



Global Research Update # 1

- Shoor (2017) in a cross-sectional study of 452 adolescent school girls in India [A study of knowledge, attitude, and practices of menstrual health among adolescent school girls in urban field practice area of medical college, Tumkur](#) concludes that girls had unsatisfactory knowledge, but good practice regarding menstrual health. Findings present that just 37.39% girls were aware of the occurrence of infection when the vagina is not being regularly cleaned during menstruation and only 31.42% had knowledge about menstruation before the start of first menstrual period and 57.08% reported that the best sanitary products are pads.
- Hagander and Velin (2017) in a Master's thesis [Identifying and Addressing the Challenges of Mainstreaming the Menstrual Cup in Uganda](#) discuss what barriers might be present for higher demand for menstrual cups. Moreover, affordability, acceptability, and limited awareness among Ugandan girls and women as well as among decision-makers on higher levels are pointed out. It is found that challenges associated with creating availability is due to poor infrastructure, the complication of finding service providers tending to marketing this product and facing the financial risk, regulations, and the lack of information.
- Kakani and Bhatt (2017) in a study from Gujarat, India [Study of adaptability and efficacy of menstrual cup in managing menstrual health and hygiene](#) aims towards assessing the adaptability and the effectiveness of menstrual cup (MC) by inexperienced users who have been using sanitary pads/tampons/cloth as conventional methods. Subjects were given menstrual cups as well as detailed explanation and information about the use of this product. Findings show that participants have a preference for MC because of its comfort, dryness, and less odor. Moreover, 80% and 90% participants found that Insertion and removal were easy respectively. Leakage was a problem for 3-6% and few side effects like rashes, dryness or infection were reported.
- Salau and Ogunfowokan (2017) in a cross-sectional descriptive study of 420 school girls and 10 school nurses in Nigeria [Pubertal Communication Between School Nurses and Adolescent Girls in Ile-Ife](#) show that school nurses paid more attention to physical body changes, menarche, and menstrual hygiene as contents of pubertal communication rather than contraception, prevention of sexually transmitted infection, and teenage pregnancy prevention. Materials for communication were reportedly lacking in many of the schools, and school management reportedly censors pubertal information. The researchers call for better materials and encouragement to give comprehensive pubertal education irrespective of values and beliefs.
- Girod et al. (2017) in a qualitative study of girls in informal settlement primary schools in Nairobi [Physical, Social, and Political Inequities Constraining Girls' Menstrual Management at Schools in](#)



[Informal Settlements of Nairobi, Kenya](#) show that access to MHM materials was inadequate both where they were provided by public schools and where they were not supplied at all by private schools. Although sanitation facilities were available, their design was inadequate for Muslim girls to perform ablutions.

- Jenkins et al. (2017) in a qualitative study in Canada [“Clean and Fresh”: Understanding Women’s use of Vaginal Hygiene Products](#) note that vaginal hygiene products in North America are a 2 billion dollar industry which focuses on freshness and cleanliness, and argue that this marketing contributes to constructing female genitalia as unclean. The study concluded that some of the products advertised potentially are harmful to health including increased susceptibility to infections.
- Mucheras and Thomas (2017) in a qualitative study of 150 school girls in Kenya [Reducing barriers to primary school education for girls in rural Kenya: reusable pads’ intervention](#) compare girls who had not experienced menarche with who had. Menstruating girls were grouped into those provided with pads and those without pads. Those who received pads had similar comfort levels at school to those who had not passed menarche. Compared to those who had not received pads they experienced less negative influence on school attendance and work, lower levels of wanting to hide their menstrual cycle from friends and family, higher levels comfort at home and school and lower levels of fear.
- Balls, E et al. (2017) in a policy brief for SHARE [Menstrual Hygiene Management- Policy Brief](#) summarizes research on MHM and concludes that there is a need for further research on MHM/urogenital infections, vulnerable groups (such as refugees), on the impact of different interventions in schools (for example, what combination of hardware and software works best) as well as on how to measure progress.



Global Research Update # 2

- Bello, Bamidele M et al. (2017) in a qualitative study [Adolescent and Parental Reactions to Puberty in Nigeria and Kenya: A Cross-Cultural and Intergenerational Comparison](#) finds that adolescents' are focused on their changing bodies and emotions, whereas their parents are focused on their children being interested in SRHR, as well as how to teach them life skills to deal with this, especially since they do not themselves have the necessary knowledge.
- FSG (2016) [Menstrual Health in Kenya | Country Landscape Analysis](#) summarizes the situation and existing interventions by different actors according to an analytical framework of 'MHM enablers' which include education, products, sanitation and policy. It highlights the need for alignment of activities by different actors for scaleup and also refers to ongoing six- arm randomized controlled trial in Kenya by Population Council in 100 schools in order to discern the impact and significance of provision of both hardware and software interventions for school girls.
- McGinnis et al. (2017) in [A Systematic Review: Costing and Financing of Water, Sanitation, and Hygiene \(WASH\) in Schools](#) covering LMICs notes that one of the barriers to implementing WASH in schools is the lack of costing, in particular of software aspects. This information is less available for school than for community WASH. The study finds only one estimate for costing related to infrastructure for MHM.

