The Impact of Menstruation on the Economic Mobility of Girls in Developing Nations

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# MENSTRUATION AND THE MICROECONOMY OF WOMEN

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## Abstract

This paper focuses on the impact of menstruation on the macroeconomy of women and girls, specifically in third world countries. It will look at the negative impact that the lack of menstruation management has on the microeconomy of women from an economic lense. It also dives into the impact that period shame and stigmas have on females and their ability to have economic mobility. The objective is to spread awareness of the effect that the lack of menstrual health management is having on women all over the world, and help make some changes within my own community.

## Introduction

On Friday, September 6, 2019, 14-year-old Kenyan school girl Jackline Chepngeno was in class in her hometown of Kabiangek, a region in southwest Kenya (Kimutai, 2019). She was sitting in her third class of the day when out of nowhere, she got her period for the first time. She had no idea what she should do, no idea what it was, and did not have any sanitary products to conceal the blood--so she bled through her pants. Her teacher was female, so in hopes of solace, she confided in her. When Jackline's teacher saw the blood on her pants she called Jackline "dirty" then ordered her to exit the classroom and stand outside. On the way home, she did as much as she could do to hide her blood-stained pants. When she made it home, she told her mother what had happened at school in horror. She was scared; she did not know what was happening to her. In hopes to clean herself, she went to a local water pan, and it was at this local water source that she took her life using a *leso*, a traditional Kenyan scarf that she was carrying. Her mother told Kenyan officials that Jackline committed suicide because of the shame she felt on that day in the classroom, outside the classroom, and walking home.

This may seem like an extreme case scenario, but in Kenya and much of sub-Saharan Africa, reports say that one in every ten girls miss school during their menstrual cycle. Estimates made by UNESCO claim that this equals as much as twenty percent of a given school year (UNESCO, 2019). That is twenty percent of a school year that these girls could be learning, growing, and uplifting themselves. Jackline Chepngeno's story may sound like that of an era long gone, but period stigmas still affect the day to day lives of girls all over the world.

#### **Cultural Context**

The shame that comes with period blood is universal. All over the world 800 million women<sup>1</sup> go through the process of menstruation every single day (Dahlqvist & Olsson, 2018). Each one of these girls struggle with the same things: hiding their periods, worrying about what others think of their blood, and the feeling of being ashamed when their blood is exposed (Khan and Gokhale, 2013). In India, eight out of every ten girls say that they are not allowed to enter religious shrines when they are on their period, six out of ten girls say they are not allowed to touch food in the kitchen, and three out of ten are asked to sleep in a separate room (Pratap, 2016). In Nepal there is an ancient practice called *Chhaupadi* where girls on their periods, who are considered "impure", are exiled to poorly built huts outside of the main house until their period passes. Chhaupadi was banned by the Nepali government in 2017, but lawmakers believe it is still happening everyday in rural villages (Pokharel, 2017). Even in first-world nations, such as the United States, period shame and taboo culture are evident. As of 2018, most states still place a luxury tax on menstrual products (Zraick, 2018). A luxury tax is often placed on items that are not deemed a necessity to live and work, such as perfumes and jewelry. This idea that menstruation is a social stigma is embedded in the culture of the nation. In 2015, after being asked questions on past statements he had made by former FOX news anchor Megan Kelly, then presidential candidate Donald Trump told CNN's Don Lemon, "You could see there was blood coming out of her eye, blood coming out of her wherever" (Bradner, 2015). This quote is coming from the current president of the United States. With a current job approval rating of 35%,

<sup>&</sup>lt;sup>1</sup> Although, women are not the only ones who suffer from period shame, due to the briefness of this thesis I chose to focus on the impact on soley women and not others who may also go through a menstrual cycle, although some of the issues brought up can overlap. (ie. transgender, nonbinary, intersex, and/or genderqueer identifying people).

President Trump's remark is representing the ideologies of a fair amount of the people in the nation (Gallup, 2019).

The cultural shame that has been built around menstruation strips 800 million girls every day of the power to change their circumstances (Dahlqvist & Olsson, 2018). If it is not forcing them to drop out of school, it is limiting their successes in the jobs that are available. Although almost every girl in the world has to struggle with some sort of hindrance that comes along every month with her period, the consequences are much more severe when one extra item is factored into the equation: poverty. Affording constant menstrual products, water supply, toilets, or even a simple place to deal with the flow of blood is much more difficult when you are living below the poverty line (Tellier, & Hayttel, 2018). By extension, this means that girls who menstruate and live in the poorest parts of the world are affected the most.

Girls living in the poorest parts of Asia and Africa are often forced to dropout of school when taking care of their period becomes an issue (Lusk-Stover, Rop, Tinsley, & Rabie, 2016). Almost half of all children in the world drop out of school in their early teens (Dahlqvist & Olsson 2018). Although this statistic includes both boys and girls, it is around this age that the economic gap between the genders really begins to grow (UNPA, 2010).

