



Manual
on
**ADOLESCENT
GYNECOLOGY**

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JAYPEE

1. Menstrual Health and Hygiene	1
<i>Ami Mehta</i>	
2. Sexual Health and Education	6
<i>Supriya Jaiswal</i>	
3. Adolescent Contraception	8
<i>Parag Biniwale, Rachana Jaju</i>	
4. Body Image and Self-esteem	17
<i>Chandan Kachru</i>	
5. Polycystic Ovary Syndrome	24
<i>Charu Modi</i>	
6. Adolescent Endometriosis	29
<i>Vijayalakshmi Gnanasekaran</i>	
7. Gynecological Cancers in Adolescents	36
<i>Sujata Deo, Anuradha Deol</i>	
8. Mental Health and Menstruation	42
<i>Supriya Arwari, Vaidehi Arwari, Palak Alok Modi</i>	
9. Disability and Menstruation in Adolescents	50
<i>Nibha Mohan</i>	
10. Cultural Sensitivity and Menstrual Health.....	56
<i>Gauri Karandikar, Mayuri Kelkar</i>	

Menstrual Health and Hygiene

Ami Mehta

■ INTRODUCTION

Menstrual health and hygiene (MHH) encompass not only menstrual hygiene management (MHM) but also the broader systemic factors that connect menstruation with health, well-being, gender equality, education, empowerment, and human rights. UNESCO summarizes these systemic factors as access to accurate and timely information, safe and affordable menstrual materials, trained and supportive professionals, proper sanitation and washing facilities, positive social norms, safe and hygienic disposal methods, and strong advocacy and policy frameworks.

MHM refers to the practice where women and adolescent girls use clean, safe materials to absorb or collect menstrual blood, ensuring they can change these materials privately and as often as needed. It also involves proper body hygiene using soap and water, as well as access to facilities for the safe disposal of used materials. Additionally, it is essential that they understand the fundamentals of the menstrual cycle and how to manage it with dignity, free from fear, shame, or discomfort.

In India, 78% of girls and women aged 15–24 in urban areas use hygienic MHM products such as reusable or disposable sanitary pads, menstrual cups, tampons, or period panties. However, in rural areas, only 48% have access to these products. A 2022 cross-sectional study across India revealed a significant disparity in the use of hygienic menstrual methods, influenced by factors such as education, economic status, religion, age, exposure to mass media, employment status, and access to smartphones.

The main challenges include a lack of awareness, limited availability and affordability of hygienic MHM products, inadequate access to private changing rooms, clean water, soap, and eco-friendly disposal systems. Not using proper menstrual hygiene products increases the risk of reproductive and urinary tract infections. Additionally, millions of girls are dropping out of school due to the absence of adequate restroom facilities, water supply, proper disposal systems for menstrual products, and the shame caused by odors and menstrual blood stains.

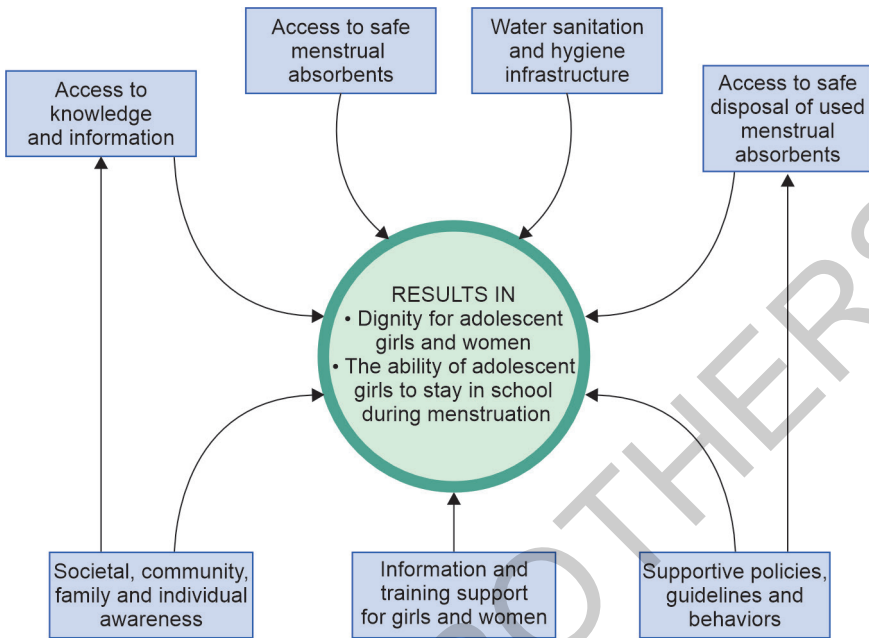


Fig. 1: Indian schools and adolescent girls.

India accounts for one-fifth of the world's population, yet only 50% of its 120 million adolescent girls have adequate knowledge about menstrual hygiene management¹ (Fig. 1).

Table 1 highlights various sanitary products, along with their advantages and disadvantages. Providing guidance on the menstrual cycle and the use of hygienic products should be mandatory for all adolescents. Schools must offer MHM products either free of charge or at subsidized rates. Sanitary napkin vending machines and disposal bins with lids should be installed in school restrooms. Additionally, proper facilities such as private changing spaces, toilets, soap, and clean water are essential to support menstrual hygiene.²

Reusable pads and menstrual cups are environmentally friendly and cost-effective options if water and soap are readily available.

