# Viability of Low Cost Menstrual Absorbent in Odisha with a Special Focus on Women and Girls with Disabilities

A Report

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# PREFACE

Menstrual cycle is a natural physiological process that periodically prepares the female body for reproductive readiness. Menstruation colloquially also known as menses or period is simply the gradual flushing out of bodily membranes and blood through the vaginal tract. There is nothing impure or poisonous about it. While the first occurrence of menstruation is greeted with fanfare, the following days and subsequent occurrences are a veritable nightmare for the girl or woman concerned. The endless list of restrictions has cunning recommendations of leading an unhygienic life for the woman/girl during this period. This has been handed down over the ages and generation to generations and followed diligently without any question. We can ascribe many reasons for the same like discrimination, subjugation, ignorance, volubility, gullibility, illiteracy and an affinity towards obscurantism and fear of unknown. The most absurd tag is of "impurity" of the woman or girl during this time.

In our culture and tradition anything linked to reproductive process is coloured as a sexual stuff and should be hushed up. By this act the woman or girl at the time of menstruation becomes virtually invisible with all the pains and insecurities.

But the fact remains that the women or girl should maintain a higher level of hygiene and healthy practices during menstruation. Given the educational, economic and above all social conditions the feminine gender has limited choices to opt for menstrual flow management. They are in the lookout for a material that will be clean, dry, sterile, easy to maintain and use and of course affordable. And this is to be addressed for about 60-80% of a woman's life span. There is no single choice of material that addresses all of these criteria.

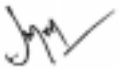
Women and girls with disability face bigger hurdles for menstrual hygiene management due to the restricted functionality of body and mind. Many times this becomes a real stress point for the care givers. People need to explore and research to come up with a product that will cater to the need of this group.

There have been innovations and sporadic experiments to produce reasonable materials without compromising on quality factors including user and environment friendliness, but that have not really reached the scalable and replicable state.

The study was envisaged in this context to explore the existing options and see its viability, scalability and replicability nature to be able to facilitate the access to safe menstrual absorbents for the girls and women while working on MHM issues in the community by Aaina with the support of Wateraid. I thank Wateraid for extending their support for this study and also Dr Sarmistha Choudhury for doing the study on behalf of Aaina.

The few ventures undertaken in Odisha to provide low cost sanitary pads to the general population has met with limited success. The major hurdle for these enterprises has been the lack of availability of raw material locally (within the state). Also the cost implications when it is procured from outside. Moreover, the concern is always the "low cost" compromising the quality vs subsidizing cost with no compromise to the quality. We hope to find viable alternative products / materials that will support the women and girls including those with disability better manage the menstrual flow and maintain hygiene.

But till that time and beyond we have to concertedly and collectively work to eliminate the social taboos associated with menstruation that will give a wider choice and openness to the women for better menstrual health management.



Mrs. Sneha MIshra
Secretary, Aaina
Bhubaneswar

# ACKNOWLEDGEMENTS

The topic of menstruation is still not discussed openly in our society. It has always been surrounded by myths, taboos and superstitions which affect the health and hygiene of the adolescent girls and women of our society. This study had made an attempt to study menstrual practices and its impact on the health of the adolescent girls of Odisha. More studies need to be undertaken to break the silence and help our society to be healthy.

Many people have contributed for this study and I thank all of them for their support and encouragement. I sincerely thank Ms. Sneha Mishra, Secretary Aaina for allowing and guiding me to conduct this study. I would like to thank WaterAid Odisha for funding this study. My thanks go to Ms. Jyoshna Sahoo and Mr. Dillip Biswal of Aaina for introducing me to officials of different organizations for conducting the study and also for timely coordination with the field staffs. I sincerely thank Ms. Rajalaxmi Mohanty, Aaina for entering the primary data, and all the field staffs of Aaina for their painstaking collection of field data.

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# EXECUTIVE SUMMARY

In Indian society menstruation is considered to be hidden, disadvantageous and associated with myths and taboo. It is culturally considered to be dirty or impure. Regular menstruation signals a woman's health and fertility. Yet menstruation is surrounded by shame, secrecy, embarrassment, fear, humiliation, silence, taboo, and stigma. Linked to this taboo, many cultural and religious norms-often grounded in patriarchal assumptions-seek to prevent contact with menstruating women and girls in order to avoid 'contamination' or 'becoming impure'. The taboo and silence around menstruation makes menstruation a non-issue. Despite making up half of the population, women's requirements are overlooked and neglected, sometimes even deliberately ignored. It prevents women from reaching their full potential and achieving gender equality. Women and girls lose days of school and work with far-reaching implications for their education, well-being, and livelihoods; they are subjected to cultural prescriptions that often amount to harmful practices.

Adolescent girls find it extremely difficult to even discuss the issue with their parents or elders in the family as this is dealt as a top secrecy and no one either has complete knowledge about it or feel necessary to talk about it to the girls those are attaining puberty or into the menarche age. Rather they face the wrath of some traditional belief and forced to live a secluded life. Use of cloth strips during menstruation is an age old practice. Often poor washing, storage of these cloths result in affecting women health specifically the reproductive health. The hygienic practices, use of absorbents, access to these facilities, the disposal of the absorbents are never discussed among the adolescents.

The situation of girls and women with disabilities are in double jeopardy as they are never considered to be made aware about issues around it and rather sometimes they are considered to be a burden by the family members.

## Objective

Against this backdrop the present study makes an attempt to explore the situation of menstruation, hygiene and the viability and availability of low cost sanitary napkins in Odisha with a special focus on women and girls with disability. There are few studies on the rituals for menstruation but not much has been done related to menstrual hygiene, viability. This study was undertaken by Aaina, Odisha supported by WaterAid, Odisha.

The objectives of the study are:

1 To assess the affordability, availability and use of sanitary napkins/absorbents (existing, low/no cost)

2 To find any Government schemes available in the state for ensuring low cost sanitary napkins/absorbents and disposal

3 To take a stock of existing production units its environment impact & viability assesments.

4 To explore the menstrual practices (use & disposal) followed in general and specific to adolescent girls with disabilities in Odisha

**Methodology & Data Sources:**

The study is based both on primary and secondary data. It's a cross sectional study of adolescent girls and girls with disability. Three districts were selected purposively where the organization is currently working. They are Ganjam, Dhenkanal and Kandhamal. From the three districts 200 adolescent girls were selected randomly of which 50% were girls with disability (10-19 years). A Structured Interview Schedule was designed to elicit information on current use, practice and affordability & accessibility of hygienic sanitary absorbents.

Semi structured interview was done to understand about the existing low cost sanitary napkin manufacturing units (production, cost & profitability) in Odisha . Secondary review was done to analyze the Government's policies regarding menstrual hygiene management. Secondary data were collected from various sources as mentioned below:

1. Census of India and Odisha
2. Various studies and reports from the web (internet)
3. Information from various government and non government organizations working in this area.
4. Government reports / policies

**Sanitary napkin/menstrual absorbent units in Odisha:**

There are five sanitary napkin units found to be in working condition. There is also one NGO who produced cloth sanitary napkins during the disaster. GOONJ a Delhi based organization who produces cloth sanitary napkin through its 'Not Just a Piece of Cloth' programme is working through its partner organizations in Odisha. Sunseed Agro Ltd and SATHI (a wing of Hari Telematics Pvt. Ltd) have come together in Bhubaneswar for supplying raw material for low cost sanitary napkin manufacturing from China. SATHI is also manufacturing low cost sanitary manufacturing machines to cater the need of Odisha market and also give training regarding this.

**Problems related to low cost sanitary napkin unit in Odisha:** The low cost units which have their presence in Odisha are working in isolation. Minimal effort has been made for social marketing of the products. There is a need for more research and development for its commercial ventures. Lack of raw materials for production is one of the major challenges for the sustainability of the low cost sanitary napkin units. These units also need to work for environment friendly disposal system of sanitary napkins. Last but not the least high transportation cost is another issue due to which they cannot sell beyond their respective districts/ areas.

**Findings of the Study:**

**Menstrual practices, hygiene & use of sanitary napkins/ absorbents:**

- The mean age at menarche found to be 13 for both adolescent girls and girls with disability.
- The data reveals that it is still a taboo to talk about menstruation and many a times families even discourage discussions around menstruation. This is compounded by ignorance of the mothers. 63 percent adolescent girls and 76 percent adolescent girls with disability were completely ignorant about menstruation before they attain menarche. Only 37 percent adolescent girls and 24 percent adolescent girls with disability were aware about menarche and friends are the main source of information.
- Majority of the respondents use cloths as menstrual absorbent (52% adolescent girls and 54%

adolescent girls with disabilities) while the usage of sanitary napkin is 29 percent among adolescent girls and 28 percent among adolescent girls with disability. There are also dual users of cloth and pad (19 adolescent and 18 adolescent girls with disability). However this category of users use pad while travelling to distant places and in emergency situations.

- Cloth users use old clothes available at home like sari, bed sheets, towels, dhoti or lungi (used by male members at home) and old dresses as menstrual absorbent. They cannot afford to use pads as they are costly and moreover the women of the family said that they are using clothes for ages and there is no problem.
- The problems faced by the girls while using cloths as menstrual absorbent are leakage and uncomfortable feeling during periods.
- Many girls wish to use sanitary napkins available in the market as these comes as use and throw and so reducing their work of looking for a suitable place and time to wash, drying in a secret place etc. Moreover they wanted to get rid of the hiding business and of course these are comfortable to use. This shows the burden of cultural practices and taboos as one of the contributing factors for the girls and women to choose the products available in the market.
- The clothes are dried separately in a place not seen by others, many time dried in shadows. The menstrual clothes are wrapped in polythene and stored at some secret place till the next use.
- The menstrual cloths are used till it is torn by 17 % adolescent girls, 18 % girls with disability). 31.5 percent use it for 3-4 months and 31 percent use the cloths for 2 months. The clothes are not washed (sterilized) till the next menses/month. Using of unsterilized clothes during menstruation can lead to vaginal infection and many reproductive tract infections that are barriers to a healthy life for the girls and women of our society.
- The changing pattern of cloth/napkins during menstruation shows that majority of the girls change only 2 times a day. 2 times in a day it means 8 times throughout the period. 37% changes cloth/napkin 3 times a day and only 9 percent changes more than 3 times a day (10% adolescent and 9% adolescent with disability).
- Heavy bleeding is one of the reasons behind changing more than three times among adolescent girls. Due to stiffness of the lower limbs of girls with disability the clothes/napkin sometimes do not stay intact and thus needs changing more than 3 times a day. Gynecologist advises to change sanitary towels/absorbents thrice a day during menstruation. Unhygienic practices could lead to ascending infections, bacteria entering the urinary tract or uterus from outside.
- Disposal of menstrual absorbents has been a continuous challenge from different environmental aspects. Use of napkins available in the market which are not bio degradable in nature is a matter of great concern. The practice of disposal reveals that 40 percent girls (37 % adolescent girls and 42 percent girls with disability) threw the menstrual absorbent in the garbage by wrapping in polythene. 31 percent throw in the ponds/rivers, 24 percent bury near the pond/river wrapping in polythene. Only 6 percent burn the menstrual absorbent. The taboo that burning of menstrual absorbents will lead to infertility among girls/women leads to the girls and their family members to bury or throw the absorbents rather than burning them.
- Research shows that sanitary napkins take 500-600 years to decompose and same is with polythene. Throwing menstrual waste in the water bodies contaminates the water bodies causing health issues.

This indicates ignorance of the girls and the family members about the disposal of menstrual waste and also the unavailability of any other alternatives in the community level.

- Though the number is small, 4 percent has epileptic fits attacks during menstruation and 5% girls suffer from fits associated with heavy bleeding, pain, vomiting and headache during menstruation. This is an issue which needs proper medical attention.
- 80% of the girls or their family members do not consult doctor for any health related problem during menstruation. The reasons being:
    a) The girls were told by the family members to sleep for some time by which they will be all right (48% adolescent girls and 56 percent girls with disability),
    b) 11 percent said that they feel ashamed to go to the doctor,
    c) Concept of mothers: these things happen to all the menstruating girls and women.

**Adolescent girls with disability and problems related to menstruation:**

- Due to the stiffness of the body part of the girls with disability (with orthopedic impairment & cerebral palsy) they can't wear the cloth/napkins properly and leakage occurs quite often (77%). They need help of their mother/care taker. Some girls with MR and CP also have increased epileptic fits attacks during menstruation.
- Parents Concern during Menstruation: Six percent mothers of girls with disabilities raise concern about operating their daughters to get rid of menstruation as they are growing old day by day and it is difficult for them to manage it every month. They also expressed their concern that family members and society will blame the mother if anything goes wrong. They fear that if somebody take advantage of her vulnerability and sexually exploit the girls or make them pregnant then it will be difficult for them to be in the village!! The undertone of the mothers is the security of their daughters and the pain they are going through. However, this was discussed with them that removal of reproductive organ might prevent them becoming pregnant but can never protect the girls from abuse rather they might be easy targets of repeated sexual exploitation.
- The concern was definitely the after care of the girls after their mothers and other family members as care givers as well as burden of social practices which make them fatigue e.g. one of the parents narrated that she has to take bath/change cloths each time she changes the napkins of the girls.
- Sanitary Absorbents for girls & women with disability: The girls and their mothers want that the napkins should be designed in a way that it should not slip off and stay in position in their panty while they go to the toilet (30%). The cloths they use fell down when they go to toilet during periods as they have restrictive bodily movements. 59% said they do not want to use cloths during periods as these are not very user friendly but sanitary napkins are very costly for them as well. They can't afford the one available in the market and do not know what type of sanitary napkin it should be. 11 percent girls want to have a soft, large and thick pad which won't leak when they walk during periods and of course should be user friendly.

**Facilities in school/colleges:**

- 74 percent adolescent girls with disabilities and 41 percent adolescent girls are permanently not going to school at present. The dropout rate from school is high among adolescent girls with disabilities as compared to the other girls. From among the school going girls 20 percent adolescent girls and 35 percent girls with disabilities do not attend school during periods.
- The reasons for dropout rate for both (those who do not attend school permanently and who do not attend school during period) are:
- Among girls with disability 48 percent due to lack of facility in school, 36 percent were kept at home (dropout) permanently as they had attained puberty. 16 percent do not go to school due to the stigma attached to menstruation.
- In case of adolescent girls 24 percent do not go to school due to lack of facility in school, 40 percent do not attend school because they had attained puberty and thought of to be grown up and ready for marriage, 36 percent adolescent girls are not allowed to go to school as during periods they are not allowed to go outside home.
- 80 percent said that there is separate toilet in their school/colleges but 20 percent opined that they are in unusable condition. The Girls going to school/colleges take sanitary napkin/cloth with them as there is no facility available there. 79 percent girls carry the menstrual cloth/sanitary napkin wrapped with paper and polythene back home for disposal, 11 percent flush in the toilet, 6 percent throw it outside the toilet as there is no disposal facility in the schools/colleges. 5 percent girl said they have disposal unit (incinerators) in their school and they dispose the napkin/cloth there. For girls with disability it is observed there was hardly any friendly facility available in the toilets for changing and disposal.

