WHY IS IT AN EMERGING ISSUE?
Until recently, menstrual hygiene has been a forgotten global health challenge even though there is evidence of serious negative impacts of poor menstrual hygiene on girls’ and women’s health, social lives and education. Supplying girls and women with proper methods and knowledge to manage their menstruations should be a major global health concern.

MENSTRUAL HYGIENE
An ancient - but ignored Global Health problem of all women

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MENSTRUAL HYGIENE MANAGEMENT
Women menstruate on an average between 13 and 50 years of age in low-income settings (but can start as early as from 8 years), amounting to a total of 1400 days of menstruation in a woman’s lifetime [1]. It is a healthy biological process, which marks the passage from childhood to adolescents of girls.

This passage is handled differently in different societies, but many girls learn that menstruation is a private matter that should be dealt with individually and, in low-income countries, often carries different social limitations. The strategies to handle menstruation are also influenced by cultural beliefs that mark menstruation as shameful, socially undesirable, religiously problematic and may carry negative effects on the health of girls and women. These problems are of particular concern for girls starting to menstruate in
EMERGING ISSUE BRIEF
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WHAT IS ‘MENSTRUAL HYGIENE MANAGEMENT’?

Good menstrual hygiene practices that will protect the health and menstrual well-being of a girl or women include:

1. Regular change of clothing and underwear;
2. Change of hygienic pads every three to four hours;
3. Daily showering, especially in instances of dysmenorrhea (painful menstruations);
4. Adequate washing of genitalia after each voiding of urine and/or feces;
5. Continuing normal routine and daily activities (e.g. going to school, doing physical exercise); and
6. Maintaining a balanced diet with plenty of fruits and vegetables rich in iron and calcium (because of the risk of girls becoming anemic during teenage years).

Source: Unicef 2008 [15]

low-income and disrupted settings, since many girls here do not have the basic infrastructures available to practice optimal menstrual hygiene (water, soap and toilets), or the social and economic resources.

These problems have been largely ignored by the health, educational and water and sanitation sector until recently. This lack of attention is startling, considering that half of the world’s population is made up of women and girls who need to handle their menstruations every month from early adolescence.

During the last decade, concepts of Menstrual Health and Menstrual Hygiene Management (MHM) have gained grounds. On the 28 May 2014, the first ‘Menstrual Hygiene Day’ was organized by international women’s health and water/sanitation community-based organisations (CBOs) and non-governmental organisations (NGOs).

Menstrual Hygiene Management is now also a topic of concern on the global health, human rights and water and sanitation agendas. This brief will present the evidence and current knowledge of these and more aspects of MHM, with special focus on adolescent girls in low-income settings.

POOR MHM AND THE HEALTH EFFECTS

MHM has become a health concern due to the associations between poor MHM and adverse health effects. Among the negative health effects are Reproductive Tract Infections (RTIs) which are common and predominantly found in developing countries [2].

In a recent review of MHM studies, Sumpter and Torondel [1] found that poor MHM is mainly associated with the RTIs called ‘endogenous infections’, including bacterial vaginal infections (causing vaginal odor, discharge, and pain) and Vulva Vaginal Candidiasis (or vaginal thrush, an infection of the vagina’s mucous membrane, causing itching, abnormal vaginal discharge and making sexual intercourse and urination painful).
The main reason for infections is the use of inappropriate materials to absorb the menstrual blood. Around the world, women use a variety of methods including sanitary pads, cloths, tampons, and menstrual cups, plant material, different paper material, etc. In India some women use old clothes, paper, ash, and husky sand, while some girls and women in rural Kenya use strips of old blankets. Besides being quite ineffective in containing the menstrual blood and thus causing embarrassing leaking, these methods also cause chafing, bad odor and poor vaginal hygiene.

Cloth needs to be washed and dried, but in many settings girls and women report that they do not dare to clean and dry menstrual materials outdoors, due to risk of embarrassments, and therefore re-use worn, damp or wet materials. In settings such as IDP\(^1\) camps, prisons, and disaster struck areas, women often lack water, soap, toilets as well as menstrual absorbent materials to perform proper MHM and are simply forced to wear and re-use whatever materials they have for long periods.