Global Research Update # 3

- Yamada, K. and Kamagata, E (2017) in Japan [Reduction of Quality-Adjusted Life Years \(QALYs\) in Patients with Premenstrual Dysphoric Disorder \(PMDD\)](#) examine medical records of women with untreated Premenstrual Dysphoric Disorder (PMDD), attempted to quantify the effect of PMDD in terms of quality-adjusted life years (QALYs). They found that untreated PMDD, over the course of a woman's lifetime, leads to a loss of approximately 3 QALYs.
- Morgan, C et al. (2017): [Water, sanitation, and hygiene in schools: Status and implications of low coverage in Ethiopia, Kenya, Mozambique, Rwanda, Uganda, and Zambia](#) in a multinational, cross-sectional survey of WASH in 2270 schools in six Sub-Saharan African countries found that



fewer than 20 percent of schools in each country had at least four of the recommended menstrual hygiene management services – separate-sex facilities, clean water supply, presence of a door, lock on the door, and a waste disposal bin. Only 7 percent of schools met the recommended girl-to-latrine ratio (compared to 36 percent for the recommended boy-to-latrine ratio), 9 percent had a water supply available for washing, 22 percent had a door, and 31 percent had a waste disposal bin of some sort available for girls. (The study drew its indicators from multiple existing international guidelines, including [World Health Organization guidelines for schools in low-cost settings](#).)

- Kakani, C.R. and Bhatt, J.K (2017): [Study of adaptability and efficacy of menstrual cup in managing menstrual health and hygiene](#) examine acceptability and performance of menstrual cups among 150 women of reproductive age in India found that insertion was easy for 80 percent of women, removal was easy for 90 percent of women, and that 90 percent of women preferred the menstrual cup over their previous method of menstrual hygiene management. Adverse events – dryness, allergy, rash, or infection – were reported in 7.3 percent of women (11 out of 150) over the course of three menstrual cycles.
- The [PMA2020](#) released a report on the state of menstrual hygiene management in Kenya in 2016, which found that while 87 percent of Kenyan women report using sanitary pads as their main MHM material, and over 80 percent of women in both rural and urban areas report having a clean, safe, and private MHM facility, only 46 percent of Kenyan women report having everything they need to manage their menstruation.
- De Sanctis, V et al. (2017) : [Dysmenorrhea in adolescents and young adults: a review in different country](#) in a review article examining dysmenorrhea in adolescents across multiple countries found that while dysmenorrhea diagnoses and reported severity of symptoms varied widely across countries, many girls did not receive professional medical care or treatment for their symptoms, and relied on primarily on self-medication, their mothers, and their peers to cope with their symptoms.



Global Research Update # 4

- Schmitt et al. (2017) in two qualitative assessments in Myanmar and Lebanon [Understanding menstrual hygiene management challenges facing displaced girls and women](#) finds that there are four main issues required to be addressed: 1) Changes in menstrual hygiene practices after displacement; 2) Inadequate, safe and private space for changing menstrual materials and disposal; 3) Insufficient guidance provided by response staff to beneficiaries on the basis of MHM; 4) Inadequate cross-sectional leadership and coordination on the content and training of MHM responses. This study also points out the importance of continuous consultation with girls and women for applying MHM responses according to their needs as well as cultural and local contextual background.
- Caruso BA et al. (2017) in a qualitative study in rural Odisha, India [Understanding and defining sanitation insecurity: Women's gendered experiences of urination, defecation and menstruation](#) realizes that sanitation insecurity is not solely on the basis of inaccessibility to facilities as because of expected family roles, women cannot fulfill their sanitation needs. So, sanitation insecurity is defined by four dimensions of socio-cultural context, physical environment, social environment and personal constraints and each of this issue contains gender as a central feature. Sanitation programs should include delivering messages that address sanitation constraints that women face due to their gender as well as socio-cultural environment.
- Sommer M et al. (2017) in a policy review of twenty-one countries [Attention to menstrual hygiene management in schools: An analysis of education policy documents in low- and middle-income countries](#) finds that current education and gender policies provide inadequate explanation of MHM. The newly developed WASH guidelines in schools can be a practical example for education sectors to develop MHM -related policies and programs in school settings.
- Barman A et al. (2017) in a scientific paper [Natural and Sustainable Raw Materials for Sanitary Napkin](#) discusses the global issue of usage of non-biodegradable menstrual products due to their contribution towards increasing emission of carbon footprint since by using disposable menstrual materials, each menstruating female would produce at least half a kilo of waste a month which can cause a serious environmental problem. To reduce this impact, the paper suggests shifting towards production of eco-friendly and sustainable menstrual hygiene products which have low carbon footprint. The author also takes menstruating female



population in India as an example, and illustrates how this amount of population can damage the environment by just using reusable pads.

Global Research Update # 5

- provide more complete and scientifically based information.1 has the obligation to it
- Maurya A et al. (2017) in a qualitative analysis of upper primary science textbooks of eight states in India '[Menstruation and Textbooks](#)' find that only four out of eight education board textbooks have information about menstruation. These four textbooks just consider sanitary napkins and cloth as ways of management of menstruation and do not mention menstrual cups or tampons as MHM methods. Furthermore, most textbooks only emphasize biological processes and medical aspects of menstruation, with only one mentioning socio-cultural dimensions. The authors suggest that the educational system has the obligation to provide more complete and scientifically based information.
- Gautam Y et al. (2017) in a mixed-method study of practices and perceptions among school girls towards [Chhaupadi: A menstrual taboo in far western Nepal](#), shows that people are aware of the adverse consequences of this practice, but hold strong beliefs that they will be subject to deep misfortune if they change their practices. The study notes that, in this transitional phase, further awareness raising in the community and schools is necessary.
- [Columbia University and International Rescue Committee](#) have produced a toolkit for MHM in emergencies, which was launched 23 October. It is based on case studies in Myanmar and Lebanon and tested in refugee camps in Tanzania, establishing a very comprehensive (94 pp) source of suggestions.