**Recommendations:**

**Knowledge,attitude & practice:**

- The study had highlighted the need of adolescent girls for accurate, adequate and accessible information about menstruation and its management. The girls should be educated about the facts of menstruation, physiological implications, about the significance of menstruation and development of secondary sexual characteristics, and above all, about proper hygienic practices with selection of disposable sanitary menstrual absorbent.
- Channels of communications (both formal and informal) like parents, sisters, friends, teachers should be involved for this. Mothers should be properly trained on reproductive health. All mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation much before the age of menarche.
- Breaking the taboo is important part of the menstrual hygiene management. Government should make policies how to break the taboo and create an enabling environment regarding this. It should be ensured that men (both at home and community) should be involved regarding MHM and it's importance as they are the decision maker in the family and the community.
- This can be achieved through educational programmes, IEC materials, school nurses/health personnel, compulsory education on adolescent reproductive sexual health in school curriculum and knowledgeable parents, so that it would indirectly wipe away the age-old wrong ideas and make the girls and women feel free to discuss menstrual matters including cleaner practices without any hesitation.

- Need to build self confidence among the adolescent girls and provide clean and safe menstrual absorbent in Schools & educational Institutions.
- Toilet facilities and disposal mechanisms for menstrual waste management should be provided in the schools/ colleges and at the community level.
- Safe Disposal unit or incinerators should be built in the schools/colleges as well as in the community/ village level for safe disposal of menstrual waste. More research on environment friendly disposal units can be made.
- There should be sensitization among engineers/technicians who design toilet and waste management system in schools on accessible MHM need and safe disposal system.
- Specific orientation to mothers and care givers on MHM of girls and women with disabilities.

**Enterprising menstrual absorbent production:**

- Government should promote enterprising of low cost menstrual absorbent by involving local groups having entrepreneur skills. Scalability of manufacturing menstrual absorbents should be taken by the Government.
- Government should take up the social marketing of affordable and accessible menstrual absorbents to make it available to the adolescent girls in School and out of School - promotion of facilitation centers in the community without compromising the quality aspect of it.
- Raw material is one of the big challenges in production of low cost sanitary napkin/ absorbent in Odisha. High transportation charge for export of low cost sanitary napkin is another problem for the manufacturers. Government should encourage these manufacturing units and subsidize the cost of production by procuring raw materials, helping in machinery maintenance & marketing
- More research on locally available materials, machines and the scalability of production is required.
- Modified napkins/absorbents keeping the need of girls with disabilities - strong adhesive, soft, thick & large without increasing the cost (at least two modified napkins in each packet) and producing a special packet for every 100 packets by the units run by the Govt.

**GO, NGO Coordination for Menstrual Hygiene Management:**

- Convergence and coordination between the departments for supporting the manufacturing unit and promotion of the marketing of the menstrual absorbents.
- Extensive research should be undertaken by government and NGOs for environment friendly, biodegradable low cost sanitary napkin/ absorbents.
- Government and NGOs should come forward for working of environment friendly menstrual waste management and should document the good practices being followed in different parts of the country.
- Awareness programs challenging myths/taboos which will enable the hygiene practices around menstruation to be promoted by the Government& NGOs.
- Need more research on how to involve different stakeholders on menstrual hygiene management

# CHAPTER - I

## Introduction

Menstruation is a hormonal process and is the shedding of the uterine lining (endometrium), which occurs monthly in most women of reproductive age. This includes several days of bleeding as the lining is shed.[1] Menstruation is a natural part of the reproductive system. Girls start to menstruate ('the time of menarche') during puberty or adolescence, typically between the ages of 10 and 19.[2] Girls experience physical changes like growing breasts, wider hips and body hair and emotional changes due to hormones. Menstruation is also colloquially known as menses or period. A girl starts menstruating as part of reaching puberty—a moment celebrated in many of the world's cultures, with rituals, ceremonies, and rites of passage. Yet, menstruation remains a taboo, spoken of through euphemisms. In many cultures, menstruating women and girls are seen variously as 'smelly', 'dirty', 'shameful', 'impure', or even 'contaminated'. Many women have internalized the stigma around menstruation describing that they feel dirty, unclean, and ashamed of their menstruation.[3] It is a paradox that "we shroud this natural phenomenon which is responsible for the birth and regeneration of humanity in shame, silence and indignity". [4]

**1.1 The female reproductive system:**

The menstrual cycle is usually around 28 days but can vary from 21 to 35 days. Each cycle involves the release of an egg (ovulation) which moves into the uterus through the fallopian tubes. Tissue and blood start to line the walls of the uterus as supportive preparation for fertilization. If the egg is not fertilized, the lining of the uterus is shed through the vagina along with blood. The bleeding generally lasts between two and seven days, with some lighter flow and some heavier flow days. The cycle is often irregular for the first year or two after menstruation begins. Most women and girls suffer from period pains such as abdominal cramps, nausea, fatigue, feeling faint, headaches, back ache and general discomfort. They can also experience emotional and psychological changes e.g. heightened feelings of sadness, irritability or anger) due to changing hormones. This varies from person to person and can change significantly over time.[5]

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[1]Women's Health.Gov. Menstruation And The Menstrual Cycle Fact Sheet. 2009. http://www.womenshealth.gov/publications/our-publications/fact-sheet/menstruation.cfm#a accessed on 19th August 2014

2Zegeye DT, Megabiaw B and Mulu A (2009) Age at menarche and the menstrual pattern of secondary school adolescents in northwest Ethiopia, BMC Women's Health, vol 9, no 29. Available at: www.biomedcentral.com/1472-6874/9/29.

[3] Janet Lee, Menarche and the (Hetero) Sexualization of the Female Body, in THE POLITICS OF WOMEN'S BODIES: SEXUALITY, APPEARANCE AND BEHAVIOR 85, 85 (Rose Weitz ed. 2003) [hereinafterLee, Menarche].

[4] Janet Lee, Menarche and the (Hetero) Sexualization of the Female Body, in THE POLITICS OF WOMEN'S BODIES: SEXUALITY, APPEARANCE AND BEHAVIOR 85, 85 (Rose Weitz ed. 2003) [here in after Lee, Menarche].

5 Menstrual Hygiene Matters – A resource for improving menstrual hygiene around the world by House, Sarah & et al, fhttp://www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=02309d73-

**1.2 Myths, taboos, cultural belief & social norms relating to menstruation:**

Menstruation as a subject has always been surrounded by myths, taboos throughout the world. There are differences between countries, cultures, religions, and ethnic groups. Different cultures view menstruation differently. Studies in the early 1980s have shown nearly all girls in the USA believed that girls should not talk about menstruation with boys, and more than one-third of the girls did not believe that it was appropriate to discuss menstruation with their fathers[6]. The basis of many conduct norms and communication about menstruation in western industrial societies is the belief that menstruation should remain hidden[7]. According to anthropologists Buckley and Gottlieb, taboos during menstruation are nearly universal, a wide range of distinct rules for conduct during menstruation "bespeak quite different, even opposite, purposes and meanings" with meanings that are "ambiguous and often multivalent".[8]

In many low-income countries, women and girls are restricted in mobility and behavior during menstruation due to their “impurity” during menstruation. In many parts of the world, menstruation is still related to a number of cultural taboos as well as feelings of shame and unclean. Even today menstruation is a secret of mother and daughter in many families. It is not discussed in the open.[9]The reason might be that menarche and menstruation are considered a taboo and thus rarely discussed, even between mother and daughter.[10]Another reason for mother’s reluctance to discuss menstruation and related issues with their daughters can be partially related to their own lack of knowledge of the physiology of menstruation.[11]

The taboos, social norms restrict the participation of girls and women in day to day activities including the development process of the society. These make their daily lives difficult and limit their freedom. For example, in some cultures, women and girls are told that during their menstrual cycle they should not take bath (or they will become infertile), touch a cow (or it will become infertile), look in a mirror (or it will lose its brightness), or touch a plant (or it will die).[12]

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5Archana Patkar, quoted in ROSE GEORGE, CELEBRATING WOMANHOOD: BREAK THE SILENCE!20 (Water Supply an d Sanitation Collaborative Council ed., 2013), available atwww.wsscc.org/sites/default/files/content/Research_article_files/mhm_-celebrating_womanhood_final_report.pdf.8e41-4d04-b2ef-6641f6616a4, accessed on 3rd January 2015, 3.05 pm

[6]Williams, L. R. (1983). "Beliefs and Attitudes of Young Girls Regarding Menstruation". In Menarche, ed. Sharon Golub. Lexington, MA: Lexington.

[7]Laws, S. (1990). *Issues of Blood: The Politics of Menstruation*. London: Macmillan

8 Buckley, T., and Gottlieb, A., eds. (1988). Blood Magic: The Anthropology of Menstruation. Berkeley: University of California Press. (p. 7)

[9]Knowledge, Practices, and Restrictions Related to Menstruation among Young Women from Low Socioecono mic Community in Mumbai, India by Thakur , Harshad et al, Front Public Health. 2014; 2: 72.. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080761/, accessed on 5thNov, 2014, 5.18 pm

[10]Singh AJ. Place of menstruation in the reproductive lives of women of rural North India.Indian J Community Med (2006) 31(3):10–410.4103/0970-0218.54923

[11]Garg S, Sharma N, Sahay R. Socio-cultural aspects of menstruation in an urban slum in Delhi, India. Reprod Health Matters (2001) 9(17):16–2510.1016/S0968-8080(01)90004-7[PubMed]

[12] Menstrual Hygiene Matters – A resource for improving menstrual hygiene around the world by House, Sarah & et al, http://www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=02309d73-8e41-4d04-b2ef-6641f6616a4f, accessed on 3rd January 2015, 3.05 pm

In Indian society menstruation is considered to be hidden, disadvantageous and associated with myths and taboo. It is culturally considered to be dirty or impure. Adolescent girls find extremely difficult to even discuss the issue with their parents or elders in the family. They live a secluded life and use of cloth strips during menstruation is an age old practice which indirectly affects their heath due to poor cleaning, drying and storage of the menstrual absorbent cloths.

There are many taboos like menstruating girl is prevented from going to temple, to cook food, to attend weddings, etc. There is limited knowledge and many misconceptions about menstruation among young women in India before and even after the menarche. This usually leads to undue fear, anxiety, and undesirable practices[13]. The knowledge and practices related to menstruation are dependent on socio economic conditions as well[14].

**1.3 Menstruation and Hygiene**

Studies showed that menstruating girls and women from rural areas use cloth and rags to protect themselves during the menstruation period. This material is not always clean. Only a small number buy sanitary napkins. The reason for this is probably the lack of accessibility and the fact that women do not have sufficient financial means to buy sanitary napkins (poverty).[15]Research by Baridalyne & Reddaiah (2004)[16] in an urban area in India shows, however, that one third of the women use sanitary napkins. The authors attribute this to a wider knowledge of hygiene and the financial circumstances of these women. Women and girls who cannot buy sanitary napkins, but want to protect themselves during the menstruation period sometimes use (banana) leaves, newspaper or toilet paper, sponge, pieces of jute sacks or in the worst case sand or ashes. The use of these materials does not only harm women; it also limits the life span of existing sanitary facilities.

Washing the cloth is another problem, because the women and girls walk to distant spots near a river or a lake. There is no chance of drying the cloths properly, because nobody, especially men, may see any sign of the menstruation. The consequence is that women and girls mostly have to hang it in well–hidden, often unhealthy places and have to use moisten and damp cloths. Storage of these cloths till next month due is also another problem. The cloths are often kept in unhygienic condition and places which is unreachable to others. The cloths are used again and again till they

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[13]Mahon T, Fernandes M. Menstrual hygiene in South Asia: a neglected issue for WASH (water, sanitation and hygiene) programmes. Gend Dev (2010) 18:99–11310.1080/13552071003600083

[14]Drakshayani Devi K, Venkata Ramaiah P. A study on menstrual hygiene among rural adolescent girls. Indian J Med Sci (1994) 48(6):139–43

[15] Acharya, A., Yadav, K. & Baridalyne, N. (2006), Reproductive Tract Infections/ Sexually Transmitted Infections in Rural Haryana: Experiences from the Family Health Awareness Campaign, Indian Journal of Community Medicine, Vol. 31, No. 4 (http://www. indmedica.com/journals.php?journalid=7&issueid=83 &articleid= 1113 &action=article).

[16] Baridalyne, N. & Reddaiah, V. (2004), Menstruation: Knowledge, Beliefs and Practices of Women in the Reproductive Group residing in an Urban Resettlement colony of Delhi, Health and Population Perspectives, 27, p. 9–16. http://medind.nic.in/hab/t04/i1/habt04i1p9.pdf, accessed on 8th January 2015

are worn out. This affects the health condition[17] of the girls and women with reproductive tract infections[18]. Abdominal pain, bad odor of menstrual blood, burning during urination, and profuse discharge of menstrual blood were the most reported problems.[19],[20] A woman used a piece of blouse during her menses and died of tetanus due to the hook inside.[21]

Report published by European External Policy Advisers (EEPA)[22] mentioned that poor menstrual hygiene comes in the way of achieving the several Millennium Development Goals like MDG 2,3,5,7 and 8.

- MDG 2 (Achieve universal primary education) Menstruation is an important cause of absenteeism and even school dropout. In spite of the fact that great progress has been made and MDG 2 has been achieved in the lower forms of primary education in many developing countries, the participation of girls, in particular in Africa and Asia, lags far behind the participation of boys in the higher forms of primary (grade 4& 5) and secondary education. Besides the fact that girls are married off at an early age (child marriages at 13) in some cultures, many girls are kept at home when they start menstruating, either permanently (drop–out) or temporarily[23],[24] during the days that they menstruate.
- MDG 3 (promote gender equality and empower women).Taboos and misconceptions regarding menstruating girls and menstrual hygiene evolves in gender inequality[25] and degradation of women empowerment
- MDG 5 (Improve maternal health) Poor menstrual hygiene causes Reproductive Tract Infection which is a morbidity that is suffered by many women with hushed silence. Cancer of the cervix, which is the commonest cause of cancer among women in India is another morbidity whose risk factor is poor reproductive tract hygiene.[26],[27] Very recently ARSH of NRHM is promoting menstrual hygiene through subsidized sanitary napkins to adolescent girls especially in rural areas.

