method to be used for the problem, the order of precision of the outcome, and the method's reliability to be defined.

Research methodology refers to the steps, procedures and research adopted strategies for obtaining, organizing and analyzing data collected from the field. In this chapter an attempt is made to explain the steps, research procedures and strategies adopted in the present research.

3.1 Introduction

Females are the soul of the society. A society is still there, from the Vedic period till this post-Covid 19 pandemic era because of the presence of females in it. They alone have to bear the pain and pressure along with several problems related with menarche and menstruation. It can in many incidences distract them from leading a normal mental life (where they keep on thinking that only why they are chosen by nature to withstand all the pain to help the society to survive and sustain). Such kind of emotional waves have been reported to negatively impact their process of education, health and so on. Adolescent age (10-19 years) is a decisive age for girls around the world. How girls emerge during young age moulds her life especially during reproductive age. In a country like India, where each aspect of the growth of a child is marked with a type of religious celebration (*nammkaran sanskar*, *mundane sanskar* etc) even this attainment of menarche is celebrated (in south India as the *half saree ceremony*) which denotes her transformation from being a mere girl to becoming a complete woman who can bear the essential responsibility of carrying the society forward. In order to accept menstruation as a normal physiological phenomenon the girls must have all relevant information regarding importance of having menstruation and about their changed behavior that should be adopted by them during those special days of her month which relate to proper selection/usage/disposal of a sanitary towel. By identifying the existing knowledge on menstruation and the problems faced by the adolescents and conducting an educational programme on menstruation for the adolescents it is hoped that the knowledge on menstruation will be improved and the girls will accept menstruation as a normal phenomenon.

Research design

A research design comprises of tools and methods that will be deployed by the researcher as a part of his/her research study (Polit and Beck 2004). It allows selecting the research topic along with the independent variables and freedom of choice of statistical methods that would assist in interpretation of collected info. Factors on which is based the choice of design is dependent upon the objectives, research approach and variables that need to be explored.

Current work under the heading, “Awareness to Hygienic Menstrual Absorbent: A detailed study of Female in Haryana” lays emphasis on level of awareness and understanding about menstrual health. Knowledge about this most basic yet important feminine aspect exerts a vital impact on the attitude and hygiene-related practices which are followed by the adolescents during their years of menstruation. It forms a dominant health aspect because it plays a prominent role in the reproductive wellness of the female. On the other hand, it is also responsible in creating self-esteem (high or low) among them. Hence the need of the hour is to enlighten the females about this essential aspect of their life; help them to develop acceptance and admittance towards this biological change that they have to encounter sooner or a bit later in their life. They should be learned about healthy practices right from the beginning of childhood and even in their schools they should be taught that it is ok that they have to deal with that. Health education programs and a support-desk should be impregnated in the school curriculum where girls can walk-in anytime/ in time of need or doubts.

A self- structured questionnaire was used to collect data from the women respondents. A structured questionnaire has fixed options and there is no open-ended question; thereby, respondents are to choose one from the given set of options. The questionnaire used in the study was also self-administered in nature was framed to check to measure awareness quotient related to monthly bleeding that occurs in females, understand their socio-economic parameters, the way they get information regarding it, respondents’ attitude during menarche, the perceptions they follow during menstruation etc. With this purpose, this cross-sectional study was conducted which can be are very useful from reproductive health research point of view. Following four age groups were considered i.e., 10-19 years age group, 20-30 years, 31-40 years and above 40 years.

3.2 Area of the study: Haryana

For undertaking current research Haryana state was chosen which lies between 27° 39' to 30° 55' 05" North Latitudes and 74° 27' 08" to 77° 36' 05" East Longitudes. It was born as 17th state of independent India on 1.11. 1966 on the counsel of 'Sardar Hukam Singh Parliamentary Committee'. The State is bounded by Uttar Pradesh, Himachal Pradesh, Punjab and Rajasthan. The National Capital Delhi is also cornered to the State. According to 2011 census, Haryana has 2,53,51,462 population and it is the 22nd largest states of India in terms of area. Haryana ranks 7th in India in in human development index, Chandigarh is its capital. In Haryana, adolescent constitute 21% of total population (census 2011).

Fig. 1 Map of Haryana



Table: 3.1
General Information of a State at a Glance

Particular	Haryana
Area	44212sqkm
Districts	22
Blocks	124
Density / Sq. Km.	573
Population	25351462
Male	13494734
Female	11856728
Literacy Rate (in per cent)	75.55
Male Literacy	84.06%
Female Literacy	65.94%
Sex Ratio	879
Child Sex Ratio	834

Source: Statistical abstract of Haryana 2020-21

3.2.1 Selected area for study

To ensure equitable health care and to bring about sharper improvements in health outcomes, the bottom 25% of the districts in every State according to the ranking of districts based on composite health index have been identified as High Priority Districts (HPDs). All Left Wing Effected districts and districts with majority tribal population, whose composite health index is below 50% are also categorized as HPDs. Ministry of Health and Family Welfare, Government of India press an information bureau related to health in India. Govt. of India shortlisted 184 HPDs and 5 districts were chosen from Haryana.

These districts are selected through a proper mechanism by government of India. Government pays special attention to HPDs by providing proritized resources and regular supervision. Among all Indian states Haryana is the pioneering state to have been having an active

‘Adolescent Friendly Health Services’ (ARSH program) available at its government health care centers (Times of India 2007).

Table: 3.2
Demographic presentation of selected districts of Haryana

Particulars	Districts				
	Jind	Hisar	Panipat	Palwal	Mewat
Area sq.km	2,702	3,983	1,268	1,359	1,507
Density/km ²	494	438	951	767	723
Block	8	9	6	6	7
Tehsil	6	6	5	3	4
Population	13,34,152	17,43,931	12,05,437	10,42,708	10,89,263
Male	7,13,006	9,31,562	6,46,857	5,54,497	5,71,162
Female	6,21,146	8,12,369	5,58,580	4,88,211	5,18,101
Sex Ratio	871	872	864	880	907
Child Sex Ratio (0-6)	838	851	837	866	906
Average Literacy Rate	71.44%	72.89%	75.94%	69.32%	54.08%
Male Literacy	80.81%	82.20%	83.71%	82.66%	69.94%
Female Literacy	60.76%	62.25%	67.00%	54.23%	36.60%

Source: Directorate of Census Operations, Haryana & Revenue and Disaster Management Department Haryana, Statistical abstract of Haryana 2020-21

3.3 Time period of the study:

The present study has been taken for the period 2020-21 with respect to primary data survey. Some other aspects of the study are covered as per the availability of secondary data for the time period of 2011-2020-21.

3.4 Source of data collection:

Two types of data viz. primary & secondary were used in this work. However, major concern of the study is based on primary data. Both type of data and their sources are given here:

Secondary Data: The secondary data has been collected from different yearly published Statistical Abstracts of Haryana, Economic Survey of Haryana and other Government Reports

regarding MHM of Haryana as well as India. I have accessed some websites related to the MHM and got some valuable facts to form the base of my study for better research. Further, the search for data through various magazines, journals, other published and unpublished materials for research, had remained continued as per the need of the study.

Primary Data: Primary data were collected through well designed and pre-tested schedule by using interview method of survey. Interview schedules includes questions relating to socio economic conditions of the selected respondents. The schedule also includes the questions on pattern of awareness level of menstrual hygiene among female, socio-economic factors which are affecting absorbent material for menstrual hygiene, comparison of perceptions among different age group and all government scheme related menstrual hygiene in Haryana. This method was used to incur good quality data. Special personal interviews were arranged to gather primary data from house-heads of selected families and it was cross-verified from authentic sources.

3.5 Sampling Process:

For collection of the data, mixed sampling techniques have been used. Districts were chosen by non-probability purposive sampling. The selection of ultimate sampling units has passed through four stages.

- I. Selection of districts
- II. Selection of blocks
- III. Selection of villages
- IV. Selection of respondents

□ *Selection of the District:* The study has been related to whole of the Haryana state. For achieving the specific objectives of the study five districts have been selected purposively whose composite health index is below 50%.

□ *Selection of Blocks:* Randomly two blocks were taken from each district i.e. Jind, Hisar, Panipat, Palwal and Mewat. Details of block selection presented by table as below:

Table: 3.3 Selection of Blocks and Village/ Cities

Sr. no.	Sample Districts	Sample Block	Village covered
1	Jind	Narwana block	Alipura, Kharal
		Uchana block	Daroli Khera, Baroda
2	Hisar	Adampur	Chuli Khurd, Ladwi
		Barwala	Bada Khera, Bichpari
3	Panipat	Madlauda	Waisar, Bhalsi

		Israna	Jondhan Kalan, Palri
4	Palwal	Hathin	Tonka, Pahari
		Hassanpur	Amroli, Bilochpur
5	Mewat	Nuh	Qutabgarh, Malab
		Ferozpur Jhirka	Kameda, Nahrika

Source: Directorate of Census Operations, 2011

- *Selection of Villages:* Simple random sampling procedure has been adopted for the selection of villages and respondents. A total of twenty villages, two from each block, have been selected.
- *Selection of Respondents:* Current work is based on responses obtained from 700 participants selected by stratified sampling. In this a very large cluster of people is broken down into smaller sections and sample taken from each set. On the basis of female population from the selected districts, different sample size of each district was extracted as 140 sample from Panipat district, 150 from Jind, 160 from Hisar, 130 from Mewat and 120 sample from Palwal district were taken. Sample size of each district was divided age-wise into four categories given different weightage to get the actual information. As per WHO defines adolescent age group (10-19 years), weightage criteria have been presented by table as below:

Table: 3.4

Age group and Weightage Criteria

Age group	Weightage (%)
10-19 Years	40%
20-30 years	30%
31-40 years	20%
Above 40 years	10%

To meet the criteria for judging the quality and validity of research based on the sources of information, the genuine respondents are taken into account. Findings of the pilot study revealed that the awareness level is different in each age group, the health issues are different and there are various type of myths and perceptions, hence weightage was given to menstruating women to get the actual information. To make the relevancy of data, the multiple sources of evidence are gathered. Groups of menstruating women, direct observation, interviews, questionnaires and the literature reviewed, are the multiple sources of information

to validate and authenticate the study. Most of the interviews for adolescent girls were conducted in their schools and for other menstruating women at their working place and homes.

3.6 Statistical analysis

The collected information about the socio-demographic conditions, source of information regarding menstrual health, awareness, age at menarche, personal hygiene and cultural practices at menarche, menstruation and hygienic practices, taboos, effect of education and per capita income on menstruation hygiene were screened using SPSS-16 windows. Statistical significance was judged at $\alpha = 5\%$ and 95% confidence interval were also obtained wherever required to validate the results. The statistical techniques used for the analysis were:

3.6.1 Frequencies and Percentage: Both were applied where qualitative data was involved like as socio-demographic conditions, marital status, sources of information regarding menstrual health, personal hygiene and cultural practices at menarche, menstruation and hygienic practices, taboos under the groups of independent variables.

3.6.2 Graphical Representation: It comprises a pictorial depiction of data. It is more impactful than a table. Many varied types of graphs are possible but which one is suited depends type of data and statistical results. This study made use of column/bar graphs, and linegraphs.

3.6.3 The Mean and Standard Deviation (SD): The mean is the average and comprises of 'sum of all the observed outcomes from the sample divided by the total number of sample and the standard deviation is a measure of the spread of scores within a set of data'. It was used to derive quantitative data such as age at menarche, awareness and attitude towards menstrual hygiene and perceptions related to menstruation.

Population SD	Sample SD
$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$	$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$
<p>σ → The Standard Deviation</p> <p>n → The number of data points</p> <p>\bar{x} → Population mean</p> <p>x → Each of the values of the data</p>	<p>s → Sample Standard Deviation</p> <p>n → The number of data points</p> <p>\bar{x} → Sample mean</p> <p>x → Each of the values of the data</p>

3.6.4 Chi-square test: The chi-square test compares the observed count in each table cell to the count which would be expected under the assumption of null hypothesis i.e. no association between two or more groups. This test was adopted to find out the association between education and age groups on menstrual hygiene. The Chi-Square was computed by comparing two sets of frequencies observed in the data and expected frequencies. Expected frequencies were calculated on the basis of observed total frequencies for the rows and columns of a contingency table (Polit and Hungler, 1999).

Chi-Square (χ^2) Formula

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

O = the frequencies observed
E = the frequencies expected
 \sum = the 'sum of'

3.6.5 One-way ANOVA: The test was used to compare perceptions of menstrual hygiene for different age groups of respondents.

3.6.6 Logistic Regression Analysis: Since ever, regression analysis has been the most useful and widely used tool for assessing the role of the predictors on the outcome/dependent variables. The linear regression analysis approach is in use for the data in case the outcome is

continuous and criteria of linearity with predictors are satisfied. While, the relationship can be described by using the logistic regression analysis approach, in case the outcome variable is binary or dichotomous and exploratory variables are quantitative or categorical. In this study there were only two categories of outcome, hence binary logistic regression analysis was carried. By testing the assumption of linearity and as per the nature of data, binary logistic regression model was chosen to establish the relationship between the outcome and exploratory variables. Thus, a multivariable regression approach was adopted to observe the real impact of an exploratory variable on the outcome variable by eliminating the effect of cofounding variables. While adopting multivariable regression model, in addition to assumption of linearity, the assumption of multi-co linearity and interaction of exploratory variables were tested for valid conclusion.

3.7 Study variables:

3.7.1 Socio-economic & demographic variables of female:

3.7.1.1 Age: Age of the respondents into four categories and weightage are given for according their group. Adolescence is the period of transition between puberty and adulthood. Menarche is one of the markers of puberty and therefore can be considered as an important event of life of adolescent girls. It is defined as the first menstrual period in a female adolescent. Menarche typically occurs between the ages of 10 and 16, with the average age of onset being 12.4 years. It is a symbol of female reproductive health and wellness. Most female recognize menarche as their body's critical declaration of fertility (Lacroix EA et.al., 2023). Adolescent period is the most crucial for girls, hence more weightage is given to the group of 10-19 years (WHO). There is low level of awareness, culture of silence and shameful environment. As they grow up, awareness level may be increased. A detailed process shown by table as below:

Table: 3.5

Sample size of each district after weightage

Age group	Weightage	Districts				
		Jind (n=150)	Hisar (n=160)	Panipat (n=140)	Palwal (n=120)	Mewat (n=130)
10-19 years	40%	60	64	56	48	52
20-30	30%	45	48	42	36	39
31-40	20%	30	32	28	24	26
above 40 years	10%	15	16	14	12	13
Total	100%	150	160	140	120	130

3.7.1.2 Religion: The respondents were directly asked about their religion and categorized as per their religion and the category made was Hindu, Muslims and Others.

3.7.1.3 Caste: The question about the caste was asked directly and categorized following the HR-State Government Gazette, 2010 as below SC/ST : Harijan, Biyar, Musahar, Sonkar OBC : Yadav, Kurmi, Teli, Ansari, Lohar, Koiri. Others : Brahmin, Kshatriya, Kayastha, Bhumihaar, Pathan, Gupta

3.7.1.4 Type of Family: The family was considered of those taking food from the same kitchen. If in a family there were only wife, husband and their children considered nuclear family, joint otherwise

3.7.1.5 Type of house: The type of house was recorded by visual inspection and categorized as:

Table: 3.6 Type of house

Type of house	Characteristics
Hut	Temporary walls and roof (especially made of woods or polythene)
Kutchha house	Walls and roofs both of mud
Semi-pucca house	Walls and roofs both of bricks, but mud floor
Pucca house	Walls, roof and floor all are of bricks

3.7.1.6 Family income & economic status: Income of the family and their economic status presented by table as below:

Table: 3.7 Family income & Economic status

Family Income	Economic Status
Below 2.5 lakh	Lower
2.5 to 5 lakhs	Middle
Above 5 lakhs	Upper

3.7.1.7 Literacy status or educational attainment: The level of education of father, mother and adolescents was assessed directly by asking the completed school standard but recorded as their educational classification given below: illiterate, primary (1-5th standard), Secondary (6-10th standard), Higher (11-12th standard) and Graduate & above Graduate.

Table: 3.8 Educational status of the respondent

Educational status of respondent
Illiterate
Primary (1-5th standard)
Secondary (6-10th standard)
Higher (11-12th standard)
Graduate & above Graduate

Table: 3.9 Qualification of Parents

Father	Mother
Illiterate/Primary(1-5th standard)	Illiterate/Primary(1-5th standard)
Secondary (6-10th standard)	Secondary (6-10th standard)
Higher(11-12th standard)	Higher(11-12th standard)
Graduate & above Graduate	Graduate & above Graduate

3.7.1.8 The type of schools was elicited of those registered as whether it was:

1. Government school
2. Private school

3.7.1.9 Occupation of father and mother: The main occupation of father and mother was elicited directly and the categories made were as:

Table: 3.10 Occupation of father and mother

Father	Mother
Small business/ Skilled worker	Home maker
Unskilled worker	Skilled worker/ Shop
Job	Daily labourer
	Job

3.7.2 Tools for data collection:

A self-administrated questionnaire was employed for data collection. It comprised of four sections to fulfill all objectives.

Section-I: In this section questions considered were the general demographic information about the respondents and their family e.g. name of the respondent, age, religion, caste, social standard of family, income on a monthly basis, educational level, marital status and the economic status. This section included information related to menstruation and menstrual hygiene e.g. knowledge about this mechanism prior to onset of menarche, organ of menstrual

flow, extent of their menstrual cycle each month, type of pad should be used, frequency of pad change, how and where to dispose the used pad, problems of menstrual disorder and awareness related to cervix cancer.

Section-II: This section included information regarding cultural/ financial / societal restrictions that prevented female to adopt and use devices created manage menstrual flow e.g., occupational status i.e., occupation of the family, father and mother's occupation, economic status i.e., economic background of the respondents' family, size of the family income, type of hygienic absorbent material used, reasons of using unhygienic material for absorbent, educational status i.e., education standard of the family, father and mother's education standard, type of school while studying, type of available facilities in schools, school-absenteeism during menstruation cycle and its reason, knowledge about menstrual hygiene management (MHM) and house living status i.e., type of house, type of toilet facility, washing of genital and material used for genital wash.

Section-III: This section included information regarding restrictions and perceptions related to menstruation like household activities, impure/unclean, exercise, hair wash, worship during menstruation, attend religious functions, enter in kitchen, touch the pickles, restricted to eat curd or any sour food items, separate bedding, bath daily, myths like menstrual blood as an evil and menstrual blood act as black magic etc. The different kinds of rating scales can be used to measure attitudes. The most widely used scale is the Likert scale. It refers to an ordered scale, that offers a variety of responses to the respondents and they choose the best answer that reflects their mindset. It is often used to measure respondents' attitudes by asking the extent to which they agree or disagree or say 'yes' or 'no' with a particular question or statement. A typical 5-point scale might be "Strongly disagree, Disagree, Neutral, Agree, strongly agree."

Section-IV: This section included information regarding schemes menstrual hygiene practices i.e., Menstrual Hygiene Scheme (MHM), Rastriya Kishore Swasthiya Karyakrum (RKSK), Mahila Avm Kishori Samman Yojana, Rs 1/Pad Suvidha Brand under Bhartiya Janaushdhi Preyojana, SABLA Programme and What are the weaknesses of government schemes & suggestions for improvement etc.