Global Research Update # 6

- The UN has released [The Sustainable Development Goals Report 2017](#). Under GOAL 4 (quality education) it notes that, in 2011, less than half of schools in sub-Saharan Africa provided access to drinking water, and just 69 percent were provided with toilets. Many did not have separate sanitation facilities for girls and boys. GOAL 6 (Water and Sanitation) also has a target which



calls for providing facilities with attention to the special needs of women and girls. However, progress is not reported for that target.

- Sakala CB et al. (2017) in a cross-sectional study with mixed method approach in two schools in Lusaka, Zambia seeks to determine [Is menstrual hygiene management an issue of school absenteeism](#). The findings are that the majority of schools are without proper MHM facilities. 93.6% and 66.7% of girl students report that menstrual issues result in low concentration in school and missing lessons respectively. The main reasons given are feeling shy and stressed thinking about pain and leakage. The authors conclude that the findings reflect students' lack of knowledge on MHM in school, and suggest including menstrual hygiene education at primary and secondary school curricula.
- Kågesten AE et al. (2017) in a cross-sectional survey of very young refugee adolescents (VYA) aged 10-14 years from Somalia (in Ethiopia) and Myanmar (in Thailand) describe [transitions into puberty and access to sexual and reproductive health information](#). The study finds inadequate knowledge regarding SRH as well as insufficient accessibility to MHM supplies for Somali VYAs. VYAs express closeness to their parents/guardians and that they are their main source of SRH information. The study suggests that providing education at this early stage, going beyond a sole focus on risk factors related to SRH outcomes, and preferably considering the role of parents/guardians, would be an opportunity to impact later SRH outcomes.
- Agol D et al. (2017) in a quantitative study assessing the role of [sanitation and water supply in schools and girls' educational progression](#) analyzed data from 10,000 schools in Zambia, to test whether the presence of water and sanitation facilities in schools can increase female-to-male enrolment ratios and reduce repetition and drop-out-ratios for girls, especially at ages when they menstruate. The findings confirm possible linkages between adequate toilets in schools and educational progression of girls, especially in grades 5-8. No linkage was found with improved water.
- Hennegan (2017) in an overview article [Menstrual Hygiene Management and Human Rights: The Case for an Evidence-Based Approach](#) argues for the importance of an evidence based approach to prevent the harm that poor MHM causes. The author argues for better exchange of knowledge between academic and programmatic actors in order to develop approaches to



MHM that are responsive, utilizable and sensitive to local needs. The author cautions against focusing attention only on hypothesized correlations between interventions and outcomes (such as education or employment), and failing to improve MHM if evidence does not support those correlations.

Global Research Update # 7

- Mason L et al. (2017) in a qualitative study in three states in India [‘We do not know’: Exploring boys perceptions of menstruation](#) aims at evaluating the potential of boys in supporting their sisters. The results show that despite the fact that understanding the concept of menstruation was found to be challenging for boys due to secrecy around menstruation as well as inaccessibility to correct information, they seemed eager to gain knowledge about menstruation and expressed their support for the need for good MHM. The study concludes that this educational program should be included as the basic component of comprehensive sexuality and life skills education.
- Baker KK et al. (2017) in a cross-sectional study, population-based surveillance survey, [From menarche to menopause: A population based assessment of water, sanitation, and hygiene risk factors for reproductive tract infection symptoms over life stages in rural girls and women in Odisha, India](#) finds that accessibility to WASH facilities as well as hygiene practices were correlated with self-reported Reproductive Tract Infection (RTI) symptoms in rural Indian girls and women from different reproductive life stages. This study highlights the need for interventions to solve WASH needs of women across all reproductive life stages, representing from menarche to menopause.
- Khan et al. (2017) in a mixed-methods field-test study in Belize [optimizing household survey methods to monitor the Sustainable Development Goals targets 6.1 and 6.2 on drinking water, sanitation and hygiene](#) seeks to determine whether Multiple Indicator Cluster Surveys (MICS) methods can be applied to the factors (including MHM) that impact upon the monitoring targets 6.1 and 6.2 of the SDGs. As a component of this study, women age 15-49 in Stann Creek district were interviewed in order to understand their question comprehension and response processes. Regarding MHM, results indicate that inquiring about Menstrual Hygiene is acceptable to interviewees, however, some clarification and probing were needed.



- Ewerling F et al. (2017) apply demographic and health survey data from 34 African countries targeting women aged 15-49 years and compare SDG indicators with the Gender Development Index (GDI): [The SWPER index for women's empowerment in Africa: Development and validation of an index based on survey data](#) . On the basis of these, they suggest a Survey-based Women's empowerment (SWPER) index which has three aspects of empowerment, namely attitude to violence, social independence, and decision making. All these three dimensions closely correlate with the GDI seeing that social independence was connected to coverage of maternal and child interventions; attitude to violence and decision making were associated with the use of modern contraception. Moreover, this index makes comparison possible within-countries and between-countries, as well as time trend analysis.
- Rafique N et al. (2017) in a cross-sectional study in Saudi Arabia to determine [prevalence of menstrual problems and their association with psychological stress in Saudi young female students studying health sciences](#) indicate that 91% of students experienced some kind of menstrual problem. This situation was found to be significantly associated with High Perceived Stress (HPS) particularly amenorrhea, dysmenorrhea, and premenstrual syndrome.