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[17] Ray Sudeshna, Dasgupta Aparajita in Determinants of Menstrual Hygiene among Adolescent Girls: A M ultivariate Analysis. National Journal of Community Medicine Vol 3 Issue 2 April-June 2012. http://njcmindia.org/uploads/3-2_294-3011.pdf accesses on 8th January 2015

[18] Garg R, Goyal S, Gupta S in India moves towards menstrual hygiene: subsidized sanitary napkins for rural adolescent girls-issues and challenges.Matern Child Health J. 2012 May;16(4):767-74. doi: 10.1007/s10995-011-0798-5.http://www.ncbi.nlm.nih.gov/pubmed/21505773, accessed on 5th Nov 2014, 5.34pm

[19] Khanna A, Goyal RS, Bhawsar R. Menstrual practices and reproductive problems: a study of adolescent girls in Rajasthan. J Health Manage (2005) 7(1):91–10710.1177/097206340400700103

[20] Reddy P, Rani D, Reddy G, Reddy K. in Reproductive health constraints of adolescents school girls. Indian J Soc Work (2005) 66(4):431–41

[21] Goonj Background Note. www.goonj.org

[22] Menstrual Hygiene: A Neglected Condition for the Achievement of Several Millennium Development Goals . http://www.eepa.be/wcm/dmdocuments/Report_Menstrual-Hygiene_LR_v1.pdf, accessed on 8th January 2014

[23] UNICEF (2005), Sanitation: the challenge , http://www. childinfo.org/areas/ sanitation

[24] GAPS & FAWE Uganda (1999), Gender and primary school. Kampala: FAWE Uganda

[25] Acharya, A., Yadav, K. & Baridalyne, N. (2006), Reproductive Tract Infections/ Sexually Transmitted Infections in Rural Haryana: Experiences from the Family Health Awareness Campaign, Indian Journal of Community Medicine , Vol. 31, No. 4 (http://www. indmedica.com/journals.php?journalid=7&issueid=83 &articleid= 1113 &action=article)

[26] Ray Sudeshna, Dasgupta Aparajita in Determinants of Menstrual Hygiene among Adolescent Girls: A M ultivariate Analysis. National Journal of Community Medicine Vol 3 Issue 2 April-June 2012. http://njcmindia.org/uploads/3-2_294-3011.pdf

[27] Ramaswamy, Divya in Relation Between Poor Menstrual Practices and Cervical Cancer, http://soothehealthcare.com/Cervical%20Cancer%20Research%20by%20Ms%20Divya%20Ramaswamy.pdf. Accessed on 8th January 2015

- MDG 7: (Ensure environmental sustainability). Indiscriminate disposal of sanitary napkins and other absorbent materials is adverse to the ecology.
- MDG 8: (Global partnership for development). The absence of a structured program or policy to enhance the menstrual hygiene status implies the neglect of MDG 8.

'Sanitary Protection: Every Woman's Health Right' [28]a study conducted by A C Nielsen and Plan India reveals that:

(a) About 68 per cent rural women cannot afford sanitary napkins available in the market.

(b) On the issue of affordability of quality sanitary care, the survey found that 81 per cent rural women use unsterilized cloths as they are cheaper.

(c) Poor financial condition does not allow majority of the women to buy quality sanitary napkins the survey said. 45 per cent reuse cloth and 70 per cent dry them in shade, increasing chances of infections.

(d) According to gynecologists, use of alternative sanitary care measures such as unsterilized cloths, sand and ash make women susceptible to infections and diseases.

(e) The study found that awareness on basic health and feminine hygiene is very low, with 75 per cent rural women lacking adequate knowledge on menstrual hygiene and care.

(f) Adolescent girls in rural India are unable to attend up to 50 days of schooling in a year due to inadequate menstrual care, the report said.

(g) Research shows Reproductive Tract Infection was 70 per cent more common among those with unhygienic sanitary practices.

Of the 355 million menstruating women in India, only 12 per cent use sanitary napkins. The figure is abysmal, compared to countries like China, where majority of women use sanitary napkins, the survey maintained. It finds that un-sanitized clothes, ashes, husk and sand are used by 88% of women leading to more cases of urinary tract and other infections.

(h) The survey said among the adolescent rural girls, 23 per cent (aged 12-18 years) discontinue studies due to inadequate sanitary facilities in schools

### 1.4: Menstruation and adolescent girls with disabilities:

Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.[29]

[28] Sanitary Protection: Every Woman's Health Right by A C Nielsen & Plan India. 2010
[29] Diability in www.un.org/disabilities/documents/convention/convoptprot-e.pdf

For an adolescent with either physical or developmental disabilities, menstruation can lead to significant challenges for the person and her caregivers. The hygiene component are often maintained irregularly with early bleeding episodes and the behavioral concerns that accompany menstrual periods especially in developmentally delayed teenagers may cause significant problems. In addition, concerns regarding sexuality and vulnerability to abuse and pregnancy contribute to the worries of many parents[30].

Forced sterilization of women and girls with disability are common findings. Parents worry how their daughter with disability will cope with menstruation. They worry about how she will keep clean, or how she will deal with the bleeding, she may be in pain or have mood changes. Sometimes, parents are concerned about sexuality and consider suppressing menstrual periods to protect against pregnancy[31]. Menstruation is a difficult part to manage with an adolescent girl with disability but this is certainly not the way out of it.

**1.5: Menstrual hygiene and waste management and viability of low cost sanitary napkin/ absorbent:**

In India as stated earlier girls and women are bound by the tradition and taboos related to menstruation that hinders menstrual hygiene. We explored the options at hand for the girls and women. Though sanitary napkins are good absorbent and hygienic (as these do not have to be washed and dried), disposal of menstrual absorbents have an environmental impact. The plastic lining in the bottom of the sanitary napkin is not biodegradable. According to Bharadwaj and Patkar (2004)[32] "minimal effort has gone into production and social marketing of low-cost napkins, reusable materials, research into bio-degradable, etc. Research and development efforts have been limited to commercial ventures that even today are unable to market products that are affordable for the poorest of the poor. The issue of washing of soiled materials and environment friendly disposal of napkins is absent from waste management training, infrastructure design and impact evaluation".

**1.6: Objectives**

Against this backdrop the present study makes an attempt to explore menstruation, hygiene and the viability and availability of low cost sanitary napkins/absorbents in Odisha with a special focus

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[30]Menstrual Manipulation for Adolescents with Disabilities,ACOG Committee Opinion, Number 448, December 2009 (Reaffirmed 2012). http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Adolescent-Health-Care/Menstrual-Manipulation-for-Adolescents-With-Disabilities accessed on 9th January 2015

[31]Menstruation and Mental Disability: Advice for Parentsof Adolescent Girls. http://www.aboutkidshealth.ca/en/healthaz/developmentalstages/tweens/pages/menstruation-and-mental-disability-advice-for-parents-of-adolescent-girls.aspx. accessed on 12.13 pm on 29th December 2014

[32] Bharadwaj, S. & Patkar, A. (2004), Menstrual Hygiene and Management in Developing Countries: Taking Stock. http://www.mum.org/menhydev.htm

to women and girls with disability. There are few studies on the rituals for menstruation but not much has been done related to menstrual hygiene or viability and availability of menstrual products/absorbents. This study was undertaken by Aaina, Odisha supported by WaterAid.

The objectives of the study are:

1. The menstrual practices (use & disposal) followed in general and specific to adolescent girls with disabilities in Odisha
2. Affordability, availability and use of sanitary napkins/absorbents (existing, low/no cost)
3. Any Government schemes available in the state for ensuring low cost sanitary napkins and safe disposal
4. To take a stock of existing production units its environment impact & viability assessments.
5. See the potential of producing low cost sanitary napkins

**1.7: Methodology**

The study is based both on primary and secondary data. It's a cross sectional study of adolescent girls and girls with disability. Three districts were selected purposively where the organization is currently working. They are Ganjam, Dhenkanal and Kandhamal. From the three districts 200 adolescent girls were selected randomly of which 50% were girls with disability (10-19 years). A Structured Interview Schedule was designed to elicit information on current use, practice and affordability & accessibility of hygienic sanitary absorbents.

Semi structured interview was done to understand about the existing low cost sanitary napkin manufacturing units (production, cost & profitability) in Odisha . Secondary review was done to analyze the Government's policies regarding menstrual hygiene management. Secondary data were collected from various sources as mentioned below:

1. Census of India and Odisha
2. Various studies and reports from the web (internet)
3. Information from various government and non government organizations working in this area.
4. Government reports / policies

### 1.8: Chapter wise division

There are five chapters in this study. Chapter 1 presents about menstruation and the practices, objectives, methodology and the source of data of the study. Chapter 2 describes about the situation of adolescent girls in Odisha and the government policies regarding menstrual hygiene. Chapter 3 presents about the existing low cost sanitary napkin units of Odisha, their potential and viability. Chapter 4 gives a detail account about the knowledge on menstruation and practices of the adolescent girls collected from the primary data. Chapter 5 concludes the study with suggestion and recommendations.

# CHAPTER - II

## About the Situation of Odisha and Government Programs Specific to Adolescent Girls

The state of Odisha, located on the east coast of India, was created on 1 April 1936 as a province in British India by carving out certain portions from the provinces of Bihar, West Bengal, Orissa and Madras. The state, however, took its present shape only in 1949 with the merger of the princely states including Mayurbhanj. Odisha has a history spanning a period of over 5,000 years. It is the modern name of the ancient kingdom of Kalinga, which was invaded by the Mauryan Emperor Ashoka in 261 BCE. It was known by different names in different periods: Kalinga, Utkal or Odradesha. Cuttack remained the capital of the state for over eight centuries until 13 April 1948 when Bhubaneswar was officially declared as the new capital of Odisha, and is the present capital of the state.

It is bounded by the Bay of Bengal in the east; West Bengal in the north-east; Jharkhand in the north; Chhatisgarh in the west and Telengana and Andhra Pradesh in the south. It is located between 17°48' and 22°34' North latitude and 81°24' and 87°29' East longitude.[33] With an area of 155,707 sq km, Odisha is the ninth largest state in India. Odisha is one of the economically poorer states in India despite having a long coastline and abundant natural resources- a fifth of India's coal, a quarter of its iron ore, a third of its bauxite reserves and most of the chromites.[34] However, due to geographical barriers, poor infrastructure and lack of economic governance, the state has not been able to prosper.[35]

As per 2011 census the total population of Orissa is 41,947,358 of which male and female are 21,201,678 and 20,745,680 respectively. It is the 11th most populous state in India, contributing 3.47 percent to the total population of India. Over the last decade the population of the state has increased by 13.97 percent. 83.3 percent of its population lives in the rural areas, only 17 percent lives in urban areas. Adolescent girls (10-19) in Odisha constitute 19.7 percent of the population. As per 2011 census, there are 40,97,804 adolescent girls in the state.

Around 32.59 percent of the total population lives below poverty line, the highest among the Indian states against all India average of 21.92 percent in 2011-12 as per the mixed recall period[36] (Planning Commission). The state lags behind other states in terms of most of the socio

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[33] http://www.odisha.gov.in/portal/ViewDetails.asp?vchglinkid=GL012&vchplinkid=PL051 , accessed on 13th January 2015

[34] IAMR and Planning Commission, *India Human Development Report 2011*

[35] http://www.in.undp.org/content/india/en/home/operations/about_undp/undp-in-Odisha/about-odisha/. Accessed on 11th Janauary 2015

[36] Mixed Recall Period (MRP) - In MRP, consumer expenditure data for five non-food items, namely clothing, footwear, durable goods, education, and institutional medical expenses, are collected for a 365-day recall period and the consumption data for the

and economic indicators. The poverty situation is grave among the SCs and STs who constitute around 40 percent of the population. Within the state the western and southern region are most backward characterized by presence of dense forest and hilly terrains and this region has been physically excluded due to low infrastructural development.

The literacy rate of Odisha (73.5 percent) is only slightly lower than the national average (74.0 percent), but the gap between male and female literacy, at 82 and 64 percent respectively, is huge. The state's sex ratio, is 978 females per 1,000 males, is higher than the all-India figure of 940 females per 1,000 males. The infant mortality rate (IMR) and maternal mortality rate (MMR) are higher than the national IMR and MMR which is a great concern (table 2).

**Table – 2: Social Indicators of Odisha vs India**

| Indicators | Orissa | India |
|---|---|---|
| Population[1] (2011) | 41,974,218 | 1,210,854,977 |
| Adolescent girls (10-19 yrs) | 40,97,804 | 8274023 |
| Population Growth rate during[2] 2001-2011(%) | 13.97 | 17.64 |
| Population density[2] (Per Sq.km.) | 269 | 382 |
| Percentage of urban population[2] | 16.7 | 31.2 |
| Percentage of rural population[2] | 83.3 | 68.8 |
| Scheduled Caste[2] (%) | 17.1 | 16.6 |
| Scheduled Tribe[2] (%) | 22.9 | 8.6 |
| Sex ratio[2] ( Females per 1000 males) | 978 | 940 |
| Literacy rate[1] (%) | 73.5 | 74.0 |
| Female literacy[1] (%) | 64.4 | 65.5 |
| Percentage of BPL[3]( 2011-12) | 32.59 * | 21.92* |
| Infant mortality rate (deaths per 1000 live births) 2013[4] | 51 | 40 |
| Maternal Mortality Rate(Maternal Deaths per 1000000 live births )2010-12[5] | 235 | 178 |

Sources:[1] *Office of the Registrar General and Census Commissioner, 2011, New Delhi*,http://www.censusindia.gov.in/2011census/PCA_AY_2011_Revised.xlsx , accessed on 15th January 2015

[2]*Office of the Registrar General and Census Commissioner, 2011, New Delh i*

[3]*Economic Survey, 2011-12, Planning and Coordination Department, Govt. of Orissa*

[4]*Sample Registration System, Registrar General, India. Vol-49, No-1, September 2014*

[5] *A presentation on Maternal Mortality Levels (2010-12), Office of Registrar General, India.20th December 2013.*

** As perTendulkar committee report (mixed recall period) see foot note 32*

## 2.1 About Adolescent

According to the United Nations Convention on the Rights of Child (UNCRC), a child is "a human being below the age of 18 years unless under the law applicable to the majority has achieved earlier"[37]. Laws, policies and social actions in India have used the words 'children', 'minors' and

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remaining items are collected for a 30-day recall period.In Uniform Recall Period (URP), consumer expenditure data for all the items are collected for a 30-day recall period.

[37]http://www.ohchr.org/en/professionalinterest/pages/crc.aspx, accessed on 15th January 2015

'adolescents' interchangeably. It is perhaps the especially unique nature of adolescents' lives, in that stereotypical grey zone between childhood and adulthood that has resulted in the development of specific problems in definition and therefore the scope and range of programmes and policies[38].

World Health Organisation (WHO) defines adolescent as the period in human growth and development that occurs after childhood and before adulthood, from ages 10-19. It represents one of the critical transitions in the life span and is characterized by tremendous pace in growth and change that is second only to that of infancy. Biological processes drive many aspects of this growth and development, with onset of puberty marking the passage from childhood to adolescent[39].

**2.2 Policies and programs related to adolescent girls:**

In India when we talk about policy related to children and adolescent the programmes and policies were most often related to reproductive child health care. A number of policies were framed in the 1970s and 1980s.The National Policy for Children 1974[40] was about the formal education of children up to the age of 14 and nutrition for infants and children in the pre-school age. The National Health Policy of the 1980s[41] focused mainly on maternal and child health care and nutrition. Health and nutrition interventions in this policy are targeted at adolescent girls as a subsidiary group of women who are mothers or pregnant, without taking into account the specific support need of adolescent mothers. The National Youth Policy 1985 was also confined to sports, education and vocational training (www.yas.nic.in), and made no reference to the health needs of youth.

The significant shift in the way population and reproductive health problems were conceptualized during the 1990s brought about greater attention to the health concerns of adolescent and young people as well. Notable among national policies that address young people's sexual and reproductive health needs and rights are those concerning the population, AIDS and youth[42].