Chapter 4

Awareness level of menstrual health and barriers to menstrual hygiene among Haryana women

In this chapter, an attempt has been made to present data analysis relating to awareness level of menstrual health and barriers to menstrual hygiene among Haryana women. In total, 700 respondents were surveyed from five districts of Haryana. In this chapter, findings of the study, obtained by using appropriate statistical tools such as chi-square test, percentage and frequency etc., have been presented. This chapter has been presented under the following heads:

- 4.1 Age of the respondents
- 4.2 Type of the family
- 4.3 Marital status of the respondents
- 4.4 Educational status of the respondents
- 4.5 Family income of the respondents
- 4.6 Caste of the respondents
- 4.7 Age of menarche and knowledge of menstruation
- 4.8 First information of menstruation
- 4.9 Age of first menstruation
- 4.10 Source of first information about menstruation
- 4.11 Discussion on menstrual hygiene
- 4.12 Perceptions of menstruation process
- 4.13 Organ of blood flow during menstruation
- 4.14 Duration between two menstruations
- 4.15 Duration of a menstruation period
- 4.16 Frequency of napkin change
- 4.17 Problems relating to menstrual disorder
- 4.18 Knowledge of medical issues relating to menstrual disorder
- 4.19 Usage and disposal of pads during menses
- 4.20 Infections caused due to unhygienic material used during menses
- 4.21 Family occupation of respondents
- 4.22 Association between economic status and material used during menstruation
- 4.23 Association between family occupation and material used during menstruation

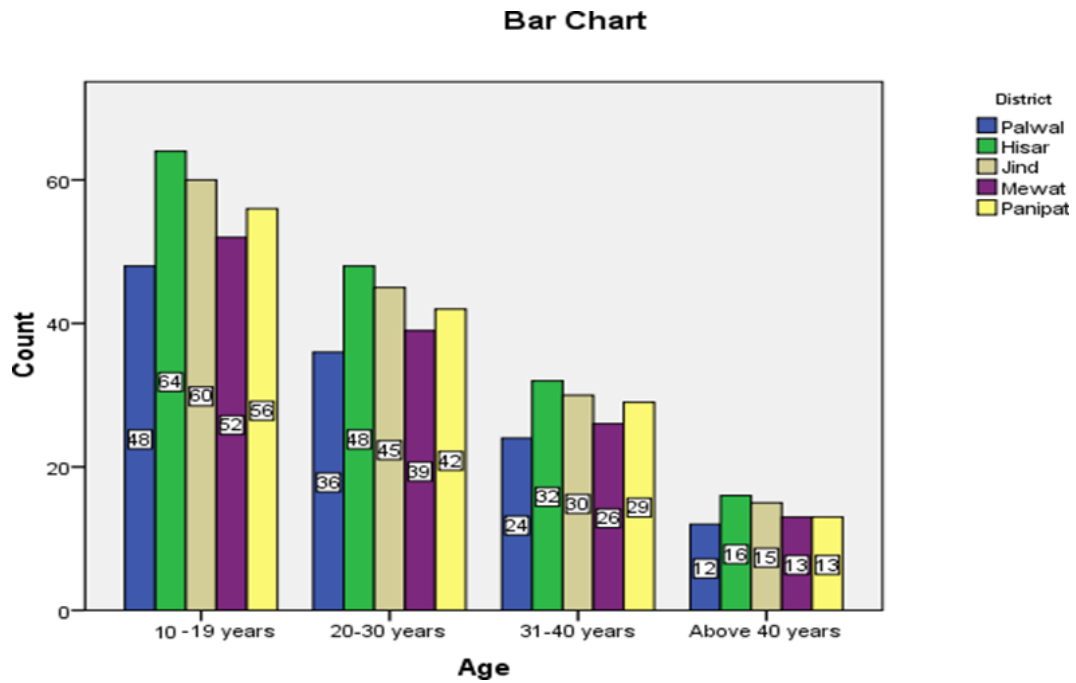
- 4.24 Association between mother's education status and material used during menstruation
- 4.25 Association between type of school attended and material used during menstruation
- 4.26 Association between type of house and material used during menstruation
- 4.27 Association between caste and material used during menstruation

4.1 Age of the respondents

Respondents were requested to provide information on their age on some specific categories like 10-19 years, 20-30 years, 31-40 years and above 40 years. The study gave 40% weightage to respondents that were 10-19 years; 30% weightage to respondents from 20-30 years; 20% weightage to respondents from 31-40 years and 10% weightage to respondents who were above 40 years. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's age are given in the table below:

			District					Total	
			Palwal	Hisar	Jind	Mewat	Panipat		
Age	10-19 years	Count	48	64	60	52	56	280	
		% within District	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
	20-30 years	Count	36	48	45	39	42	210	
		% within District	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	
	31-40 years	Count	24	32	30	26	29	141	
		% within District	20.0%	20.0%	20.0%	20.0%	20.7%	20.1%	
	Above 40 years	Count	12	16	15	13	13	69	
		% within District	10.0%	10.0%	10.0%	10.0%	9.3%	9.9%	
	Total		Count	120	160	150	130	140	700

Source: Primary data



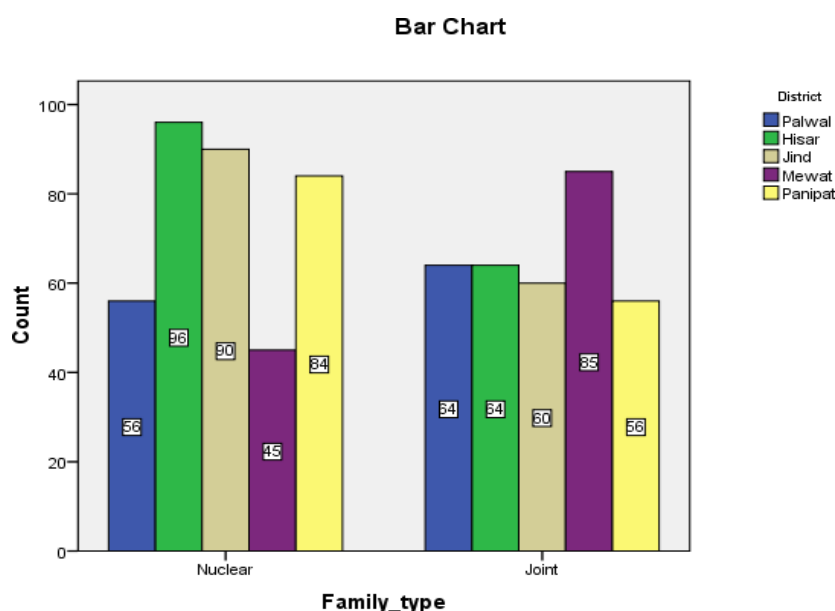
Findings in regard to distribution of respondent's age (table 4.1) revealed that about 40% of respondents were 10-19 years; followed by 30% were from 20-30 years. It was important to mention that 20% were between 31-40 years and only 10% were above 40 years. Therefore, total sample size of the study was 700.

4.2 Type of the family

Respondents were requested to provide information on type of their family on two options such as nuclear family and joint family. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's type of the family are given in the table below:

			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Family Type	Nuclear	Count	56	96	90	45	84	371
		% within District	46.7%	60.0%	60.0%	34.6%	60.0%	53.0%
	Joint	Count	64	64	60	85	56	329
		% within District	53.3%	40.0%	40.0%	65.4%	40.0%	47.0%
Total		Count	120	160	150	130	140	700

Source: Primary data



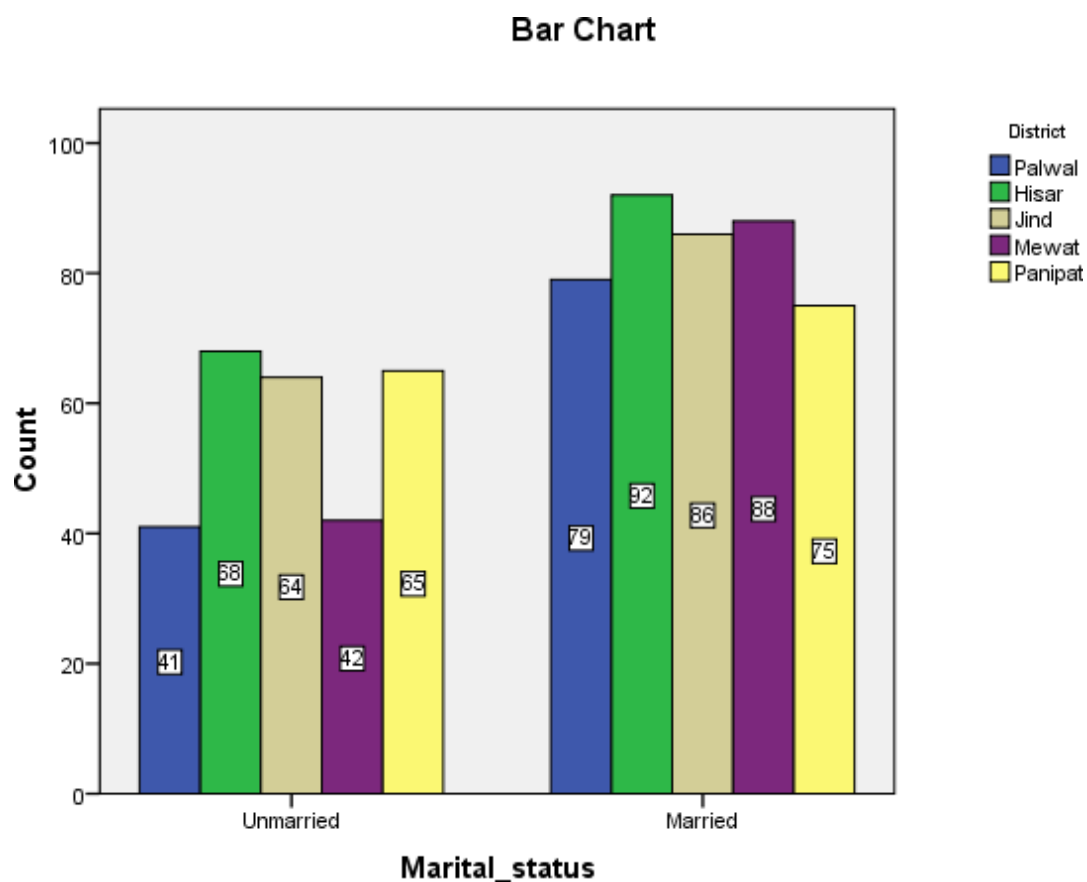
Findings in regard to type of the respondent's family (table 4.2) revealed that majority of them were from nuclear families (53%); whereas 47% respondents belonged to joint families. District wise distribution revealed that 60% respondents from Hisar, Jind and Panipat were from nuclear families and rest was from joint families. In contrast, majority respondents from Palwal and Mewat were from joint families such as about 53% Palwal and about 65% Mewat respondents were from joint families. These findings showed that respondents from these districts, which are considered to be backward in the state, still prefer to live in joint family structures.

4.3 Marital status of the respondents

Respondents were requested to provide information on their marital status on two options such as married and unmarried. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's marital status are given in the table below:

			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Marital Status	Unmarried	Count	41	68	64	42	65	280
		% within District	34.2%	42.5%	42.7%	32.3%	46.4%	40.0%
	Married	Count	79	92	86	88	75	420
		% within District	65.8%	57.5%	57.3%	67.7%	53.6%	60.0%
Total		Count	120	160	150	130	140	700

Source: Primary data



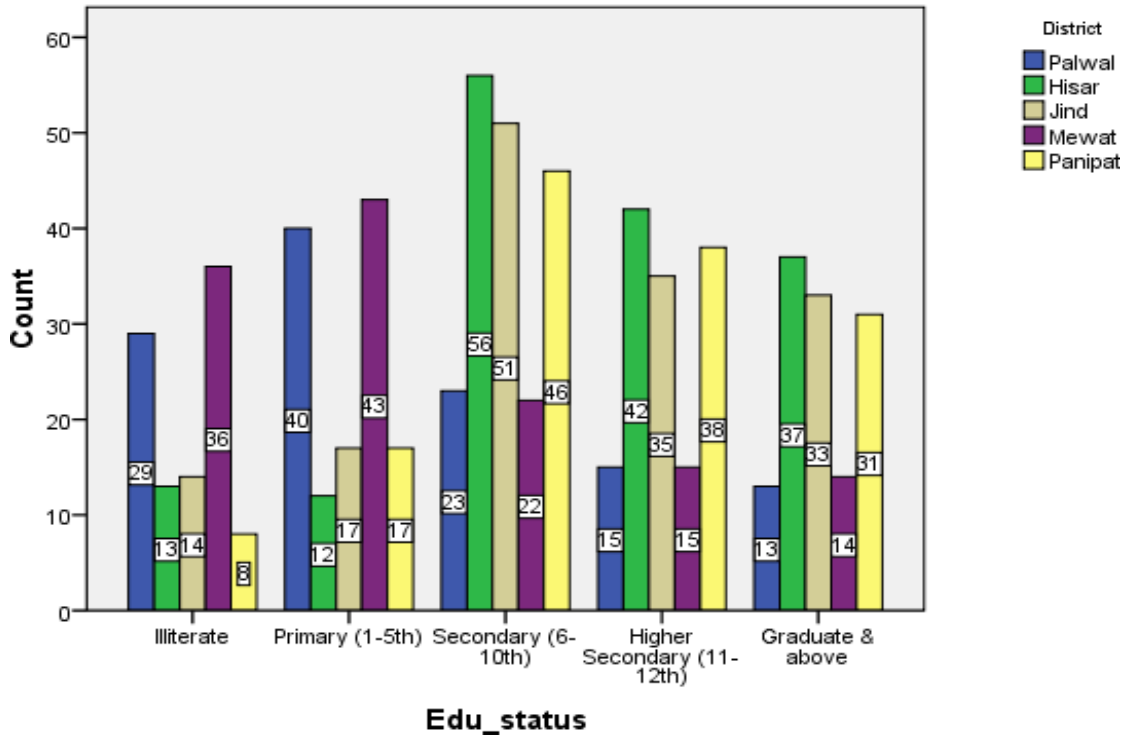
Findings in regard to marital status of the respondent (table 4.3) revealed that a majority of them were married (60%); whereas 40% respondents were unmarried. District wise distribution revealed that majority of the respondents from each selected district were married such as 65% respondents from Palwal were married; followed by 57% from Hisar and Jind. 67% respondents and 53% respondents from Mewat and Panipat were married respectively. These findings indicated that it was imperative to include married women in the sample because such women would be in the better position to provide menstruation detail as per their past experience.

4.4 Educational status of the respondents

Respondents were requested to provide information on their educational status on five options such as illiterate, primary, secondary, higher and graduates. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's educational status are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total	
Education al Status	Illiterate	Count	29	13	14	36	8	100	
		%	24.2%	8.1%	9.3%	27.7%	5.7%	14.3%	
	Primary (1- 5th)	Count	40	12	17	43	17	129	
		%	33.3%	7.5%	11.3%	33.1%	12.1%	18.4%	
	Secondary (6- 10th)	Count	23	56	51	22	46	198	
		%	19.2%	35.0%	34.0%	16.9%	32.9%	28.3%	
	Higher Secondary (11-12th)	Count	15	42	35	15	38	145	
		%	12.5%	26.2%	23.3%	11.5%	27.1%	20.7%	
	Graduate & above	Count	13	37	33	14	31	128	
		%	10.8%	23.1%	22.0%	10.8%	22.1%	18.3%	
	Total		Count	120	160	150	130	140	700
	Source: Primary data								

Bar Chart



Findings in regard to educational status of the respondent (table 4.4) revealed that a large majority of them were more or less educated; however very few respondents (14%) were illiterate. District wise distribution revealed that maximum proportion of respondents from Mewat were illiterate (27%); whereas only 8% from Hisar; 9% from Jind; 24% from Palwal and 5% from Panipat were illiterate. These findings indicated that many women in the districts like Mewat and Palwal are still not able to access formal education that may be a fundamental cause of low-awareness of menstrual hygiene among women from these districts. These statistics suggested that government, private as well as NGOs need to promote women education in these districts so that women gain more knowledge of menstrual problems, its causes and potential remedies. About one-third respondents from Hisar, Jind and Panipat were having education up to secondary level; on the other hand, almost similar number of respondents from Palwal and Mewat were having education up to primary level.

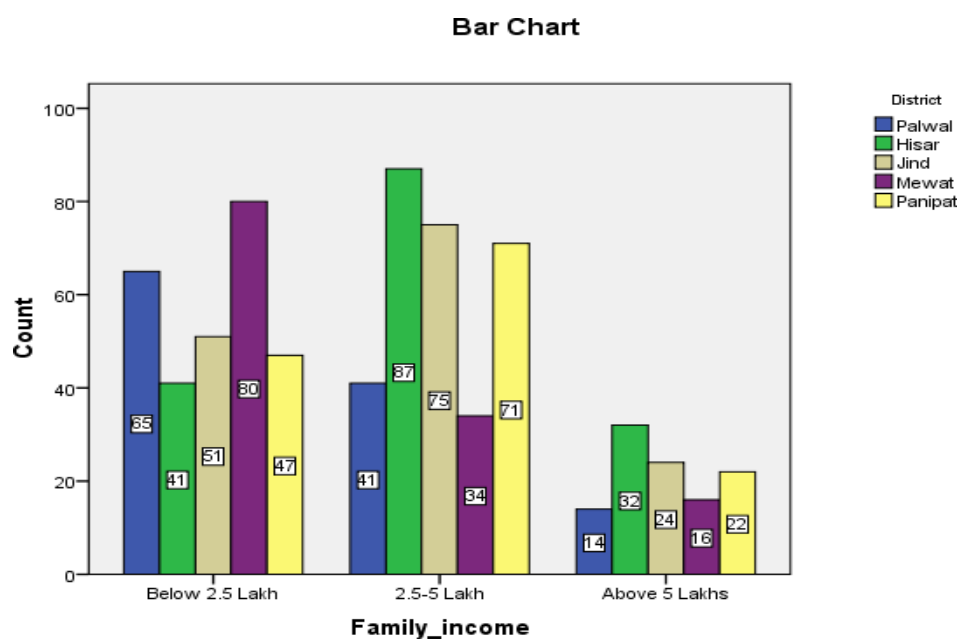
4.5 Family income of the respondents

Respondents were requested to provide information on their family income on three options such as below 2.5 lakh, 2.5-5 lakh and above 5 lakh. Responses obtained from selected

districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's family income are given in the table below:

			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Family Income	Below 2.5 Lakh	Count	65	41	51	80	47	284
		% within District	54.2%	25.6%	34.0%	61.5%	33.6%	40.6%
	2.5-5 Lakh	Count	41	87	75	34	71	308
		% within District	34.2%	54.4%	50.0%	26.2%	50.7%	44.0%
	Above 5 Lakhs	Count	14	32	24	16	22	108
		% within District	11.7%	20.0%	16.0%	12.3%	15.7%	15.4%
Total		Count	120	160	150	130	140	700

Source: Primary data



Findings in regard to family income of the respondents (table 4.5) revealed that 44% of respondents were having family-income between 2.5-5 lakh per annum. A sizeable proportion of respondents revealed that they have family-income less than 2.5 lakh per annum. However, only 15% of respondents were found to having income more than five lakh per annum. A

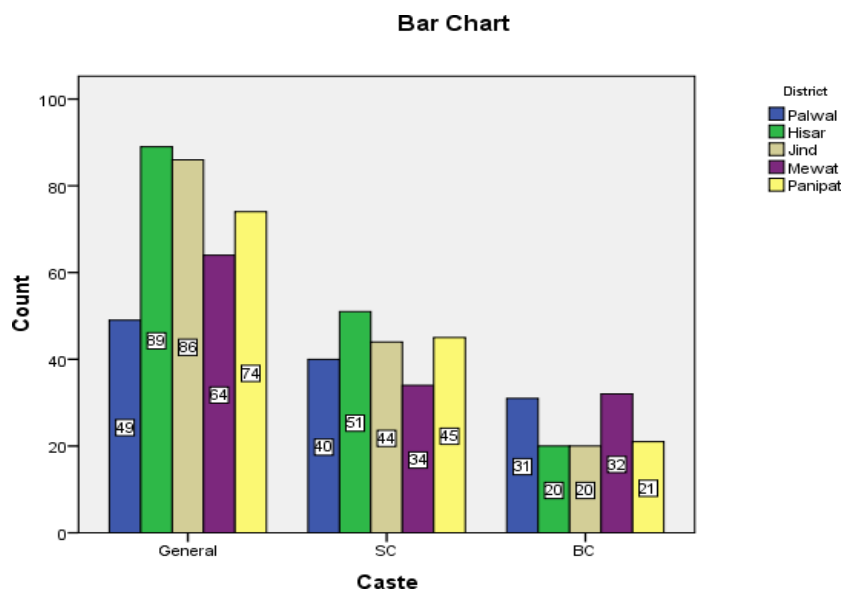
majority of the respondents from Palwal (54%) and Mewat (61%) were found to have family-income less than 2.5 lakh per annum. On the other hand, a majority of respondents from Hisar (54%), Jind (50%), and Panipat (51%) revealed that their family income lies between 2.5-5 lakh per annum.

4.6 Caste of the respondents

Respondents were requested to provide information on their caste on three options such as general, scheduled caste and backward caste. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's caste are given in the table below:

		District					Total	
		Palwal	Hisar	Jind	Mewat	Panipat		
Caste	General	Count	49	89	86	64	74	362
		% within District	40.8%	55.6%	57.3%	49.2%	52.9%	51.7%
	SC	Count	40	51	44	34	45	214
		% within District	33.3%	31.9%	29.3%	26.2%	32.1%	30.6%
	BC	Count	31	20	20	32	21	124
		% within District	25.8%	12.5%	13.3%	24.6%	15.0%	17.7%
Total		Count	120	160	150	130	140	700

Source: Primary data



Findings in regard to casts of the respondents (table 4.6) revealed that a majority of respondents (51%) belonged to General caste whereas 30% were from Scheduled caste and 17% were from backward class. Similarly, a majority respondent from Hisar (55%), Jind (57%), and Panipat (52%) were also from general caste. The proportion of BC respondents was found to be lesser in comparison to other castes as only 12%, 13% and 15% respondents were from BC from Hisar, Jind and Panipat respectively.

4.7 Age of menarche and knowledge of menstruation

Respondents were requested to provide information on their knowledge of age of menarche and menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's knowledge of age of menarche and menstruation are given in the table below:

			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Do you know about the age of menarche?	No	Count	82	88	84	94	80	428
		% within District	68.3%	55.0%	56.0%	72.3%	57.1%	61.1%
	Yes	Count	38	72	66	36	60	272
		% within District	31.7%	45.0%	44.0%	27.7%	42.9%	38.9%
Did you know about menstruation before its occurrence?	No	Count	73	100	91	79	82	425
		% within District	60.8%	62.5%	60.7%	60.8%	58.6%	60.7%
	Yes	Count	47	60	59	51	58	275
		% District	39.2%	37.5%	39.3%	39.2%	41.4%	39.3%
Total		Count	120	160	150	130	140	700

Source: Primary data

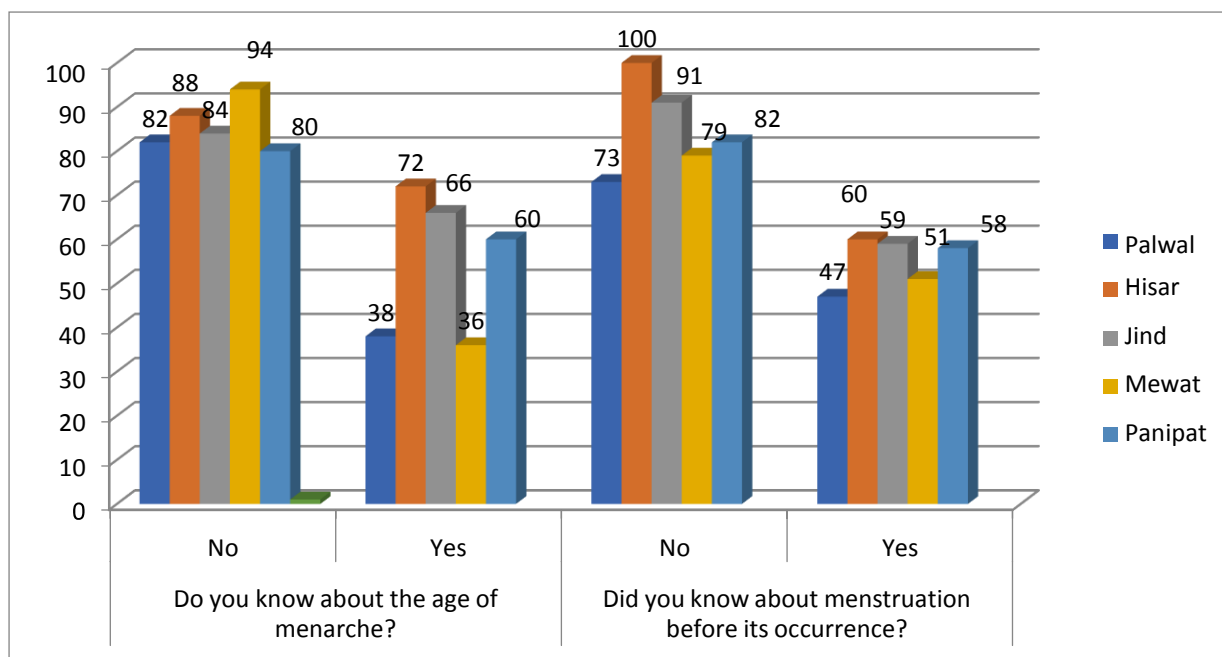


Table 4.7 revealed findings relating to women’s knowledge of age of menarche and menstruation. Findings in this regard revealed that females in selected districts were having little knowledge of age of menarche and menstruation as majority of respondents revealed that they did not know about the age of menarche and they did not know about menstruation before

its occurrence. Moreover, proportion of respondents having no such knowledge was found to be higher from Palwal and Mewat in contrast to other districts such as Hisar, Jind and Panipat. In Mewat, highest number of women (72%) were found to have no knowledge of age of menarche; followed by Palwal respondents (68%). As far as knowledge of menstruation before its occurrence is concerned, almost similar number of respondents ranging from 58-62% were found to have no knowledge of menstruation before its occurrence.

