Menstruation and Education in Nepal

Researchers:

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Sector(s): Education, Gender, Health

Fieldwork: ICSR

Location: Chitwan, Nepal

Sample: 198 adolescent girls and their mothers

Target group: Students Women and girls

Outcome of interest: Citizen satisfaction Enrollment and attendance

Intervention type: In-kind transfers

AEA RCT registration number: AEARCTR-0000583

Data: Download Dataset from the Open ICPSR

Partner organization(s): Institute for Social and Environmental Research (ISER-Nepal)

Researchers introduced a convenient and hygienic sanitary product, reusable menstrual cups, to Nepalese girls in the seventh and eighth grades. Their evaluation addressed several questions: Is menstruation as large a barrier to education as many believe? Does switching to modern sanitary products increase attendance and school performance among girls? Results showed that girls in Nepal missed only half a day of school per year due to menstruation, and modern sanitary products did little to address this very small attendance gap.

Policy issue

Increasing education for girls is an important policy priority in many developing countries, where secondary school enrollment often remains lower for girls than for boys. Some researchers and policymakers have argued that menstruation may be causing girls to miss a significant number of school days. At the maximum, some have estimated that girls might be missing as much as 10 to 20 percent of school days due to menstruation. Anecdotal evidence seems to support this. Girls report missing school during their periods and lacking access to modern sanitary products.

In response, NGOs and sanitary product manufacturers have conducted campaigns to distribute sanitary products in the hope that this will remove a barrier to female education.[1] However, there has been little or no rigorous evidence on how much school girls miss due to their periods and the impact of providing sanitary products.

Context of the evaluation

In many parts of the world, social and cultural taboos and restrictions exist for women during their menstrual period. Women in very rural areas of Nepal are often restricted to separate huts or cow sheds during menstruation. Other activities are also restricted, such as preparing and consuming food, socializing, traveling, and importantly, attending school. Female school attendance is of particular importance as Nepal harbors marked gender disparities in literacy rates: only 24 percent of females

are literate, compared to 52 percent of males.[2]



Researchers introduced a convenient and hygienic sanitary product, reusable menstrual cups, to Nepalese girls in the seventh and eighth grades. Photo: Shutterstock.com

Krishna Ghimire

Details of the intervention

This evaluation took place in four schools in Chitwan, Nepal. In November 2006, all seventh- and eighth-grade girls from each school were invited, with their mothers or female guardians, to participate in a study meeting conducted by school officials and project staff. Across the schools, 198 girls chose to attend a meeting where they were asked questions about their basic demographics, education, menstruation, and self-esteem. In each of the four schools, a public lottery followed the meeting, and half of the girls were selected to be part of the treatment group. Lottery winners were asked to remain after the meeting had concluded.

Each treatment group girl and her mother or female guardian received a MoonCup brand reusable menstrual cup. The product is a small, silicone, bell-shaped cup which is inserted into the vagina to collect menstrual blood. With proper care, the cup is reusable for up to a decade. A nurse gave detailed instructions on the use of the cup.

After the menstrual cups were distributed, the study collected detailed data on the timing of the girls' menstruation and on girls' school attendance. The study also collected data on the girls' other activities and usage of the cups. This information was collected using time diaries (attendance, daily activities) and menstrual calendars (dates of menstruation), school administrative data (attendance, test scores), random unannounced school visits (attendance), and a second survey conducted sixteen months after girls in the treatment group received the cups. The survey also included questions about daily activities, self-esteem indicators,

and self-reported symptoms of gynecological infections.

Results and policy lessons

Menstruation caused girls to miss only half a day of school per year on average. In the initial survey, 47 percent of the girls reported missing school due to menstruation at least once in the past year, but that information did not tell researchers how much school the girls had missed. When the researchers matched official attendance records with data on the dates of girls' periods, they found that girls in the comparison group, who did not receive a menstrual cup, had only slightly lower attendance during their periods. On days when they were not menstruating, girls attended school 85.7 percent of the time, compared to 83 percent of the time during their periods. This translates to girls missing only 0.35 school days per year because of their periods. Data from the time diaries kept by the girls showed a similar effect: girls missed an estimated 0.6 school days per year due to their periods.

Take-up of the product was high and increased over time. After the menstrual cup was distributed, girls in the treatment group increasingly chose to use it. Most of the girls experimented with the cup; if they successfully used it once, they switched away from traditionally used rags and continued using the cup. Half a year later, 60 percent of girls were using the cups.

While the product was used by many girls in the treatment group, it did not reduce the (very small) amount of school missed due to menstruation. The researchers found no statistically significant impact of the improved sanitary product on attendance. Similarly, no significant impact was found on test scores.

Access to these products seemed to impact girls' lives in terms of convenience and mobility in managing their periods. For example, treatment girls reported spending 20 minutes less on laundry during their period days. Yet the product had no effect on other daily activities, self-reported gynecological infections, or self-esteem indicators.

Even in a context where about half of girls surveyed reported missing school due to menstruation, providing modern sanitary products was not a simple solution for improving girls' school attendance. The underlying causes of low school attendance for girls are complex, and this evaluation suggests that the relatively easy solution of providing sanitary products may not result in the educational gains policymakers had hoped for.

For policymakers seeking cost-effective methods of addressing low school attendance, alternative strategies are available. Modern sanitary products failed to significantly increase school attendance. Other randomized evaluations have found much larger gains in attendance by, for example, telling parents that their children can earn more with each additional year of schooling they complete, improving student health through treatment of intestinal worms, or reducing the cost of schooling with free uniforms.[3]

Girls liked the new sanitary product and continued to use it over time. Girls found the menstrual cup convenient and enjoyed a little more free time because they spent less time doing laundry. However, only 2 percent of the girls in this evaluation reported regularly purchasing modern sanitary products such as pads, indicating that the cost of these menstrual cups may be prohibitive for many girls.

Should these products be subsidized? The primary justification for subsidizing sanitary products has been their posited educational benefits. However, this product's lack of impact on school attendance would suggest a rethinking of directing education funds to this intervention. Policymakers considering subsidizing sanitary products will need to consider whether these results are likely to generalize to their setting and whether the improvement in convenience justifies the cost of providing these products.

Oster, Emily, and Rebecca Thornton. 2011. "Menstruation, Sanitary Products, and School Attendance: Evidence from a Randomized Evaluation." American Economic Journal: Applied Economics 3(January): 91-100. Oster, Emily, and Rebecca Thornton. 2012. "Determinants of Technology Adoption: Peer Effects in Menstrual Cup Take-Up." Journal of the European Economic Association 10(6): 1263-1293.

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1. Deutsch, Claudia. 2007. "A Not-So-Simple Plan to Keep African Girls in School." *New York Times,* Nov 12.

2. National Planning Commission Secretariat, Central Bureau of Statistics, "Section V: Literacy and Education."

3. Nguyen, Trang V. 2008. "Education and Health Care in Developing Countries, .";Kremer, Michael, and Edward Miguel. 2004. " Primary School Deworming in Kenya, .";Evans, David, Michael Kremer, and Muthoni Ngatia. 2009. "The Impact of Distributing School Uniforms on Children's Education in Kenya."