The National Population Policy 2000 recognized, for the first time, that adolescents constitute an under-served group with special sexual and reproductive health needs, and advocates special programmatic attention to address this population. It recommends the need to ensure for adolescents access to sexual and reproductive health information, and counseling and services

[38] CREA. 2005. Adolescent Sexual and Reproductive Health and Rights in India. CREA: New Delhi.
[39] http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/ accessed on 15th January 2015
[40] http://wcd.nic.in/national_policy_for_children_1974.pdf. accessed on 8th January 2015.
[41] Owning her future by Dasara & Kiawah trust. http://dasara.org/pdf/Dasra-Empowering-Adolescent-girls-OHF.pdf, accessed on 15th December 2014
[42] Population Council 2007,Young people's sexual and reproductivehealth in India:Policies, programmes and realities

that are affordable and accessible. It stressed the importance to strengthen primary health centers and sub-centers to provide counseling, both to adolescents and newly-weds.

The National Policy for the Empowerment of Women 2001[43]explicitly defines child marriage as a form of "discrimination against the girl child" and calls for compulsory registration of marriages (and of births, since many girls lack birth certificates and thus are unable to assert their right to refuse to marry when they are younger than the legal minimum age). It stressed that "by 2010 child marriages are [to be] eliminated" through improvements in education, better marriage registration and increased use of incentives that make payments to keep girls in school contingent on their staying unmarried.

The National Youth Policy 2003 addresses the needs of those aged 13–35 and recognizes adolescents(aged 13–19) as a special group requiring different strategies from those appropriate for young adults (aged 20–35)[44]. With regard to health issues, the Youth Policy outlines a number of the recommendations articulated in the National Population Policy and the National AIDS Prevention and Control Policy, and highlights several new strategies as well. It recognizes the vulnerability of youth in the sexual and reproductive health arena, and recommends the provision of counseling, services and information to enhance safe behaviors and to raise age at marriage. It also advocates the provision of free state-sponsored counseling services for youth, the establishment of adolescent clinics to provide appropriate counseling and treatment, and the establishment of Youth Health Associations at the grassroots level to provide family welfare and counseling services.

The country's National Plan of Action for Children[45] of 2005 felt the need for preventing and progressively eliminating child marriage (by 2010) and underage childbearing. It emphasize that all adolescents (defined as young people aged 10–18) with no mention of marital status—receive sexual and reproductive health information, including information on HIV/AIDS, in school curricula. It also stressed to stop sex-selective abortions as paramount for promoting the rights of girls.

The government laid policy frame work for Reproductive and Child Health – II in 2005-10 to be implemented under the National Rural Health Mission (NRHM)[46]. It defines adolescence age between 10–19 year olds and stressed the needs of both married and unmarried adolescents to receive confidential and nonjudgmental contraceptive services. The plan is unique in advocating

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[43] Ministry of Health and Family Welfare, *National Program Implementation Plan, RCH Phase II*, New Delhi: Government of India, 2005

[44]Ministry of Youth Affairs and Sports 2003

[45] Ministry of Human Resource Development, Department of Women and Child Development, *National Plan of Action for Children, 2005*, New Delhi: Government of India, 2005

[46] MOHFW, *National Program Implementation Plan, RCH Phase II*, New Delhi: Government of India, 2005.

that providers be trained in working with adolescents, that they refer adolescents for early and safe abortion, and that they provide adolescents with spacing methods in particular.

The Department of Women & Child Development implements two major programmes for adolescents. The Adolescent Girls Scheme now renamed Kishori Shakti Yojana aims at improving the nutritional and health status of adolescent girls (11-18 years), providing literacy and numeracy skills through the non-formal system, training and equipping adolescent girls with home-based and vocational skills, promoting awareness and encouraging them to marry after 18 years. This revamped scheme is expected to provide flexibility to states to adopt a need-based approach, depending on the situation in each state. The Balika Samridhi Yojana aims at delaying the age of marriage and finally eliminating child marriages. The Ministry of Social Justice and Empowerment implements a scheme for providing educational facilities including scholarships and hostels for tribal girls[47].

**2.3 Scheme for Promotion of Menstrual Hygiene:**

The Scheme aims at ensuring adolescent girls **in the age group of 10-19 years, residing in rural areas,** have adequate knowledge and information about the use of sanitary napkins, that high quality safe products are made available to them, and that environmentally safe disposal mechanisms are readily accessible. The scheme has been launched as a part of the Adolescent Reproductive and Sexual Health (ARSH) component under RCH II

In the first phase, the scheme is expected to cover approximately 25% of the country's adolescent girl population (aged 10 to 19 years), i.e., 1.5 crore girls in 152 districts across 20 States.[48] Out of these, supply of sanitary napkins in 107 districts was envisaged initially in a Central supply mode, wherein sanitary napkins were to be supplied by the Government of India. The supply of sanitary napkins in the remaining 45 districts was envisaged in a Self Help Group (SHG) mode, wherein SHGs were to manufacture the sanitary napkins that to be sold to adolescent girls. Procurement of sanitary napkins, whether through Central supply by the Government of India, or through SHGs, will be at a fixed price of ₹ 7.50/- per pack of six sanitary napkins. The sanitary napkins are to be sold to adolescent girls. Procurement of the sanitary napkins is provided under NHM's brand, 'Freedays'. These napkins are being sold to adolescents girls at the rate of ₹ 6 per pack of six napkins by Accredited Social Health Activists (ASHAs). From out of the sale proceeds, the ASHA gets an incentive amount of ₹ 1 per pack, besides getting a free pack of sanitary napkins per month and the balance ₹ 5 is to be deposited in the State/District treasury. The scheme has

[47] Report of the Working Group on Adolescents for Tenth Five Year Plan. Planning Commission, Govt. of I ndia

[48] http://nrhm.gov.in/nrhm-components/rmnch-a/adolescent-health/menstrual-hygiene-scheme-mhs/schemes.html, accessed on 26th Sept 2014, 11.14 am

taken off in 107 districts in the 17 States that are being supplied sanitary napkins through Central procurement.

Supply of sanitary napkins in 107 districts initially is being done in a Central supply mode, wherein sanitary napkins are being supplied by the Government of India. The supply of sanitary napkins in the remaining 45 districts is to be done through Self Help Groups (SHG), wherein SHGs are to manufacture the sanitary napkins that are to be sold to adolescent girls. In Odisha it is covered in four districts. They are Bhadrak, Jagatsinghpur, Dhenkanal and Kendrapada. One SHG from Ganjam district has been chosen from this.

**2.4 Sabla or Rajiv Gandhi Scheme for Empowerment of Adolescent Girls[49]:**

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls [RGSEAG] or SABLA covers adolescent girls under the age group of 11 – 18 Years. In this the Nutrition Program for Adolescent Girls (NPAG) & Kishori Shakti Yojana (KSY) are amalgamated. The plan is projected to be realized using the platform of Integrated Child Development Services Scheme.

These intend to empower adolescent girls with focus on out-of-education girls through development in their dietary habit and health and also upgradation of diverse skills like home talents, life skills and vocational talents. It targets to equip girls on family benefit, health, sanitation, and information and direction on current public facilities. The girls which, are out of school are to be targeted through formal or non-formal teaching.

**Overview of Policies for Adolescent girls:**

Since the early 1980s several central government policies had themes relating to adolescent girl's lives. However policies safeguarding the needs of adolescents were largely absent. Adolescent girls have been considered as sub-groups of women and children. The last decade had witnessed a more focused approach to empowering adolescent girls, where gender disparities ranging from childhood to adulthood have become the focus of the policymakers. During RCH – II menstrual health management programmes was given importance and it is confined to the health sector. In this programme there is focus on provision of sanitary napkins and toilet construction. But there is little mention on menstrual hygiene &health management. In some programmes there is focus on mechanisms for disposal of menstrual waste management in schools. But there is little focus for a supporting and enabling environment for menstrual hygiene and health management in the community and school level. There is no convergence between the ministries (& departments)

[49] http://www.indianyojana.com/vikas-yojana/sabla-or-rajiv-gandhi-scheme-for-empowerment-of-adolescent-girls.htm, accessed on 29th October 2014, 4.42 pm

regarding menstrual hygiene & health management. It also does not have an enabling environment regarding why MHM is important. Policies lack focus on how to have an enabling socio-cultural environment at home, community, and school/college level.

Table – 2.1: Overview of Policies for Adolescent Girls

| Programmes | | About the Programme |
|---|---|---|
| Ministry of Health and Family Welfare (MoHFW) | MHS - 2010-2011 | It aims at ensuring adolescent girls **in the age group of 10-19 years, residing in rural areas,** have adequate knowledge and information about the use of sanitary napkins, that high quality safe products are made available to them, and that environmentally safe disposal mechanisms are readily accessible. The scheme has been launched as a part of the Adolescent Reproductive and Sexual Health (ARSH) component under RCH II. In the first phase, the scheme is expected to cover approximately 25% of the country's adolescent girl population (aged 10 to 19 years), i.e., 1.5 crore girls in 152 districts across 20 States. |
| | RKSK - launched in January 2014 | It addresses girls in the age group of 10-19 years. The programme envisions enabling all adolescents in India to realize their full potential by making informed and responsible decisions related to their health and well being and by accessing the services and support they need to do so. This programme will cover both rural and urban areas. |
| Ministry of Women & Child Development | SABALA - 2010-2011 | It covers adolescent girls under the age group of 11 – 18 Years. This intend to empower adolescent girls with spotlight on out -of- education girls by development in their dietary & health & upgrading diverse skills like home talents, life skills & vocational talents. It targets outfitting girls on family benefit, health, sanitation, & information & direction on current public facilities along with targeting girls which are out of school by proper or non-formal teaching. It covers the rural areas of all the states. |
| Ministry of Human Resource Development | SSA - 2000-01 | This program aims for Universalization of Elementary Education (UEE) to the children of 6-14 years age group in rural areas. The program seeks to open new schools where there is no facility of schools and strengthen existing schools infrastructure through additional classrooms, toilets, drinking water, maintenance grant and school improvement grants. |

MHS: Menstrual Hygiene Scheme, RKSK: Rashtriya Kishor Swasthya Karyakram, SSA: Sarva Shiksha Abhiyan

# CHAPTER – III

## Low Cost Sanitary Napkins/Menstrual Absorbents in Odisha – It's Potential and Viability Assessments

Sanitary napkins are also known as sanitary pads, sanitary towels or maxi pads. These form an important part of a woman's life. Through the ages women have used different forms of menstrual protection. Before the disposable pad was invented, most women used rags, cotton, or sheep's wool in their underwear to stem the flow of menstrual blood. Knitted pads, rabbit fur, even grass were all used by women to handle their periods. The very first disposable pads were thought up by nurses, looking for new methods to stop excessive bleeding, particularly on the battlefield. The first pads were made from wood pulp bandages by nurses in France. It had good absorbent capacity, and cheap enough to throw away afterwards. Commercial manufacturers borrowed this idea and the first disposable pads were available for purchase came as early as 1888 – called the Southball pad. In America, Johnson & Johnson developed their own version in 1896 called Lister's Towel: Sanitary Towel's for Ladies . The problem was, women were not comfortable asking for this product, so in the early 1920s, the name was changed to Nupak, a name that did not describe the product[50].

Even after disposable pads were commercially available, for several years they were too expensive for many women to afford. The first of the disposable pads were generally in the form of a cotton wool or similar fibrous rectangle covered with an absorbent liner. The liner ends were extended front and back so as to fit through loops in a special girdle or belt worn beneath undergarments. This design was notorious for slipping either forward or back of the intended position.

Later an adhesive strip was placed on the bottom of the pad for attachment to the saddle of the panties, and this became a favoured method with women. The belted sanitary napkin quickly disappeared during the early 1980s. Kotex's first advertisement for products made with wood pulp (Cellucotton) appeared in 1921[51]. In 1927 Johnson & Johnson introduced sanitary pad Modess. In 1969 Stayfree mini pads, the first sanitary pads with adhesive strips went on sale and it put an end of belts, clips and safety pins[52].

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[50]The History of the Sanitary Pad - http://www.femmeinternational.org/the-blog/the-history-of-the-sanitary-pad, accessed on 25th Nov 2014

[51] Sanitary Napkin - http://en.wikipedia.org/wiki/Sanitary_napkin, accessed on 15th Nov 2014

[52] Project Feasibility Analysis & Report: Sanitary Napkin – Investment Opportunity in India. Peixin International Group. pdfhttp://www.technicaltextile.net/promotion/peixin-sanitary-napkins-report/Sanitary-napkin-project-feasibility-report.pdf, accessed on 4th Feb 2015

In India Johnson & Johnson launched sanitary napkin (Stayfree) during the early 80's. Whisper was launched in 1989. The female personal hygiene market in India is estimated at around ₹420 crore (around $44mn)[53] dominated by large MNC's like P&G, J&J, HUL[54]. Survey by A C Nielsen and Plan India reveals that in India of the 355 million menstruating women in India, only 12 per cent use sanitary napkins. 68 percent of rural women in India cannot afford to buy sanitary napkin. 23 per cent (aged 12-18 years) discontinue studies due to inadequate sanitary facilities in schools (see first chapter).

As discussed above there was;

a) Need of low cost sanitary napkins/menstrual absorbents in the state

b) There is a dire need of disposal system not only in the schools and colleges but also at the community level.

**3.1: Low Cost Sanitary Napkin Units in Odisha:**

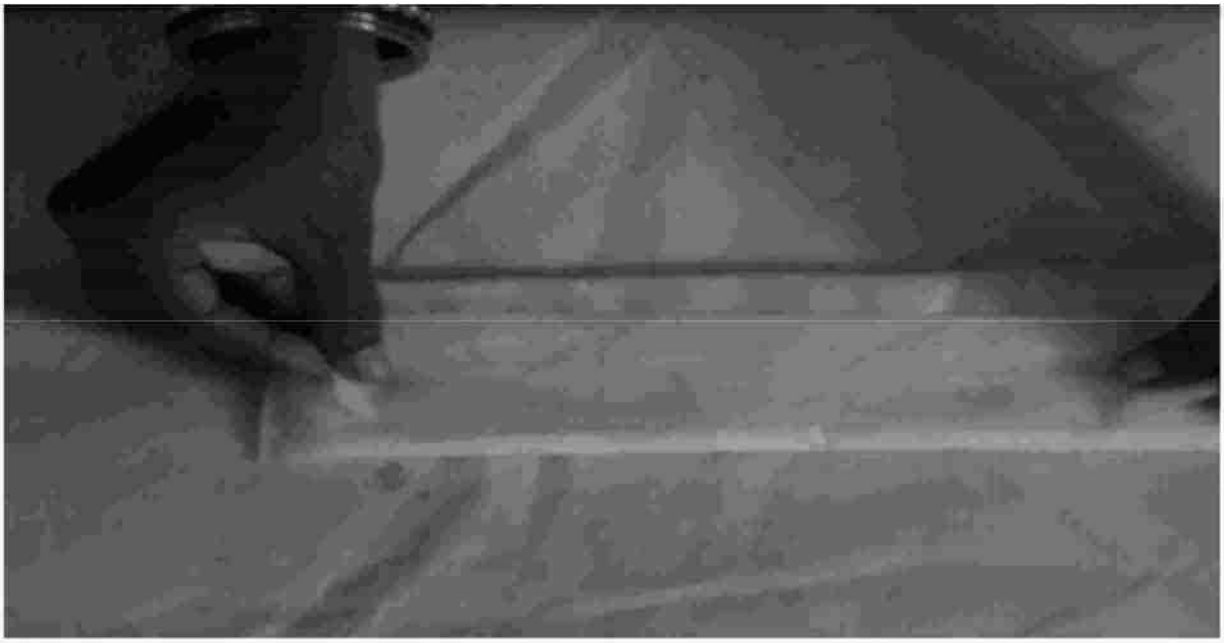
As discussed in the first chapter the present study aims to take stock of existing production units, its environment impact & viability assessments and also to see the potential of producing low cost sanitary napkins in Odisha. For this, semi structured interviews were conducted and help of press clippings, secondary data from the internet was also taken. It was found that 5 units are in working condition which is producing low cost sanitary napkins in Odisha and two units has been shut down. Some CSOs are also promoting reusable cloth sanitary napkins in regular times and during disaster as well.