4.8 First information of menstruation

Respondents were requested to provide information on when did they get first information of menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to respondent's knowledge of timing of first information of menstruation are given in the table below:

Table 4.8: First information of menstruation									
				District					Total
				Palwal	Hisar	Jind	Mewat	Panipat	
If yes, when did you get first information?	Before starting menses	Count	48	55	55	51	55	264	
		% within District	40.0%	34.4%	36.7%	39.2%	39.3%	37.7%	
	At the time of first menses	Count	72	105	95	79	85	436	
		% within District	60.0%	65.6%	63.3%	60.8%	60.7%	62.3%	
Total		Count	120	160	150	130	140	700	
Source: Primary data									

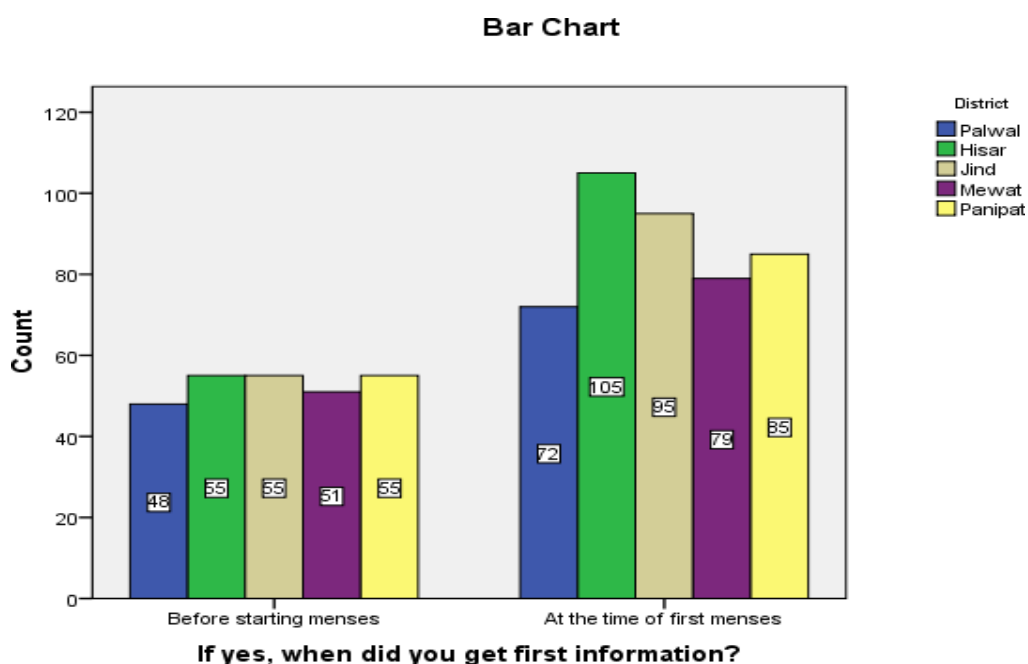


Table 4.8 revealed findings relating to timing of getting first information on menstruation and findings in this regard revealed that most women lacked information of menstruation before its occurrence; however they got to know about menstruation at the time of first menses. More than 60% respondents from all districts reported that they got information of menses when it occurred for the first time. For instance, 65% respondents from Jind revealed that they were informed about menses when it happened for the first time; followed by 63% respondents from Jind and 60% respondents each from Palwal, Mewat and Panipat. Overall, 37% respondents knew about menses before its occurrence that shows that there is still lack of awareness among parents/guardians to disseminate knowledge of menses among adolescent girls so that they can handle it hygienically.

4.9 Age of first menstruation

Respondents were requested to provide information on the age when first menstruation occurred. Responses obtained from selected districts of the state were analyzed with the help of mean score. Findings in regard to respondent’s age when first menstruation occurred are given in the table below:

Table 4.9: Age of first menstruation		
District	Age (in years)	N
Palwal	13.42	120
Hisar	13.46	160
Jind	13.45	150
Mewat	13.42	130
Panipat	13.43	140
Total	13.44	700
Source: Primary data		

Table 4.9 revealed findings relating to mean age of respondents at the time of first menstruation and findings in this regard revealed that mean age of menstruation was found to be 13.44 years. The mean age of menstruation among respondents was found to be similar for all districts as it varied between 13.42-13.46 years. There was no significant difference between mean age of menstruation among women for selected districts. These results are almost similar a study by Sharma et. al. (2013) average age of first menses was 13. As the respondents were medical line students, most had good habits of regular washing/ changing pads.

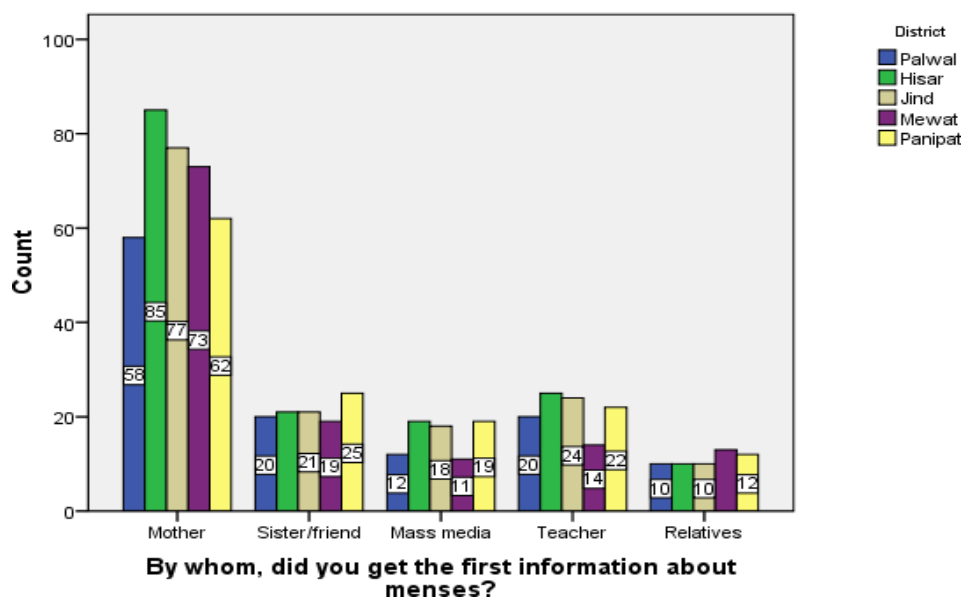
4.10 Source of first information about menstruation

Respondents were requested to provide information on the person who provided first information about menses. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard the person who provided first information about menses are given in the table below:

Table 4.10: Source of first information about menstruation

			District					Total	
			Palwal	Hisar	Jind	Mewat	Panipat		
By whom, did you get the first information about menses?	Mother	Count	58	85	77	73	62	355	
		% within District	48.3%	53.1%	51.3%	56.2%	44.3%	50.7%	
	Sister/Friend	Count	20	21	21	19	25	106	
		% within District	16.7%	13.1%	14.0%	14.6%	17.9%	15.1%	
	Mass media	Count	12	19	18	11	19	79	
		% within District	10.0%	11.9%	12.0%	8.5%	13.6%	11.3%	
	Teacher	Count	20	25	24	14	22	105	
		% within District	16.7%	15.6%	16.0%	10.8%	15.7%	15.0%	
	Relatives	Count	10	10	10	13	12	55	
		% within District	8.3%	6.2%	6.7%	10.0%	8.6%	7.9%	
	Total		Count	120	160	150	130	140	700
	Source: Primary data								

Bar Chart



Findings in regard to source of first information about menses (table 4.10) revealed that a majority of respondents got first information about menses from their mothers. In all selected districts, mother was found to be the major source of menses information. Further, sister/friend was found to be the second-largest source of menses information (15.1%); followed by teacher (15%); mass media (11%) and relatives (8%). In two districts, Hisar and Jind, more number of respondents received first information about menses from their teachers than from their sisters/friends; for all other districts, higher proportion of respondents received menses information from their sister/friends than from teachers. These findings showed that teachers in Hisar and Jind are more pro-active in spreading awareness on menses. It was important to mention here that mass media has also been playing a vital role in making girls aware about menses and its related issues. For instance, about 14% Panipat respondents were found to receive first information on menses from mass media; followed by 12% respondents each from Jind and Hisar who got first menses information from mass media.

4.11 Discussion of menstrual hygiene

Respondents were requested to provide information on the person with whom they discuss about menstruation and menstrual health. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the person with whom respondents discuss about menstruation and menstrual health are given in the table below:

Table 4.11: Discussion of menstrual hygiene								
			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Do you discuss about menstruation and menstrual hygiene with any one?	No	Count	74	93	85	81	77	410
		% within District	61.7%	58.1%	56.7%	62.3%	55.0%	58.6%
	Yes	Count	46	67	65	49	63	290
		% within District	38.3%	41.9%	43.3%	37.7%	45.0%	41.4%
Total		Count	120	160	150	130	140	700
If yes, by whom								
If yes, by whom	Mother	Count	23	36	34	25	33	151
		% within District	48.9%	53.7%	52.3%	49.0%	52.4%	51.5%
	Sister/ friend	Count	21	26	26	23	28	124
		% within District	44.7%	38.8%	40.0%	45.1%	44.4%	42.3%
	Relatives	Count	3	5	5	3	2	18
		% within District	6.4%	7.5%	7.7%	5.9%	3.2%	6.1%
Total		Count	47	67	65	51	63	293
Source: Primary data								

Findings in regard to discussion on menstrual hygiene among women (table 4.11) revealed that a majority of respondents (58%) failed to discuss menstrual hygiene with anyone; however only 41% respondents revealed that they discuss menstrual hygiene with others. It was interesting to note that a majority of the respondents (51%) discuss menstrual hygiene with their mothers; followed by 42% respondents who discussed with their sisters/friends; and only 6% respondents discussed menstrual hygiene with their relatives. This trend was found to be common for all selected districts.

4.12 Perceptions of menstruation process

Respondents were requested to provide information on their perceptions of menstruation process. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's perceptions of menstruation process are given in the table below:

Table 4.12: Perceptions of menstruation process								
			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
What do you think about menstruation process	Bodily incarnation of Goddess	Count	36	50	46	37	40	209
		%	30.0%	31.2%	30.7%	28.5%	28.6%	29.9%
	Normal physiological process	Count	56	78	76	62	76	348
		%	46.7%	48.8%	50.7%	47.7%	54.3%	49.7%
	Caused by a disease/sin	Count	10	15	13	12	12	62
		%	8.3%	9.4%	8.7%	9.2%	8.6%	8.9%
	Don't know	Count	18	17	15	19	12	81
		%	15.0%	10.6%	10.0%	14.6%	8.6%	11.6%
Total		Count	120	160	150	130	140	700
Source: Primary data								

Findings in regard to women's perceptions of menstruation (table 4.12) revealed that about half respondents (49.7%) perceive it as a normal physiological process. However, about 30% respondents perceive menstruation as a bodily incarnation of Goddess; only less than 10% respondents consider menses caused by a disease/sin. These findings highlighted that many women still view menses from a superstition angle that must be countered with certain scientific notions of menstruation so that people get rid of such misleading perceptions and beliefs. Government, society members and parents need to promote that menstruation is just a normal physiological process so that menses taboo may be eradicated among women.

4.13 Organ of blood flow during menstruation

Respondents were requested to provide information on their knowledge of the organ from which blood flows during menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of the organ from which blood flows during menstruation are given in the table below:

		District					Total	
		Palwal	Hisar	Jind	Mewat	Panipat		
Do you know the organ from the blood comes during menstruation?	Vagina	Count	33	48	45	40	42	208
		% within District	27.5%	30.0%	30.0%	30.8%	30.0%	29.7%
	Uterus	Count	41	41	39	38	37	196
		% within District	34.2%	25.6%	26.0%	29.2%	26.4%	28.0%
	Bladder	Count	35	53	49	33	54	224
		% within District	29.2%	33.1%	32.7%	25.4%	38.6%	32.0%
	Don't know	Count	11	18	17	19	7	72
		% within District	9.2%	11.2%	11.3%	14.6%	5.0%	10.3%
Total		Count	120	160	150	130	140	700
Source: Primary data								

Findings in regard to women's knowledge of the organ from which blood comes during menstruation (table 4.13) revealed that many women still lack knowledge about it as little more than 10% respondents didn't know about the organ from which blood comes during menstruation. As many as one-third respondents (32%) reported that blood comes from bladder during menstruation. It was interesting to know that many respondents were able to provide correct response as they knew that blood comes from Vagina (29%) and Uterus (28%). These findings were found to be similar for all selected districts as most respondents knew that blood comes either from Vagina or Uterus during menstruation.

4.14 Duration between two menstruations

Respondents were requested to provide information on their knowledge of duration between two menstruations. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of the duration between two menstruations are given in the table below:

			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
What is the average duration between two menstrual	Less than 28 days	Count	109	136	129	119	122	615
		% within District	90.8%	85.0%	86.0%	91.5%	87.1%	87.9%
	More than 32 days	Count	11	24	21	11	18	85
		% within District	9.2%	15.0%	14.0%	8.5%	12.9%	12.1%
Total		Count	120	160	150	130	140	700
Source: Primary data								

Findings in regard to women's knowledge of duration between two menstruations (table 4.14) revealed that a large majority of the respondents (about 88%) knew that the average duration between two menstrual is less than 28 days. However, a few respondents (about 12%) revealed that this duration is more than 32 days.

4.15 Duration of a menstruation period

Respondents were requested to provide information on their knowledge of duration of a menstruation period. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of the duration of a menstruation period are given in the table below:

Table 4.15: Duration of a menstruation period								
			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Duration of normal menstrual blood flow	2-3 days	Count	23	15	14	24	12	88
		% within District	19.2%	9.4%	9.3%	18.5%	8.6%	12.6%
	4-5 days	Count	85	119	112	94	107	517
		% within District	70.8%	74.4%	74.7%	72.3%	76.4%	73.9%
	More than 5 days	Count	12	26	24	12	21	95
		% within District	10.0%	16.2%	16.0%	9.2%	15.0%	13.6%
Total		Count	120	160	150	130	140	700
Source: Primary data								

Findings regarding women's knowledge of duration of normal menstrual blood flow (table 4.15) revealed that a large majority of the respondents (about 74%) reported that the average duration of normal menstrual blood flow is 4-5 days. However, a few respondents (about 12%) revealed that this duration is 2-3 days. Further, about 13% respondents reported that the average duration of normal menstrual blood flow is more than five days. It was interesting to note that higher proportion of respondents from Palwal (19%) and Mewat (18%), in contrast to other districts, reported that the average duration of normal menstrual blood flow is 2-3 days.

4.16 Frequency of napkin change

Respondents were requested to provide information on their knowledge of frequency of napkin change. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings about the respondent's knowledge of the frequency of napkin change are given in the table below:

			District					Total	
			Palwal	Hisar	Jind	Mewat	Panipat		
How many times women should be change the napkins with normal flow?	5-6 hours	Count	70	105	100	73	101	449	
		% within District	58.3%	65.6%	66.7%	56.2%	72.1%	64.1%	
	Once a day	Count	28	46	42	34	35	185	
		% within District	23.3%	28.8%	28.0%	26.2%	25.0%	26.4%	
	Twice a day	Count	12	5	4	13	0	34	
		% within District	10.0%	3.1%	2.7%	10.0%	.0%	4.9%	
	When bleeding stops	Count	10	4	4	10	4	32	
		% within District	8.3%	2.5%	2.7%	7.7%	2.9%	4.6%	
	Total		Count	120	160	150	130	140	700
	Source: Primary data								

Table 4.16 revealed findings relating to frequency of napkin change by respondents and findings in this regard revealed that a majority of respondents (65%) change napkin every 5-6 hours. About quarter of respondents (26%) revealed that they change napkin once a day and about 5% respondents would change napkins twice a day. These findings highlighted that women in Haryana are still following unhygienic menstrual practices as it is not recommended to keep a napkin for whole day and it must be changed every 5-6 hours. It was worth highlighting that about 8% Palwal and Mewat respondents change napkin when bleeding stops which seems to be a unhygienic practice that may cause several diseases among women. Such women must be made aware that they need to change napkin every 5-6 hours in order to avoid menstrual problems.

4.17 Problems relating to menstrual disorder

Respondents were requested to provide information on their knowledge of problems relating to menstrual disorder. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of problems relating to menstrual disorder are given in the table below:

Table 4.17: Problems relating to menstrual disorder								
			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Problems of menstrual disorder	No	Count	45	61	61	47	55	269
		%	37.5%	38.1%	40.7%	36.2%	39.3%	38.4%
	Yes	Count	75	99	89	83	85	431
		%	62.5%	61.9%	59.3%	63.8%	60.7%	61.6%
Total		Count	120	160	150	130	140	700
If yes, which problem have you faced	Excessive bleeding	Count	40	52	48	45	38	223
		%	54.8%	52.5%	55.2%	52.9%	45.8%	52.2%
	Irregular periods	Count	20	29	25	23	26	123
		%	27.4%	29.3%	28.7%	27.1%	31.3%	28.8%
	Passing clots of blood	Count	7	11	8	11	13	50
		%	9.6%	11.1%	9.2%	12.9%	15.7%	11.7%
	Inter-menstrual bleeding	Count	6	7	6	6	6	31
		%	8.2%	7.1%	6.9%	7.1%	7.2%	7.3%
Total		Count	73	99	87	85	83	427
Source: Primary data								

Table 4.17 revealed findings relating to women's knowledge of menstrual disorder problems and findings in this regard revealed that a majority of respondents (61%) have faced menstrual disorder problems whereas about 38% respondents did not face such problems. Amongst women who faced menstrual disorder problems, majority of them (52%) faced issue of excessive bleeding; followed by 28% respondents who faced problem of irregular periods. Whereas, 11% respondents reported that they are passing blood clots and only 7% respondents were found to have inter-menstrual bleeding. These findings pointed at high rate of occurrence of menstrual related problems that requires a significant change in the government's health policy so that such problems can be minimized from society. Government need to reach women living in far-flung villages through community health-centers and dispensaries so that

menstrual problems can be identified in initial stages preventing development of life-threatening diseases.

4.18 Knowledge of medical issues relating to menstrual disorder

Respondents were requested to provide information on their knowledge of medical issues relating to menstrual disorder. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of medical issues relating to menstrual disorder are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total
Do you know excessive bleeding leads to problem of anemia?	No	Count	68	101	92	76	95	432
		%	56.7%	63.1%	61.3%	58.5%	67.9%	61.7%
	Yes	Count	52	59	58	54	45	268
		%	43.3%	36.9%	38.7%	41.5%	32.1%	38.3%
Total		Count	120	160	150	130	140	700
Do you take medicine in case of excessive bleeding during menses?	No	Count	66	98	91	80	98	433
		%	57.9%	63.6%	63.2%	65.0%	73.1%	64.7%
	Yes	Count	48	56	53	43	36	236
		%	42.1%	36.4%	36.8%	35.0%	26.9%	35.3%
Total		Count	114	154	144	123	134	669
Do you know irregular periods or unhygienic used materials are the reason of females' death from cervical cancer?	No	Count	87	114	106	94	98	499
		%	72.5%	71.2%	70.7%	72.3%	70.0%	71.3%
	Yes	Count	33	46	44	36	42	201
		%	27.5%	28.8%	29.3%	27.7%	30.0%	28.7%
Total		Count	120	160	150	130	140	700
Source: Primary data								

Table 4.18 revealed findings relating to women's knowledge of medical issues relating to menstrual disorder and findings in this regard revealed that a majority of respondents (61%) did not know that excessive bleeding leads to problem of anemia among women which is a alarming finding because it seems that women in Haryana lack basic knowledge regarding anemia. In contrast to other districts, more proportion of Palwal (43%) and Mewat (41%) respondents were found to have knowledge that excessive bleeding causes anemia among

women. Further, a large majority of respondents (64%) reported that they do not take any medicine to prevent excessive bleeding which is a matter of concern because excessive bleeding may cause fatigue and restlessness among women during menses. Surprisingly, a large majority (73%) of Panipat respondents was not taking medicine in case of excessive bleeding; followed by 65% from Mewat and 63% each from Hisar and Jind. It was worth mentioning here that more than 70% respondents did not know that irregular periods or use of unhygienic materials can lead to females' death from cervical cancer which seems to be a thought-provoking finding. Such large number of women having little knowledge of life-threatening issues may prove to be fatal for many women who are still following unhygienic menstrual practices.