Global Research Update # 8

- Miiro et al. (2018) in a cross-sectional, mixed methods study [menstrual health and school absenteeism among adolescent girls in Uganda \(MENISCUS\)](#) includes 352 girls in secondary schools in Entebbe, Uganda, but also has a separate arm studying boys and circumcision. Methods include diaries, questionnaires and interviews. Findings are that boys and girls have similar rates of absence (2 days during the last month), although the reasons vary (for boys, the prime reason is inability to pay school fees, for girls, it is pain). Generally, girls miss school on 28% of period-days, in comparison with 7% of non-period days. Findings also highlight that girls' education was not only influenced by absence from school but also absence from class. The primary reported reason for absenteeism was pain; other main reasons included feeling unwell, fear of leaking blood, lack of access to protection methods, and lack of privacy for MHM at school. All policy makers cited menstruation and poverty as barriers to school attendance. 86.9% of girls use disposable manufactured sanitary pads in this setting, but only 1.1% report adequate MHM during their last period (absorbent material, adequate disposal, access to water and soap, and lack of anxiety about their next period). Both newly-menstruating and experienced girls lacked knowledge and confidence in effective MHM; lack of



confidence in MHM found to be due to disengagement between girls and their guardians and inadequate protection methods. To improve MHM in school settings, girls suggested addressing hardware issues including provision of MHM materials such as sanitary pads and analgesics and improvement of facilities to assure privacy. At the end, the authors recommend the requirement of an intervention for addressing both psychosocial and physical aspects of menstruation and suggest introduction to new methods such as the re-usable menstrual cup, would also be potentially effective and acceptable.

- UNESCO, with UNAIDS, UNFPA, UNICEF, UNWomen and WHO as co-publishers (2018), has produced the second edition of [International technical guidance on sexuality education](#). This guidance builds on the first edition (2009) which defined the concept of 'Comprehensive Sexuality Education' (CSE). It includes a wide range of guidance including many references to MHM.
- Aklilu Yesuf et al. (2018) in a cross-sectional institution based study in Ethiopia [dysmenorrhea among University Health Science Students, in Northern Ethiopia: Impact and Associated Factors](#) find that a majority (71.8%) of participants experienced dysmenorrhea and more than half of students had a family history of dysmenorrhea. The results also indicate that length of menstrual cycle, duration of menses, and alcohol drinking habits were associated with dysmenorrhea. In this study, self-medication was practiced among 78.2% of students. Ibuprofen, resting in bed, drinking hot water and tea were mentioned as common practices to relieve pain.
- Gupta p et al. (2018) in a descriptive cross-sectional study in India [Knowledge and practices pertaining to menstruation among the school going adolescent girls of UHTC/RHTC area of Government Medical College, Kota, Rajasthan](#) find that a majority of girls had gained the knowledge about menstruation from their mother, and more than half of girls acquired the knowledge from the mass media (Radio, TV), and conclude that both mothers and media play an important role in improving girls' knowledge and skills on MHM.
- Sveinsdóttir H (2017) in a cross-sectional explorative survey study of 319 Icelandic women [Menstruation, objectification and health-related quality of life: A questionnaire study](#) applies questionnaires related to self-objectification and health related quality of life (HRQOL). Findings are that secrecy surrounding menstruation, experience of body shame and pain during periods



are associated with worse mental HRQOL, and that believing in limiting role and the unpleasantness of menstruation, having experience of body shame, taking medication for menstrual pain and not holding a university education are predictors of worse physical HRQOL.

Global Research Update # 9

- Hagander M & Velin S (2017) in their Master's thesis [Identifying and Addressing the Challenges of Mainstreaming the Menstrual Cup in Uganda](#) do a literature review and a representative single case study identifying challenges in creating demand for the menstrual cup: affordability, acceptability, and limited awareness among both women and decision-makers. Challenges in creating availability include poor infrastructure, difficulty in finding service providers willing to take on the financial risk, regulations, and lack of information. Several steps are suggested to overcome the challenges: awareness-raising (among women/decision-makers); solving regulatory issues to increase affordability and availability, involvement of influencers for advocacy, and implementation of a partial payment model to overcome barriers of a perceived high price. An incremental approach is suggested, starting in Kampala and then expanding regionally.
- Christoforou, A reports on a qualitative study through in-depth interviews with 20 Greek Cypriot women (23-73 years) living in Cyprus: [womanhood, reproduction, and pollution: Greek Cypriot women's accounts of menstruation](#). The study aims to explore the roles of religious ideology and the culture on women's attitude towards their bodies and their understanding of 'being a woman' and 'having a woman's body'. The author finds that women's views of menstruation remain largely unchanged across generations, indicating a strong cultural association between women and impurity and the compulsory nature of heterosexuality, marriage and motherhood.
- Ameade EPK et al. (2018) in a cross-sectional study including 293 female participants: [Prevalence of dysmenorrhea among University students in Northern Ghana; its impact and management strategies](#) find that 83.6% of students experience dysmenorrhea, and that 61.2% find it causes disturbance of their daily activities. Most affected was attendance of lectures. Reported symptoms included: pain (more than half), changes in the breasts (39.1%) lethargy (21.7%), nausea (20.1%), loss of appetite (19%), headache (18.5%), and diarrhea (15.8%). 41.2% of those who experienced pain applied no method to ease it. Of those who did, the most common was bed rest (52.8%), allopathic medicines (45.8%) (78.9% are inclined to



take medications without prescription). Lower chronological and gynaecological age were associated with dysmenorrhea; irregular menstrual flow was significantly associated with severe dysmenorrhea.