**3.1.1. Mission Shakti/ Swabhimani SHG, Koraput:**

For addressing the issue of Menstrual Hygiene Management in residential school of Koraput district, Mission Shakti Koraput has set up a low cost sanitary production unit with the support of district administration in the year 2013. The District Administration Koraput gave a building to Block Mahila Sanchayika Sangha (BMASS) Koraput for establishment of the sanitary napkin unit. The machine cost for the unit was ₹ 90050 and the other raw materials cost them ₹1,20,000. These were sponsored by DSMS (ORMAS) Koraput. The machines were brought from Lakshmi Associates, Chennai and they also gave training regarding this.

[53] http://marketingpractice.blogspot.in/2015/12/whisper-shhh.html. accessed on 1st Feb 2015

[54] As on footnote 48



The training was for two days and it was given to four staff of Mission Shakti. Then SHG Swabhimani was selected for the production of the napkins and was trained by the Mission Shakti staff. The production of the sanitary napkins is managed by Swabhimani SHG with the support of Mission Shakti for effective management of the unit. The raw materials were procured from Bhubaneswar (Sunseed Industry). The production was then closed in between due to some problem in the machine. But it has been started again from August 2014.

In order to facilitate the marketing linkage district administration has instructed to District Welfare Officer who is the authority of residential tribal welfare schools for purchasing of sanitary napkins. Presently 28 residential schools of the district are taking the napkins from them and they are producing 2000 packets per month i.e. 12000 nos of pads in a month. The concerned head masters of the school were taking the napkins by paying cheque in the name of Swabhimani SHG before and this cost them ₹17 per packet. One packet consists of 6 pads. Many times the teachers felt ashamed to purchase and take the packets with them. Mission Shakti is now delivering the sanitary napkin packets to the concerned schools. Due to this the napkin packets now cost them ₹ 20.

For 1 packet the raw material cost them ₹13.30 and labour charge is ₹4. So the total cost for one packet comes to ₹17/-. And if the selling price is ₹20 then they are getting a profit of ₹3. DRDA had sanctioned new electronic machine for the expansion and upgradation of the unit and is helping to form the production group comprising of 30 women. This will increase the production of

the unit and they are also planning for selling it commercially. ORMAS, Bhubaneswar has released ₹300000 for upgradation and purchasing of raw materials.

The name of the sanitary napkin is **Health Care.** Jharsuguda Mission Shakti is also planning to set up a unit in Jharsuguda. So the SHG members came here to be trained in sanitary napkin production in September 2014.

**Feedback on Sanitary Napkin of Mission Shakti –**

The girls in the residential school are not using the sanitary napkins of Mission Shakti as it is costly for them and the napkins which they get outside are cheaper and comfortable. There is a provision of ₹30 for the hygiene of adolescent girls from the central government. In this money the girls buy sanitary napkins from the market which is cheaper than health care (Mission Shakti).

People are of the opinion that the sanitary napkins made by Mission Shakti should cost between 15-17 rupees and they should upgrade the quality also. They also said that when the girls go back to their respective homes their family members do not want them to use sanitary napkin which causes a bigger risk to the health and hygiene of the girls. So Mission Shakti shouldn't target only the residential schools they should sell this in the villages in a lower price and also spread awareness in the community regarding this.

The inmates of the hostel of Kastruba Gandhi Balika Vidyalaya are also not using sanitary napkins of Mission Shakti. The reason:

1. It is very small and is not comfortable
2. It crumples while walking which causes stain mark in the clothes
3. It does not have a dry fit and absorbent capacity is low and one feels wet all the while which is awkward for the girls
4. It is costly compared to what is sold in the market

They have around 85 menstruating girls in the hostel. In a month they need 100 pads, 85 pads for 85 girls and another 15 pads extra for those who have heavy flow. The dealer gives napkins which had dry fit in 25-26 rupees. For 6 months they buy 600 packets at a time. There is a disposal unit made by Sarva Sikshya Abhiyan in the hostel for disposing the napkins.

**3.1.2. KISS – Sanitary Napkin Unit for the Adolescent Girls of the KISS funded by UNFPA:**

Kalinga Institute of Social Science is situated in Bhubaneswar and is part of the Kalinga Institute of Industrial Technology (KIIT) agglomerates. It is the largest residential institute for the tribal which provides accommodation, food, health care, education from kindergarten to post graduation, vocational training absolutely free. At present KISS have 22,500 tribal children (57%

boys, 43% girls)[55]. At present there are 3000 adolescent menstruating girls and to cater to their need KISS had decided to set up a sanitary napkin unit as part of their ARSH project. This has been set up with the partnership of UNFPA in 2012. The aim is to promote healthy practices among the adolescent girls and lessen reproductive tract infection (RTI).

For this unit the total cost was ₹187000. Training on Maintenance of Equipments and Production of Napkins was given by UNFPA to the girls and also to the health workers. At first the girls of KISS used to produce the napkins for their use. But as the authorities realized that it is hampering the study of the girls they engaged health workers for this purpose. The machines were brought from Jayashree Industries, Coimbatore. Disposal unit has been set up separately to dispose the sanitary napkins. There are different dustbins in the hostel and wash rooms to collect used sanitary napkins.

This unit is not able to cater the need of all the adolescent girls of KISS. The reasons are – a) shortage of raw materials in Odisha market, b) limited number of work hands for production.

Girls who are in higher classes prefer to buy branded sanitary napkins over these as these do not have wings and are smaller than the branded ones. Proctor and Gamble had donated sanitary napkin as per their CSR support for the last one year. Many times KISS has to buy sanitary napkins when there is short supply.

Sanitary napkin of KISS

### 3.1.3. Thakkar Bappa Residential Ashram School, Nimakhandi, Ganjam:

This residential school have 150 girls from the schedule caste and schedule tribe. There are 75 menstruating girls among them. The sanitary napkin unit in this school is established in July 2013.

Financial & Machinery Assistance:

- ST & SC Development section, Ganjam Collectorate
- UNFPA

[55] www.kiss.ac.in/aboutus.html accessed on 2nd January 2015.

The raw materials were diverted to this unit from Centurion University as the sanitary unit at that place has not been operational yet.

The napkins were prepared by the the girls of class 7th and 8th (as the school is from Std 1 – Std 8) on Saturday and Sunday. On Sunday they spend 4 hours and on Saturday they spend 2 hour in making sanitary napkins. They produce 20-25 pieces of napkin per hour. The girls work in their liesure time on rotation basis. The centre had produced 3000 pieces by the time of visit to their place. As of 1st March 2014 they had a stock of 300 pieces of napkin. There is no production for the last 7 months due to various problems of natural disaster, lack of electricity, machine run down, shortage of raw material etc. On 1st November they had only 50 sanitary napkins available in their stock due to the above reasons. The girls of the hostel are facing problem due to this, while some of the girls are now buying sanitary napkins from the market others are using cloths. There is no incinerator in the hostel for which they are facing problem for disposing the napkins.

**3.1.4. "Ssodashi" - Low cost sanitary napkin produced by Sakhi SHG supported by Jindal Steel and Power Ltd (JSPL) as part of its CSR in Chendipada, Anugul**

The Jindal Steel & Power Limited (JSPL), Anugul as part of its CSR had started a sanitary napkin unit by giving support to the Sakhi SHG in Chendipada. The sanitary napkin is known as 'Ssodashi' (meaning a 16 year old). This initiative is to promote both menstrual hygiene management through low-cost sanitary napkins and provide alternative livelihood options.

The machines were brought from Jayashree Industries, Coimbatore. The investment cost for the machines along with raw materials was ₹5 lakhs that was borne by JSPL. The machines are semi automated. The members of the SHG are working in the unit shift wise. In a day they produce 1000 napkins. The price of the napkin is ₹32 per packet which contains 16 napkins and ₹16 for eight napkins with each pad costing ₹2. Since the production cost per pad is ₹1.50 there is a profit of 50 paisa per napkin.

They provide the sanitary napkin through Kishori Express program and schools. There is a good demand for the sanitary napkin in the area for its low cost. The Kishori Express aims at improvement of the health of adolescent girls through regular medical checkups, hemoglobin tests, awareness generation, as well as nutrition supplementation. It attempts to enhance female adolescent health by targeting anemia-control through timely detection and rectification. It also engages in disseminating knowledge on life skills, health and hygiene through a customized audio-visual touch screen quiz system.

They also supply sanitary napkins to private nursing homes and other tourist places like Puri, Jeypore (Rajasthan) and New Delhi. The market for the sanitary napkin in Puri is pretty good as the tourists find it cost effective. But the transportation cost remains a nagging problem as it offset all the price reduction achieved at the production level, forcing the MRP to be set around other branded napkins. This year they will put a stall of sanitary napkin during the Rath Yatra in Puri with the help of Orissa Livelihood Mission (OLM) and ORMAS. Procurement of sufficient amount of quality raw material locally is also a problem as there is hardly any unit in Odisha that supplies such materials. On the other hand nursing homes had a higher requirement for sanitary napkins with belt for their in patients.

**3.1.5. Sanitary Napkin unit of Maa Tarini SHG Federation, Tigiria Block, Cuttack. Funded by UNFPA and promoted by ORMAS Cuttack**

In order to promote good sanitation practices amongst women in rural and slum areas, improving personal hygiene of women and at the same time help Self Help Groups (SHGs) earn profits out of it the district administration of Cuttack has set up a low-cost sanitary napkin production unit In partnership with the United Nations Fund for Population Activities (UNFPA). Maa Tarini SHG Federation of Tigiria block has been selected for the purpose. Twenty members of the group have been trained by experts in the craft of making napkins. It is a pilot project and may be scaled up within district and state by ORMAS (Odisha Rural development and Marketing society) later.

**3.1.6. GOONJ Sanitary napkin made from clothes (manufacturing unit in New Delhi)**

Goonj is a Delhi based NGO who has started using recycled, processed, and cleaned cotton cloth to produce sanitary napkins called “My Pad” under the programme ‘Not Just a Piece of Cloth’.


The pads are distributed in mostly rural and remote parts of India where menstruation is still a taboo, and to young girls and women who can't afford to buy or use any other safe and hygienic alternative. My Pad consists of layers of sanitized cloth pieces (in the shape of a sanitary pad) wrapped around smaller cloth shreds. My Pads are sold in packs of 15 costing ₹ 2 per piece.

**3.2: Defunct Units:**

1. EMIL, an Aditya Birla Group Company, has set up a Sanitary Napkin Training-cum-Production Centre (NTPC) at Barbil in Keonjhar district. This was shut down due to lack of raw materials.
2. SHG ALIVA & Divayajyoti in Sundergarh had a manufacturing unit but is defunct due to lack of raw materials.
3. Low cost cloth sanitary napkin produced by Solar NGO, Konark, Odisha at the time of disaster.

**3.3: Suppliers and Manufacturers in Odisha:**

Saunseed Agro Industry and SATHI (a wing of Hari Telematics Pvt. Ltd) have come together in Bhubaneswar to supply raw material for low cost sanitary napkin manufacturing. They import raw material from China. SATHI manufactures machines that produce low cost sanitary napkins to cater to the need of Odisha market. SATHI has tied up with ORMAS to give vocational training to SHG. They have supplied machines and given training to Adivasi Bikas Samiti, Barbil for setting up a low cost sanitary napkin unit. Another SHG in Kendrapada has been trained for this purpose.

**3.4: Government Scheme on MHM (now NHM) and Sanitary Napkin:**

Freedays the name of the sanitary napkin provided under NRHM and sold by ASHA workers in Dhenkanal, Jagatsinghpur, Bhadrak and Kendrapada (see chapter 2 for detail of NRHM scheme).

The product was marketed by HLL Life care Limited, Kerala and manufactured by Longyan Mingfeng Paper Products Co. Ltd, China.

The price was kept at ₹6 per pack (subsidized rate). The ASHA worker will keep ₹1 with her and will deposit ₹5 in the state/district treasury. The quality of napkins is very good and it will give a tough competition to the low cost sanitary napkins produced in Odisha for its price and quality. In the second phase of this scheme it will cover the whole 30 districts of Odisha.

**3.5: Problems related to low cost sanitary napkin/menstrual absorbents unit in Odisha:**

The low cost units which have their presence in Odisha are working in isolation. Minimal effort has been made for social marketing of the products. There is a need for more research and development for its commercial ventures. Lack of raw materials for production is one of the major challenges for the sustainability of the low cost sanitary napkin units. These units also need to work for environment friendly disposal system of sanitary napkins. Moreover high transportation cost is another issue due to which they cannot sell beyond their respective districts/ areas. Besides these the quality of some of the above products are also a matter of concern. Low cost for the users need not mean a compromise on quality as this has a direct impact on the health. The products could be subsidized as an alternative by the government.

**3.6: Disposal of sanitary napkin/menstrual absorbents and its environment effect:**

The use of sanitary napkins automatically invokes the concern for the disposal of same. Disposal is a big question. Should it be thrown in a dustbin by wrapping in news paper or polythene as instructed in the wrappers of the branded napkin packets? What happens after we throw it in the dustbin? As discussed in the next chapter one of the main reason girls and parent in the rural area of Odisha are ashamed of using sanitary napkin is the taboos related to disposal of absorbents. Throwing in the common garbage area is not allowed as no one supposed to see it! They feel ashamed about it because many times the stray animals and dogs take it out and it lies in the open. Those disposed buried near the pond wrapped in polythene are also a big threat to the environment. And some said they flushed in the latrine! None of these are the correct way of disposal though. A sanitary napkin takes 500-800 years to biodegrade[56]. Then question arises what is the solution? Cloth napkins which are washable? Research shows it is not a viable option as in rural areas and even urban areas these are not dried and maintained properly and hygienically for repeated use. And it leads to severe reproductive tract infections[57],[58],[59].

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[56] http://www.greenecoservices.com/how -long-does-it-take-for-trash-to-biodegrade/

[57] Thakur, Harshad & et al., - Knowledge, Practices, and Restrictions Related to Menstruation among Young Women from Low Socioeconomic Community in Mumbai, India, PMCID: PMC4080761 http://ww.ncbi.nlm.nih.gov/pmc/articles/PMC4080761/, accessed on 5thNov, 2014, 5.18 pm

Experts say the average Indian woman in urban areas throws away more than 10,000 disposable pads in her lifetime. If every woman of reproductive age starts using sanitary napkins, a staggering 58,500 million waste from pads would be generated in India every year[60].Menstruation is a natural process and a woman/girl cannot stop it. But she has the right to choose sanitized napkin/ absorbent, and also had the right to have a supportive environment for this. Using cloth is a tiring, time consuming and not very friendly process and hence young girls hesitate to use them.