4.19 Usage and disposal of pads during menses

Respondents were requested to provide information on how do they use and dispose of pads during menses. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of usage and disposal of pads during menses are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total
Do you know which type of pad should be used during menses?	Cloth pads	Count	34	38	36	41	31	180
		%	28.3%	23.8%	24.0%	31.5%	22.1%	25.7%
	Sanitary pads	Count	72	99	94	72	87	424
		%	60.0%	61.9%	62.7%	55.4%	62.1%	60.6%
	Menstrual cup/ tampons	Count	6	14	14	6	14	54
		%	5.0%	8.8%	9.3%	4.6%	10.0%	7.7%
	Don't Know	Count	8	9	6	11	8	42
		%	6.7%	5.6%	4.0%	8.5%	5.7%	6.0%
Total		Count	120	160	150	130	140	700
Where the used pads should be disposed of?	Dustbin	Count	48	66	62	47	57	280
		%	40.0%	41.2%	41.3%	36.2%	40.7%	40.0%
	Open land	Count	45	66	60	38	55	264
		%	37.5%	41.2%	40.0%	29.2%	39.3%	37.7%
	Burnt/dug	Count	18	19	19	37	19	112
		%	15.0%	11.9%	12.7%	28.5%	13.6%	16.0%
	Flushed	Count	9	9	9	8	9	44
		%	7.5%	5.6%	6.0%	6.2%	6.4%	6.3%

Total	Count	120	160	150	130	140	700
Source: Primary data							

Table 4.19 revealed findings relating to women's knowledge of usage and disposal of pads during menses and findings in this regard revealed that a majority of respondents (60%) used sanitary pads during menses. A quarter of respondents (25%) were found using cloth pads and only seven percent used menstrual cup/ tampons during menses. In relation to other districts, a higher proportion of respondents from Palwal (28%) and Mewat (31%) were found using cloth pads. Findings regarding disposal of pads showed that 40% women threw used pad in dustbin; followed by 37% respondents disposed off pads at open land which is a unhealthy practice that may cause several diseases. Further, 16% respondents burnt/dug used pads and a sizeable proportion (6%) were found flushing pads.

4.20 Infections caused due to unhygienic material used during menses

Respondents were requested to provide information on their knowledge of various infections caused due to unhygienic material used during menses. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of various infections caused due to unhygienic material used during menses are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total
Do you know about the infections caused by not using proper hygienic materials during menses?	No	Count	70	74	67	77	60	348
		%	58.3%	46.2%	44.7%	59.2%	42.9%	49.7%
	Yes	Count	50	86	83	53	80	352
		%	41.7%	53.8%	55.3%	40.8%	57.1%	50.3%
Total		Count	120	160	150	130	140	700
If yes, which types of infection do you	Sexually & reproductive tract infections	Count	14	25	23	14	22	98
		%	28.0%	29.1%	27.7%	26.9%	27.5%	27.9%
	Urinary tract infections	Count	23	42	42	24	42	173
		%	46.0%	48.8%	50.6%	46.2%	52.5%	49.3%
		Count	8	13	12	9	11	53

know?	Cervix cancer & Dysmenorrhoeal	%	16.0%	15.1%	14.5%	17.3%	13.8%	15.1%
		All of above	Count	5	6	6	5	5
			%	10.0%	7.0%	7.2%	9.6%	6.2%
Total		Count	50	86	83	52	80	351
Source: Primary data								

Table 4.20 revealed findings relating to women's knowledge of various infections caused due to unhygienic material used during menses and findings in this regard revealed that a majority of respondents (50.3%) knew about infections caused due to unhygienic menstrual practices. A bit more than 49% respondents revealed that they have knowledge of urinary tract infections that may be caused by unhygienic menstrual practices; followed by 28% respondents who had knowledge of sexually and reproductive tract infections. Further, 15% respondents were found to have knowledge of cervix cancer & dysmenorrhoeal and seven percent respondents were having knowledge of all diseases mentioned above.

4.21 Family occupation of respondents

Respondents were requested to provide information on occupation of their family, father and mother. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the occupation of respondent's family, father and mother are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total
Family occupation	Business	Count	23	53	50	21	62	209
		%	19.2%	33.1%	33.3%	16.2%	44.3%	29.9%
	Farming	Count	80	74	69	92	50	365
		%	66.7%	46.2%	46.0%	70.8%	35.7%	52.1%
	Job	Count	17	33	31	17	28	126
		%	14.2%	20.6%	20.7%	13.1%	20.0%	18.0%
Total		Count	120	160	150	130	140	700
Father's occupation	Job	Count	17	23	22	17	22	101
		%	14.2%	14.4%	14.7%	13.1%	15.7%	14.4%
	Small	Count	41	64	59	41	61	266

	business/ Skilled worker	%	34.2%	40.0%	39.3%	31.5%	43.6%	38.0%
	Unskilled worker	Count	62	73	69	72	57	333
		%	51.7%	45.6%	46.0%	55.4%	40.7%	47.6%
Total		Count	120	160	150	130	140	700
Mother's occupation	Daily Wager	Count	41	44	43	40	42	210
		%	34.2%	27.5%	28.7%	30.8%	30.0%	30.0%
	Home maker	Count	58	68	62	68	52	308
		%	48.3%	42.5%	41.3%	52.3%	37.1%	44.0%
	Job	Count	2	19	17	2	19	59
		%	1.7%	11.9%	11.3%	1.5%	13.6%	8.4%
	Skilled worker/ Shop	Count	19	29	28	20	27	123
		%	15.8%	18.1%	18.7%	15.4%	19.3%	17.6%
Total		Count	120	160	150	130	140	700
Source: Primary data								

Findings in regard to family occupation of respondents (table 4.21) revealed that a majority of respondents belonged to farming families; however 30% respondents were from business and only 18% respondents were from service families. About 47% respondents revealed that their father is an unskilled worker and 38% respondents reported that their father runs a small business. Findings relating to mother's occupation revealed that 44% respondent's mothers were home makers and 30% respondent's mothers were daily wagers. A sizeable chunk of respondents (17%) reported that their mothers are skilled workers or they are running shops.

4.22 Association between economic status and material used during menstruation

In the previous sections, findings on economic status and material used during menstruation were presented. The present study applied chi-square test on the frequency of economic status and material used during menstruation. For this, following hypotheses were proposed:

H0: There is no association between economic status and material used during menstruation for Haryana women.

H1: There is a significant association between economic status and material used during menstruation for Haryana women.

Findings in regard to the association between economic status and material used during menstruation are given in the table below:

Table 4.22: Association between economic status and material used: Chi-square test							
			Material used				Total
			Cloth Pad	Sanitary Pad	Tampons/ Menstrual Cup	Pad made from husk/sand	
Economic Status	Lower	Count	154	57	3	70	284
		%	54.2%	20.1%	1.1%	24.6%	100.0%
	Middle	Count	98	184	24	2	308
		%	31.8%	59.7%	7.8%	.6%	100.0%
	Upper	Count	24	52	32	0	108
		% within Economic Status	22.2%	48.1%	29.6%	.0%	100.0%
Total	Count	276	293	59	72	700	
	% within Economic Status	39.4%	41.9%	8.4%	10.3%	100.0%	
Chi-square value			p value		Decision		
257.088			< 0.05		Null hypothesis was rejected		
Source: Primary data							

Table 4.22 revealed that p value for chi-square test was found to be less than level of significance (0.05), leading to rejection of the null hypothesis. Therefore, the study found a significant association between economic status and material used during menstruation for Haryana women. Findings revealed that a majority of the respondents with low-income status (54%) were using cloth pads and 24% of them were using pad made from husk/sand. A majority of middle-income respondents (59%) were found using sanitary pads; however only 31% of them were using cloth pads. The findings noticed a shift in usage of pads across economic status of respondents as about 48% respondents with upper economic status were using sanitary pads and about 30% were using tampons/ menstrual cups. The chi-square test (Chi-square value = 257.088; $p < 0.05$) revealed significant differences between use of different types of pads among women with respect to their economic status as most women with lower economic status were using cloth/husk pads; however, women from middle or upper economic status were found using sanitary pads or tampons/ menstrual cups.

4.23 Association between family occupation and material used during menstruation

In the previous sections, findings on family occupation and material used during menstruation were presented. The present study applied chi-square test on the frequency of family occupation and material used during menstruation. For this, following hypotheses were proposed:

H0: There is no association between family occupation and material used during menstruation for Haryana women.

H1: There is a significant association between family occupation and material used during menstruation for Haryana women.

Findings in regard to the association between family occupation and material used during menstruation are given in the table below:

Table 4.23: Association between family occupation and material used during menstruation: Chi-square test							
			Material used				Total
			Cloth Pad	Sanitary Pad	Tampons/ Menstrual Cup	Pad made from husk/sand	
Family Occupation	Business	Count	41	155	12	1	209
		% within Family Occupation	19.6%	74.2%	5.7%	.5%	100.0%
	Farming	Count	211	83	2	69	365
		% within Family Occupation	57.8%	22.7%	.5%	18.9%	100.0%
	Job	Count	24	55	45	2	126
		% within Family Occupation	19.0%	43.7%	35.7%	1.6%	100.0%
Total		Count	276	293	59	72	700
		% within Family Occupation	39.4%	41.9%	8.4%	10.3%	100.0%
Chi-square value			P value		Decision		
344.58			< 0.05		Null hypothesis was rejected		
Source: Primary data							

Table 4.23 revealed that p value for chi-square test was found to be less than level of significance (0.05), leading to rejection of the null hypothesis. Therefore, the study found a significant association between family occupation and material used during menstruation for Haryana women. Findings revealed that a majority of the respondents from business-families use sanitary pads (74%) and only about 20% such respondents were using cloth pads. The use of pads significantly differs for various types of family occupations (Chi-square value = 344.58; $p < 0.05$). For instance, a majority of respondents from farming families (57%) were using cloth pads and only 22% women from framing families were using sanitary pads. A sizeable chunk of women from service families were using tampons/ menstrual cup (35%) and 43% of such respondents were found using sanitary pads. These findings highlighted that woman from business and service families were using more hygienic menstrual practices than for women from farming families in Haryana. It can be inferred that rural women are more prone to menstrual problems as they were found using unhygienic practices such as use of cloth pads during menses that may lead to urinary tract infections etc. Many rural women prepare cloth pads at home so that cost on sanitary pads can be reduced and women attempt to re-use such pads after washing. Use of cloth pads for longer time may cause rashes and other menstrual problems as well. Therefore, government, civil society, schools and NGOs need to make girls, especially from farming families, aware about use of sanitary pads so that hygienic menstrual practices are promoted among women in Haryana.

4.24 Association between mother's education status and material used during menstruation

In the previous sections, findings on mother's educational status and material used during menstruation were presented. The present study applied chi-square test on the frequency of mother's educational status and material used during menstruation. For this, following hypotheses were proposed:

- H0: There is no association between mother's educational status and material used during menstruation for Haryana women.
- H1: There is a significant association between mother's educational status and material used during menstruation for Haryana women.

Findings in regard to the association between mother's educational status and material used during menstruation are given in the table below:

Table 4.24: Association between mother’s education status and material used during menstruation: Chi-square test

			Material used				Total
			Cloth Pad	Sanitary Pad	Tampons/ Menstrual Cup	Pad made from husk/sand	
Mothers Education	Graduate and above	Count	4	19	53	0	76
		% within Mothers Education	5.3%	25.0%	69.7%	.0%	100.0%
	Higher (11-12 th)	Count	34	105	4	0	143
		% within Mothers Education	23.8%	73.4%	2.8%	.0%	100.0%
	Illiterate	Count	130	23	1	69	223
		% within Mothers Education	58.3%	10.3%	.4%	30.9%	100.0%
	Secondary (6-10 th)	Count	108	141	1	3	253
		% within Mothers Education	42.7%	55.7%	.4%	1.2%	100.0%
	Up to 10 th	Count	0	5	0	0	5
		% within Mothers Education	.0%	100.0%	.0%	.0%	100.0%
	Total	Count	276	293	59	72	700
		% within Mothers Education	39.4%	41.9%	8.4%	10.3%	100.0%
Chi-square value			P value		Decision		
678.92			< 0.05		Null hypothesis was rejected		
Source: Primary data							

Table 4.24 revealed that p value for chi-square test was found to be less than level of significance (0.05), leading to rejection of the null hypothesis. Therefore, the study found a significant association between mother’s educational status and material used during menstruation for Haryana women. Findings revealed that a majority of the respondents (69%) whose mothers were graduates were found using tampons/ menstrual cup. A large majority of respondents (73%), whose mothers having higher secondary qualification, were found using sanitary pads. Findings of this test indicated a significant influence of mother’s education on menstrual hygienic practices adopted by respondents. For instance, it was evident that respondents whose mothers were less educated, were following unhygienic menstrual practices

in comparison to respondents whose mothers were highly educated as about 58% respondents whose mothers were illiterate were using cloth pads. However, 31% of such respondents were using pads made from husk/sand and only 10% of them were using sanitary pads. In previous sections, it was mentioned that mothers act as a major source for receiving menstrual information; therefore, families need to pay attention towards education of mothers so that they are able to guide their daughters for adopting hygienic menstrual practices.

4.25 Association between type of school attended and material used during menstruation

In the previous sections, findings on mother's educational status and material used during menstruation were presented. Also, the present study applied chi-square test on the frequency of type of school attended and material used during menstruation. For this, following hypotheses were proposed:

- H0: There is no association between type of school attended and material used during menstruation for Haryana women.
- H1: There is a significant association between type of school attended and material used during menstruation for Haryana women.

Findings in regard to the association between type of school attended and material used during menstruation are given in the table below:

			Material used				Total
			Cloth Pad	Sanitary Pad	Tampoons/ Menstrual Cup	Pad made from husk/sand	
Type of school	Government	Count	214	142	3	49	408
		% within School	52.5%	34.8%	.7%	12.0%	100.0%
	No schooling	Count	9	1	0	23	33
		% within School	27.3%	3.0%	.0%	69.7%	100.0%
	Private	Count	41	108	42	0	191
		% within School	21.5%	56.5%	22.0%	.0%	100.0%
	Private-aided	Count	12	42	14	0	68
		% within School	17.6%	61.8%	20.6%	.0%	100.0%

Total	Count	276	293	59	72	700
	% within School	39.4%	41.9%	8.4%	10.3%	100.0%
Chi-square value		p value		Decision		
301.71		< 0.05		Null hypothesis was rejected		
Source: Primary data						

Table 4.25 revealed that p value for chi-square test was found to be less than level of significance (0.05), leading to rejection of the null hypothesis. Therefore, the study found a significant association between type of school attended and material used during menstruation for Haryana women. Findings revealed significant differences between use of various types of pads with respect to respondent's school as a majority of respondents from government schools (52%) were found using cloth pad; followed by sanitary pad (34%) and pad made from husk/sand (12%). It was surprising to note that about 70% of respondents with no school were found using pad made form husk/sand and 27% of them were using cloth pads during menses. In contrast, a majority of respondents from private (56%) and private-aided schools (61%) were using sanitary pads. Very few respondents from private or private-aided schools were using cloth pad or pad made from husk/sand. These findings highlighted that woman from government schools or no school have been still following unhygienic menstrual practices in comparison to women from private or private-aided schools of Haryana. This finding seems to be important for formulating education policy under the backdrop of hygienic menstrual practices. In the light of this finding, it is suggested that government need to launch special campaigns or include a separate chapter in text-books enabling girls to attain knowledge on menstrual hygiene. Government may also consider installing sanitary-pads vending machines in its schools so that use of sanitary pads among girls can be promoted. Girls in government schools may also be encouraged to shun using cloth pads and make use of disposable pads, helping them to adopt healthy menstrual practices.

4.26 Association between type of house and material used during menstruation

In the previous section, findings on the association between type of school attended and material used during menstruation were presented. Also, the present study applied chi-square test on the frequency of type of house and material used during menstruation. For this, following hypotheses were proposed:

- H0: There is no association between type of house and material used during menstruation for Haryana women.

H1: There is a significant association between type of house and material used during menstruation for Haryana women.

Findings in regard to the association between type of house and material used during menstruation are given in the table below:

Table 4.26: Association between type of house and material used during menstruation: Chi-square test							
			Material used				Total
			Cloth Pad	Sanitary Pad	Tampoons/ Menstrual Cup	Pad made from husk/sand	
Type of house	Hut	Count	9	0	0	56	65
		% within House	13.8%	.0%	.0%	86.2%	100.0%
	Kutch House	Count	138	41	2	16	197
		% within House	70.1%	20.8%	1.0%	8.1%	100.0%
	Pucca House	Count	86	164	56	0	306
		% within House	28.1%	53.6%	18.3%	.0%	100.0%
	Semi-Pucca House	Count	43	88	1	0	132
		% within House	32.6%	66.7%	.8%	.0%	100.0%
	Total	Count	276	293	59	72	700
		% within House	39.4%	41.9%	8.4%	10.3%	100.0%
Chi-square value			P value		Decision		
619.55			< 0.05		Null hypothesis was rejected		
Source: Primary data							

Table 4.26 revealed that p value for chi-square test was found to be less than level of significance (0.05), leading to rejection of the null hypothesis. Therefore, the study found a significant association between type of house and material used during menstruation for Haryana women. Findings revealed significant differences as women living in Pucca house were following more hygienic practices than for women living in Kutcha house or hut. The proportion of respondents using different types of pads vary as per the type of house they live in. for instance, a large majority of respondents (86%) living in huts were found using pads made from husk/sand during menses; whereas about 14% were found using cloth pads. Further, about 70% respondents living in Kutcha house were using cloth pad; followed by 21% respondents using sanitary pad. These findings indicated that women living in hut or Kutcha house were more vulnerable to menstrual diseases because they have been following unhealthy practices. On the other hand, a majority of respondents living in Pucca house (53%) were found using sanitary pads; whereas 28% of them were using cloth pads.

4.27 Association between caste and material used during menstruation

In the previous section, findings on the association between type of house and material used during menstruation were presented. Also, the present study applied chi-square test on the frequency of caste and material used during menstruation. For this, following hypotheses were proposed:

H0: There is no association between the caste and material used during menstruation for Haryana women.

H1: There is a significant association between the caste and material used during menstruation for Haryana women.

Findings in regard to the association between the caste and material used during menstruation are given in the table below:

			Material used				Total
			Cloth Pad	Sanitary Pad	Tampoons/ Menstrual Cup	Pad made from husk/sand	
	General	Count	42	261	34	25	362
		% within Caste	11.6%	72.1%	9.39%	6.91%	100.0%
		Count	136	27	16	35	214

Caste	SC	% within Caste	63.55%	12.62%	7.48%	16.35%	100.0%
	BC	Count	98	5	9	12	124
		% within Caste	79%	4%	7.26%	9.68%	100.0%
Total	Count	276	293	59	72	700	
	% within Caste	39.4%	41.9%	8.4%	10.3%	100.0%	
Chi-square value			P value		Decision		
203.14			< 0.05		Null hypothesis was rejected		
Source: Primary data							

Table 4.27 revealed that p value for chi-square test was found to be less than level of significance (0.05), leading to rejection of the null hypothesis. Therefore, the study found a significant association between caste and material used during menstruation for Haryana women. Findings revealed significant differences as general caste women were following more hygienic practices than for SC and BC women. The proportion of respondents using different types of pads was found to vary as per their caste. For instance, a large majority of general caste respondents (72%) were found using 'sanitary pads'; whereas about 11% were found using cloth pads. Further, about 63% of SC women were found using cloth pads which may be considered as an unhygienic practice because that may result in infections among users. Only 12% of the SC women were found using sanitary pads and seven percent of them were using menstrual cups. Among BC women, a large majority (79%) was using cloth pads; however only four percent of them were using sanitary pads.