- Budhathoki SS et al. (2018) in a mixed-methods study: [menstrual hygiene management among women and adolescent girls in the aftermath of the earthquake in Nepal](#), investigates the experiences and perceptions regarding menstruation of 117 females from three villages of Sindhupalchowk district. Findings are that menstrual hygiene was the sixth highest perceived need, and listed as an immediate need by 18.8% of the respondents, yet none of the participants received MHM products as relief materials in the first month of after the earthquake. Reusable sanitary cloth (mostly made from old cloth) was used by 66.7% of respondents before the earthquake, and remained a popular choice post-earthquake (76.1%). Disposable pads were the preferred MHM product (77.8%), perceived to be clean and convenient to use, but only 23.9% of respondents actually used them post-earthquake, due to their unavailability. Reusable sanitary pads were seen by 73.5% as a sustainable choice.
- Arafa AE et al. (2018) report on population-based, cross-sectional study with a sample of 4122 young girls from Beni-Sauf city: [prevalence and patterns of dysmenorrhea and premenstrual syndrome \(PMS\) among Egyptian girls \(12-25 years\)](#). They find a high prevalence of dysmenorrhea (92%) and PMS (86.3%) as well as an association between these two (girls who got PMS were more likely to experience dysmenorrhea, and its duration was longer). Risk factors for dysmenorrhea and PMS were found to be increased gynaecological age. The most common symptoms were backache (63.3%), generalized aching (62.4%) and nervousness (43.5%). Family members (71.9%) were the main source for seeking information. For pain relief, more than half of girls drink herbal fluids and/or taking analgesics.



Global Research Update # 10

- Vanleeuwen et al. (2018) in a literature review of 51 articles: [Improving menstrual hygiene management in emergency contexts: literature review of current perspectives](#) grouped literature into six categories: supportive menstrual materials, sanitation infrastructure, knowledge and education, health, social context, and gaps between policy and practice, and current guidelines. This review indicates that there is still a lack of evidence on the application of interventions for the components required in MHM in the field. Moreover, though dignity kits often include both reusable items, such as clothing, buckets, and shoes, and disposable materials, such as sanitary pads, there is a lack of renewing supplies on a monthly basis. Besides, although there is an agreement about assessment of women and girls needs before designing an intervention, the organizations tended to distribute mainly disposable menstrual materials and no studies about new products were found with a focus on humanitarian contexts. Furthermore, the gaps still exist about which indicators can be used to monitor and evaluate MHM interventions as well as lack of clarity about how to identify key components of an MHM response in different emergency settings. The authors also provide some recommendations on how to address these gaps.
- Brunson, J (2017) reports on a qualitative field research through semi-structured interviews with 14 women as well as 3 interviews with health practitioners in a peri-urban, multi-ethnic region of two districts, namely Nuwakot and Kathmandu in Nepal after the 2015 earthquake: [Maternal, Newborn, and Child Health After the 2015 Nepal Earthquakes: An Investigation of the Long-term Gendered Impacts of Disasters](#). The study aims to explore if the conditions of disaster recovery in Nepal experienced at the household level posed new or worsened existing challenges for maternal, newborn, and child health (MNCH). Throughout the investigation, the author identified gender-specific challenges such as experiencing a shortage of sanitary products to manage menstruation that women face in combination with experiencing lack of adequate shelter, clothing, food, or clean water.
- Tiwari, A et al. (2018) report on a community-based, cross-sectional study with a sample of 141 adolescent school girls with the age-range from 12 to 17 years from Rajnandgaon, India: [Assessment of knowledge and practices regarding menstrual hygiene among adolescent girls of Government higher secondary school, station Murhipar, Rajnandgaon \(C.G.\)](#). The results show that although the majority of girls (85.8%) were aware of menstruation before reaching menarche, 87.2% of them did not know about the source of menstrual bleeding and only 2.1%



used sanitary pads while 37.6% used cloth pieces and just 29.8% changed their cloths/pads three and above times per day. Data also indicated that the mother acted as the first informant for more than half of the girls, and a majority of girls (90.1%) practiced restrictions during menstruation. Regarding their hygiene practices, 98.6% of the girls took a daily bath with soap during menstruation and 34.7% of the girls disposed of their used cloths and sanitary pads by burning (34.7%), followed by burying (25.5%) and flushing (17.7%). The study suggests teaching mothers about menstruation and hygiene practices as they are often the first informant.

- Chen et al. (2018) report on analyzing data collected from an open-ended question within a cross-sectional survey study conducted in the United States using a qualitative thematic analysis with a sample of 225 women: [What women say about their dysmenorrhea: a qualitative thematic analysis](#). Six descriptive themes associated with women's salient thoughts regarding dysmenorrhea experiences were identified: (1)The dysmenorrhea symptom experience varied among the women, (2)The dysmenorrhea symptom experience varied across time, (3)A variety of factors influenced the dysmenorrhea symptom experience, (4)Dysmenorrhea symptoms could have a negative impact on the women's daily lives, (5)Dysmenorrhea was not seen as a legitimate health issue by the women, health care providers, or society, and (6)Treatment for women with dysmenorrhea varied in acceptability and effectiveness. The authors conclude that many women in this study experienced pain at multiple sites and reported a variety of gastrointestinal symptoms and point out the importance of dysmenorrhea symptom assessment and the development of personalized interventions to support dysmenorrhea management. The authors also suggest future studies evaluate the applicability and psychometric properties of the interference scales of symptoms on women with dysmenorrhea.
- Morowatisharifabad et al. (2018) in a qualitative analysis with directed content analysis approach with 32 participants including students, mothers, school associates, and health educators of 5 Secondary schools in Bam city, Iran: [Effective factors on menstrual health among female students in Bam city: a qualitative study](#) identified two categories of 'easy interaction' and 'inappropriate adaptation' facilitating or preventing change of MHM behavior. 'Easy interaction' was defined as consisting of four sub-categories: (1) Easy access to sanitary pads, (2)Appropriate school education, (3)Easy access to health and therapeutic services, and (4)School flexibility on menstrual issues. 'Inappropriate adaptation' was defined as containing nine sub-categories:(1)Inadequate facilities for sanitary pad disposal, (2)Lack of access to informed people about menstrual issues, (3)insufficient attention to menstrual problems (they are assumed to be normal), (4)Feeling ashamed, (5)The high cost of menstrual health (the high



