This study explored the existing practices on menstrual hygiene management of the girls and women in rural Bangladesh. It has also depicted the associated effects against existing practices linking with school attendance, performance, affordability of menstrual products etc. The results of the study are retrieved using both quantitative and qualitative research methods i.e. questionnaire survey, focus group discussion, key informant interviews etc. Study revalued that 91% school girls use old unhygienic cloths while 9% use improved products. Above 90% girls dispose pads un-hygienically which is not environment friendly. Among the girls, 48% miss 3 or more days causing bad performance on their results. And, 86% girls reported that improved menstrual items are not affordable for them. Improper menstrual management is identified a barrier of women empowerment. For a way forward, integrating menstrual hygiene management interventions with relevant development programmes are recommended to improve the exiting state.

Background
In Bangladesh, menstruation is a concealed menace to the education of schoolgirls. Over 40% girls do not attend school during menstruation for an average of three days in a month instigating bad school performance. The facilities in schools for menstruating girls is very rare and limited. Only 3% schoolgirls have a trash can inside their school toilet. 53% girls do not have access to toilet with adequate privacy at school and 30% girls face the same problem at their home (MLGRDC, 2014).

The knowledge and practices on proper menstrual hygiene management among girls and women is very limited. In rural areas, only 10% girls use improved menstrual products during their menstruation, while others use old cloths, rags, cotton or tissue (MLGRDC, 2014). In urban areas, 21% girls and women use improved products. The rest of the women use old cloths for several menstrual cycle without proper cleaning, drying and loundering. Around 90% girls store their menstrual cloths in a hidden place for repeated use without washing them in a hygienic manner. Reproductive tract infections are 70% more common in women who use unhygienic alternatives (Sinha, 2011). Girls mostly get information about menstruation form their mothers and other female members from family. 64% of girls are not introduced with the on menstruation before menarche (Alam, et al. 2013). Another study revalued that 70% get the information about menstruation from their mothers and 20% get information from their teachers (MLGRDC, 2014).

Girls and women of rural Bangladesh have little choice regarding menstrual hygiene products due to limited options in the market, which are often targeted to urban and elite consumers. Moreover, girls, women and even the male members of rural communities do not know about improved menstrual products. Most of the rural outlet owners have no or limited knowledge on menstrual products and they do not sell them as there is no or less demand. However, few products can be found in medical store that are located at rural market place. For menstruating girls and women, the accessibility of rural market is not easy. Sometimes markets are far away from schools and remote villages. As girls and women normally do not visit market place, they get limited opportunity to buy those products. In order to get the product, they have to depend on male members of their family as males usually visit outside and the market places. Besides, the
girls and women feel shy to buy the products from male shopkeepers as all the grocery and medical stores are run by males.

In Bangladesh, around 72% people live in rural areas and 28% population live under poverty line (BBS, 2011). The girls and women are more vulnerable in terms of economic condition. They have no or limited income generating activities. They mainly depend on male counterpart of their family in order to get any livelihood support. So, the rural girls have limited affordability to buy menstrual products.

In the rural areas of Bangladesh, there are also a lot of social taboos around menstruation that create problem for girls to continue their routine life. It is evident that 95% of girls maintain restriction on daily life during menstruation. In some part of the country, girls are confined indoor upon their first menstruation. It is believed that menstruating girls and women are impure and more often they should not attend in religious activities and even in socio-cultural activities. The menstrual management decisions are based on their cultural belief instead of proper practices. In rural communities, it is believed that menstruation is a sign of marriage.

Study area
This study was conducted in 4 impoverished rural communities in Rangpur and Gopalganj district of Bangladesh. Rangpur is a northern district of Bangladesh with a population of 2,534,365, 90% of whom are Muslims. It lies on the bank of the Ghaghat River and the total area of the district is 2,370 square kilometres. Its’ climate is generally marked with monsoons, high temperature, considerable humidity and heavy rainfall. It is well connected by highways and railway links to the capital city, Dhaka. Gopalganj is one of the districts under the Dhaka division, located southwest from the capital. It is situated near the bank of Madhumati river with an area of 1,490 square kilometres. It is an agricultural area producing rice, jute, sugarcane and ground nut. It has a population of 1,172,415, 50% Muslims and 45% Hindu. (BBC, 2011).