Chapter 5

Perceptions of different aspects of menstrual hygiene and government schemes

In this chapter, an attempt has been made to present data analysis relating to women's perceptions of different aspects of menstrual hygiene and government schemes. In total, 700 respondents were surveyed from five districts of Haryana. In this chapter, findings of the study, obtained by using appropriate statistical tools such as logistic regression, ANOVA, percentage and frequency etc., have been presented. This chapter has been presented under the following heads:

- 5.1 Comparing perceptions of menstrual hygiene for different age groups
- 5.2 Menstrual hygiene practices determining infections among women: Results of logistic regression
- 5.3 Perceptions of menstruation and infections among women: Results of logistic regression
- 5.4 Awareness of government schemes relating to menstruation among Haryana women
- 5.5 Source of information regarding government schemes relating to menstruation
- 5.6 Benefits of government schemes relating to menstruation
- 5.7 Weakness of government schemes relating to menstruation
- 5.8 Suggestions for improvement in government schemes relating to menstruation

5.1 Comparing perceptions of menstrual hygiene for different age groups

In the previous section, findings in regard to the association between socio-economic variables and material used during menstruation were presented. In this section, an attempt has been made to compare perceptions of menstrual hygiene for different age groups of respondents. Findings in regard to the perceptions of menstrual hygiene for different age groups of respondents are given in the table below:

Statements	Age categories	Mean	Std. Deviation	ANOVA test (p value)
Are you considered impure/ unclean during menses?	10-19 years	3.64	1.075	.000
	20-30 years	4.03	1.447	
	31-40 years	4.83	.492	
	Above 40 years	4.96	.205	
	Total	4.13	1.186	
Do you participate in all household activities?	10-19 years	3.20	1.201	.000
	20-30 years	4.16	1.439	
	31-40 years	3.93	1.663	
	Above 40 years	3.10	1.682	
	Total	3.62	1.493	
Do you take exercise during menses?	10-19 years	1.86	1.101	.000
	20-30 years	2.16	1.380	
	31-40 years	1.30	.560	
	Above 40 years	1.54	.531	
	Total	1.80	1.113	
Do you take hair wash during menses?	10-19 years	2.43	1.234	.000
	20-30 years	1.90	1.014	
	31-40 years	1.03	.205	
	Above 40 years	1.09	.284	
	Total	1.86	1.123	
Are you allowed to do worship during menstruation?	10-19 years	1.77	1.044	.000
	20-30 years	1.39	.800	
	31-40 years	1.11	.426	
	Above 40 years	1.06	.235	
	Total	1.45	.865	
Are you allowed to attend the religious functions during menses?	10-19 years	2.33	1.439	.000
	20-30 years	2.04	1.290	
	31-40 years	1.35	.911	
	Above 40 years	1.35	.888	
	Total	1.95	1.317	
Are you allowed to enter in the kitchen during ?menstruation	10-19 years	3.38	1.360	.000
	20-30 years	3.78	1.320	
	31-40 years	3.06	.969	
	Above 40 years	1.93	1.005	
	Total	3.29	1.347	

Are you allowed to touch the pickles?	10-19 years	1.90	1.148	.563
	20-30 years	1.79	1.131	
	31-40 years	1.87	1.364	
	Above 40 years	1.70	1.407	
	Total	1.84	1.216	
Are you restricted to eat curd or any sour food items?	10-19 years	2.69	1.350	.000
	20-30 years	2.52	1.150	
	31-40 years	4.39	1.297	
	Above 40 years	4.28	1.523	
	Total	3.14	1.525	
Are you allowed to go near Tulsi & curry leaves during menses?	10-19 years	2.58	1.239	.000
	20-30 years	3.30	1.298	
	31-40 years	1.96	1.250	
	Above 40 years	1.70	1.228	
	Total	2.59	1.373	
Are you live separately in your home during menses?	10-19 years	2.31	1.036	.000
	20-30 years	2.04	1.203	
	31-40 years	3.23	1.431	
	Above 40 years	3.68	1.377	
	Total	2.55	1.333	
Are you allowed to play during menstruation?	10-19 years	3.41	1.200	.000
	20-30 years	3.48	.964	
	31-40 years	2.18	1.234	
	Above 40 years	1.45	1.182	
	Total	2.99	1.343	
Are you allowed to attend social gatherings?	10-19 years	3.51	1.197	.000
	20-30 years	3.98	.902	
	31-40 years	4.09	1.045	
	Above 40 years	3.64	1.740	
	Total	3.78	1.180	
Are you allowed to touch your husband or other family members during periods?	10-19 years	3.24	1.375	.000
	20-30 years	3.71	1.065	
	31-40 years	4.23	1.051	
	Above 40 years	3.45	1.345	
	Total	3.60	1.276	
Are you given separate bedding during menstruation?	10-19 years	2.45	1.266	.000
	20-30 years	1.78	1.124	
	31-40 years	2.80	1.683	
	Above 40 years	3.49	1.066	
	Total	2.42	1.400	

Are you allowed to take bath daily during menstruation?	10-19 years	3.61	.962	.000
	20-30 years	4.02	2.791	
	31-40 years	3.14	3.689	
	Above 40 years	2.26	1.233	
	Total	3.51	2.416	
Is menstrual blood considered as an evil/dangerous?	10-19 years	2.78	1.157	.000
	20-30 years	3.33	1.364	
	31-40 years	4.47	.732	
	Above 40 years	4.64	.568	
	Total	3.47	1.327	
Is menstrual blood act as “black magic”?	10-19 years	2.38	1.236	.000
	20-30 years	2.28	1.252	
	31-40 years	3.54	.642	
	Above 40 years	4.02	.726	
	Total	2.74	1.273	
Source: Primary data				

In order to compare perceptions of menstrual hygiene for different age groups, the present study used Analysis of Variance (ANOVA). Findings in this regard (table 5.1) revealed that respondents according to their age have different perceptions of various aspects of menstruation, except for one statement. For instance, respondents above 40 years were found to have stronger perceptions that they are considered impure/ unclean during menses in comparison to respondents with younger age. Further, respondents with 20-30 years age reported that they participate in all household activities and they take exercise during menses. However, respondents 10-19 years reported that they take hair wash during menses. Meanscore for next two statements i.e. “Are you allowed to do worship during menstruation” and “Are you allowed to attend the religious functions during menses” were found to be less than three. It means respondents were not allowed to worship and to attend religious ceremonies during menses. Further, respondents above 40 years reported that they were not allowed to enter kitchen; however younger respondents were found to have contrary perceptions as they reported that they were allowed to enter kitchen during periods. The mean score the statements “Are you allowed to touch the pickles?” was found to be less than the middle value, indicating that women in Haryana are not still allowed to touch pickles during periods. Moreover, older respondents with age 31-40 years and above 40 years were found to have higher perceptions of restrictions to eat curd or any other sour item, in comparison to their younger counterparts.

Similarly, older women perceived that they are not allowed to go near “Tulsi” or curry leaves during menses; however younger women perceived that they are allowed to do so.

Further, older women (i.e. 31-40 years or above 40 years) revealed higher perceptions of living separately in home during menses and such women also revealed higher mean score for attending social gathering during menses. Respondents also revealed that they were allowed to touch their husband or other family members during periods. Further, women above 40 years perceived that they are given separate bedding during menses; however, younger respondents disagreed to it. Similarly, older respondents continued to show negative perceptions of various aspects relating to menstruation as they perceived that menstrual blood is considered as an evil/dangerous or black magic. Patkar and Bharadwaj (2004) found these perceptions in their study and realize that these things are a part of Bible too which says that such women should be kept in isolation from the community and any person that touch is her or comes in close vicinity shall be called as impure. Such kind of thoughts are also supported by the Jewish people. And this same study mentioned about the laws followed under Islam and according to which a woman on her monthly cycles is prohibited entry into the mosque she is denied touching the religious book The Ramadan fasting and sharing the same bed with her husband. Patil et al, (2011) explained the belief related to menstruation was investigated in rural Pondicherry and the results reveal that nearly two-thirds of the respondents (65.4% illiterates as well as 62.1% literates) believed that menstruating blood is dirty and also believed that girls can be kept safe from evil spirits by placing things like a broomstick, Neem leaves & footwear near to them. Shantanu S. et.al. (2017) reported as 40% girls were restricted at home or not allowed to go out during menstruation and 46.4% were restricted from going temple, eating certain foods, working in kitchen, playing or doing routine household work. Around three fourth (73.08) out of 17 girls who reused cloth were reported that washroom facilities were available at home for cleaning cloth used as absorbent. This kind of study are supported to present this study.

5.2 Menstrual hygiene practices determining infections among women: Results of logistic regression

In this section, an attempt has been made to link menstrual hygiene practices and infections among women. For this, menstrual hygiene practices were measured as four variables such as toilet facility; method used for washing cloth pad, place of drying washed cloth and material used for genital wash. These four variables were considered as independent variables in the logistic regression; whereas infection among women (measured though a

dichotomous options: ‘yes/no’) was considered as a dependent variable. The dependent and independent variables included in the logistic regression have been presented in the form of an equation given below:

$$INF_i = b_0 + b_1TF + b_2MWCP + b_3PDWC + b_4MUGW + E$$

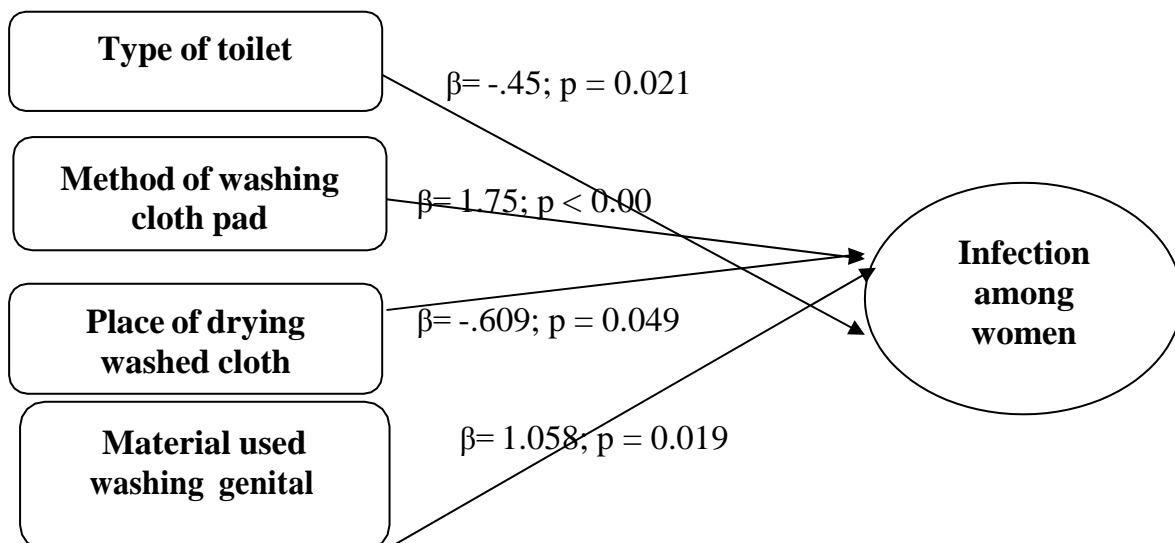
where INF_i = Infection among women
 TF = Toilet facility
 MWCP= Method used for washing cloth pad
 PDWC = Place of drying washed cloth
 MUGW= Material used for genital wash
 E_i = Error term

Findings in regard to the menstrual hygiene practices determining infections among women are given in the table below:

Table 5.2: Menstrual hygiene practices determining infections among women: Results of logistic regression			
Independent variables	β	Sig.	Exp(B)
Type of toilet	-.452	.021	.636
Method of washing cloth pad	1.752	.000	5.768
Place of drying washed cloth	-.609	.049	.544
Material used washing genital	1.058	.019	2.882
Constant	-6.085	.000	.002

Source: Primary data

Findings given in the above table may be presented as per following figure:



The influence of two hygiene practices (such as method of washing cloth pad and material used washing genital) on infections among women was found to be significant positively (table 5.2) and r-square for these relationships was found to be 0.484, indicating that hygiene practices explained about 48% variation in infections among women. The effect of method was washing cloth pad was found to be strongest as odds ratio for this factor was found to be 5.76. This finding indicated that an increase of ‘1’ in this factor increases the odds of infection over the odds of not having infection by 5.76 times. Similarly, ‘material used washing genital’ was found to be the second-best predictor of infections among women as an increase of ‘1’ in this factor increases the odds of infection over the odds of not having infection by 2.88 times.

5.3 Perceptions of menstruation and infections among women: Results of logistic regression

In this section, an attempt has been made to link respondent’s perceptions of menstruation infections among women. These perceptual statements regarding menstruation were considered as independent variables in the logistic regression; whereas infection among women (measured using dichotomous options: yes/no) was considered as dependent variable. The dependent and independent variables included in the logistic regression have been presented in the form of an equation given below:

$$INF_i = b_0 + b_1S1 + b_2S2 + b_3S3 + b_4S4 + b_5S5 + b_6S6 + b_7S7 + b_8S8 + b_9S9 + b_{10}S10 + b_{11}S11 + E$$

where INF_i = Infection among women

S1 = Do you take exercise during menses

S2= Do you take hair wash during menses

S3= Are you allowed to go near Tulsi & curry leaves during menses

S4= Are you live separately in your home during menses

S5= Are you allowed to play during menstruation

S6= Are you allowed to attend social gatherings

S7= Are you allowed to touch your husband or other family members during periods

S8= Are you given separate bedding during menstruation

S9= Are you allowed to take bath daily during menstruation

S10= Is menstrual blood considered as an evil/dangerous

S11= Is menstrual blood act as “black magic”

E_i = Error term

Findings in regard to the perceptions of menstruation and infections among women are given in the table below:

Table 5.3: Perceptions of menstruation and infections among women: Results of logistic regression			
	B	Sig.	Exp(B)
Do you take exercise during menses (S1)	-.261	.070	.770
Do you take hair wash during menses (S2)	.605	.000	1.830
Are you allowed to go near Tulsi & curry leaves during menses (S3)	.145	.126	1.156
Are you live separately in your home during menses (S4)	.189	.216	1.208
Are you allowed to play during menstruation (S5)	.283	.016	1.327
Are you allowed to attend social gatherings (S6)	.118	.363	1.125
Are you allowed to touch your husband or other family members during periods (S7)	-.026	.842	.975
Are you given separate bedding during menstruation (S8)	-.003	.981	.997
Are you allowed to take bath daily during menstruation (S9)	.826	.000	2.285
Is menstrual blood considered as an evil/dangerous (S10)	-.140	.227	.869
Is menstrual blood act as “black magic” (S11)	.101	.344	1.106
Source: Primary data			

The influence of following perceptions of menstruation on infections among women was found to be positively significant:

- Do you take hair wash during menses? (Exp(B) = 1.830)
- Are you allowed to go near Tulsi & curry leaves during menses? (Exp(B)= 1.156)
- Are you live separately in your home during menses? (Exp(B) = 1.208)
- Are you allowed to play during menstruation? (Exp(B) = 1.327)
- Are you allowed to attend social gatherings? (Exp(B) = 1.125)
- Are you allowed to take bath daily during menstruation? (Exp(B) = 2.285)

- Is menstrual blood act as “black magic”? (Exp(B) = 1.106)

R-square for this model was found to be 0.502, indicating that perceptions of menstruation explained more than 50% variation in infections among women. The effect of perceptions of taking bath during menses was found to be strongest as odds ratio for this factor was found to be 2.28. This finding indicated that an increase of ‘1’ in this perception increases the odds of infection over the odds of not having infection by 2.28 times. S.Dixit et.al (2016) conducted a school-based study in Central India selecting students (12-16 years) found that out of 100, 81% of adolescents had limitations like restricted entry to play-ground, temples, and kitchen that was highly disliked. AK Singh et.al. (2013) found out of total 200 adolescents, 77.0% viewed that menstrual blood is dirty and makes them impure. Majority (84.5%) stated menstrual flow is the influence of hot and cold foods. All the girls were restricted to visit holy places, 5.0% do not bath, 16.0% do not perform household work, 43.0% girls do not attend social activities and majority (82.5%) are kept in isolation.

5.4 Awareness of government schemes relating to menstruation among Haryana women

Respondents were requested to provide information on their awareness regarding various government schemes relating to menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent’s awareness regarding various government schemes relating to menstruation are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total
Awareness regarding government schemes	No	Count	71	89	83	80	73	396
		% within District	59.2%	55.6%	55.3%	61.5%	52.1%	56.6%
	Yes	Count	49	71	67	50	67	304
		% within District	40.8%	44.4%	44.7%	38.5%	47.9%	43.4%
Total		Count	120	160	150	130	140	700
Menstrual Hygiene Scheme	No	Count	85	113	105	92	95	490
		% within District	70.8%	70.6%	70.0%	70.8%	67.9%	70.0%
	Yes	Count	35	47	45	38	45	210
		% within District	29.2%	29.4%	30.0%	29.2%	32.1%	30.0%
Total		Count	120	160	150	130	140	700
		% within District	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rastriya	No	Count	101	137	129	111	119	597

Kishore Swasthiya Karyakrum		% within District	84.2%	85.6%	86.0%	85.4%	85.0%	85.3%
	Yes	Count	19	23	21	19	21	103
		% within District	15.8%	14.4%	14.0%	14.6%	15.0%	14.7%
Total		Count	120	160	150	130	140	700
Mahila Avm Kishori Samman Yojana	No	Count	101	160	150	111	140	662
		% within District	84.2%	100.0%	100.0%	85.4%	100.0%	94.6%
	Yes	Count	19	0	0	19	0	38
		% within District	15.8%	.0%	.0%	14.6%	.0%	5.4%
Total		Count	120	160	150	130	140	700
Rs 1/pad Suidha Brand under Bhartiya Janaushdhi Preyojana	No	Count	71	97	90	79	84	421
		% within District	59.2%	60.6%	60.0%	60.8%	60.0%	60.1%
	Yes	Count	49	63	60	51	56	279
		% within District	40.8%	39.4%	40.0%	39.2%	40.0%	39.9%
Total		Count	120	160	150	130	140	700
SABLA programme	No	Count	102	160	150	110	140	662
		% within District	85.0%	100.0%	100.0%	84.6%	100.0%	94.6%
	Yes	Count	18	0	0	20	0	38
		% within District	15.0%	.0%	.0%	15.4%	.0%	5.4%
Total		Count	120	160	150	130	140	700
Source: Primary data								

In order to examine the awareness of government schemes relating to menstruation among Haryana women, the present study calculated percentage of respondents who were aware or not aware of various government schemes relating to menstrual hygiene. Findings in this regard (table 5.4) revealed that a majority of the respondents (56%) were not aware of government schemes. In line with the previous sections, it was found that most women from Palwal and Mewat were not aware of government schemes and these two districts may be considered as most backward districts in the state in terms of menstrual hygiene among women. Respondents from other districts such as Hisar, Jind and Panipat were found to be more aware of government schemes relating to menstrual hygiene. Panipat emerged as the most educated and aware in terms of menstrual hygiene and knowledge of pertinent government schemes.

Specifically, 70% respondents were not aware of "Menstrual Hygiene Scheme" which is one of the most prominent government schemes for this cause and this statistic was found to be consistent across selected districts. Similarly, about 85% respondents were not aware of "Rastriya Kishore Swasthiya Karyakrum" and about a large majority (about 95%) were not aware of "Mahila Avm Kishori Samman Yojana"; indicating that intended beneficiaries could not avail benefits of these schemes because they are neither aware of nor they have an access

to this scheme. Further, it was found that about 40% respondents were aware of "Rs 1/pad Suvidha Brand under Bhartiya Janaushdhi Preyोजना" that may be called as somewhat acceptable; however this scheme has not been able to reach masses due to lack of awareness and poor government efforts. Further, a large majority was not aware of SABLA programme, which is known as "The Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) SABLA, is a centrally sponsored program of the Government of India initiated under the Ministry of Women and Child Development."

5.5 Source of information regarding government schemes relating to menstrual hygiene

Respondents were requested to provide information on their knowledge of source of information regarding various government schemes relating to menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the respondent's knowledge of source of information regarding various government schemes relating to menstruation are given in the table below:

			Palwal	Hisar	Jind	Mewat	Panipat	Total
ASHA/ Anganwadi worker	No	Count	92	119	113	102	105	531
		% within District	76.7%	74.4%	75.3%	78.5%	75.0%	75.9%
	Yes	Count	28	41	37	28	35	169
		% within District	23.3%	25.6%	24.7%	21.5%	25.0%	24.1%
Total		Count	120	160	150	130	140	700
Ministry of Health & Family Welfare	No	Count	99	126	118	109	112	564
		% within District	82.5%	78.8%	78.7%	83.8%	80.0%	80.6%
	Yes	Count	21	34	32	21	28	136
		% within District	17.5%	21.2%	21.3%	16.2%	20.0%	19.4%
Total		Count	120	160	150	130	140	700
National Health Mission	No	Count	91	124	114	101	104	534
		% within District	75.8%	77.5%	76.0%	77.7%	74.3%	76.3%
	Yes	Count	29	36	36	29	36	166
		% within District	24.2%	22.5%	24.0%	22.3%	25.7%	23.7%
Total		Count	120	160	150	130	140	700
Menstrual hygiene Scheme	No	Count	46	61	57	50	57	271
		% within District	38.3%	38.1%	38.0%	38.5%	40.7%	38.7%
	Yes	Count	74	99	93	80	83	429
		% within District	61.7%	61.9%	62.0%	61.5%	59.3%	61.3%
Total		Count	120	160	150	130	140	700

Source: Primary data

In order to examine the source of information regarding government schemes relating to menstrual hygiene, the present study calculated percentage of respondents who informed about source of information regarding government schemes relating to menstrual hygiene. Findings in this regard (table 5.5) revealed that a majority of the respondents (75%) failed to receive information regarding government schemes from ASHA/ Anganwadi workers that shows low effectiveness of ASHA/ Anganwadi workers at grass-root level. For this, government agencies need to hold training for ASHA/ Anganwadi workers aiming to promote awareness regarding government schemes relating menstrual hygiene among women. Further, 80% respondents reported that they failed to get menstrual hygiene information from Ministry of Health & Family Welfare; indicating that the concerned government department has largely failed to disseminate policy benefits among intended beneficiaries. Similarly, respondents were not receiving menstrual hygiene related information through "National Health Mission". It was interesting to note that most respondents (60%) were aware of "Menstrual hygiene Scheme"; indicating that "Menstrual hygiene Scheme" is the most popular and effective government scheme for encouraging menstrual health among women.