costs of treatment and doctor's visits), (6)self-medication with traditional medicines, (7)Inadequate self-directed education including CDs, books, booklets, programs in the media, and pamphlets, (8)lack of awareness and trust in health center staff, (9)following mothers' and teachers' advice instead of being referred to midwives or doctors in case of experiencing menstrual issues. The authors conclude that different factors impact upon menstrual health of girls, and suggest the importance of identifying of each of these factors to apply the most appropriate methods for menstrual health improvements.

- Skandhan et al. (2018) in a case-control study of 110 blind girls and 102 non-blind girls in the age group of 15-24 years from the state Gujarat and Bombay city: [Menarcheal age of blind girls](#) attempts to investigate the effect of light (intact vision) on menarcheal age found out that blind girls reach menarche nine months earlier than the control group with statistically significant difference and the results also indicate that there was no any statistical difference among blind girls who were blind from birth and those girls who became blind at a later age.
- The Inter-Agency Standing Committee (IASC) has updated Women, Girls, Boys and Men. Different Needs — Equal Opportunities: Gender Handbook in Humanitarian Action in 2006: [The Gender Handbook for Humanitarian Action](#). This revised version built upon lessons learned by the humanitarian community and reflects the main challenges faced in ensuring that gender is adequately integrated into humanitarian planning and programming.
- Srivastava, S (2018) reports on a cross-sectional study of 25 adolescent girls of age between 10 and 19 with urinary complaints attending gynecology ODP at a private clinic in Bhopal, Madhya Pradesh, India: [Analytical study of urinary tract infection in adolescent girls](#). The results indicate that many girls had more than one complaint. The most common complaint was menstrual abnormality (44.8%), followed by pregnancy (19.8%) and UTI (9.1%). Regarding urinary symptom, 60% of girls complained about burning during urination, followed by frequency (40%), pain (36%) and blood in urine (12%). The data also indicate that 32% of girls practiced poor menstrual hygiene (indicated as full-body bathing, and use of non-disposable pads) and 60% of them had a positive urine culture which the most commonly found to be E.coli followed by Staphylococcal group.
- Tofaris, E. and Dolan, C (2018) in a trial over 24 months in a partnership with Plan International Uganda across eight schools in Kamuli District with 1,008 girls participating: [Keeping African Girls in School with Better Sanitary Care](#) aimed to investigate if school attendance would



improve when girls were given (a) reusable sanitary pads, (b) adolescent reproductive health education, (c) neither, or (d) a combination of both. Results indicate that the provision of better sanitary care as well as reproductive health education over the course of two years tended to improve school attendance as there was an increase of approximately 17% in school attendance. Hence, the research suggests inclusion of adequate and gender-sensitive puberty education in the school curriculum can improve school attendance.

- Upadhyay et al. (2018) report on a cross-sectional study with a sample of 310 female adolescent students at secondary and higher secondary school in Mahisagar district: [Knowledge and attitude of menstruation hygiene, contraception and sexual transmitted disease among school girls of Lunawada, Mahisagar, Gujarat, India](#). The results indicate that a majority (71.4%) of participants believe that menstruation is natural process, more than 60% of participants see menstruation as becoming capable of child bearing, and 18.4% were not aware of the physical changes during puberty. Around 69.7% of respondents followed cultural and ritual restrictions during menstruation. Regarding STDs, 12.9% did not know about the symptoms of STDs: lower abdominal pain was reported to be the most common sign of STDs followed by fever, redness of skin, itching sensation and burning sensation with urination. Moreover, 79% of participants did not know about preventive measures for STDs and only 14.5% believed that STDs transmit through coitus. The main source of information regarding menstruation was the mother, for STDs it was both teachers and mothers. With regard to knowledge of contraception, 75.2% of the participants had knowledge of contraceptive methods and about half were aware of condoms and oral pills. Friends and mothers were considered as the most frequent source of information about contraceptive methods.
- Mohib et al. (2018) in a cross-sectional study with a random sampling of 448 female students in three universities in Karachi, Pakistan: [Premenstrual Syndrome: Existence, Knowledge, and Attitude Among Female University Students in Karachi](#) aimed to identify the prevalence of, as well as knowledge and attitude of female students, towards premenstrual syndrome (PMS) and to assess the gap between self-perceived PMS and actual PMS. The clinical criteria of the American College of Obstetricians and Gynecologists (ACOG) for PMS were used for the assessment. The majority (96.4%) of the students were aware of PMS, while only 19% knew about premenstrual dysphoric disorder. The self-reported prevalence of PMS was 79.5%, whereas the prevalence (using the ACOG criteria) was 23.9%. Common symptoms were irritability, angry outbursts, depression, breast tenderness, and gastrointestinal problems. More than half (60.4%) of the participants reported PMS disturbed their normal routine, while 81.5%



reported that stress exacerbated their symptoms. The majority (77.5%) of women believed PMS was a significant issue to be discussed but 49.4% did not seek treatment for their PMS. Analgesics (41.7%) and doing exercise (17.7%) were the most common methods used to relieve PMS.