According to CDC guidelines, it is important to wash hands before and after handling menstrual hygiene products, wrap used products in paper and dispose of them in a bin. MHM products should be changed every 4–6 hours. Additionally, the vulva should be cleaned daily with mild soap and water, wiping from front to back or side to side. Douching inside the vagina should be avoided, and monitoring the menstrual cycle is recommended.³

Used menstrual materials such as cloth, sanitary napkins, and tampons are classified as solid waste. In urban areas, they are typically disposed of through routine waste collection and incineration, while in rural areas, they are often buried in deep pits or discarded in public spaces. Commercially

TABLE 1: Various sanitary products, along with their advantages and disadvantages.

<i>Sanitary protection option</i>	<i>Advantages</i>	<i>Disadvantages</i>
Toilet paper or tissues	Easily available in the market	<ul style="list-style-type: none"> • Loses strength when wet and can fall apart • Difficult to hold in place
Cotton wool	<ul style="list-style-type: none"> • Good absorptive properties • Easily available 	<ul style="list-style-type: none"> • Difficult to hold in place • May be expensive to poorest users
Locally made reusable pads	<ul style="list-style-type: none"> • Available locally • Income generation opportunity • Cost effective • More environmentally friendly than disposable pads 	<ul style="list-style-type: none"> • Supply chain limitations • Users need somewhere private, with a water supply and soap, to wash and dry the used pads • Not standardized to technical specifications
Locally made biodegradable, disposable pads	<ul style="list-style-type: none"> • Available locally and natural • Income generation opportunity • Environmentally friendly as degrade on disposal 	<ul style="list-style-type: none"> • Not always absorbent enough or the correct shape for higher flow days • Not standardized to technical specifications
Commercially available disposable pads	<ul style="list-style-type: none"> • Often available, except in remote locations • Range of sizes and types • Well-designed through research and development 	<ul style="list-style-type: none"> • Cost may be prohibitive to potential users • Not environmentally friendly as generates lot of waste
Tampons	Convenient and comfortable to use	<ul style="list-style-type: none"> • Not available in many areas • Cost may be prohibitive to potential users • Not environmentally friendly as generates lot of waste • May not be culturally appropriate, particularly for adolescent girls • Hygiene and availability of water and soap for handwashing are particularly important
Panties	<ul style="list-style-type: none"> • Useful for keeping a sanitary product in place • Good for keeping the vaginal area hygienic 	<ul style="list-style-type: none"> • Cost may be prohibitive to potential users • Cheap elastic can wear out relatively quickly

Contd...

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<i>Sanitary protection option</i>	<i>Advantages</i>	<i>Disadvantages</i>
Menstrual caps	<ul style="list-style-type: none"> • Re-usable • Only require emptying, washing and drying 	<ul style="list-style-type: none"> • May not be culturally appropriate, particularly for adolescent girls • Hygiene and the availability of water and soap for handwashing are particularly important, as need to be inserted into the vagina • Expensive
Menstrual sponges	<ul style="list-style-type: none"> • Re-usable, natural • Only require emptying washing and drying • Comfortable because they are flexible and soft and mold themselves to the shape of the vagina 	<ul style="list-style-type: none"> • May not be culturally appropriate, particularly for adolescent girls • Hygiene and the availability of water and soap for handwashing are particularly important, as need to be inserted into the vagina • Expensive • Last for a maximum of six months • Delicate and easily ripped

available disposable pads contain a significant amount of non-biodegradable materials, posing a serious environmental concern.⁴

The disposal of sanitary products contributes significantly to global waste, with each woman generating approximately 150 kg of non-biodegradable waste annually. This waste negatively impacts soil, air, water sources, groundwater reservoirs, and vegetation.

Table 2 outlines various methods of menstrual waste disposal.

■ CONCLUSION

The choice of MHM products depends on a woman's needs, the amount of menstrual flow, comfort, economic situation, and personal preference. However, promoting reusable, environmentally friendly, and cost-effective products is essential for the success of any MHM program.⁵

Globally and nationally, MHM issues are gaining momentum, but we must break the taboos, silence, and stigma surrounding this natural physiological process.

To ensure proper MHM, it is crucial to educate not only girls and women but also boys and men. This will help create access to affordable menstrual products, safe and clean spaces for changing, and the availability of soap, water, and proper disposal systems for menstrual waste.⁶

Achieving this requires sustained social and behavioral change, effective communication to implement policies and programs, and a health system that is sensitive and comfortable addressing MHM issues.⁷

TABLE 2: Various methods of menstrual waste disposal.

Type	Advantages	Disadvantages
Clay pots	<ul style="list-style-type: none"> • Low cost • Easily available • Easy to use • Use locally available fuel (e.g., paper, kerosene, wood) 	<ul style="list-style-type: none"> • No measures to control toxic emissions produced when burning • Toxic emissions potentially harmful to human health • Do not adhere to Central Pollution Control Board's emissions standards
Electric incinerators	<ul style="list-style-type: none"> • Do not need fuels other than electricity • Installed in institutional settings such as schools • The costlier ones have emission control features 	<ul style="list-style-type: none"> • Costly • Not suited to locations with erratic electricity supply • Require trained operator and regular operations and maintenance
High-temperature incinerators for bio-medical waste	<ul style="list-style-type: none"> • Can burn all types of pads, including those with high moisture content, and containing various materials 	<ul style="list-style-type: none"> • Limited availability at present of such facilities in the country • Logistics involved in delivering menstrual waste to the central bio-medical waste treatment facility • Necessity to classify menstrual waste as bio-medical waste
Incinerators with waste to energy technology	<ul style="list-style-type: none"> • Productive use of waste • Good potential for emissions control even at low temperatures • Ongoing innovations in such incinerators for community and institutional use • Can burn all types of pads 	<ul style="list-style-type: none"> • Costly and currently few operate at select locations • Innovations for community and institutional use are at early stage and will take time to be commercially available

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