**MHM AND THE EFFECTS ON THE SOCIAL LIVES OF GIRLS AND WOMEN**

To explain the complex problem of menstrual related stigmas, we will briefly turn to a TED talk by the now famed ‘Menstrual Man’ from India, Mr. Arunachalam Muruganantham (Watch his TED talk here). Mr. Muruganantham found that his wife and other women of his family secretly used old rags as absorbing menstrual material and when he suggested his wife to instead use hygienic pads, she explained that she could not afford to buy these.

The husband decided to find out why the pads sold in stores were so expensive - but found nothing else than cotton inside the pads. He therefore decided to design a low-cost menstrual pad affordable to his wife and rural women of India.

\(^1\) IDP = Internally Displaced Persons
Menstruation is a taboo in Indian culture, so during the process of designing, testing and innovating a menstrual pad, Mr. Muruganantham was left by his ashamed wife, fired from his work, ostracized by his village and labeled crazy because of his ‘unnatural interest’ in menstruation.

In some cultures, menstrual blood is also associated with spiritual taboos and perceived to have special harmful powers. This creates fears in girls and women of exposing the menstrual blood. In parts of India and other Asian countries, menstruating girls and women are therefore not allowed to cook, to use the toilet, to visit temples or even to stay inside the family house – leaving girls very vulnerable during their periods. Menstruation therefore becomes synonymous with a social ‘curse’ in life (**Watch a small documentary about Indian girls and menstruation here**). In some parts of rural Ghana, girls are told to hide the blood, so it cannot be used for cursing them, causing infertility, abortions or damaging future marriages.

**MANAGING MENSTRUATION IN SCHOOL**

School-based research conducted in Egypt, Kenya and USA has shown that many girls perceive of menstruation as secretive, which causes them to isolate themselves [3-6]. Studies from Egypt, and Kenya highlight that such societal stigmatization also make girls fear harassment and assaults including sexual harassment by men and boys at schools, which forces them to use unsafe sanitation facilities e.g. hiding in bushes instead of using school toilets [7,8,3].

Several studies from low- and middle-income settings have also identified low levels of knowledge about the biological and emotional effects of menstruation in the girls [9,10]. As part of de-stigmatizing menstruation many MHM school initiatives therefore have menstrual education as their core activity.
In resource poor school settings, an infrastructural barrier also often exist for girls to practice good MHM: Private and safe places to clean, wash and change pads are often lacking. Toilets where girls can dispose of the menstrual blood, access to waste bins for disposing of pads and places to wash hands afterwards are essential. [10]

A review from 2010 from South-Asia showed, that MHM is rarely an integrated part of WASH school programs despite its links to school attendance and several important water and sanitation issues [6]. This means that menstruating adolescent girls in many low-income settings are missing out on several school days each month. This link between MHM and gender inequality in education has now become the main reason for many donors and development programs to invest in MHM. Several interventions which give girls access to sanitary pads have shown improvements in school attendance rates. [11]

**MENSTRUAL PRODUCTS**

MHM has also become part of a major global health industry. Governments, NGOs, private businesses and multinational enterprises, women’s’ groups and researchers around the world are now involved in developing, piloting, branding and marketing various menstrual products. This raises new questions of how the health sector can interact with commercial health actors.

The problems that previous products have faced in poor, low- and middle-income settings are that they are unaffordable, inaccessible, culturally unacceptable or environmentally damaging. Two scientific reviews [1,12] highlight that it is not possible to know whether any menstrual products can e.g. reduce rates of RTI’s in women. Nevertheless, the innovative products are definitely improving adolescent girls’ and women’s lives by enabling them to handle their menstruations easier.

In recent years, several initiatives have promoted _locally produced affordable pads_, cheaper and more accessible
than pads offered by multinational companies. This includes pads made of locally available plant fibers including cotton and bamboo, e.g. the ‘Sanitary pad movement’ in India with 350 women-led mini-factories.