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- Sommer et al. (2018) in a multiple methods study: [pilot testing and evaluation of a toolkit for Menstrual Hygiene Management in Emergencies in three camps hosting Burundian and Congolese refugees in Northwest Tanzania](#) find many positive results. Training at both the onset and throughout the duration of the toolkit pilot was of critical importance. Development of a trainer's guide would be useful. Cross-sectoral including non-WASH actors helped avoid the perception of MHM as a standalone activity which required additional work or new ownership, and was an eye-opener to many participants from various sectors. Waste disposal was one the areas with least change, and very problematic (surrounded by taboos, causing blockage of latrines or toilets). The authors also conclude that higher-level buy-in (such as cluster leadership level) would be important in further implementation.
- Oniyangi and Oyelami (2018) in a descriptive research study of 320 female students attending senior secondary schools in Iragbiji, Osun State, Nigeria: [Knowledge and Practices of Menstrual Hygiene among Female Secondary School Students in Iragbiji, Osun State](#) found that students do not have adequate knowledge of menstruation or of personal hygiene, do not adequately use of pad/tissue paper/other materials during menstruation or properly dispose of materials. The authors recommend parents, teachers and health educators get involved in educating girls about menstruation and breaking the silence, and that government reduce tax on menstrual products and make it very affordable for females.
- Rad et al. (2018) report on a descriptive cross-sectional study of 200 high school female students in Sabzevar city, Iran: [Association Between Menstrual Disorders and Obesity-Related Anthropometric Indices in Female High School Students: A Cross-Sectional Study](#). The findings indicate significant associations between menstrual disorders (metrorrhagia, oligomenorrhea, hypermenorrhea, hypomenorrhea, menorrhagia, polymenorrhea) and obesity indices (weight, arm circumference, BMI; waist circumference; hip circumference). No significant relationship



was found between age, age of menarche and menstrual disorders including metrorrhagia, oligomenorrhea, hypermenorrhea, hypomenorrhea, menorrhagia, polymenorrhea.

- Tran and Choi (2018) use a digitally embedded educational toy which is a playful interaction, going through the menstrual process, triggering audio and visual feedback: [Menstrual Maze: A Toy Exploring Public Engagement in Menstrual Health Education](#). 7 children aged 4-9 years and 6 parents interacting with the maze were observed and interviewed. Four themes emerge: (1) Positive parent-child physical engagement (2) Content may be too abstract or complex, (3) Adult prompting may lead to more child engagement with the content, and (4) Parents varied in levels of comfort and engagement.
- Kelly-Leigh Cooper on BBC (2018): [The people fighting pollution with plastic-free periods](#) reports on the damaging impact of disposable menstrual products on the environment and introduces environmentally-friendly alternatives such as Menstrual Cup as a solution and mentions how reusable products as sustainable options could help women and girls in developing countries as well as countries where prices of products have escalated.

Global Research Update # 12

- WoMena (Tellier, S & Hyttel, M) (2018) in a review paper: [Menstrual Health Management in East and Southern Africa: A Review Paper](#) aim to identify possible linkages to SRHR-related issues, and to provide an overview of MHM policies and programs in the ESA region, with a focus on education, school and community-based sexuality education, WASH, sexual and reproductive health, workplace support and humanitarian programming, as well as opening up the discussion regarding marginalized groups of women and girls such as disabled, prisoners and transgender men. It addresses barriers and enablers for scalability of MHM programs such as knowledge, attitudes, and cultural perceptions, availability of menstrual products and supplies and sanitation facilities, and policy. Furthermore, the review aims to identify research gaps both in terms of topics and methodological issues, and providing recommendations for how to address the gaps identified.



- WoMena in its [FAQs section](#) has provided answers to three common questions (1) Are Menstrual Cups acceptable to Muslims, (2) Does the use of Menstrual Cups increase the risk of toxic shock syndrome, and (3) Can you use a Menstrual Cup when also using an IUD.
- Fouly et al. (2018) in a cross-sectional/ quasi experimental study of 200 adolescent girls from both rural and urban preparatory schools in Asyut city, Egypt: [Exploring the habits followed among adolescents and their families toward treatment for delayed menstrual cycle at puberty](#) found significant changes in parents' opinions towards treatment choices for delayed menstruation and also urban and rural adolescent students' knowledge about causes of delayed menstruation during pre/post orientation program. The study also indicated a significant difference between urban and rural in their opinion related to options of seeking care. Moreover, regarding the locality of adolescent participants, the results showed a significant improvement (almost 50%) of urban adolescent students' information related to the definition of primary amenorrhea compared to 20% of rural adolescents. Also, regarding the causes of delayed menstruation 40% of urban adolescent answered correctly while rural findings reflected 50%. At the end, the authors suggest the requirement of further research for understanding the relationship between knowledge and habits toward puberty abnormalities and their management, provision of students in the preparatory phase with a simple guidance program about abnormality during puberty stage, and improving the awareness of primary schools in their localities toward this topic through faculties of nursing.
- Neils (2018) in her paper: [Menstrual Hygiene Management in Humanitarian Emergencies](#) provides suggestions on how to promote MHM practice for any response during humanitarian emergencies including (1) Ensuring humanitarian responses on MHM are accurately sensitive and well trained, (2) Consulting with women and girls on their MHM needs, (3) Providing appropriate and culturally sensitive hygiene kits that contain enough supplies, (4) Ensuring the safety and security of women and girls through well-planned and appropriately- designed latrines and bathing facilities, (5) Ensuring that girls and women with specific needs are reached, (6) Providing for sanitary disposal and waste management, (7) Ensuring MHM is provided in schools during emergencies and protracted crises, and (8) Tailoring the MHM response to different stages of an emergency.