5.6 Benefits of government schemes relating to menstruation

Respondents were requested to provide information on the benefits they have availed from various government schemes relating to menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the benefits availed from various government schemes relating to menstruation are given in the table below:

Table 5.6: Benefits of government schemes relating to menstruation

			District					Total
			Palwal	Hisar	Jind	Mewat	Panipat	
Have you got any benefit from above schemes?	No	Count	90	121	113	100	109	533
		% within District	75.0%	75.6%	75.3%	76.9%	77.9%	76.1%
	Yes	Count	30	39	37	30	31	167
		% within District	25.0%	24.4%	24.7%	23.1%	22.1%	23.9%
Total		Count	120	160	150	130	140	700
		% within District	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Free sanitary pads in schools	No	Count	61	84	78	66	68	357
		% within District	50.8%	52.5%	52.0%	50.8%	48.6%	51.0%
	Yes	Count	59	76	72	64	72	343
		% within District	49.2%	47.5%	48.0%	49.2%	51.4%	49.0%
Total		Count	120	160	150	130	140	700
Incineration facility for sanitary Pads	No	Count	94	130	120	103	110	557
		% within District	78.3%	81.2%	80.0%	79.2%	78.6%	79.6%
	Yes	Count	26	30	30	27	30	143
		% within District	21.7%	18.8%	20.0%	20.8%	21.4%	20.4%
Total		Count	120	160	150	130	140	700
Free sanitary pads from ASHA workers or Anganwadi centre	No	Count	42	55	51	59	51	258
		% within District	35.0%	34.4%	34.0%	45.4%	36.4%	36.9%
	Yes	Count	78	105	99	71	89	442
		% within District	65.0%	65.6%	66.0%	54.6%	63.6%	63.1%
Total		Count	120	160	150	130	140	700
Waste bin on the road/school to dispose off used pads	No	Count	75	105	96	92	86	454
		% within District	62.5%	65.6%	64.0%	70.8%	61.4%	64.9%
	Yes	Count	45	55	54	38	54	246
		% within District	37.5%	34.4%	36.0%	29.2%	38.6%	35.1%
Total		Count	120	160	150	130	140	700
Hand-washing	No	Count	47	60	57	81	47	292
		% within District	39.2%	37.5%	38.0%	62.3%	33.6%	41.7%

facility available near the community toilet	Yes	Count	73	100	93	49	93	408
		% within District	60.8%	62.5%	62.0%	37.7%	66.4%	58.3%
Total		Count	120	160	150	130	140	700
Source: Primary data								

In order to examine the benefits of government schemes for women, the present study calculated percentage of respondents who informed about potential benefits of government schemes for women. Findings in this regard (table 5.6) revealed that a majority of the respondents (76%) reported that they have not received any benefit of government scheme regarding menstrual hygiene. However, a sizeable proportion of respondents (49%) reported that they receive free sanitary pads in schools which is a good sign for encouraging the use of sanitary pads among women so that their menstrual health can be improved further. Nevertheless, the ASHA/ Anganwari workers still need to put in sincere efforts to distribute free sanitary pads among women living in far-flung rural areas where most women are still using cloth pads. About 80% respondents reported that there is no incineration facility for sanitary pads; signaling the high risk of germ-diffusion if used pads are not disposed of properly. For this, government needs to install special bins at public places that are more likely to encourage proper disposal of used pads among women.

The Ministry of Women and Child Development provides training to the Anganwadi Centres around menstrual health. In addition, the centre has to provide women and adolescent with sanitary pads. Whereas, ASHA, the first contact person is assigned with the responsibility of providing adequate knowledge around menstrual hygiene. In addition, ASHA is also a part of Village Health and Sanitation Committee (VHSC) and works along with panchayats (Sharanya, 2020). Anganwadi workers are the one who closely work with adolescents, children and women. Under the scheme of Haryana Mahila Evam Kishori Samman Yojana, anganwadi workers provides free sanitary napkins to BPL girls and women between 10 to 45 years age at their home. The scheme is aimed at promoting menstrual hygiene among women and protecting the environment with the use of biodegradable pads. The scheme is also known as Free Sanitary Pad Distribution Scheme(sarkariyojana.com). It was interesting to note that most respondents (63%) have been getting free sanitary pads from ASHA workers or Anganwadi centre, indicating increasing adoption of use of pads among women. However, ASHA/Anganwari workers still need to deepen free-pad distribution in rural areas so that their

habit of using cloth/husk pad may be shifted to use of sanitary napkins. Most respondents (65%) felt that there is no waste bin on the road/school to dispose off used pads that may result in disposing of used pads in open, enhancing the risk of disease diffusion. Further, 58% respondents reported that hand-washing facility is available near community toilet which is a good sign of promoting overall health among masses. Even after taking serious steps to ensure menstrual health management through grassroots health weaknesses and various schemes, there has been little to no change. In the grassroots, the government has formulated various schemes, policies and programmes yet, the implementation has been very little.

5.7 Weakness of government schemes relating to menstruation

Respondents were requested to provide information on the weakness of government schemes relating to menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the weakness of various government schemes relating to menstruation are given in the table below:

		Palwal	Hisar	Jind	Mewat	Panipat	Total
Not access to all menstruating women	Count	26	31	30	29	24	140
	% within District	21.7%	19.4%	20.0%	22.3%	17.1%	20.0%
Irregularity in proper distribution	Count	15	21	21	15	21	93
	% within District	12.5%	13.1%	14.0%	11.5%	15.0%	13.3%
Low quality of sanitary pads	Count	33	43	39	37	39	191
	% within District	27.5%	26.9%	26.0%	28.5%	27.9%	27.3%
Problem of disposability for used pads	Count	46	65	60	49	56	276
	% within District	38.3%	40.6%	40.0%	37.7%	40.0%	39.4%
Total	Count	120	160	150	130	140	700
Source: Primary data							

In order to examine the weakness of government schemes relating to menstrual hygiene, the present study calculated percentage of respondents who informed about weakness of government schemes relating to menstrual hygiene. Findings in this regard (table 5.7) revealed that women hinted at multiple issues/weaknesses of government schemes. For instance, about 40% respondents highlighted that there is a problem of disposability for used pads as there were no dustbins in schools/public places that could have facilitated proper disposal of used napkins.

Further, 27% respondents highlighted that free-pads distributed under various government schemes are of low quality, which appears to be a matter of concern for all beneficiaries because low-quality pads can augment menstrual problems. Distribution of free-napkins was also a major concern because 20% respondents reported that not all menstruating women have access to it. For this, government needs to deploy more number of ASHA/Anganwari workers aiming to intensify distribution of free-pads, especially in rural areas.

5.8 Suggestions for improvement in government schemes relating to menstruation

Respondents were requested to provide suggestions for improvement in government schemes relating to menstruation. Responses obtained from selected districts of the state were analyzed with the help of frequency and percentage. Findings in regard to the suggestions for improvement in government schemes relating to menstruation are given in the table below:

		Palwal	Hisar	Jind	Mewat	Panipat	Total
Government must organize camps for awareness of menstrual hygiene	Count	3	3	3	3	3	15
	%	2.5%	1.9%	2.0%	2.3%	2.1%	2.1%
Government should launch more schemes for awareness	Count	3	3	3	3	3	15
	%	2.5%	1.9%	2.0%	2.3%	2.1%	2.1%
Govt. should take appropriate steps for breaking the silence of menstruation	Count	33	42	40	38	40	193
	%	27.5%	26.2%	26.7%	29.2%	28.6%	27.6%
Menstrual hygiene should be the integral part of school curriculum	Count	24	35	33	24	29	145
	%	20.0%	21.9%	22.0%	18.5%	20.7%	20.7%
Provision of free sanitary napkins for needy females	Count	23	29	28	25	24	129
	%	19.2%	18.1%	18.7%	19.2%	17.1%	18.4%
Sexual education should be imparted in schools by teachers	Count	3	3	3	4	3	16
	%	2.5%	1.9%	2.0%	3.1%	2.1%	2.3%
Total	Count	120	160	150	130	140	700
Source: Primary data							

In order to obtain suggestions for improvement in government schemes relating to menstruation, the present study calculated percentage of respondents who suggested on government schemes relating to menstrual hygiene. Findings in this regard (table 5.7) revealed that respondents have provided various suggestions useful for making government schemes more effective. Respondents suggested that government must organize camps for enhancing awareness of menstrual hygiene and menstrual hygiene should be the integral part of school

curriculum. Further, provision of free sanitary napkins for needy females must be strengthened so that more women could avail its benefits. Government may also consider inclusion of sexual education/menstrual hygiene in schools so that young students do not feel hesitate to discuss such important health issues in public.

Chapter 6

Findings and suggestions

The present study aimed to achieve following objectives:

1. To assess the awareness level of menstrual health among female in Haryana.
2. To identify socio-economic barriers to hygienic menstrual absorbent use among females of Haryana.
3. To compare the perceptions of different aspects of menstrual hygiene in different age groups.
4. To study the government scheme on menstrual hygiene.

In the previous chapters, the present study has presented detailed findings on practices of female menstruation in Haryana. This chapter outlines summary and conclusion of the findings of the study under following heads:

- 6.1 Demographic profile of the respondents
- 6.2 Beginning of first menstruation among Haryana women
- 6.3 Perceptions and practices of menstruation among Haryana women
- 6.4 Medical issues and disposal of pads
- 6.5 Socio-economic barriers to hygienic menstrual absorbent use among females of Haryana
- 6.6 Examining causes of menstrual infections among Haryana women
- 6.7 Comparing perceptions of menstrual hygiene in different age groups
- 6.8 Findings on government schemes relating to menstruation among Haryana women

For achieving above mentioned objectives, the present study collected primary data through structured/ self-administrated questionnaire by using interview method of survey. Questionnaire included questions relating to socio economic conditions of the selected respondents, pattern of awareness level of menstrual hygiene among female, socio-economic

factors affecting absorbent material for menstrual hygiene and perceptions of selected government schemes relating to menstrual hygiene. The study has been related to whole of the Haryana state. For achieving the specific objectives of the study five districts i.e. i.e. Jind, Hisar, Panipat, Palwal and Mewat were selected purposively whose composite health index is below 50%. Two blocks from each selected district were chosen and two villages from each selected block were selected with the help of simple random sampling. On the basis of female population from the selected districts, different sample size of each district was extracted as 140 sample from Panipat district, 150 from Jind, 160 from Hisar, 130 from Mewat and 120 sample from Palwal district were taken. Findings in regard to the above-mentioned objectives are as under:

6.1 Demographic profile of the respondents

Findings in regard to distribution of respondent's age revealed that about 40% of respondents were 10-19 years; followed by 30% were from 20-30 years. It was important to mention that 20% were between 31-40 years and only 10% were above 40 years. A majority of the respondents were from nuclear families (53%); whereas 47% respondents belonged to joint families. District wise distribution revealed that 60% respondents from Hisar, Jind and Panipat were from nuclear families and rest was from joint families. In contrast, majority respondents from Palwal and Mewat were from joint families. It was interesting to note that most of the respondents were married (60%); whereas 40% respondents were unmarried. It was worth noticeable that very few respondents (14%) were illiterate. District wise distribution revealed that maximum proportion of respondents from Mewat were illiterate (27%); whereas only 8% from Hisar; 9% from Jind; 24% from Palwal and 5% from Panipat were illiterate. Findings in regard to caste of the respondents revealed that a majority of respondents (51%) belonged to General caste whereas 30% were from Scheduled caste and 17% were from backward class.

6.2 Beginning of first menstruation among Haryana women

Findings revealed that females in selected districts were having little knowledge of age of menarche and menstruation as majority of respondents revealed that they did not know about the age of menarche and they did not know about menstruation before its occurrence. Moreover, proportion of respondents having no such knowledge was found to be higher from Palwal and Mewat in contrast to other districts such as Hisar, Jind and Panipat. It was worth noticeable that most women lacked information of menstruation before its occurrence; however they got to know about menstruation at the time of first menses. More than 60% respondents

from all districts reported that they got information of menses when it occurred for the first time. The study revealed that mean age of menstruation was found to be 13.44 years. The mean age of menstruation among respondents was found to be similar for all districts as it varied between 13.42-13.46 years.

In all selected districts, mother was found to be the major source of menses information. Further, sister/friend was found to be the second-largest source of menses information (15.1%); followed by teacher (15%); mass media (11%) and relatives (8%). In two districts, Hisar and Jind, more number of respondents received first information about menses from their teachers than from their sisters/friends; for all other districts, higher proportion of respondents received menses information from their sister/friends than from teachers. A majority of respondents (58%) failed to discuss menstrual hygiene with anyone; however only 41% respondents revealed that they discuss menstrual hygiene with others. It was interesting to note that a majority of the respondents (51%) discuss menstrual hygiene with their mothers; followed by 42% respondents who discussed with their sisters/friends; and only 6% respondents discussed menstrual hygiene with their relatives. Narayan et.al. reported similar findings. 62.3% girls stated that mother is the main source of information about menstruation while friends/sisters make 20.7% and teachers make it 9.2% of the total. Singh et.al. found in 64.9% girls state mother as the main source of information which is almost similar to the present study.

6.3 Perceptions and practices of menstruation among Haryana women

The respondent's perceptions of menstruation process were examined and findings in this regard revealed that about half respondents (49.7%) perceive it as a normal physiological process. Similar findings was observed by Khanna et.al and Prajapati J et.al. as 45.4% of the total 130 adolescent girls believed that it is a physiological process. However, about 30% respondents perceive menstruation as a bodily incarnation of Goddess; only less than 10% respondents consider menses caused by a disease/sin. These findings highlighted that many women still view menses from a superstition angle that must be countered with certain scientific notions of menstruation so that people get rid of such misleading perceptions and beliefs. Many women still lacked knowledge about organ from which blood comes during menses as little more than 10% respondents didn't know about it. As many as one-third respondents (32%) reported that blood comes from bladder during menstruation. The present study revealed that a large majority of the respondents (about 74%) reported that the average duration of normal menstrual blood flow is 4-5 days. However, a few respondents (about 12%) revealed that this duration is 2-3 days.

6.4 Medical issues and use/disposal of pads among Haryana women

Findings revealed that a majority of respondents (65%) change napkin every 5-6 hours. About quarter of respondents (26%) revealed that they change napkin once a day and about 5% respondents would change napkins twice a day. These findings highlighted that woman in Haryana are still following unhygienic menstrual practices as it is not recommended to keep a napkin for whole day and it must be changed every 5-6 hours. Findings revealed that a majority of respondents (61%) have faced menstrual disorder problems whereas about 38% respondents did not face such problems. Amongst women who faced menstrual disorder problems, majority of them (52%) faced issue of excessive bleeding; followed by 28% respondents who faced problem of irregular periods. Government needs to reach women living in far-flung villages through community health-centers and dispensaries so that menstrual problems can be identified in initial stages preventing development of life-threatening diseases.

A majority of respondents (61%) did not know that excessive bleeding leads to problem of anemia among women which is a alarming finding because it seems that women in Haryana lack basic knowledge regarding anemia. Further, a large majority of respondents (64%) reported that they do not take any medicine to prevent excessive bleeding which is a matter of concern because excessive bleeding may cause fatigue and restlessness among women during menses. It was worth mentioning here that more than 70% respondents did not know that irregular periods or use of unhygienic materials can lead to females' death from cervical cancer which seems to be a thought-provoking finding. Such large number of women having little knowledge of life-threatening issues may prove to be fatal for many women who are still following unhygienic menstrual practices. An American research and advocacy group that released a "cervical cancer global crisis card" and found that more women die from cervical cancer every year in India than anywhere else in the world, according to the 'cervical cancer-free coalition'. The index, which ranked 50 countries, shows India in the top spot in terms of overall deaths with nearly 73,000 a year. China came in a close second, followed by Brazil. The rankings were compiled using information from a 2010 report, available on the W.H.O website, which says an estimated 72,825 women die of cervical cancer every year in India (Raina P.2013).

Findings revealed that a majority of respondents (60%) used sanitary pads during menses. A quarter of respondents (25%) were found using cloth pads and only seven percent used menstrual cup/ tampons during menses. In relation to other districts, a higher proportion of respondents from Palwal (28%) and Mewat (31%) were found using cloth pads. The study

revealed that a majority of respondents (50.3%) know about infections caused due to unhygienic menstrual practices. A bit more than 49% respondents revealed that they have knowledge of urinary tract infections that may be caused by unhygienic menstrual practices. Tarhane S et.al. (2015) found 79% girls used sanitary napkins and 21% girls used clothes as absorbent during menses.

6.5 Socio-economic barriers to hygienic menstrual absorbent use among females of Haryana

The difference in behaviour of Haryana women with respect to usage of pads during menstruation was tested for selected variables such as economic status, family occupation, mother's education, type of school attended and type of house they live in, as given follows:

- Economic status and material used during menstruation
- Family occupation and material used during menstruation
- Mother's education status and material used during menstruation
- Type of school attended and material used during menstruation
- Type of house and material used during menstruation

The findings noticed a shift in usage of pads across economic status of respondents as about 48% respondents with upper economic status were using sanitary pads and about 30% were using tampons/ menstrual cups. The chi-square test revealed significant differences between use of different types of pads among women with respect to their economic status as most women with lower economic status were using cloth/husk pads; however, women from middle or upper economic status were found using sanitary pads or tampons/ menstrual cups. The association between family occupation and material used during menstruation showed that the use of pads significantly differs for various types of family occupations. For instance, a majority of respondents from farming families (57%) were using cloth pads and only 22% women from framing families were using sanitary pads.

Findings revealed that a majority of the respondents (69%) whose mothers were graduates were found using tampons/ menstrual cup. A large majority of respondents (73%), whose mothers having higher secondary qualification, were found using sanitary pads. The present study revealed significant differences between use of various types of pads with respect to respondent's school. A majority of respondents from government schools (52%) were found using cloth pad; followed by sanitary pad (34%) and pad made from husk/sand (12%). It was surprising to note that about 70% of respondents with no school were found using pad made

form husk/sand and 27% of them were using cloth pads during menses. The proportion of respondents using different types of pads vary as per the type of house they live in. for instance, a large majority of respondents (86%) living in huts were found using pads made from husk/sand during menses; whereas about 14% were found using cloth pads.

6.6 Examining causes of menstrual infections among Haryana women

The influence of two hygiene practices (such as method of washing cloth pad and material used washing genital) on infections among women was found to be significant. The effect of washing cloth pad was found to be strongest followed by 'material used for washing genital'. Further, the effect of perceptions of taking bath during menses was found to be strongest as odds ratio for this factor was found to be 2.28. This finding indicated that an increase of '1' in this perception increases the odds of infection over the odds of not having infection by 2.28 times.

6.7 Comparing perceptions of menstrual hygiene in different age groups

Findings revealed that respondents according to their age have different perceptions of various aspects of menstruation. For instance, respondents above 40 years were found to have stronger perceptions that they are considered impure/ unclean during menses in comparison to respondents with younger age. Further, respondents with 20-30 years age reported that they participate in all household activities and they take exercise during menses. Similar findings by Patkar & Bhardwaj (2004) as These things are a part of Bible too which says that such women should be kept in isolation from the community and any person that touch is her or comes in close vicinity shall be called as impure. Such kind of thoughts are also supported by the Jewish people. And this same study mentioned about the laws followed under Islam and according to which a woman on her monthly cycles is prohibited entry into the mosque she is denied touching the religious book The Ramadan fasting and sharing the same bed with her husband.

6.8 Findings on government schemes relating to menstruation among Haryana women

Most women from Palwal and Mewat were not aware of government schemes and these two districts may be considered as most backward districts in the state in terms of menstrual hygiene among women. Panipat emerged as the most educated and aware in terms of menstrual hygiene and knowledge of pertinent government schemes. A huge chunk of respondents was aware of "Rs 1/pad Suvidha Brand under Bhartiya Janaushdhi Preyojana" that may be called as somewhat acceptable; however, this scheme has not been able to reach masses due to lack

of awareness and poor government efforts. Women failed to receive information regarding government schemes from ASHA/ Anganwadi workers that shows low effectiveness of ASHA/ Anganwadi workers at grass-root level. For this, government agencies need to hold training for ASHA/ Anganwadi workers aiming to promote awareness regarding government schemes relating menstrual hygiene among women.

It was interesting to note that most respondents were aware of "Menstrual hygiene Scheme"; indicating that "Menstrual hygiene Scheme" is the most popular and effective government scheme for encouraging menstrual health among women. Women have been getting free sanitary pads from ASHA workers or Anganwadi centre, indicating increasing adoption of use of pads among women. However, ASHA/Anganwari workers still need to deepen free-pad distribution in rural areas so that their habit of using cloth/husk pad may be shifted to use of sanitary napkins. Respondents highlighted that there is a problem of disposability for used pads as there were no dustbins in schools/public places that could have facilitated proper disposal of used napkins. Distribution of free-napkins was a major concern because respondents reported that not all menstruating women have access to it. For this, government needs to deploy a greater number of ASHA/Anganwari workers aiming to intensify distribution of free-pads, especially in rural areas. Government may also consider inclusion of sexual education/menstrual hygiene in schools so that young students do not feel hesitate to discuss such important health issues in public.

Suggestions

- It is acknowledged that women are biologically different from men and need some affirmative action to accommodate a practical need during menstruation is “three days period leave” in organized sector of Haryana. It is so difficult for a menstruating woman to sit through eight hours shifts at the workplace. Women can take their days off on any days of the month without any justification.
- Monthly awareness classes can be taken for students studying in classes VII to XII.
- Communication drives through social media/ radio/telephone /messaging services to reiterate the need for menstrual hygiene and break the silence of culture.
- Installation of pad vending machines in public places, workplaces, educational institutions as well as Anganwadi centres and childcare centres especially for rural areas.
- Most women are still unaware about the existence of schemes related menstrual hygiene that’s why they can’t be beneficiaries. In addition to provision of free pads,

proper training must be imparted to those involved in distribution drives and campaigns such as how to use, frequency of changes pads, proper disposal etc. should be addressed.

- Environment-friendly products should be promoted because pads should take millions of years to degrade. Low cost and good quality disposable pads should be manufactured.

Limitations of the study

The present study was undertaken to examine women's perceptions of menstruation in Haryana and this study suffers from following limitations:

- The present study was undertaken in only one state i.e. Haryana and respondents selected from one state may not represent the perceptions of Indian women in general. Therefore, one must be cautious in generalizing findings of the study to other Indian states.
- The present study used survey method to collect data in which women respondents were asked to fill the questionnaire. Due to the limited education level and low confidence, rural women may not have provided the accurate responses leading to more bias in the responses.
- As this is a study that deals with social aspects and perspectives of rural women. Therefore, interview methods would have provided more insights into the given topic. Therefore, future studies on women's perceptions of menstrual hygiene may consider qualitative studies using focus group or interview methods to collect data from the potential respondents.
- The sample size of the study was limited that was selected from a few districts of the state. This sampling may not truly represent the whole population of the study. Therefore, future studies may involve a higher sample size which would be more representative of the women population of the selected state.
- The questionnaire included some personal questions for which women respondents may not have provided the accurate response. For this, the use of focus group and interview methods is advocated for further studies.