**3.7: Success Stories of Menstrual Waste Management:**

There are plenty of good examples in India alone about the effective way of menstrual waste management. Government of Tamil Nadu and UNICEF have developed a cheap incinerator fed by firewood to handle the waste of sanitary napkins. In a pilot project in Maharashtra girls' latrines are supplied with special wells in which sanitary napkins are composted. In Uttar Pradesh, locally fabricated sanitary napkins of sifted timber ashes are wrapped up in a cloth, so that they can be broken down easily[61],[62].

Dr. Nirmala Ganla, a gynecologist from Pune, encourages the vermi-composting of all the waste from her own hospital, **including sanitary napkins**. They have been successful in transforming their hospital waste to rich compost fertilizer for the past several years[63].

**3.8: Incinerators for disposal of menstrual waste in Odisha:**

In Odisha Aaina along with WaterAid had set up incinerators in schools in Ganjam district so that girls won't have problems while they are menstruating. Under Sarva Shikshya Abhiyan there are incinerators in the residential hostels for girls. Setting up incinerators in schools helps to curb drop out of girls from school during the periods. Even though the use of incinerators might contribute to the environment pollution as the sanitary napkins do not contain biodegradable materials and might generate some polluted particles while burning but is considered to be better than throwing absorbents here and there. Here the question arises what about the girls and also women in the community. What will they do? Will the people in the village allow there to set up an

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[58]Kumar A, Srivastava K, Cultural and social practices regarding menstruation among adolescent girls.Soc Work Public Health. 2011;26(6):594-604. doi: 10.1080/19371918.2010.525144. http://www.ncbi.nlm.nih.gov/pubmed/21932979, accessed on 5th Nov 2014

[59]A Dasgupta and M Sarkar, Menstrual Hygiene: How Hygienic is the Adolescent Girl? Indian J Community Medv.33(2); 2008 Apr, PMCID:PMC2784630, 77–80. doi:10.4103/0970-0218.40872. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784630/

[60] Tewari, Ankur. Taboo no more: Gujarati woman develops incinerator to dispose of sanitary pads. http://timesofindia.indiatimes.com/city/ahmedabad/Taboo-no-more-Gujarati-woman-develops-incinerator-to-dispose-of-sanitary-pads/articleshow/45148475.cms, accessed on 12th January 2015

[61]Menstrual Hygiene: A Neglected Condition for the Achievement of Several Millennium Development Goals . http://www.eepa.be/wcm/dmdocuments/Report_Menstrual-Hygiene_LR_v1.pdf, accessed on 8th January 2014

[62]Bharadwaj, S. & Patkar, A. (2004), Menstrual Hygiene and Management in Developing Countries: Taking Stock. http://www.mum.org/menhydev.htm

[63]http://www.wealthywaste.com/biomedical-waste

incinerator in the village as menstruation is a taboo subject till date. Will the women and girls have the courage and put the used pads in the incinerators. This is not confined to villages only but is a universal problem. What about the smokes from the incinerators when we start to burn napkins. The solution can be:

- Awareness programme regarding menstrual waste management for the community, parents, teachers and other stakeholders associated with this by the Government and NGOs.
- Use of environment friendly materials to produce sanitary napkins (banana pulp, pine wood pulp)[64],[65].
- Design incinerators which will not harm much to the environment
- The ashes can be used for the plants.
- Vermi-composting of the menstrual waste.

**3.9: Low cost sanitary napkin/ absorbent & machine manufacturers in India:**

1. Jayashree Indsutries, Coimbatore (www.newinventions.in)
2. Lakshmi Associates, Chennai (www.lakshmiassociates.com)
3. AKAR Innovations, New Delhi (www.akarinnovations.com)
4. National Innovation Foundation, Govt. of India, Gujarat (www.nationalinnovationfoundationindia.tradeindia.com)
5. S.A.Enterprisers, Maharashtra (www.sanitarynapkinwholesale.com)
6. Vikalpdesign, Udaipur, Rajasthan, email- lakshmi@vikalpdesign.com

[64] 8 napkins for just Rs 20 (AAKAR Foundation) by Arjun Sen. http://www.civilsocietyonline.com/pages/Details.aspx?502

[65] Banana Tree Fibre Female Hygienic Pads. http://www.appropedia.org/Banana_Tree_Fibre_Female_Hygienic_Pads, accessed on 21st Nov 2014

# CHAPTER-IV

## Menstrual Practices, Hygiene and Use of Sanitary Napkins/ Absorbents

Menstruation is a subject which is still not talked about publicly. It is practiced as a taboo in our society. While searching a daughter-in-law this is enquired whether the girl is having her menses regularly or not, yet whenever a girl or woman menstruates she is ostracized on those days, kept in seclusion, not allowed to take bath, not to comb her hair, leave her to sleep in some dirty corner of the house. While we talk volumes about reproductive health in India but menstrual hygiene has been an untouched subject. There are limited numbers of studies undertaken on this subject in Odisha. Most of these studies were related to the customs and rituals aspects of menstruation. Richard Shweder (1985)[66] mentioned how Brahmins in Orissa dealt with menstrual impurity and recorded their perceptions and pollution concepts in proximity to emotional phenomena like depression. To sense the menstruating body as impure and to observe menstrual restrictions is conceived of as a culture-specific syndrome, and thus pathological. Beatrix Hauser[67]studied about the customs and rituals followed by women and girls during menstruation in Ganjam district of Odisha.

Adolescent is a significant period in the life of a woman. Adolescent girls often lack knowledge regarding reproductive health including menstruation which can be due to socio-cultural barriers in which they grow up. These differences create various problems for the adolescent girls[68]. The hygiene-related practices of girls in the adolescent period related to menstruation can have an effect on their health[69]. Studies have shown that the girls lack knowledge about menstruation and due to lack of hygiene they are likely to suffer from RTI's[70],[71].

The present chapter had made an attempt to explore the knowledge regarding menstruation, hygienic practices, use and disposal of menstrual clothes / sanitary napkins, barrier for using sanitary napkins and the health condition of adolescent girls and specifically girls with disability in

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[66]Shweder, Richard (1985) 'Menstrual Pollution, Soul Loss, and the Comparative Study of Emotions', in Arthur Kleinman and Byron Good (eds), *Culture and Depression: Studies in the Anthropology and Cross -Cultural Psychiatry of Affect and Disorder*. Berkeley: University of California Press, 182–215

67 Hauser, Beatrix. Promising Rituals – Gender & Performativity in Eastern India. 2012. Routledge, New Delhi, 93-117

[68]Subhash B. Thakre, Sushama S. Thakre, Monica Reddy, Nidhi Rathi, Ketaki Pathak, Suresh Ughade (2011). Menstrual Hygiene: Knowledge and Practice among Adolescent School Girls of Saoner, Nagpur District Journal of Clinical and Diagnostic Research. October, 5(5): 1027-1033.

69 Dasgupta A, Sarkar M (2008). Menstrual Hygiene. Indian Journal of Community Medicine. 33(2):77-80

70 Mudey AB, Keshwani N, Mudey GA, Goyal RC (2010). A cross -sectional study on the awareness regarding safe and hygienic practices amongst school going adolescent girls in the rural areas of Wardha District. Global Journal of Health Science. 2(2):225-231.

71 Bhatia JC, Cleland J. Self- reported symptoms of gynaecological morbidity and their treatment in south India (1995). Studies in Family Planning. 26/4:491-495.

Odisha. For this, 200 adolescent girls, of which 100 girls with disability were interviewed from the rural areas of Odisha (see methodology, chapter-1).

**4.1 Socio-economic profile of the respondents:**

The educational profile shows that 62 percent of adolescent girls and 37 percent adolescent girls with disability had high school education. 52 percent girls with disability had primary education. Only 11 percent girls with disability are having college education compared to 31 percent adolescent girls (table 4.1). 53 percent adolescent girls and 70 percent adolescent girls with disability belong to below poverty line (BPL) category. The mean age at menarche is 13 for both adolescent girls and girls with disability.

**Table – 4.1: Education Profile of the respondents**

| Variables | Adolescent girls (%) | Adolescent girls with disability (%) |
|---|---|---|
| Education | | |
| Primary | 7 | 52 |
| High School | 62 | 37 |
| College | 31 | 11 |

**Table – 4.1.1:Socio-Economic Profiles of Respondents**

| Variables | Adolescent girls (%) | Adolescent girls with disability (%) |
|---|---|---|
| APL | 47 | 30 |
| BPL | 53 | 70 |
| Family Annual Income (Rs) | | |
| Less than 5000 | 12 | 11 |
| 5000-10000 | 38 | 60 |
| More than 10000 | 50 | 29 |

**Table – 4.1.2Age at Menarche (years)**

| Variables | Adolescent girls (%) | Adolescent girls with disability (%) |
|---|---|---|
| ≤11 | 7 | 11 |
| 12 | 33 | 32 |
| 13 | 23 | 20 |
| 14 | 29 | 26 |
| ≤15 | 8 | 11 |
| Mean age at menarche | 13 | 13 |

The type of disability among the adolescent girls is orthopedic impairment (57), Speech and hearing impairment (12), Cerebral Palsy (9), Low Vision (7), Mental Retardation (10), and Visual impairment (5).

**Table – 4.2: Profile of adolescent girls with disabilities**

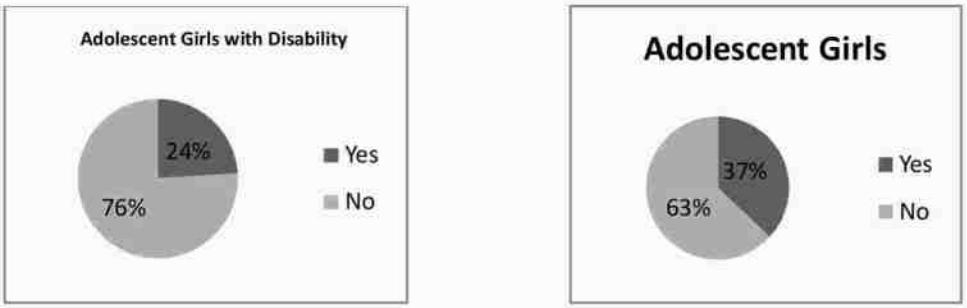
| Category | No |
|---|---|
| CP | 9 |
| HI/SP | 12 |
| LV | 7 |
| MR | 10 |
| OH | 57 |
| VI | 5 |
| Total | 100 |

### 4.2 Knowledge and practices related to Menstruation:

This section discusses about knowledge about menstruation, what do they use to catch the menstrual flow, disposal methods of menstrual clothes/napkins, who decides menstrual absorbent, reasons for using cloth/ sanitary napkin and types of sanitary napkin use.

The graph given in Fig 4 reveals that 63 percent adolescent girls and 76 percent adolescent girls with disability were completely ignorant about menstruation before they attain menarche. Only 37 percent adolescent girls and 24 percent adolescent girls with disabilily knew about menarche. It is observed that all the girls knew about menarche through their friends. This shows that it is still a taboo to talk about menstruation and many a times families discourage discussions. This is compounded by ignorance of the mothers.

**Fig – 4: Knowledge regarding menstruation before menarche**




The information they received regarding menstruation from their friends are as following:

- Blood comes out once from the urine
- For seven days the girl have to hide in the attic and no male should see her

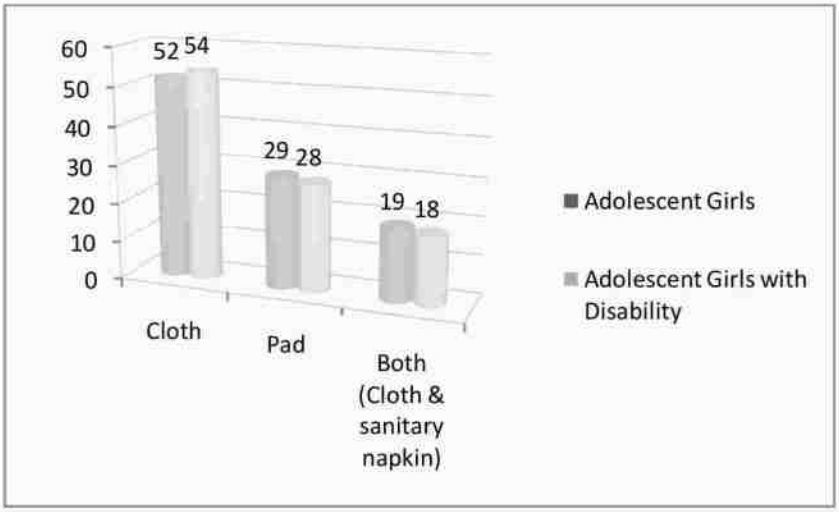
- If the girl's brother and father see the girl during menarche then they (male member) will have health problem
- The girl has to wash her hair and take bath on the first day of menstruation and throughout the menstruation she cannot take bath, comb hair, will have to eat before sun set, and non spicy food.
- There will be a grand feast on the seventh day and wear new dress on that day.

The above information on menstruation known to the adolescent girls is more or less related how society treats menstruation. The actual knowledge regarding the process of menstruation is unsatisfactory.

**4.3 Usage Pattern:**

Majority of the respondents (Fig- 4.1) use cloth during their periods (52% adolescent and 54% adolescent). The usage of pad is 29 percent among adolescent girls and 28 percent among adolescent girls with disability. There are also dual users of cloth and pad (19 adolescent and 18 girls with disability). However this category of users use pad while travelling to distant places and in emergency situations.

**Fig- 4.1: Usage pattern of absorbents during menstruation (%)**




**4.4 Decision regarding menstrual absorbents to be used**:

Family members decide what will be used as menstrual absorbent (76% of adolescent girls & 85% in case of adolescent girls with disability). 24 percent among adolescent girls and 15 percent among adolescent girls with disability take decision about what menstrual absorbent to use. It shows the fact that girls do not have a say regarding the menstrual absorbent. The reasons are

economic constraint, ignorance (mothers, family members) and the impurity factor related to it (further discussed in this chapter).

**Table – 4.3: Decision makers for using menstrual absorbent**

| Indicators | Adolescent Girls | Adolescent Girls with Disability |
|---|---|---|
| Mother | 62 | 80 |
| Elder Sister | 14 | 5 |
| Self | 24 | 15 |

### 4.5: Usage of Cloth

They use old clothes available at home like sari, bed sheets, towels, dhoti or lungi (used by male members at home) and old dresses as menstrual absorbent. Majority of them opined they do not have any problem using cloth during periods. They also opined that that there is no other option left for them.

**Table – 4.4: Problem faced while using cloth**

| Indicators | Adolescent Girls | Adolescent Girls with Disability |
|---|---|---|
| Yes | 22 | 28 |
| No | 49 | 44 |

They cannot afford to use pads as they are costly and moreover the women of the family said that they are using clothes for ages and there is no problem. However, the problems faced by the girls as narrated are leakage and uncomfortable feeling during periods, also washing and cleaning. The girls opined that their family members will never have objection to use the pads had this been made available to them in affordable price. This indicates the unavailability of low cost sanitary napkins and the economic constraint behind it.