- Pokharel (2018) in her thesis by using a descriptive cross-sectional study: [Availability of WASH facilities for effective Menstrual Hygiene Management at Home for Rural Kenyan School Girls](#) found that although 99.8% of girls had access to water at houses, 20% of the houses had no latrine, and even houses with latrine lacked doors or walls. Latrine cleaning materials were absent in 8% of the houses, and only 45% of them had soap available after using latrine. For 20% of girls, private space was not available to maintain personal hygiene. Findings also indicated that only 43% of girls and 35.7% of mothers use pads while the remaining of them use other items such as cloths, old clothes, tissue papers, sanitary towels, cotton wool, etc, and 2% of mothers and 0.5% of girls reported to have no hygiene materials during menstruation. The author recommends studies needed to be conducted not only in school environment, but also in home environment.

Global Research Update # 13

- Castensson, A (2018) in her thesis: [The Capability of Cups: A comparative field study in Uganda investigating the impact of menstrual cups on women and girls' achieved capabilities](#) has interviewed and compared two groups of women and girls – one in which everyone is using menstrual cups, and one in which everyone is using pads or cloths in order to assess which group achieved higher levels of capabilities. The results show that capabilities to a larger extent are achieved among the women and girls using menstrual cups than among those using pads or cloths. Moreover, obstacles to capabilities were predominantly present in the second group. The findings thereby support the theoretical argument, demonstrating that the use of menstrual cups removes obstacles – positively impacting capabilities. This highlights the importance of considering MHM as a key aspect of sustainable development.
- Mahalingaiah, S et al. (2018) in a cross-sectional study of 34832 female nurses of the original 116430 participants of a prospective cohort aged 25-42 years enrolled in 1989 in the US: [Perimenarchal air pollution exposure and menstrual disorders](#) with the objective of examining the association between perimenarchal total suspended particulates (TSP), menstrual irregularity phenotypes (including androgen excess), and time to cycle regularity in the Nurses' Health Study II (NHSII) found that exposures to TSP during high school are associated with slightly increased odds of menstrual irregularity and longer time to regularity in high school and early adulthood. TSP was also associated with a longer time to cycle regularity, with stronger results among women with older ages at menarche and those living in the Northeast or the West. The authors suggest conducting further studies to provide more detailed exposure



assessment of size fractions and compositional analyses combined with prospective collection of pubertal and menstrual characteristics.

Global Research Update # 14

- Nurkhairulnisa Al et al. (2018) in a questionnaire -based study of 123 parents/guardians from both public forum held in May 2012 and adolescent gynaecology or paediatric psychiatry clinic at the University of Kebangsaan Malaysia Medical Centre: [Management of Menstrual Disorder in Adolescent Girls with Intellectual Disabilities: A Blessing or a Curse?](#) with the aims of describing the menstrual pattern and menstrual care of girls with intellectual disabilities and evaluating the impact of menstruation and awareness of parents/guardians on girls with intellectual disabilities. The study found that girls with intellectual disability attained menarche at a mean age of 11.12 ± 1.76 years, and the majority (54.1%) of girls had regular menses, and 50.5% had mild dysmenorrhea, 24.3% experienced moderate dysmenorrhea, and 25.2% had no dysmenorrhea. The results also showed that participants with lower family income were significantly more aware of getting help regarding menstrual suppression compared to the higher family income group, and respondents with girls who had moderate severity and who were unable to manage her menses tended to seek medical help on menstrual suppression (a way of using certain types of hormonal birth control to avoid having monthly bleeding). Moreover, participants from lower family income group who were concerned about sexual abuse requested for sterilization for their daughter. The findings also revealed that more than half of the parents had not sought medical help on menstrual management for their daughters; only 21.6% of them shared their concerns and worries with their friends, teachers, relatives, and doctors.



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- Min, J and Ahn, S (2018): [Effects of menstrual self-management education program on knowledge and behavior of menstrual self-management in high school girls](#). A randomized controlled trial with 100 high school girl students in Korea, with half receiving 4 one-hour sessions covering general information about menstruation, pain management, and hygiene, and the other half receiving only general information. Findings were that both menstrual knowledge and menstrual self-management behavior was significantly improved in the experimental group compared to the control group. The study adds to the knowledge about the extent/content of education needed for improved outcomes.
- Kim, H.J. and Choi, S.Y (2018): [Status of use of menstrual hygiene products and genital organ hygiene management in unmarried women](#). A study based on self-reporting by 161 unmarried women in Korea. Findings were that most 82.1% used disposable pads, but this product received low satisfaction rates. Only few (17.1%) used reusable sanitary napkin and tampons, but satisfaction was high. 44.1% of respondents wanted to use menstrual cups. 98.8% of the participants also wanted education for their menstrual hygiene products, and 78.3% of respondents reported using between 11 and 20 menstrual products during menstruation. Furthermore, 83.2% of the respondents believed menstrual hygiene products would affect women's reproductive health very much. The study adds to the understanding of acceptability and satisfaction for different products.
- Deeb, A et al. (2018): [Puberty attitude towards delaying puberty in girls with and without a disability: a questionnaire-based study from the United Arab Emirates](#). A questionnaire-based study of 42 mother-daughter pairs in Mafraq hospital in the United Arab Emirates, to explore the reasons for seeking medical treatment to delay or halt puberty. Findings were that the main concern for mothers of girls without disability was fear of short stature (100%). For mothers of girls with a disability, the main reason was concerns about menstrual hygiene management (92.5%), following by fear of child abuse or unwanted pregnancy (55%). Moreover, 26% of mothers of girls with a disability requested permanent surgical intervention. This study particularly adds to the understanding of concerns regarding menstruation for of mothers of girls with disabilities.