Methodology
In order to conduct the study, both quantitative and qualitative data collection methods were used to collect primary data and information. Systematic random sampling was done while collecting the quantitative data. 12% sampled population were interviewed with 99% confidence interval, and 5% marginal error was allowed to collect information from the school girls through a structured questionnaire. In total, 736 school girls between grade five and ten were interviewed through questionnaire survey to depict results of this study. The feedback from 126 school boys were collected through 7 Focus Group Discussions. And, 63 women including health workers and 28 men including father, religious leaders, school teachers, outlet owners were interviewed through 6 Focus Group discussions and 28 Key Informant Interviews. Besides, secondary data and information were gathered from different reports, articles and books. Collecting the quantitative data using Rapid Assessment through Mobile Phone (RAMP), they were analysed in excel and interpreted to prepare the article. The qualitative information was compiled based on its characteristics and fitted where relevant.

Results
The results of the study are summarised through different charts and figures and interpretation is given thereafter. Results include existing practices of menstrual hygiene management and its effects on girls and women linking with their education and livelihood.

The figure 1 depicts information on using menstrual materials by school girls of Rangpur and Gopalganj. Mainly two types of menstrual material were used by them. Most common use is cloth and other materials which consists 91% and only 9% girls use sanitary pads to manage their menstruation. The use of any menstrual materials is liked with disposal methodologies practiced by the them which are shown in the following figure.

The figure 2 illustrates the information on how the girls disposes their used menstrual materials. Girls mainly follow traditional procedures for disposing menstrual cloths or pads. Of the total surveyed girls, the highest 45% girls bury their used materials under soil which is the most common practice, 16% throw them in jungle, 11% throw in rives/ canal, 8% mix them with compost, 7% put the materials in dust bucket and they are taken away by paid service. Only, 10% girl burn those cloths and 3% denied to give any response. It is observed that most of girls dispose the pads following traditional methods, which they learned from their older person/s of family. Most of the identified methods were not environment friendly.
There are many reasons for hygienically manage menstruation by girls and women in rural Bangladesh. This study identified those reasons from the discussion with the community people and has been articulated in the following.

**Figure 1: Use of menstrual materials during menstruation**

Source: Field Survey, 2016

**Figure 2: Ways of disposing menstrual cloths and pads**

Source: Field Survey, 2016

**Figure 3: Ways of unhygienic menstrual management by girls and women**
Due to their unhygienic practice, there are a lot of consequences regarding the menstrual hygiene management faced by school girls in Bangladesh. They miss school days due to menstruation resulting bad school performance. These are illustrated by the following figure.

**Figure 4: Status of missing school day by girls in Rangpur and Gopalganj districts**

Source: Field Survey, 2016

The figure 4 describes the average days of missing school during menstruation by the school girls. Among the rest, 10% miss classes but not days, 30% miss 1 or 2 days, 20% miss 3 to 4 days and 12% miss 5 days or more which impacts a lot on their leaning. It was documented that only 28% of girls don’t miss school days during their menstruation. It is proven that in total 72% girls miss class or days due to menstruation and more than 30% girls miss 3 days or more per month due to menstruation. Now the question is how this missing days or classes are impacting on their school performance. That result is shown in the following figure.

**Figure 5: Girls responses on their school performance if they miss school days during menstruation**

Figure 5 depicts how school performance has been affected the girls if they fail to attend school during menstruation. The information shows 52% girls feel there is a probability of their school performance if they don’t attend. Besides, 17% girls have reported that it is very probable to worsen the school performance due to not attending school during period. However, 22% girls replied there is less probability for not attending the school.

**Figure 6: Reasons for not attending schools during menstruation**

**Figure 7: Girls affordability of using improved menstrual products**

Source: Field Survey, 2016
Figure 6 shows the associated reasons for girls not attending schools. It is revealed that 67% girls do not attend because they feel sick during menstruation which is directly linked with menstrual hygiene management.

Among the girls, 9% remain absent because they cannot bring disposable pads or cloths to schools. 8% girls don’t come as there is inadequate school toilet facilities including water, soap, disposal, security, and privacy.