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Format of the Questionnaire

Title: “Awareness to Hygienic Menstrual Absorbent: A Detailed Study of Females of Haryana”

Objectives:

1. To assess the awareness level of menstrual health among female in Haryana.
2. To identify socio-economic barriers to hygienic menstrual absorbent use among females of Haryana.
3. To compare the perceptions of different aspects of menstrual hygiene in different age groups.
4. To study the government scheme on menstrual hygiene.

Questionnaire / प्रश्नावली

General Demographic Information of the respondent प्रतिवादी की सामान्य जनसांख्यिकीय जानकारी

Name नाम Family type: Joint/Nuclear परिवार का प्रकार: संयुक्त/एकल

Age आयु Marital status: Married/Unmarried वैवाहिक स्थिति: विवाहित / अविवाहित.....

Name of Village/City गांव/शहर का नाम..... Educational status/ शैक्षिक स्थिति:.....

District/ जिला Family income per annum परिवार की वार्षिक आय

Area: Rural/Urban क्षेत्र: ग्रामीण/शहरी..... Religion: Hindu/Muslim/Christian/other हिंदू/मुस्लिम/ईसाई/अन्य

Caste: Gen/SC/BC/other जाति: जनरल / एससी / बीसी / अन्य

Section– A (Information regarding awareness level of menstrual health)

(खंड-1 मासिक धर्म स्वास्थ्य के बारे में जागरूकता स्तर के बारे में जानकारी)

1. Do you know about the age of menarche? क्या आप मेनार्चे की उम्र के बारे में जानते हैं
Yes/NO हाँ/नहीं
2. Did you know about menstruation before its occurrence? क्या आप मासिक धर्म होने से पहले इसके बारे में जानती थीं? Yes/No हाँ/नहीं
3. If yes, when did you get first information? अगर हां, तो आपको पहली जानकारी कब मिली?
 - a. before starting menses मासिक धर्म शुरू होना से पहले
 - b. At the time of first menstruation पहले मासिक धर्म के दौरान

4. At what age menstruation was started? मासिक धर्म किस उम्र में शुरू हुआ था?
12 years 12 साल में b)13 Years 13साल में c)14 years 14 साल में d) any other/ कोई अन्य
5. By whom, did you get the first information about menses? आपको मासिक धर्म के बारे में सबसे पहले जानकारी किसके द्वारा मिली? a) Mother माँ b) Sister/friends बहन/दोस्त c) Teachers शिक्षक d) Media (T.V, Newspaper etc.) मीडिया (T.V, समाचार पत्र आदि) e) Relatives
6. Do you discuss about menstruation and menstrual hygiene with any one? Yes/No
क्या आप किसी के साथ मासिक धर्म और मासिक धर्म स्वच्छता के बारे में चर्चा करते हैं? हाँ/नहीं
7. If yes, by whom? अगर हां, तो किसके द्वारा?
a) Mother माँ b) Sister/friends बहन/दोस्त c) Teachers शिक्षक d) Relatives
8. What do you think about menstruation process? मासिक धर्म की प्रक्रिया के बारे में आप क्या सोचते हैं?
a) Bodily incarnation of Goddess देवी का शारीरिक अवतार
b) Normal physiological process सामान्य शारीरिक प्रक्रिया
c) Caused by a disease/sin रोग/पाप के कारण
d) Don't know पता नहीं
9. Do you know the organ from the blood comes during menstruation? क्या आप जानते हैं मासिक धर्म के दौरान रक्त किस अंग से आता है?
a) Vagina योनि b) Uterus गर्भाशय c) Bladder मूत्राशय d) Don't know पता नहीं
10. What is the average duration between two menstrual cycle दो मासिक धर्म चक्रों के बीच की औसत अवधि क्या है?
a) Less than 28 days, 28 दिनों से कम b) 28 days c) 28-32 days d) more than 32 days, दिनों से अधिक
11. Duration of normal menstrual blood flow सामान्य मासिक धर्म की अवधि रक्त प्रवाह
a) 2-3 days/ दिन b) 4-5 days /दिन c) more than 5 से अधिक
12. How many times women should be change the napkins with normal flow? कितनी बार महिलाओं को सामान्य प्रवाह के साथ नैपकिन बदलना चाहिए?
a) Every 5-6 hours हर 5-6 घंटे में b. Once in a day एक दिन में एक बार c. Twice in a day दिन में दो बार. d. only when the bleeding stops केवल जब रक्तस्राव बंद हो जाता है
13. Have you experienced any problems of menstrual disorder? Yes/No
क्या आपने मासिक धर्म विकार की कोई समस्या का अनुभव किया है? हाँ/नहीं
14. If yes, which problem have you faced? यदि हां, तो आपको किस समस्या का सामना करना पड़ा है?

a) Irregular periods अनियमित अवधि b) Intermenstrual bleeding अंतरमंरीय रक्तस्राव
c) Passing clots of blood खून के थक्के गुजरना d) excessive bleeding अत्यधिक रक्तस्राव

15. Do you know excessive bleeding leads to problem of anemia? क्या अत्यधिक रक्तस्राव से एनीमिया होता है? Yes/No हाँ/नहीं
16. Do you take medicine in condition of excessive bleeding during menses? क्या आप मासिक धर्म के दौरान दवा लेते हैं? Yes/No हाँ/नहीं
17. Do you know which type of pad should be used during menses? क्या आप जानते हैं कि मासिक धर्म के दौरान किस तरह के पैड का इस्तेमाल करना चाहिए?
a) Cloth pads कपड़ा पैड b) sanitary pads सैनिटरी पैड्स c) made from husk/sand/leaves भूसी/रेत/पत्तियों से बना /Don't know d) menstrual cup/tampoons मासिक धर्म कप/टैम्पोन
18. Where should be disposed used pads/ materials? प्रयुक्त पैड/सामग्री का निपटान कहां किया जाना चाहिए?
a) Dustbin कूड़ेदान b) Open land खुली भूमि c) burnt/dug जला हुआ/खोदा d) flushed पता नहीं
19. Do you know about the infections caused by not using proper hygienic materials during menses क्या आप मासिक धर्म के दौरान उचित स्वच्छता सामग्री का उपयोग नहीं करने से होने वाले संक्रमणों के बारे में जानते हैं? हाँ/नहीं? Yes/No हाँ/नहीं
20. If yes, which types of infection are you know यदि हाँ, तो किस प्रकार के संक्रमण हैं?
a) Sexually & Reproductive tract infections यौन और प्रजनन पथ के संक्रमण
b) Urinary tract infections मूत्र पथ के संक्रमण
c) Cervix cancer & Dysmenorrhea गर्भाशय ग्रीवा का कैंसर और कष्टार्तव
d) All of above उपरोक्त सभी
21. Do you know irregular periods or unhygienic used materials are the reason of females' death from cervical cancer? Yes/ No
क्या आप जानते हैं कि अनियमित अवधि या अस्वास्थ्यकर उपयोग की गई सामग्री गर्भाशय ग्रीवा के कैंसर से महिलाओं की मृत्यु का कारण है? हाँ/नहीं
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Section- B (Information regarding socio-economic barriers to hygienic menstrual absorbent)
(खंड-2. स्वच्छ मासिक धर्म शोषक के लिए सामाजिक-आर्थिक बाधाओं के बारे में जानकारी)

Occupational status

22. What is the occupation of your family? परिवार का पेशा क्या है?
a) Farming खेती b) Business व्यवसाय c) Job नौकरी d) Any other कोई अन्य
23. What is your father's occupation? आपके पिता का व्यवसाय क्या है?
a) Unskilled worker अकुशल कामगार b) skilled worker/ Small business कुशल कामगार/लघु व्यवसाय c) Job नौकरी
24. What is the occupation of your mother? आपकी मां का व्यवसाय क्या है?
a) Daily wagere दैनिक मजदूरी b) skilled worker/ Shops कुशल कामगार/ दुकान c) Home maker गृहिणी d) Job नौकरी

Economic status

25. What is the economic status of your family? आपके परिवार की आर्थिक स्थिति क्या है?
a) Lower नीचा b) Middle मध्य c) Upper ऊपरी
26. What is the size of your family income annually? आपके परिवार की सालाना आय का आकार क्या है?
a) below 2.5 lakh b) Rs.2.5 lakh to 5 lakh c) above 5 lakh
27. Do you take any medical facility during menstruation? Yes / No
क्या आप मासिक धर्म के दौरान कोई चिकित्सा सुविधा लेते हैं? हां/ नहीं
28. What are the hygienic absorbent materials used by you during menstruation ? आपके द्वारा उपयोग की जाने वाली शोषक सामग्री क्या हैं? a) Sanitary pad सेनेटरी पैड b) cloth pad क्लॉथ पैड c) tampons/menstrual cup टैम्पोन/मेंस्ट्रुअल कप d) made from husk/sand/ leaves भूसी/रेत/पत्तियों से बना
29. What are the reasons for not using hygienic sanitary pads by you? आपके द्वारा सैनिटरी पैड का उपयोग न करने के क्या कारण हैं?
a) Costly महंगा b) don't comfortable सहज नहीं है c) not available उपलब्ध नहीं d) no information कोई जानकारी नहीं

Educational status

30. What is the educational status of your family?
a) Illiterate निरक्षर b) Primary प्राथमिक c) Secondary माध्यमिक d) Higher उच्च
31. Father's education पिता की शिक्षा Mother's education माता की शिक्षा
a) No/ 1-5 standard नहीं/ 1-5 मानक a) No/ 1-5 standard नहीं/ 1-5 मानक

- b) 6-10th standard 6-10 वीं कक्षा
- c) Higher education
- d) Graduate and above

- b) 6-10th standard 6-10 वीं कक्षा
- c) Higher education
- d) Graduate and above

32. Which type of school did you study/studying? आप किस प्रकार के स्कूल में पढ़ते/पढ़ते थे?
 a) Government school सरकारी स्कूल b) Private school निजी स्कूल c) Private-aided निजी सहायता प्राप्त d) No schooling/ Any other कोई अन्य

33. Have you studied about menstruation hygiene from your curriculum? Yes / No
 क्या आपने अपने पाठ्यक्रम से मासिक धर्म स्वच्छता के बारे में अध्ययन किया है? हाँ/ नहीं

34. What were/are the facilities available in the schools, while you studied/studying
 जब आप पढ़ते/पढ़ते थे तो स्कूलों में क्या-क्या सुविधाएं थीं/हैं?

- a) Separate toilet facility अलग शौचालय की सुविधा
- b) Availability of sanitary napkins सैनिटरी नैपकिन की उपलब्धता
- c) Materials-soap, water & dustbin सामग्री-साबुन, पानी और कूड़ेदान
- d) Organize Camp regarding awareness of menstrual hygiene

35. Do you change your pads at school/ working place क्या आप स्कूल/कार्यस्थल पर अपने पैड बदलते हैं? Yes/No हाँ/नहीं

36. Are/have you absented in school during menstruation cycle क्या आप मासिक धर्म के दौरान स्कूल में अनुपस्थित होते हैं? Yes/No हाँ/नहीं

37. If yes, what are the reasons for school-absenteeism during menses? यदि हाँ, तो मासिक धर्म के दौरान विद्यालय में अनुपस्थित रहने के क्या कारण हैं?

- a) Lack of proper disposal facility उचित निपटान सुविधा का अभाव
- b) Lack of water supply पानी की आपूर्ति की कमी
- c) Physical pain/ discomfort शारीरिक दर्द/बेचैनी
- d) Fear of leakage रिसाव का डर

38. Do you have any knowledge about Menstrual Hygiene Management (MHM) क्या आपको मासिक धर्म स्वच्छता प्रबंधन (एमएचएम) के बारे में कोई जानकारी है? Yes/No हाँ/नहीं

39. If yes, have you got any facility from MHM? यदि हाँ, तो क्या आपको एमएचएम से कोई सुविधा मिली है?

House living Status

40. Which type of house you have? आपके पास किस प्रकार का घर है?

- a) Pucca house पक्का घर b) kutch house कच्चा घर c) semi-pucca house अर्ध-पक्का घर
- d) any other (specify) कोई अन्य (निर्दिष्ट करें)

41. What type of toilet facility is available for your household? आपके घर के लिए किस प्रकार के शौचालय की सुविधा उपलब्ध है?
 a) Own flush toilet स्वयं का फ्लश शौचालय b) no toilet कोई शौचालय नहीं
 c) community toilet सामुदायिक शौचालय d) any other(specify) कोई अन्य (निर्दिष्ट करें).....
42. What will happen if your napkin is not cleaned and kept not safely?
 अगर आपका नैपकिन साफ नहीं किया जाता है और सुरक्षित नहीं रखा जाता है तो क्या होगा
 a) Fungal Infection फंगल इंफेक्शन b) Bacterial infection बैक्टीरियल संक्रमण
 c) Nothing will happen कुछ नहीं होगा d) Don't know पता नहीं
43. If you use the cloth pads, do you wash it before and after using यदि आप कपड़े के पैड का उपयोग करते हैं, तो क्या आप इसे इस्तेमाल करने से पहले धोते हैं? Yes /No हाँ/नहीं
44. If yes, what method is used for washing? यदि हाँ, तो धोने के लिए किस विधि का प्रयोग किया जाता है?
 a) Soap साबुन b) water पानी c) soap & water साबुन और पानी d) any other कोई अन्य
45. Where do you dry the washed cloth for reusing it? धुले हुए कपड़े को दोबारा इस्तेमाल करने के लिए आप उसे कहां सुखाते हैं?
 a) Sunlight सूरज की रोशनी b) under shadow छाया के नीचे c) secret place गुप्त स्थान d) any other कोई अन्य
46. What material should be used for genital of washing? जननांगों को धोने के लिए किस सामग्री का प्रयोग करना चाहिए? a) Soap साबुन b) water पानी c) soap & water साबुन और पानी d) any other कोई अन्य

Section C (Information regarding the perceptions of different aspects of menstrual hygiene)
खंड-3. मासिक धर्म स्वच्छता के विभिन्न पहलुओं की धारणा के बारे में जानकारी)

Statement/ कथन	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
47. Are you considered impure/ unclean during menses क्या आपको मासिक धर्म के दौरान अशुद्ध/अशुद्ध माना जाता है?					
48. Do you participate in all household activities? क्या आप सभी घरेलू गतिविधियों में भाग लेते हैं?					
49. Do you take exercise during menses क्या आप मासिक धर्म के दौरान व्यायाम करती हैं?					

50. Do you take hair wash during menses क्या आप मासिक धर्म के दौरान बाल धोती हैं?					
51. Are you allowed to do worship during menstruation? क्या आपको मासिक धर्म के दौरान पूजा करने की अनुमति है?					
52. Are you allowed to attend the religious functions during menses क्या आप मासिक धर्म के दौरान धार्मिक कार्यों में शामिल हुई हैं?					
53. Are you allowed to enter in the kitchen during menstruation? क्या आपको मासिक धर्म के दौरान रसोई घर में प्रवेश करने की अनुमति है?					
54. Are you allowed to touch the pickles क्या आपको अचार को छूने की अनुमति है?					
55. Are you restricted to eat curd or any sour food items? क्या आप दही या कोई खट्टा खाद्य पदार्थ खाने के लिए प्रतिबंधित हैं?					
56. Are you allowed to go near Tulsi & curry leaves during menses क्या आपको मासिक धर्म के दौरान तुलसी और करी पत्ते के पास जाने की अनुमति है?					
57. Are you live separately in your home during menses क्या आप मासिक धर्म के दौरान अपने घर में अलग रहती हैं?					
58. Are you allowed to play during menstruation? क्या आपको मासिक धर्म के दौरान खेलने की अनुमति है?					
59. Are you allowed to attend social gatherings क्या आपको सामाजिक समारोहों में भाग लेने की अनुमति है?					
60. Are you allowed to touch your husband or other family members during periods क्या आपको पीरियड्स के दौरान अपने पति या परिवार के अन्य सदस्यों को छूने की अनुमति है?					
61. Are you given separate bedding during menstruation? क्या आपको मासिक धर्म के दौरान अलग बिस्तर दिया जाता है?					

62. Are you allowed to take bath daily during menstruation? क्या आपको मासिक धर्म के दौरान रोजाना स्नान करने की अनुमति है?					
63. Is menstrual blood considered as an evil/dangerous? क्या मासिक धर्म के खून को बुराई /खतरनाक माना जाता है?					
64. Is menstrual blood act as "black magic" क्या मासिक धर्म का रक्त "काला जादू" के रूप में कार्य करता है					

Section D (Information regarding government schemes on menstrual hygiene)
(खंड-4. मासिक धर्म स्वच्छता पर सरकारी योजनाओं के बारे में जानकारी)

65. Do you know about any scheme of government related to menstrual hygiene क्या आप मासिक धर्म स्वच्छता से संबंधित सरकार की किसी योजना के बारे में जानते हैं? Yes /No हाँ/नहीं

66. Do you have any information following these schemes: क्या आपके पास इन योजनाओं के बारे में कोई जानकारी है

- a) Menstrual Hygiene Scheme (MHS) मासिक धर्म स्वच्छता योजना Yes /No हाँ/नहीं
b) Rastriya Kishore Swasthiya Karyakrum (RKSK) राष्ट्रीय किशोर स्वास्थ्य कार्यक्रम Yes /No हाँ/नहीं
c) Mahila Avm Kishori Samman Yojana महिला आवास किशोरी सम्मान योजना Yes /No हाँ/नहीं
d) Rs 1/pad Suvidha Brand under Bhartiya Janaushdhi Preyojana भारतीय जनऔषधि योजना के तहत 1 रुपये/पैड सुविधा ब्रांड Yes /No हाँ/नहीं
e) SABLA programme..... Yes /No हाँ/नहीं

67. Which was the source of information about these schemes इन योजनाओं के बारे में जानकारी का स्रोत कौन सा था?

- a) ASHA/ Anganwadi worker आशा/आंगनवाड़ी कार्यकर्ता
b) Ministry of Health & Family Welfare स्वास्थ्य और परिवार कल्याण मंत्रालय
c) National Health Mission (NHM) राष्ट्रीय स्वास्थ्य मिशन
d) Menstrual hygiene Scheme (MHS) मासिक धर्म स्वच्छता योजना

68. Have you got any benefit from above these scheme? क्या आपको योजना से कोई लाभ मिला है? Yes/No हाँ/नहीं

69. Do you get free sanitary pads in school under MHM क्या आपको एमएचएम के तहत स्कूल में मुफ्त सैनिटरी पैड मिलते हैं? Yes/No हाँ/नहीं

70. Does the school have any incineration facility for sanitary pads by government क्या सरकार द्वारा स्कूल में सैनिटरी पैड के लिए कोई भस्मीकरण सुविधा है? Yes/No हाँ/नहीं

71. Do you get free sanitary pads from ASHA workers or Anganwadi centre क्या आपको आशा कार्यकर्ता या आंगनवाड़ी केंद्र से मुफ्त सैनिटरी पैड मिलते हैं? Yes/No हाँ/नहीं

72. Under govt.scheme, is there a proper waste bin kept inside the road/school to dispose used pads क्या सड़क/स्कूल के अंदर इस्तेमाल किए गए पैडों के निपटान के लिए कूड़ेदान रखा गया है? Yes/No हाँ/नहीं

73. Is there hand washing facility available inside/ near the community toilet क्या सामुदायिक शौचालय के अंदर/पास हाथ धोने की सुविधा उपलब्ध है? Yes/No हाँ/नहीं

74. What are the weaknesses of government schemes सरकारी योजनाओं की कमजोरियां क्या हैं?

- a) Lack of availability of sanitary pads सैनिटरी पैड की उपलब्धता की कमी
- b) low quality of sanitary pads सैनिटरी पैड की निम्न गुणवत्ता
- c) Irregularity in proper distribution उचित वितरण में अनियमितता
- d) not access to all menstruating women सभी मासिक धर्म महिलाओं के लिए नहीं पहुंचा
- e) problem of disposability for used pads उपयोग किए गए पैड के लिए निपटान की समस्या

75. Do you want to give any suggestion from following for improvement in menstrual hygiene क्या आप मासिक धर्म स्वच्छता में सुधार के लिए कोई सुझाव देना चाहती हैं? Yes/No हाँ/नहीं

76. If yes, please specify यदि हां, तो कृपया उल्लेख करें।.....

- a) Government must be organize camp for awareness of menstrual hygiene क) सरकार को मासिक धर्म स्वच्छता के बारे में जागरूकता के लिए शिविर का आयोजन किया जाना चाहिए
- b) Provision of free sanitary napkins should be to all needy females सभी जरूरतमंद महिलाओं को मुफ्त सैनिटरी नैपकिन का प्रावधान होना चाहिए
- c) Government should be launched more scheme for awareness सरकार को जागरूकता के लिए और अधिक योजना शुरू की जानी चाहिए
- d) Menstrual hygiene should be the integral part of school curriculum मासिक धर्म स्वच्छता स्कूली पाठ्यक्रम का अभिन्न हिस्सा होना चाहिए
- e) govt. should be Take appropriate step for breaking the silence of menstruation सरकार को मासिक धर्म की चुप्पी तोड़ने के लिए उचित कदम उठाना चाहिए
- f) Sexual education should be imparted in schools by teachers शिक्षकों द्वारा स्कूलों में यौन शिक्षा प्रदान की जानी चाहिए

Visit of Schools for Awareness & Data Collection



<<26 Feb 2021



8 March 2021 >>



17 March 2021

समिति ने स्कूलों में सैनेटरी नैपकिन बांटकर छात्राओं को किया जागरूक

राजकीय उच्च विद्यालय निम्बरी-2109, पानीपत

समिति अर्ध निम्बरी स्कूल में छात्राओं को जागरूक करते हुए। (संजय लाल)

पानीपत (दिलीप बाबल): नारी नृ नारायणी उत्थान समिति की अध्यक्ष समिता आर्य ने जागत नारी-सुरक्षित नारी अभियान के तहत निम्बरी, सनौली व गढ़ी बेसिक के नौनिधर सैनेटरी स्कूलों की छात्राओं को सैनेटरी नैपकिन वितरित करने के बाद बहियों को जनसु-अभियान के तहत जागरूक किया। आर्य ने कहा कि समाजिक व नैतिक संस्था समाज में होने वाली दुर्घटियों के रोकथाम जागरूकता अभियान वितरित नैपकिन व प्रशासन का उपयोग करें। वहीं आर्य कोलेज की डी.अनु ने सैनेटरी नैपकिन की जागरूकता और कार्यान्वयन विषय पर शोध एवं अध्ययन कर रही अलग-अलग स्कूलों की छात्राओं से मिलकर उनकी समस्याओं को जानने का प्रयास कर रही हैं।

Thu, 18 March 2021
epaper.dainiksaveratimes.org/c/58

‘जागृत नारी-सुरक्षित नारी’ अभियान के तहत संस्था ने स्कूल में छात्राओं को किया जागरूक

सनौली व गढ़ी बेसिक स्कूल की छात्राएं बोलीं- प्रशासन ने नहीं, संस्था ने की मदद

भास्कर न्यूज़ | पानीपत

जागृत नारी, सुरक्षित नारी अभियान के तहत नारी नृ नारायणी उत्थान समिति ने बुधवार को तीन स्कूलों की छात्राओं को जागरूक किया। सनौली और गढ़ी बेसिक स्कूल की छात्राओं ने कहा कि आज तक प्रशासन की तरफ से स्कूल में सैनेटरी नैपकिन नहीं मिला। संस्था ने छात्राओं को सैनेटरी नैपकिन वितरित किया। आर्य कोलेज से अर्थशास्त्र की प्रोफेसर अनु जो सैनेटरी नैपकिन की जागरूकता और कार्यान्वयन विषय पर शोध एवं अध्ययन कर रही हैं। अलग-अलग स्कूलों की छात्राओं से मिलकर उनकी समस्याओं को जानने का प्रयास कर रही हैं। अनु ने बताया कि अध्ययन में बहुत सी बातें सामने आई हैं। छात्राओं को सैनेटरी नैपकिन के सही इस्तेमाल और सेफ डिस्पोजल सिखाया गया।

A Global Symbol for Menstruation

The Menstruation Bracelet is a global symbol for menstruation created by MH Day. It stands for our joint commitment to create a world, by 2030, where no woman or girl is kept from realising her full potential because she menstruates. A world where menstruation is just a normal fact of life.