Many menstrual projects also sell subsidized pads to girls and women who cannot afford to buy. Thus in India, the Government has since 2010 distributed subsidized pads to girls in rural areas as a way of improving school attendance [13]. Re-usable pads which must be washed and dried in sun light, are also promoted in several African settings including Uganda and Kenya, as a cheaper and already known and accepted method compared to disposable pads (see picture).

**THE ENVIRONMENTAL CHALLENGES OF MENSTRUAL WASTE**

Any type of disposable sanitary materials present an environmental challenge to waste systems - particularly in developing settings where waste systems are not designed robustly. This includes many schools which completely lack any menstrual waste collection systems [14]. Pads are thus disposed of in any practical way including carrying it home and burning it secretly in backyards, throwing it into toilet pits to hide it or simply dumping it in public space, causing serious environmental pollution.

A global review from the Stockholm Environment Institute on menstrual waste management shows that menstrual waste thrown into toilets cause expensive toilet break downs and sewage blockages in many Asian, African and South American towns and cities [14]. Biodegradable pads have therefore been invented (see picture), but challenges still remain with large amounts of menstrual waste not being collected and disposed safely. MHM is therefore also a central waste and environmental issue.

Lastly, the ‘menstrual cup’, an old invention marketed in the West so far, has been re-branded as a new environmentally friendly and cheap alternative to the sanitary pads in low
and middle income settings. The menstrual cup is a bell shaped cup made of silicon which is inserted into the vagina to collect the menstrual fluid (see picture above).

Pilot studies done in Kenya, Nepal and Uganda on acceptance of the menstrual cup show that women and school girls prefer the menstrual cup over all other methods because it was safe, economical, convenient and easy to use. The on-going critique of this product has been the aggressive marketing campaigns used by the multinational producing companies. Also, the preconditions of water and basic hygienic conditions to manage and clean the cup, means that many women in poor and uncertain settings cannot use this method.

LOOKING AHEAD: HOW TO ENABLE WOMEN TO MANAGE THEIR MENSTRUATION BETTER?

• **KNOWLEDGE:** Social and cultural taboos about menstruation need to be addressed: Men (husbands and fathers) should also be engaged in this, e.g. through school-based reproductive and menstrual education programs. There is good evidence that educational interventions can improve MHM practices and reduce social restrictions for adolescent girls.

• **SANITATION AND SCHOOLS:** Creating proper and private sanitary facilities for girls at home and in schools is of high priority. Girls need privacy, water, soap and places to dispose the menstrual waste. Schools play a central role in this, which will also keep adolescent girls in schools and thus facilitate equality and empowerment of girls and women.

• **MENSTRUAL HYGIENE IS NOT JUST A HEALTH ISSUE!** Menstrual hygiene is about much more than health: There is a need for including women’s rights experts, educational authorities and sanitation engineers in the MHM discussions. Women have the right to good MHM, they need safe environments, high-quality
Menstrual Hygiene

Menstrual Hygiene Management (MHM) is an overlooked but emerging Global Health issue of high importance to girls and women all over the world, but in low-income settings in particular.

Poor MHM can have serious negative impacts on girls’ and women’s social lives and educational opportunities.

Poor MHM can lead to skin and vaginal infections which can cause later reproductive problems.

Global health programs must integrate MHM. Schools have special responsibilities and capacities to improve MHM facilities and education of teenage girls.

Robust research is needed on the health impacts of MHM, including high quality interventions on menstrual products to determine safety, feasibility and acceptance.

affordable menstrual products, and proper sanitation technologies to handle their menstruations in safe ways.

CONCLUDING REMARKS

We briefly return to Mr. Muruganantham from India: After 5 years of experiments with designs of low-cost menstrual pads, the man was rewarded several design, innovation and women’s (!) prizes for his contributions and stamina. He heads a non-profit organisation which builds small women-led pad-factories, so women can produce affordable pads in their own villages. His mission is to go world-wide with his invention. His wife came back and is educating school girls on menstruation and breaking menstrual taboos every day. This man’s story encapsulates the key message here: Talking openly about menstrual taboos, researching, and supplying girls and women with proper methods and knowledge to manage their menstruations should be a major global health concern.

KEY REFERENCES