Figure 7 shows the information on the affordability of school girls to use the improved menstrual product available in the market. Among the total, 24% girls reported that disposable pad is very costly, and 26% ranked them as costly while only 14% girls found the products are not costly for them. It is evident that 86% girls report that the menstrual product is costly to the school girls.

Common myths and taboos around menstruation in study areas
In communities, there are some common taboos and irrational belief in relation with MHM. Comparatively, situation in cities are better than the villages regarding menstrual hygiene management. The common myths and taboos have been specified in the following box.

<table>
<thead>
<tr>
<th>Myths and taboos around menstruation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menstruation is a sign of marriage</td>
</tr>
<tr>
<td>Adolescent girls will bleed more if they do not stop intake of nutritious food</td>
</tr>
<tr>
<td>Not allowed to consult with doctor, treatment should be provided by Traditional Healers/Quakes</td>
</tr>
<tr>
<td>Menstruating women/girl given separate bed for sleeping</td>
</tr>
<tr>
<td>Menstruating women/girl remain almost captive in the room</td>
</tr>
<tr>
<td>Menstruating women/girl are not allowed to cook in the kitchen and cowshed</td>
</tr>
<tr>
<td>They cannot touch clay pot as they think it is a sign of impurity</td>
</tr>
<tr>
<td>When menstruation starts, immediately she need to bath</td>
</tr>
<tr>
<td>Menstruating girls should not visit religious places and social gatherings</td>
</tr>
<tr>
<td>Not allowed to use oil in the hair during menstruation</td>
</tr>
<tr>
<td>Clothes used to manage menstruation should have kept out of sight of men</td>
</tr>
<tr>
<td>In the evening they are not allowed to go out</td>
</tr>
</tbody>
</table>

Lesson learned
The important learnings of the study have been articulated in the following.

• Improper menstrual hygiene management is a barrier of women empowerment
• Poor economic condition of girls and women is one of the obstacles for proper menstrual hygiene management
• Social taboos around menstruation hinders women’s development and welfare
• The socio-cultural environment for proper menstruation hygiene management is not favorable for the girls and women till now
• Menstruating girls and women are eager to adopt good practices and get the affordable products to manage their menstruation hygienically
• Even though lessons regarding physical and psychological changes at adolescent age are already in school curriculum, this is not taught by the teachers in most of the schools
• Community change agents are interested to disseminate information and work to promote proper menstrual hygiene management for creating an enabling environment through breaking the silence and taboos
• Male members including boys in the community are interested to know about menstruation and how it happens
• School toilet have no menstrual hygiene management facilities
• Unavailability of menstrual hygiene management facilities in schools is one the important hindrances of girl’s education
• Low cost products are not available to meet the demand of poor girls and women.
Conclusion

The communities of rural Bangladesh are less aware on health and education of their girls and other female members. The menstruation hygiene management in schools and homes is not yet being prioritized by the communities due to their lack of education. The rate of unhygienic and repetitive use of old unhygienic cloths is decreasing very slowly from generation to generation. The traditional management of menstruation has the direct effect on education and health of rural adolescent girls. Poverty of rural people, inaccessibility and unavailability of menstrual products are also the barriers of proper menstrual hygiene management. The improper menstrual hygiene management with existing social norms and taboos articulated as results impacted girls’ social and economic empowerment increasing dropout from education, depriving from family and social support, and facilities. It also instigated social violence against adolescent girls and women such as early marriage, illegal abortion etc. The girls were being affected with diseases liked to reproductive health. Because of not taking nutritious food and proper health information due to taboos, the girls became malnourished and unhealthy. To address the prevailing situation, the following initiatives could be taken as priority to improve the situation. Along with the existing products, alternative biodegradable products could be developed and promoted involving rural girls and women creating livelihood opportunities. Packaging of existing products should be modified based on the demand of rural girls and women. Government and development sector should give special focus to mainstream menstrual hygiene management with health, water, sanitation and hygiene, and gender programming. The design and construction of school toilet should be gender sensitive and address menstrual hygiene management issues and include a room for change, washing, disposal facilities inside the latrines. Menstrual hygiene management issues should be incorporated in school curriculum from the primary level. Moreover, raising awareness among change agents in the society should be the main triggering point to create an enabling environment for women and girls so as to enjoy the equal opportunities breaking the taboos, irrational social norms around menstruation.

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