### 4.6: Cleaning & Storage of Menstrual cloths –

Cloths are cleaned with washing powders by the girls and by the mothers/care takers of the girls with disability. Majority of them wash it in the pond (66% adolescent & 57% girls with disability) separately from other clothes. The rest prefer to wash the cloths at home (34% adolescent & 43% girls with disability). This reveals dependence on the ponds, rivers and small water bodies for washing of cloths which is an indicator of contamination of water bodies. Further to it the cloth remains unsterilized and thus contaminated. Washing of clothes with sufficient clean water and washing powder is important as it helps in cleaning the cloths properly and saves from infection in the reproductive tract.

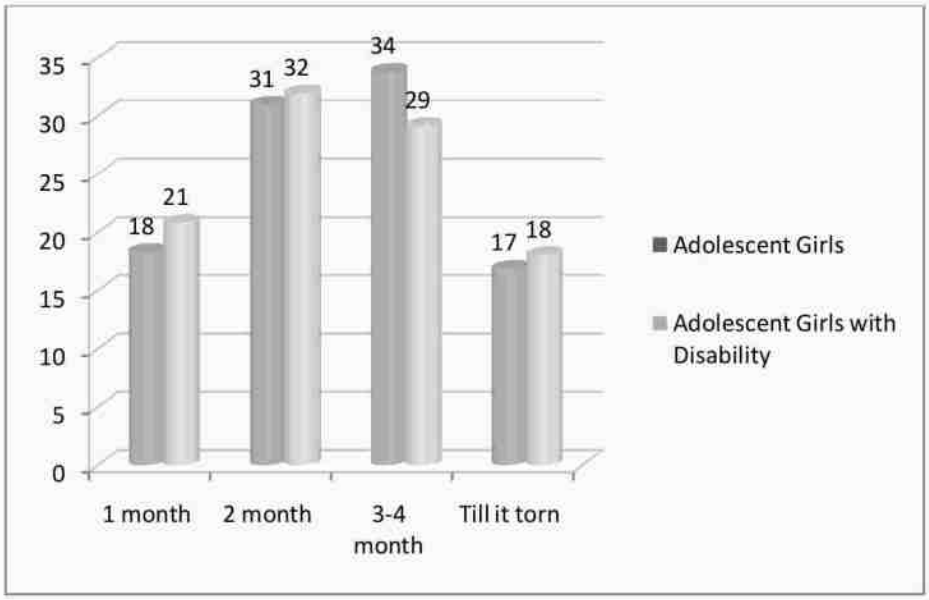
**Table – 4.5: Place of washing clothes (cloth and both cloth & pad user)**

| Variables | Adolescent Girls | Adolescent Girls with Disability |
|---|---|---|
| Wash in the river/pond /small water deposits nearriver bank | 66 | 57 |
| Wash at home* | 34 | 43 |

* Water bought from the well/ tube well

**4.7: Period of use of menstrual cloths**: The cloths are dried separately in a place not seen by others, many time dried in shadows. The menstrual cloths are wrapped in polythene and stored at some secret place till the next use. The menstrual cloths are used till it is torn by 17 percent of the girls(17% adolescent, 18% girls with disability), 31 percent use it for 3-4 months and 31 percent use the cloths for 2 months(Fig- 4.3). The clothes are not washed (sterilized) till the next menses. Similar studies show this affects the health condition[72] of the girls and women with reproductive tract infections[73].

**Fig – 4.3: Use of menstrual clothes (%)**




[72] Ray Sudeshna, Dasgupta Aparajita in Determinants of Menstrual Hygiene among Adolescent Girls: A Multivariate Analysis. National Journal of Community Medicine Vol 3 Issue 2 April -June 2012. http://njcmindia.org/uploads/3-2_294-3011.pdf accesses on 8th January 2015

[73] Garg R, Goyal S, Gupta S in India moves towards menstrual hygiene: subsidized sanitary napkins for rural adolescent girls-issues and challenges. Matern Child Health J. 2012 May;16(4):767-74. doi: 10.1007/s10995-011-0798-5. http://www.ncbi.nlm.nih.gov/pubmed/21505773, accessed on 5th Nov 2014, 5.34pm

**4.8: Usage of Sanitary Napkin:**

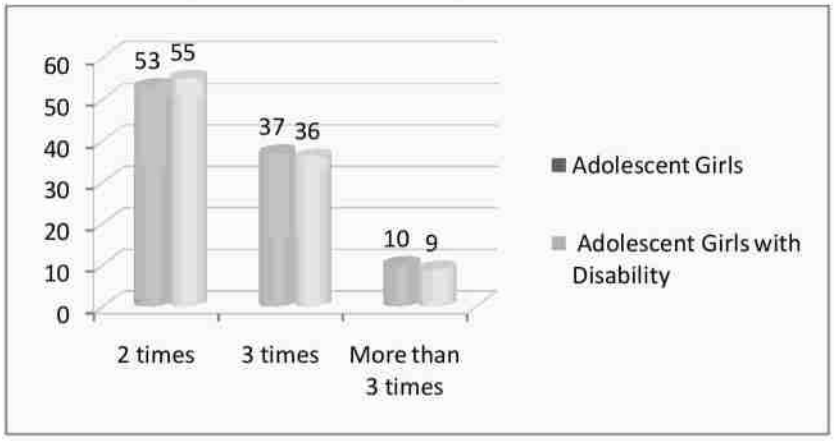
Majority of the girls use sanitary napkins available in the market. Freedays is the product of NRHM, sold by ASHA workers. This has been implemented in four district of Odisha. They are Bhadrak, Jagatsinghpur, Dhenkanal and Kendrapada. The price is ₹6 (see policy chapter). Though Dhenkanal has been chosen as one of the district in the first phase there are many places in the district where girls do not get this as there is no supplier. If this product will be available in the villages of all the districts then the girls will not be forced to use clothes. The branded napkins were brought from the medicine/pharmacist stores.

**4.9: Changing of cloth/napkin during menstruation:**

Gynecologist advises to change sanitary towels thrice a day during menstruation. Unhygienic practices could lead to ascending infections, bacteria entering the urinary tract or uterus from outside. Menstrual blood once left the body gets contaminated with body's innate organisms. This rule applies for even when one there is scanty bleeding and the pad or cloth is damp and will have organisms from the vagina, sweat from the genitals. When these organisms remain in a warm moist place for a long time they tend to multiply and can lead to conditions like urinary tract infection, vaginal infection and skin rashes[74].

The changing pattern of cloth/napkins during menstruation shows that majority of the girls change only 2 times a day (figure-4.4). 2 times in a day it means 8 times throughout the period. 37% changes cloth/napkin 3 times a day and only 9 percent changes more than 3 times a day (10% adolescent and 9% adolescent with disability). Heavy bleeding is one of the reasons behind changing more than three times among adolescent girls. Due to stiffness of the lower limbs of girls with disability the clothes/napkin sometimes do not stay intact and the reason behind changing more than 3 times a day.

**Fig – 4: Changing of cloth/napkins during menstruation (%)**

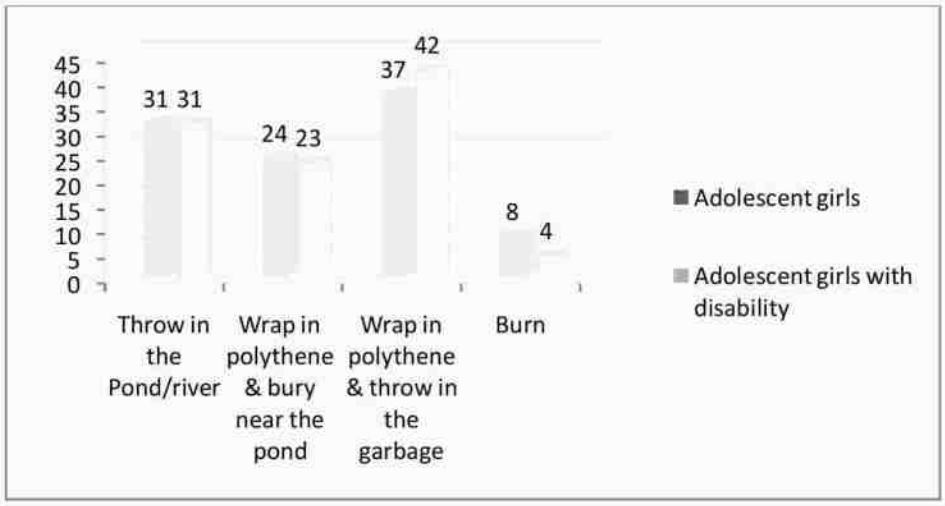


Majority changes the menstrual absorbent only 2 times a day during menstruation an indication of health problem of the girls, unavailability of proper resources, high level ignorance among girls and women regarding frequency of changing the napkins from hygiene point of view. One of the reasons explaining the reason of changing the absorbents frequently for girls with disability is their physical condition.

**4.10: Methods of disposal of menstrual absorbents/ waste**

Figure 4.5 show that 40 percent girls (37% adolescent girls and 42 percent girls with disability) threw the menstrual absorbent in the garbage by wrapping in polythene. 31 percent throw in the ponds/rivers, 24 percent bury near the pond/river wrapping in polythene. Only 6 percent burn the menstrual absorbent. Research[75] shows that sanitary napkins take 500-600 years to decompose and same is with polythene. Throwing menstrual waste in the water bodies contaminates the water bodies that becomes a potential health hazard. This indicates ignorance of the girls and the family members about the disposal of menstrual waste and also the unavailability of any other alternatives in the community level.

**Fig – 4.5: Methods of disposal of menstrual absorbents/ waste**




**4.11: Health problems during menstruation**

44 percent of the adolescent girls have pain in abdomen, limbs & chest (44%) during their menstruation, 20 percent have irritation in the vagina. 4 percent fits. Rest 30 percent girls also suffer headache, mood swings, vomiting, heavy bleeding and weakness (table – 4.6).

[75] How long it takes for some everyday items to decompose by Paulin Delaney. 14th Feb 2013. http://www.down2earthmaterials.ie/decompsoe/

**Table – 4.6: Health problems faced during periods (Adolescent girls)**

| Health Problem | Percentage |
|---|---|
| Pain in the abdomen, limbs, chest | 44 |
| Pain in the abdomen, limbs, chest & heavy bleeding& weakness | 5 |
| Pain in the abdomen, limbs, chest & vomiting | 1 |
| Pain in the abdomen, limbs, chest & Headache | 2 |
| Pain in the abdomen, limbs, chest, Headache & vomiting | 1 |
| Pain in the abdomen, limbs, chest, fits | 3 |
| Pain in the abdomen, limbs, chest & weakness | 4 |
| Heavy bleeding & weakness | 6 |
| Heavy bleeding, vomiting& irritation in vagina | 1 |
| Vomiting | 1 |
| Vomiting & headache | 1 |
| Headache | 3 |
| Headache & mood swing | 2 |
| Irritation in the vagina & pubic | 20 |
| Fits | 4 |
| Weakness | 2 |

58 percent adolescent girls with disability have pain in abdomen, limbs & chest, 13 percent suffer from body pain with weakness. 12 percent suffer from pain in abdomen, limbs and chest with other health problem like headache, vomiting, weakness, heavy bleeding. 5% girls suffer from fits (frequency get increased during the period) associated with heavy bleeding, pain, vomiting and headache during menstruation (table-4.7).

**Table – 4.7: Health problems faced during periods (Adolescent girls with Disability)**

| Health Problems | Percentage |
|---|---|
| Pain in the abdomen, limbs, breast | 58 |
| Pain in the abdomen, limbs, breast, Heavy bleeding | 5 |
| Pain in the abdomen, limbs, breast, vomiting | 2 |
| Pain in the abdomen, limbs, breast, Heavy bleeding & vomiting | 1 |
| Pain in the abdomen, limbs, breast, vomiting, weakness | 1 |
| Pain in the abdomen, limbs, breast, headache | 2 |
| Pain in the abdomen, limbs, breast, headache, weakness | 1 |
| Pain in the abdomen, limbs, breast, weakness | 13 |
| Heavy bleeding | 5 |
| Heavy bleeding, fits | 1 |
| Vomiting | 1 |
| Vomiting, fits | 1 |
| Irritation in the vagina & pubic | 1 |
| Mood swing | 1 |
| Mood swing, fits | 2 |
| Fits | 1 |
| Weakness | 4 |

The above discussion shows that the girls suffer various health problems during menstruation. The causes may be they do not get proper care, use of unhygienic clothes, washing the clothes

in the common areas, like pond/river/small water fountains, not drying clothes in the sun, using those clothes again and again, not keeping the genital area dry during the periods and the list is endless. Last but not the least they do not consult doctors for their health problem related to menstruation.

**Figure –4.6: Consult Doctor for menstrual related health problem**

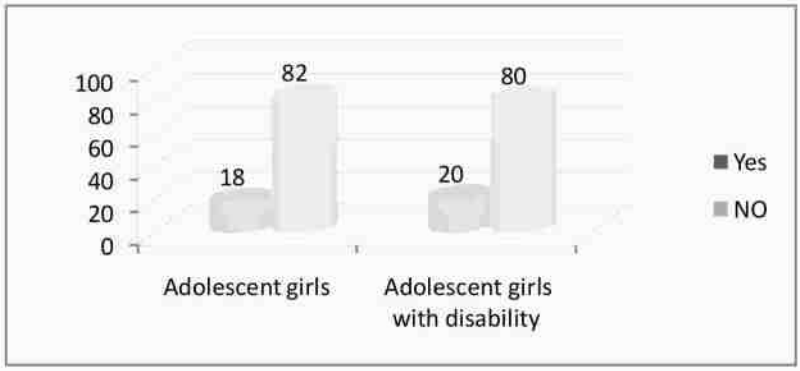



Figure 4.6 shows 80% of the girls or their family members do not consult doctor for any health related problem during menstruation. The reasons for not consulting doctors are (table-4.8)

a) The girls were told by the family members to sleep for some time by which they will be all right (48% adolescent girls and 56 % girls with disability)

b) 11 percent said that they feel ashamed to go to the doctor,

c) Concept of mothers: these things happen to all the menstruating girls and women.

The concept that it happens to all girls and women menstruating and by sleeping and taking rest things will improve neglects the health condition. Menstruation is treated by the society to be something ashamed of and girls do not feel free to talk to the male doctors and unavailability of female doctors aggravates the plight of the girls.

"For generations we are doing these things so there is no harm" affects the health of girls and women and indirectly to the society as a whole. Girls taught to bear pain, not to raise voice, adjust with the situation worsens their health conditions. The awareness programs related to menstruation should not confine to the adolescent girls only, rather than it should address the whole society.

