Aims

Maternal Aid Association (MAA) is a student-founded charity aimed at revolutionising maternal healthcare in resource poor settings. The maternal mortality rate (MMR) in Bangladesh has remained stagnant between 2010 and 2016 at 196 per 100,000 live births. As voluntourism has highlighted issues of a fragmented approach in projects overseas, MAA has created a MAA Bangladesh team, consisting of Bangladeshi doctors and medical students. They run tri-weekly maternal health camps and maternal health education (MHE) seminars for pregnant mothers in three rural villages in Bangladesh.

The MAA UK team help deliver health camps during our annual ‘JourneyMaa’ project, raise awareness, fundraise and collect data to target our services for future health camps. In this way, the emphasis is on the UK team facilitating change by empowering the stakeholders in Bangladesh.

Methodology

A two-day mobile maternal health screening camp was set up in the rural villages of Bhagalpur and Ramsiri, Bangladesh, as part of MAA’s project “JourneyMaa 2018”. A total of 400 pregnant women attended, receiving free basic healthcare checks and a consultation with a doctor. Each participant then sat in a maternal health education (MHE) seminar carried out by a Bangladeshi, MAA doctor. Each seminar was 30 minutes long and consisted of an average of 20 participants. The seminar addressed a variety of topics around pregnancy and delivery, tackling key misconceptions and highlighting red flag symptoms for women to be aware of during their pregnancy.

At the end of the seminar, participants verbally answered a questionnaire that was asked by JourneyMaa volunteers from the UK to the participants in Bangla and volunteers recorded their responses on the questionnaire in English. The questionnaire explored each woman’s individual pregnancy experiences, their engagement with healthcare facilities in Bangladesh, and measured the impact of MAA’s MHE seminar content. 60 women were randomly selected to complete the survey. 5 women refused to consent to their data being shared, hence a total of 55 women were included in the study. Participants were asked about their baseline knowledge after the MHE seminar had been conducted without assessing what their baseline knowledge was before the seminar.

Summary of Results

<table>
<thead>
<tr>
<th>Food Intake</th>
<th>Exercise</th>
<th>Meet a healthcare system</th>
<th>Request partner’s help</th>
<th>Receive health check-ups</th>
<th>Play with child</th>
<th>Monitor child’s growth</th>
<th>Awareness of symptoms during pregnancy</th>
<th>Visit healthcare facility if signs/symptoms present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>% Increase</td>
<td>Baseline</td>
<td>% Increase</td>
<td>Baseline</td>
<td>% Increase</td>
<td>Baseline</td>
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</tr>
<tr>
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<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Percentage of Participants

**FIGURE 1 - BASELINE AND PERCENTAGE INCREASE IN POSITIVE HEALTH SEEKING BEHAVIOURS**

Red flag symptoms discussed include symptoms relating to pre-eclampsia, post-partum haemorrhage and urinary tract infections. MAA included this in the seminars as knowledge of these symptoms are critical for preventing many causes of maternal deaths.

However, despite there being an increase in the participants’ willingness to participate in positive health seeking behaviours, the willingness to visit a health facility remained the same pre- and post seminar. This is despite the fact that there was a 33% increase in the proportion of women who were willing to seek regular health check-ups. Such results depict the fact that there are many obstacles for women’s access to healthcare that go beyond their potential lack of knowledge. The three delay model to maternal health depicts how pregnancy-related mortality is due to delays in deciding to seek care, identifying and reaching a health facility and receiving adequate and appropriate treatment once a facility. Consequently, although the seminar may have improved participants knowledge around positive health seeking behaviours, the structural barriers to adequate access to healthcare must also be addressed in order to improve maternal mortality.

Limitations

Small sample size of only 55 women were involved in the study. Participants were asked about their baseline knowledge after the MHE seminar had been conducted without assessing what their baseline knowledge was before the seminar.

Significant number of N/A answers due to language barriers and inconsistencies in questioning styles of interviewers.

Discussion

Nutrition is an important part of a healthy pregnancy, however many women in Bangladesh believe that a restrictive diet will produce a smaller baby, hence an easier delivery. This has potentially dire consequences for the child as it increases the risk of low birth neonates and gestational diabetes mellitus for the mother. Thus, it was positive to see a 11% increase in the participants willingness to increase their food intake during pregnancy after the MHE seminar as it is vital message that needs to be sent.

Similarly, there was a 25% increase in women who were more willing to exercise during their pregnancy post MHE seminar. This is an encouraging finding as there are known cultural beliefs, as well as inadequate all female spaces, which may prevent some women in partaking in outdoor activities. Tackling such stigmas and motivating women to engage in more exercise is important to improve their general health.

Moreover, the main positive change seen regarding health seeking behaviours was around the ability to recognise red-flag symptoms during pregnancy, with a 38% increase in the proportion of women being able to recognise these signs post seminar.

Conclusion

The Maa MHE seminar evaluations depict the positive impact of the sessions in improving the practices and health seeking behaviours of the participants. In particular, improvements were seen in women’s acknowledgement of red-flag symptoms during pregnancy. Although there were limitations to the study, these have been highlighted and steps will be taken to overcome them in future JourneyMaa projects. By adopting an integrated medical team to maintain relationships with communities, Maa hopes to improve maternal health in Bangladesh.