Join Menstruation Bracelet action

The Menstruation Bracelet

28 elements, 5 of which are red. The Menstruation Bracelet is a simple yet powerful symbol for menstruation. Learn about the Menstruation Bracelet action and find out how YOU – as an individual or an organisation – can add your voice to end period stigma!

2021

Learn more

नारी तू नारायणी उत्थान समिति ने 'मासिक धर्म स्वच्छता दिवस' के उपलक्ष्य में ऑनलाइन कॉन्फ्रेंस का आयोजन मासिक धर्म में कपड़े का इस्तेमाल, स्वास्थ्य के लिए खतरा : अंजू

पानीपत। एकदम को नारी तू नारायणी उत्थान समिति ने 'मासिक धर्म स्वच्छता दिवस' के उपलक्ष्य में ऑनलाइन कॉन्फ्रेंस का आयोजन किया। नारी तू नारायणी उत्थान समिति की अध्यक्ष सविता आर्य ने बताया कि उनको सविता ने जन्म से ही पता चल गया, सुनिश्चित करने अधिकार की शुरुआत की थी जिससे सभ्य समाज पर छवि भी, ईट भूरा लेबर, बर्लिनगो भी महिलाओं के बर्लिनगो को जागरूक करने का काम करता है।

उन्होंने बताया कि हरवरी समिति सक्की कुन्नी में भी इस अभियान के तहत महिलाओं को जागरूक करने के लक्ष्य में इस कार्यक्रम को आयोजन करी वैश्विक नारायणी से पूरा देश लड़ रहा है और लोकेशन लगा हुआ है। इसलिए आज हमारी सविता ने ये संकल्पना ली है कि हम सब नारी तू नारायणी उत्थान समिति ऑनलाइन कॉन्फ्रेंस करेंगे। ऑनलाइन कॉन्फ्रेंस में सभी ने अपने अपने सुझाव रखे।



सविता ने संकल्पना ली कि इस बार 'मासिक धर्म स्वच्छता दिवस' पर हमारे सभी महिलाओं और बेटियों को जागरूक करेंगे। ऑनलाइन कॉन्फ्रेंस में सभी ने अपने अपने सुझाव रखे।

समय की शुरुआत की थी, विवाक मुन्ना उदरप ई एडिक्टिव और महिलाओं को धरती के उन 4-5 टिप्स का मासिक धर्म के दौरान स्वास्थ्य को खतरा के लिए जागरूक कराना। उन्होंने भी '28' ही इतिहास चुनने का मासिक धर्म पर सविता की मासिक धर्म 28 दिनों के भीतर आते हैं और महिलाओं के मासिक धर्म का मासिक चक्र 28 दिनों का होता है।

अंजू ने कहा कि पीरियड्स के बारे में बात करने में आज भी कई जगहों पर महिलाएं डिप्रेसिव हैं, ऐसे में इस दौरान उन्हें क्या पहचानना चलने चाहिए। ये नहीं जानती की इस तरह से वे खुद के स्वास्थ्य को खतरा में डाल देती हैं। अंजू ने ऑनलाइन कॉन्फ्रेंस में बताया कि पीरियड्स के दौरान स्वास्थ्य को खतरा के लिए और खुद को किसी भी तरह के इन्फेक्शन से दूर रखने के लिए महिलाओं को कुछ बातों का ध्यान रखना चाहिए। कई बेटियों को बर्लिनगो से आज भी महिलाएं, पीरियड्स में कपड़े का

इस्तेमाल करती हैं। निसे खेकर और सुपकर सुझाव के पक्कर में इस कपड़े को ना ले खुली हवा और धूप की आवाही लगे ही धुए रखनी हैं, साथ ही साफ-साफ कपड़े का इस्तेमाल करना चाहिए हैं, जो कि नैचुरल ड्रेसिंग को प्लेज देती है।

अंजू ने ऑनलाइन कॉन्फ्रेंस में बताया कि सभी महिलाओं के मासिक धर्म को पैक का इस्तेमाल करना चाहिए और हर 6-8 घंटे में अपना पैक बदल देना चाहिए। उन्होंने बताया कि हमारे जमाने रिचें बहुत से बच्चे पैक में पैक में कि नहीं महिलाएं जागृकी नहीं की बर्लिनगो को जागरूक करती हैं। क्वी पर जागरूकता की महिलाओं को काम के समय के दौरान धियान करने की जरूरत भी जाती है। अंजू ने बताया की इस ऑनलाइन कॉन्फ्रेंस में इस विषय पर भी हम सभी महिलाओं ने खुद बात की थी। सविता ने सविता आर्य, नीक रानी, नीक रानी, सुनीता कुंजु, अंजू, नीलम, अंजू, सरला, सुमन रानी, मंजू अंजना, पुष्पा, बर्लिनगो महिलाएं भी बर्लिनगो।

Online Seminar on World Menstrual Hygiene Day – 28 May 2021

पानीपत भास्कर 29-05-2021

महिलाओं और बेटियों को बताए मासिक धर्म के दौरान सैनेटरी पैड प्रयोग के लाभ

झिझक के कारण एहतियात न बरतने पर इंफेक्शन बढ़ने का खतरा ज्यादा

भास्कर न्यूज़ | पानीपत

नारी तू नारायणी उत्थान समिति ने मासिक धर्म स्वच्छता दिवस के उपलक्ष्य में ऑनलाइन कॉन्फ्रेंस के माध्यम से महिलाओं व बेटियों को मासिक धर्म के दौरान सैनेटरी पैड प्रयोग करने के लाभ बताए। इसमें समिति अध्यक्ष सविता आर्य मुख्यवक्ता व आर्य कॉलेज से अध्यापिका प्रोफेसर व रिसर्च स्कॉलर अंजू मुख्य वक्ता रहीं। अंजू मासिक ने बताया कि वह सैनेटरी नैसैक की जागरूकता और कार्यान्वयन विषय पर शोध एवं अध्ययन भी कर रही हैं।

सैनेटरी पैड के प्रति जागरूकता अभियान की शुरुआत इंग्लैंड व ईट भूटों पर काम करने वाले लेबर में शामिल महिलाओं को जागरूक करने के साथ हुई थी। सरकारी स्कूलों में भी छात्राओं को जागरूक करते हैं। अब कॉविड नियमों का पालन करते हुए ऑनलाइन कॉन्फ्रेंस में ही मासिक धर्म स्वच्छता दिवस मनाया गया। साथ ही संकल्प लिया कि ज्यादा से ज्यादा जागरूकता फैलाएंगे।

अंजू ने बताया कि 28 मई को पूरी दुनिया में मासिक धर्म स्वच्छता दिवस मनाया जा रहा है। 2014 में जर्मनी के बर्लिन यूनाइटेड नाम के एक एनजीओ ने इसकी शुरुआत की थी, ताकि बेटियों व महिलाओं को महिने के उन 4-5 दिन पानी मासिक धर्म के दौरान स्वच्छता रखने के लिए जागरूक किया जाए। कई बेटियों आज भी पीरियड्स के बारे में बात करने में हिचकती हैं। इसी कारण वे खुद के स्वास्थ्य को खतरा में डाल देती हैं। इस अवसर पर शशी अग्रवाल, नीरू शर्मा, नीता रानी, सुनीता कुंजु, मुकेश, नीलम, अंजू, सरला, सुमन रानी, मंजू, अनिता, पुष्पा व कांत मौजूद रहे।

02

पानीपत, शनिवार, 29 मई 2021

आज समाज

खबर एक्सप्रेस

'मासिक धर्म स्वच्छता दिवस' पर चर्चा की

पानीपत। ऑनलाइन कॉन्फ्रेंस की अध्यक्षता नारी तू नारायणी उत्थान समिति समिति की अध्यक्ष सविता आर्य ने की और मुख्यवक्ता आर्य कॉलेज से अध्यापिका प्रोफेसर और रिसर्च स्कॉलर अंजू रहीं जो सैनेटरी नैपकिन की जागरूकता और कार्यान्वयन विषय पर शोध एवं अध्ययन कर रही हैं। सविता आर्य ने बताया कि उनको समिति ने नववर्ष पर जागत नारी, सुरक्षित नारी अभियान की शुरुआत की थी जिसमें समय समय इंग्लैंड, भूटो लेबर कॉलोनिगो की महिलाओं व बेटियों की जागरूक करते हैं सरकारी स्कूलों में भी अभियान के तहत जागरूक करते हैं लेकिन अभी देश में वैश्विक महामारी से पूरा देश लड़ रहा है और लॉकडाउन लगा हुआ इसलिए आज ऑनलाइन मीटिंग करके 'मासिक धर्म स्वच्छता दिवस' पर सभी ने मिलकर संकल्प लिया कि ज्यादा से ज्यादा महिला और बेटियों को जागरूक करेंगे। सभी ने अपने अपने सुझाव रखे। अंजू ने बताया कि पीरियड्स के बारे में बात करने में आज भी कई जगहों पर महिलाएं हिचकती हैं, ऐसे में इस दौरान उन्हें क्या एहतियात बरतने चाहिए, वे नहीं जानती। इस तरह से वे खुद के स्वास्थ्य को खतरा में डाल देती हैं। पीरियड्स के दौरान स्वच्छता बनाए रखने के लिए और खुद को किसी भी तरह के इन्फेक्शन से दूर रखने के लिए आपको किन बातों का ध्यान रखना चाहिए।

List of Certificates of paper presentation & Publications

List of Paper Presentation				
Paper Presented in International & National Seminars/ Conferences/ Workshops				
Sr. no.	Title of the Paper	Title of the Conferences/ Seminars/ Workshops	Name of the Universities/ College	Date of Presentation
1	MOOCs and e-Content Development	One-Week Online National Faculty Development Program	Guru Angad Dev Teaching Learning Centre	29 th April to 5 th May, 2023
2	Entrepreneurship Development of Hygiene Product: A Big and Bold Action for Better Health	National Conference on Contemporary Trends in Humanities & Social Sciences (Sponsored by DGHE, Panchkula Haryana)	S.D (P.G.) College Panipat	March 18-19, 2023
3	Menstrual Hygiene Management (MHM): A Scheme for Improving Women Welfare	International Conference on India 2.0, Vision for India @2047: Challenges and Prospects (Sponsored by ICSSR, New Delhi)	Kurukshetra University Kurukshetra, Haryana	February 14-15, 2023
4	Importance of Review of Literature in Quality of Research and Research Proposal	National Seminar on Research Methodology and Its Applications (Sponsored by DGHE, Panchkula Haryana)	Govt. Post Graduate College, Ambala Cantt.	January 24, 2023
5	Socio-economic Analysis of MHM of Adolescent Girls: A Case Study of Mewat District, Haryana	International Conference on Indian Economy during Pandemic: New Challenges and Opportunities	Chaudhary Ranbir Singh University, Jind [HARYANA] INDIA	April 28-29, 2022
6	From Taboo to Empowerment: Menstruation and Gender Equality	National Seminar on Women Entrepreneurship and Start-Ups: A Gateway to self-Reliant India	Bhagat Phool Singh Mahila Vishwavidyalaya Kahnpur Kalan (Sonipat) Haryana	March 08, 2022
7	Assessment of Knowledge, Attitudes and Practices about Menstrual Hygiene among Adolescent Girls: Existing Scenario in Mewat, Haryana	National Conference on Contemporary Issues in Banking, Insurance & Financial Services Sector (CIBIFS-2021)	Kurukshetra University Kurukshetra, Haryana	March 26-27, 2021
8	Awareness of Menstrual Hygiene among Adolescent Girls of Panipat, Haryana	National Conference on Sustainable Development Goals: Lessons and Challenges in the VUCA World	Amity University, Uttar Pradesh	March 18-19, 2021
9	National Online Workshop on Applied Econometrics and Machine Learning	National Online Workshop on Applied Econometrics and Machine Learning	Indira Gandhi University, Meerpur, Rewari, Haryana	October 25-31, 2021
10	Trends of Indian Feminine Hygiene Industry	National Conference on Currents Trends in Business & Economics	S.D (PG) College, Panipat (Haryana)	February 15-16, 2020
11	Workshop on Data Analysis using SPSS	Workshop on Data Analysis using SPSS	Arya PG College Panipat, Haryana	February 26-27, 2020

An Economic Analysis of Awareness of Menstrual Hygiene among Adolescent Girls of Panipat District of Haryana in North India

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Abstract

Background: Teenage is the age where a child especially girl child needs special attention and awareness towards menstruation hygiene as they are quite immature and uneducated towards it. Girls belonging to age group of 10-19 years were studied for parameters such as age of menstruation, usage of sanitary napkins, disposal of sanitary napkins and hygiene during menstruation etc.

Aims: a) To assess the awareness level about menstrual hygiene among adolescent girls in a private and government schools of Panipat. b) To identify the Socio-economic factors are affecting to adolescent girls for menstrual hygiene.

Method: A cross sectional study was conducted on 140 school going adolescent girls between the age group of 10-19 years. A semi structured; pretested questionnaire was prepared for data collection. A chi-square test was used to assess the association of various factors with menstruation. Statistical significance of difference between groups was tested. A p value of <0.05 was considered as statically significant.

Results: out of total 140 respondents, 64.3% admitted that menstruation age starts at 14 years, 67.2% girls responded that mother is the main source of information about menstruation. Quite strangely, 84.3% of girls believed that the blood flow during menstruation comes from bladder

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Socio-economic Analysis of MHM of Adolescent Girls: A case study of Mewat district, Haryana

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Abstract:

Background: Menstruation is not only a small term rather it is the cause of several changes in physical, psychological and reproductive development in an adolescent girl that occur from menarche to menopause. We conducted a study to access menstrual practices and awareness of adolescent girls in rural area of Mewat due to very few evidence about knowledge and practices regarding menstruation.

Aims: a) To find the awareness level about menstrual hygiene among to school going adolescent girls of Mewat. b) To assess the knowledge, Attitudes and Practices among adolescent girls for menstruation.

Method: A cross sectional study was conducted on 130 school going adolescent girls between the age group of 10-19 years. A pretested questionnaire was prepared for data collection.

Results: out of total 130 respondents, 54.6% admitted that menstruation age starts at 14 years, 62.3% girls responded that mother is the main source of information about menstruation. 59.3% girls not attend their school during menses and the main reason of absenteeism was found that the lack of disposable facility in school campus. **Conclusion:** Low level of knowledge regarding menstruation, poor menstrual hygiene was found in our study. Education regarding menstruation reproductive health with more focus on menstrual hygiene should be the part of school curriculum.

Keywords: Adolescent, Awareness, Menstrual hygiene, Sanitary napkins

Introduction:

The word adolescence is derived from the Latin word *adolescere* meaning to grow up. WHO has defined adolescent as a period between 10-19 years. According to nutrition foundation of India the average age of menarche is 13.4 years yet 50% of girls aged 12-15 don't know about menstruation (Kusuma M.L & Mansoor ahmed 2016). The proportion of the world adolescent' population is rising faster than that of other age groups. As at today, 84% of the world's adolescent live in developing world (adika et.al.2011). Menstrual hygiene and its proper knowledge is must for adolescent girls but in India this is considered something not clear and negative. Parents also prohibits the girls to talk about it openly which makes the young girls ignorant about its scientific facts and health practices. In a developing country like India, adequate attention has not been given to many health sectors like water, sanitation and hygiene likewise menstruation hygiene is also a sector which is not given its due importance through it is a natural process and directly linked to the reproductive health of women. Proper knowledge and enlightenment towards menstruation will definitely lighten the suffering of millions of women.

An American research and advocacy group that released a "cervical cancer global crisis card" and found that more women die from cervical cancer every year in India than anywhere else in the world, according to the 'cervical cancer-free coalition'. The index, which ranked 50 countries, shows India in the top spot in terms of overall deaths with nearly 73,000 a year. China came in a close second, followed by Brazil. The rankings were compiled using information from a 2010 report, available on the W.H.O website, which says an estimated 72,825 women die of cervical cancer every year in India (Raina P.2013).

Methods and Materials

A cross-sectional study has been conducted to find the perception and pattern about menstruation among adolescent girls in district Mewat of Haryana state. Out of five blocks, three blocks are selected randomly to obtain the aims of this study. Later from each block, three senior secondary schools are selected randomly namely Government Senior Secondary School in Nagina block, Government Girls Senior Secondary School in Puhana block and Government Girls Senior Secondary School in Firojpur Jhirka (Nuh) block. Purposive sampling has been used at the first stage for the selection of respondents and then random sampling used for the size of the respondents. The total sample consists of 130 adolescent girls. The dependent variable is those adolescent girls who have attained menarche and the explanatory variables are age, education, mother's education, household income, family type and house type. This study has been conducted for the duration of the last two months september-october 2021.

Data Collection

Data were collected using pre-designed, pre-structured and self-administered questionnaire. The questionnaire was translated English to Hindi language through a two-way process for students. Questions were asked about respondents' socio-demographic characteristics as well as their, knowledge, attitude and practice on menstruation and menstrual hygiene. The study has been conducted after obtaining written permission from the principals of the selected schools and informed consent was taken from the participated adolescent girls before enrolling them in the study.

Menstrual Hygiene Management (MHM): A Scheme For Improving Women Welfare

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Abstract

The Ministry of Health and Family Welfare implements the Scheme for Promotion of Menstrual Hygiene among adolescent girls in the age group of 10-19 years since 2011. The scheme is supported by the National Health Mission through State Programme Implementation Plan (PIP) route based on the proposals received from the States / UTs. The major objectives of the scheme are to increase awareness among adolescent girls on menstrual hygiene; to increase access to and use of high-quality sanitary napkins by adolescent girls and to ensure safe disposal of sanitary napkins in an environment friendly manner. Under the scheme, a pack of sanitary napkins are provided to adolescent girls by the Accredited Social Health Activist (ASHA) at subsidized rate of Rs. 6 per pack.

In addition, Ministry of Drinking Water and Sanitation under Swachh Bharat Abhiyan has developed National Guidelines on Menstrual Hygiene Management (MHM) for creating awareness on Menstrual Hygiene Management (MHM) in rural areas as part of its overall interventions related to behaviour change on sanitation hygiene aspect. Further, to ensure access to sanitary napkins and good quality medicines at affordable price, Department of Pharmaceuticals under Ministry of Chemicals and Fertilizers implements the Pradhan Mantri Bharatiya Janausadhi Pariyojna (PMBJP), an important step in ensuring the health security for women. Under the project, over 8700 Janaushidhi Kendras have been set up across the country that provides Oxo-biodegradable sanitary napkins named Suvidha at Rs. 1/- per pad only.

Keywords: MHS, Sanitary napkins, Adolescent, Awareness and Affordability

Introduction

Menstrual hygiene management (MHM) is a concept that concerns girls' and women's access to the appropriate information and resources to manage menstruation. In December 2012, the Joint Monitoring Program, or JMP, was one of the first organizations to define MHM as a global development goal. Since then, other organizations like WaterAid and the United Nations have expanded MHM's definition to include menstrual education that is biologically accurate and free of taboo and stigma. Many women in low-income countries lack those necessities for MHM due to high prices of menstrual sanitary products, lack of access to clean water and sanitation facilities, and social stigma surrounding menstruation that prevents it from being talked about. However, as more organizations began to frame MHM as an issue of public concern rather than a woman's private problem, more researchers, organizations, and governmental bodies have begun to address issues at the root of inadequate MHM.