**Table–4.8: Reasons for not consulting the doctor**

| Variables | Adolescent girls | Adolescent girls with Disability |
|---|---|---|
| Get well after sleeping some time | 48 | 56 |
| It's not a big problem | 6 | 2 |
| Feel ashamed to go to the doctor | 11 | 10 |
| Mother says it happens with all girls and women | 10 | 5 |
| Traditional treatment | 3 | 3 |
| Parents bring medicine with consulting the pharmacist/ medicine store | 4 | 4 |

During the focused group discussion girls raise similar concern: ***"After attending the meetings in Kishori Groups many times we realized that there are lots of superstitions in the society. We opposed many things related to menstruation. Now a day we roam around our house during menstruation, we do certain household works. But our elders do not let us go inside the kitchen or perform puja (worshipping God). We brought some changes in our home but it is very difficult to change the society by us. The elders in our villages do not listen to us when we talk to them about the superstitions. They get angry with us. Sometime we also feel are we doing the right thing by not abiding by the customs? If something goes wrong then all will blame us".***

Anthropologist Gabriella Eichinger Ferro-Luzzi[76] did an intense survey on gender-specific forms of pollution in Tamil Nadu in 1971-72 identified three reasons for the persistence of menstrual restrictions: first, the 'Indian love for traditions', second, the unobtrusive nature of this type of impurity that does not call for political action against it (as it does in the case of permanent untouchability), and third, an 'appreciable secondary gain' for the menstruating woman. She also observed that female forms of restrictions may gradually disappear when young educated women doubt about these restrictions.

She had observed in the 70s and the irony is we are now in the 21st century, yet things have not changed for these girls of our country. We have reached the moon, send satellite to Mars and mobile phones have reached every nook and corner of the country yet the policies and programmes are not reaching everywhere. Girls[77] in this country are still married at the age of 15-19 (8%) and are forced to have sex and at least 22 percent bear children before they attain adulthood.

[76] Eichinger Ferro-Luzzi, Gabriela. 1974. 'Women's Pollution Periods in Tamilnad', in *Anthropos* 69, 113–61

[77] http://www.unicef.org/publications/files/Progress_for Children_No_10_EN_04272012.pdf

### 4.12: Adolescent girls with disability and problems related to menstruation:

Adolescent girls with disability have some different set of problems. They need help of others for their day to day life due to their physical, sensory, intellectual impairment, mental illness and various associated disorders. They might require support in the day to day life but they can learn how to help themselves with their evolving capacity. Sometimes they require high support with a care taker. The need of these adolescent girls with disabilities during menstruation is one of the main concerns of this study.

**Table-4.9**
**Problems faced during Period- Adolescent girls with Disability**

| Variables | Percentage |
|---|---|
| Due to disability can't wear the napkin properly | 77 |
| Can't walk properly during period | 23 |

Due to the stiffness of the body part of the girls with disability they can't wear the cloth/napkins properly many times there is leakage (77%). They need help of their mother/care taker. Some girls with MR and CP have fits during menstruation. One of the major concerns of the mothers of the girls with disability is who will take care of their daughter after them. Apart from the household work mothers have to do everything related to their daughters with disability. Many times the mother curses her luck being over burdened with family requirement and also by getting blamed for such a child being born to her and cursed why this happened to her and why God had given her a child like this. The study also aims to find out the challenges faced by the girls and their families while managing menstruation period and also while maintain menstrual hygiene so that a way out can be emerged to minimize the challenge and promote accessible hygienic practices among girls with disabilities and their care takers. One such example is given in the box below:

***She is a 17 years old and is mentally retarded. Her mother curses her every day and why she is born to her. She had fits and sometimes gets violent during periods. She couldn't understand why there is blood coming from her urine and many times throws her menstruation clothes during period and run here and there in rage. Her mother has to clean and manage all these. Many times can't bear this site of her daughter's condition and criticism from family members and villagers. Her mother can't go anywhere as she can't leave her in the house or take her. And ultimate she (mother) curses her and tell her she should have died before she was born. Her mother wants to operate out her uterus reproductive organs so that her daughter will not have menstruation at all. Her mother says these out of pain and anguish. The girl now understands these things and when she is normal she says she does not want to live and want to die as early as possible so that her mother will not have trouble for her. She is not a sole case.***

### 4.13: Concerns/suggestions by Mothers of Disabled Adolescent girls:

**Table - 4.10**
**Concems/suggestions by Mothers of Adolescent girls with Disablity**

| Indicators | Percentage |
|---|---|
| If she can do her day to day thing on her own | 41 |
| If there is any method to operate her for not having mense/period | 6 |
| Worried how she will manage when I'm not there | 1 |
| Free health service by the Government | 52 |

Six percent mothers raise concern about operating their daughters for not having periods at all so that family members and society will not blame her and nobody can harm their daughter any more. They fear that if somebody take advantage of her and may harm her then they can't live in this society. The undertone of the mothers is the security of their daughters and the pain they are going through. But is it the solution for this? A question unanswered …*how secured and safe are the girls in general and differently able girls in particular in our society? When the parents are gone what will happen to them, who will take care of them, who will* protect them. Why as a society we are double standard. On the one hand we worship Goddess Kali, Lakshmi, Sarswati and the other hand we treat our daughters as if they are inhuman beings, deny them proper food, care, protection.

### 4.14: Types of sanitary napkin for adolescent girls with disability:

The girls and their mothers want that the pad should be designed in such a way that it should not slip or fall off and stay intact to their panty while they go to the toilet (30%). The clothes they use fall down when they go to toilet during periods as there is lack of bodily control on their part. 59 percent said they do not want to use clothes during periods but sanitary napkins are very costly for them. They can't afford this and do not know what type of sanitary napkin it should be. 11 percent girls want to have a soft, large and thick pad which won't leak when they walk during periods

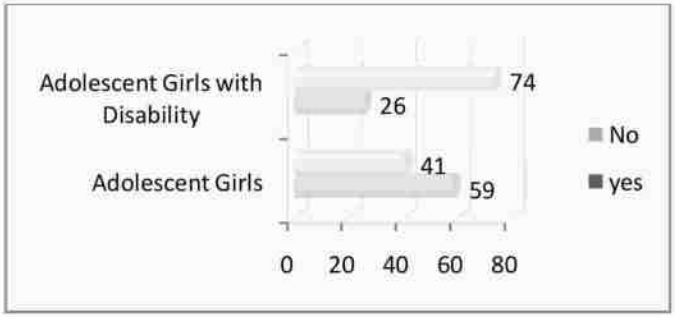
**Table – 4.11**
**Types of sanitary napkin/absorbent for adolescent girls with disability:**

| Indicators | Percentage |
|---|---|
| Sanitary napkins attached to her panty and stay intact whenever she go to the toilet | 30 |
| Do not want to use clothes but sanitary napkins are costly | 59 |
| Want to have a soft large and thick pad so that it won't leak while walking | 11 |

### 4.15: Facilities in school/colleges

This section discuss about the facilities in schools/colleges and what do girls from rural areas do when they have their periods, do they attend school/college and the reasons of dropout from the school.

**Fig – 4.7**
**Attending School at present (%)**



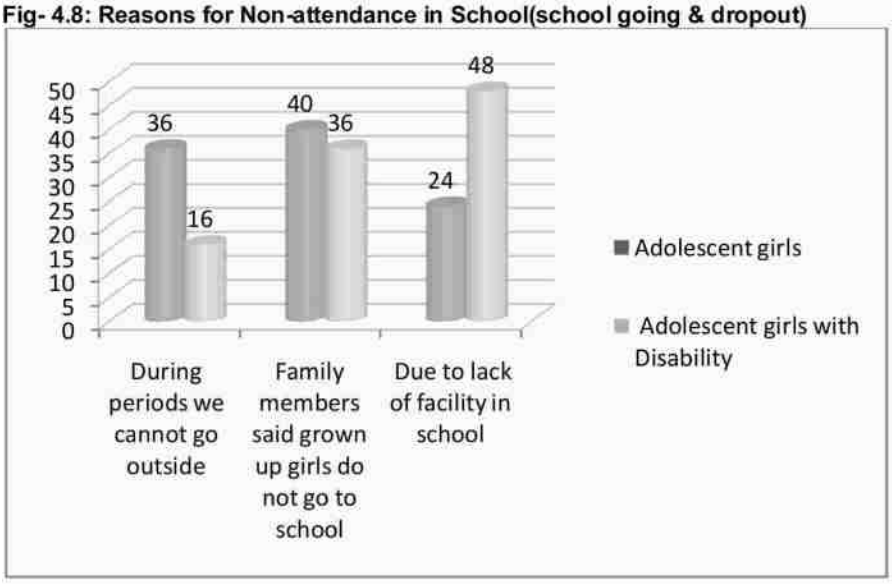

74 percent adolescent girls with disabilities and 41 adolescent girls are not going to school at present. The dropout rate from school is high among adolescent girls with disabilities as compared to the other girls (chart -4.7).

**Table - 4.12**
**Attend school during period (% of girls who attend school at present)**

| Variables | Adolescent girls | Adolescent girls with Disability |
|---|---|---|
| Go to School during periods | 80 | 65 |
| Do not go School during periods | 20 | 35 |

From among the school going girls 20 percent adolescent girls and 35 percent adolescent girls with disabilities do not attend school during periods (table – 4.12). The reasons for dropout rate for both (those who do not attend school permanently and who do not attend school during period) are:

**Fig- 4.8: Reasons for Non-attendance in School(school going & dropout)**




- Among girls with disability 48 percent due to lack of facility in school, 36 percent were kept at home (dropout) permanently as they had attained puberty. 16 percent do not go to school due to the stigma attached to menstruation.
- In case of adolescent girls 24 percent do not go to school due to lack of facility in school, 40 percent do not attend school because they had attained puberty and thought of to be grown up and ready for marriage, 36 percent adolescent girls are not allowed to go to school as during periods they are not allowed to go outside home.

## 4.16: Facilities in the schools:

**Table- 4.13: Facilities in the schools/ colleges**

| Variables | Percentage |
|---|---|
| **Separate Toilet for girls in School/ College** | |
| Yes | 80 |
| No | 20 |
| **Toilets in useable condition** | |
| Yes | 71 |
| No | 29 |

80 percent said that there is separate toilet in their school/colleges but 29 percent opined that they are in unusable condition. The facilities in the girl's toilet available are water... There is no facility available in the toilets are friendly for girls with disability.

The Girls going to school/colleges take sanitary napkin/cloth with them as there is no facility available there. 79 percent girls bring the menstrual cloth/sanitary napkin wrapped with paper and

polythene back home for disposal, 11 percent flush in the toilet, 6 percent throw it outside the toilet as there is no disposal facility in the schools/colleges. 5 percent girl said they have disposal unit in their school and they dispose in napkin/cloth there.

**Table-4.14: Disposal of sanitary napkin/clothes in school/college**

| Indicators | Percentage |
|---|---|
| Flush in the toilet | 11 |
| Throw outside the toilet | 6 |
| Wrap in polythene &bring home | 79 |
| Put in the Disposal unit | 5 |

# CHAPTER – V
# Conclusion & Recommendations

The present study has made an attempt to explore knowledge regarding menstruation, hygienic practices, use & disposal of menstrual clothes / sanitary napkins, among the adolescent girls of Odisha. It has also looked in to the viability and availability of low cost sanitary napkins in Odisha with a special focus to women and girls with disability. For this, 200 adolescent girls, of which 100 girls with disability were interviewed from the rural areas of Odisha.

It is found that it is still a taboo to talk about menstruation and this is compounded by ignorance of the mothers. The actual knowledge regarding the process of menstruation is unsatisfactory. Old clothes which are easily available at home are used as menstrual absorbent by majority of the girls. Due to ignorance among the girls and the family members the girls suffer from lots of health related problem during menstruation. The taboos and myths related to menstruation in our society aggravate this. "For generations we are doing these things so there is no harm & it happens to all girls and women" affects the health of girls and women and indirectly to the society as a whole. Girls are socialized to bear pain, not to raise voice, adjust with the situation worsens their health conditions. They are denied proper health care and due to unavailability of low cost sanitary napkin the girls are left with no alternatives rather than to use old clothes available at home. There is dropout after the girl attains puberty and girls also do not go to school during menstruation. The reasons there is no proper facility in the toilet and also for disposal of menstrual waste. Girls are also not allowed to go to school by parent after they attain puberty or menarche and grooms are searched for them. There is still a prevalence of child marriage in our society.

**Recommendations:**

**Knowledge, Attitude & Practice:**

- The study had highlighted the need of adolescent girls for accurate, adequate and accessible information about menstruation and its management. The girls should be educated about the facts of menstruation, physiological implications, about the significance of menstruation and development of secondary sexual characteristics, and above all, about proper hygienic practices with selection of disposable sanitary menstrual absorbent.
- Channels of communications (both formal and informal) like parents, sisters, friends, teachers should be involved for this. Mothers should be properly trained on reproductive health. All mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation much before the age of menarche.
- Breaking the taboo is important part of the menstrual hygiene management. Government should make policies how to break the taboo and create an enabling environment regarding this. It should be ensured that men (both at home and community) should be involved regarding MHM and it's importance as they are the decision maker in the family and the community.

- This can be achieved through educational programmes, IEC materials, school nurses/health personnel, compulsory education on adolescent reproductive sexual health in school curriculum and knowledgeable parents, so that it would indirectly wipe away the age-old wrong ideas and make the girls and women feel free to discuss menstrual matters including cleaner practices without any hesitation.
- Need to build self confidence among the adolescent girls and provide clean and safe menstrual absorbent in Schools & educational Institutions.
- Toilet facilities and disposal mechanisms for menstrual waste management should be provided in the schools/ colleges and at the community level.
- Safe Disposal unit or incinerators should be built in the schools/colleges as well as in the community/village level for safe disposal of menstrual waste. More research on environment friendly disposal units can be made.
- There should be sensitization among engineers/technicians who design toilet and waste management system in schools on accessible MHM need and safe disposal system.
- Specific orientation to mothers and care givers on MHM of girls and women with disabilities.

**Enterprising menstrual absorbent production:**

- Government should promote enterprising of low cost menstrual absorbent by involving local groups having entrepreneur skills. Scalability of manufacturing menstrual absorbents should be taken by the Government.
- Government should take up the social marketing of affordable and accessible menstrual absorbents to make it available to the adolescent girls in School and out of School – promotion of facilitation centers in the community without compromising the quality aspect of it.
- Raw material is one of the big challenges in production of low cost sanitary napkin/ absorbent in Odisha. High transportation charge for export of low cost sanitary napkin is another problem for the manufacturers. Government should encourage these manufacturing units and subsidize the cost of production by procuring raw materials, helping in machinery maintenance & marketing
- More research on locally available materials, machines and the scalability of production is required.
- Modified napkins/absorbents keeping the need of girls with disabilities – strong adhesive, soft, thick & large without increasing the cost (at least two modified napkins in each packet) and producing a special packet for every 100 packets by the units run by the Govt.

**GO, NGO Coordination for Menstrual Hygiene Management:**

- Convergence and coordination between the departments for supporting the manufacturing unit and promotion of the marketing of the menstrual absorbents.
- Extensive research should be undertaken by government and NGOs for environment friendly, biodegradable low cost sanitary napkin/ absorbents.
- Government and NGOs should come forward for working of environment friendly menstrual waste management and should document the good practices being followed in different parts of the country.
- Awareness programs challenging myths/taboos which will enable the hygiene practices around menstruation to be promoted by the Government& NGOs.
- Need more research on how to involve different stakeholders on menstrual hygiene management