Measuring impact and cost-effectiveness of development interventions

Chapter 5: General Summary

Having the intention to 'do good' does not automatically lead to positive impact – there are countless little steps between having good intentions and making lasting sustainable impact. In the private sector, it is standard practice to track money; we follow the input costs, track how it generates revenue and calculate profit margins. In the development sector, we approach impact in a similar way; we follow the costs of our actions, track how many people are affected and calculate how much impact is generated. In this dissertation I take a similar approach in assessing the impact and cost-effectiveness of Menstrual Health interventions in Bangladesh. We performed a needs assessment at the start to make sure the intervention filled the right gaps, we kept track of all the costs, and used mixed method to measure the impact on the wellbeing and development of adolescent girls in Bangladesh.

In Chapter 2, I study changes in menstrual health outcomes, wellbeing outcomes and educational outcomes of adolescent girls. I use a randomized controlled trial experimental design to show the causal link between the *Ritu* Menstrual Health program and positive changes in the lives of girls. 149 schools were randomly assigned to receive menstrual health interventions at school, or receive menstrual health interventions at school *and* at the households, or to be in the control group. I showed significant improvements in outcomes related to their Menstrual Health, such as more hygienic practices, more support and better wellbeing during menses. I also found rigorous evidence that school attendance of menstruating girls increased compared to their peers who did not receive the *Ritu* program. School attendance of boys also increased, which can be accredited to the holistic approach of the program: boys were specifically targeted with this program, since they play a key part in creating a more open and supportive environment for girls to practice safe MH and be included in society during their menses. Future research could shed more light on the effect on boys, and it could also provide more evidence on the exact pathways of change and if certain aspects of the holistic menstrual health intervention were more effective than others. New studies could also look at longer term effects, and examine how menstrual health interventions during adolescence affect long term development outcomes of girls, and the way they interact and support their own offspring. This might seem far away, but the girls who received menstrual health interventions in school are likely to soon be mothers themselves, since the average age at first birth is

18 years in rural Bangladesh. It is therefore extra interesting to examine generational effects, and investigate if menstrual barriers for the next generation are lower than they were for the current generation due to menstrual health interventions.

The menstrual health program was thus successful at positively affecting the lives of young girls and boys. For policymakers though, it is important to also know the exact costs involved before deciding whether to upscale programs such as these. Therefore, I examined the cost-effectiveness of implementing the program. I find that the *Ritu* program was relatively cost-effective, and the school program version was more cost-effective than the combined program. The difference in cost-effectiveness estimates of the two versions of the program (school-based vs combined program) is not driven by differences in impact results but rather by differences in costs – with the combined program (specifically the household component) being considerably more costly than the school program. The cost-effectiveness findings lie within the range of existing evidence, meaning that the *Ritu* program measures up to other programs (such a purely education programs) in terms of increasing school attendance of adolescents and improving development outcomes. These findings are important for policymakers, who now have clear evidence that a well-targeted and holistic menstrual health intervention can provide similar outcomes in terms of education as other programs can, and it can do so at similar costs. It should be noted that cost-effectiveness results always rely heavily on assumptions, that is why we made the conscious decision to use a conservative method and our cost-effectiveness results should therefore be interpreted as lower-bound estimates. The true cost-effectiveness of the *Ritu* program, in terms of benefits beyond school attendance such as wellbeing and future development outcomes, is likely to be larger. Future research could compare the implementation costs of the *Ritu* program with the long-term impact results, for example by surveying the participants 5 to 10 years from now.

The menstrual health sector is in need of more evidence on the cost-effectiveness of menstrual health interventions, new studies on this topic should disclose cost information as much as possible so that the cost-effectiveness of different types of MH interventions becomes clearer. This way, decision makers can make evidence-

informed decisions about what type of MH intervention could support the development of girls and women the most.

In chapter 3 I take a closer look at the social norms and attitudes inhibiting girls and women from reaching their full potential during their periods. Specifically, I examine if the *Ritu* program causally affects the attitudes of mothers and fathers and if certain restrictive norms are more malleable than others. Parents play a pivotal role in deciding what their daughters are allowed to do during their menses. I find that implicit attitudes (or: deep preferences) for parents towards menstruation remained unchanged, but the program significantly improved explicit attitudes and parental-imposed restrictions on menstruating daughters. I also find that attitudes towards certain taboos (especially the ones rooted in religion) were less likely to change than others. This means that the *Ritu* program managed to achieve a change in explicit preferences and decision making of parents, which is one potential explanation for the positive behavioral changes we found in Chapter 2, with girls for example coming to school more often. There is plenty of opportunity for new research to delve deeper in the underlying channels of how parental behavior changed due to a menstrual health intervention, as well as testing new methods of eliciting implicit attitudes.

Adolescent girls face a multitude of challenges to their development and wellbeing in general, and during menses these challenges often become even greater. Especially in low- and middle- income countries, menses is often met with less acceptance, social exclusion and poor menstrual health. Menstrual health interventions have the potential to contribute to girls' livelihoods, mobility, education and reproductive health, and life skills for both boys and girls, improving their future outlook. A girl has to manage menstruation on average 3,000 days throughout her life (Ahmed and Yesmin, 2008). This dissertation provides rigorous evidence showing that addressing issues related to MH has the potential to not only improve outcomes during these 3,000 days but also far beyond.