School dropout rates have a clear connection to the socioeconomic levels of a given group (Dahlqvist & Olsson, 2018). This connection between adolescents and the beginnings of economic disparities between boys and girls is one that has been looked at before, but whenever it is analyzed people tend to forget to discuss menstruation. In September of 2000, building upon a decade of major United Nations (UN) conferences and summits, world leaders came together to adopt the United Nations Millennium Declaration (MDGs; Millennium Development Goals). The

MDGs are a doctrine for a partnership to reduce extreme poverty by setting out a series of eight time-bound targets. After fifteen years of using the MDGs, the UN wrote up the current Sustainable Development Goals (SDGs), with the same goal of reducing poverty, but with seventeen new targets. Both the MDGs and SDGs mention some type of goal that's purpose is to bridge the economic gap between boys and girls (Millennium Development). In the MDGs, it is goal 3, and in SDGs, it is goal 5 which aims to "Achieve gender equality and empower all women and girls" (Goal 5, 2018). However, when you look at the points under the goals there is no mention of menstruation. The only target under the goal that mentions some sort of feminine health is target 5.6, which mentions the "sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action" (Goal 5). The indicators of achieving goal 5.6, outlined as indicators 5.6.1 and 5.6.2, only talk about women having access to contraceptives and other sexual health products (Goal 5). Menstruation is such an integral part of what makes a woman different from a man and what ultimately causes a lot of the economic disparities between them, but it is never mentioned a single time in either of the goals.

Menstruation sets in motion a pattern for many of these women. It makes it difficult for the girls to get educated, sustain jobs, and be independent. If girls do not have the liberty that education can provide them, then they have no choice but to continue in the cycle of poverty. It is in a nation's best interest to allow women social and economic mobility. When a specific group in a society makes money, the whole economy of the country grows (Coppock & Mateer 2017). Contrary to some beliefs, the economic growth of women will provide a base for economic growth in the entirety of a society. An increase in menstrual health management, through the

distribution and creation of affordable menstrual products and tools will help women create their own economic security. That, plus an effort to decrease cultural stigmas of menstruation by educating people, will contribute to the financial well-being of both women and the local economy.

## **Science of Economic Growth**

To understand why menstruation affects an economy, one has to understand the science of economic growth. The aggregate production function describes the relationship between all the capital inputs of the macroeconomy and the total output of the country, also known as real Gross Domestic Production (rGDP). This function explains economic growth by proving that an increase in any form of capital will create an increase in a macroeconomys's GDP (Coppock & Mateer 2017).

GDP = f · technology (physical capital, human capital, natural resources, institutions)

This production function can predict the economy of any given country or region, by
hypothetically plugging in the variables. The United States has significant natural resources, a
large supply of physical capital, an abundance of new technologies, private property rights, and a
strong stable government to induce the annual GDP of more than \$16 million USD (Coppock &
Mateer 2017). As of 2018, that equals about \$62,641 USD GDP per capita (Gender Data Portal).

A large contributor to the United States' high GDP per capita is our abundance of human capital.

Human capital is defined as the resources represented by the quantity, knowledge, and skills of
the workers in an economy. Out of the 155 million people in the workforce, 90% of them have
graduated from high school (Coppock & Mateer 2017). In a country like Ethiopia, with a GDP

per capita of \$2,018 USD, the aggregate production function causes one to assume that there is a missing link (Gender data, 2019).

As of 2017, the Ethiopian workforce consisted of over 51.5 million people, which is 84% of the countries population eligible to work (Ethiopia, 2019). The issues start to arise when we look at who makes up the workforce. Eighty seven percent of men who are over 15 are in the workforce, compared to only 74% of all women (Labor force). Within the Ethiopian workforce, 45.8% of men in the workforce have a primary school education, where only 34.0% of females in the workforce do. While the completion rate of primary school for men in the Ethiopian workforce is at only 28.6%, the completion rate for women is considerably worse at about 15.4% (Gender data, 2019) The numbers for women and education only get smaller from there. The enrollment for secondary school for women is only at about 10.3%, and for any type of tertiary school, it is at a mere 0.5% (Ethiopia- labor, 2019).

Only about a third of the females in the workforce go on to secondary school from primary school; the most obvious explanation for that jump is menstruation. It is between the end of primary school and the beginning of tertiary school that most girls get their periods. Although the total workforce percentage between men and women is about the same, the education levels between them are not. The microeconomy of males in this macroeconomy has a greater chance of higher-paying jobs, due to their higher levels of education (World Bank, 2017). Although in recent years the GDP has increased in Ethiopia, alongside the percentage of people in the workforce, the GDP per capita has not risen as quickly because a group of people in the population has not had access to the same educational opportunities as the others. These statistics approximately apply to other third world countries as well (Gender data, 2019).

Women in third world countries lessen the GDP per capita because they are not making as much as men are (UNFPA, 2010). What is needed to increase the GDP per capita is a growth in skill level and knowledge (Coppock & Mateer, 2017). Education plays a big role in the growth of a macroeconomy and microeconomy. When girls are not receiving a proper education, they are limited in their possibilities for growth and independence, due to their economic constraints.

The aggregate production function is not the only economic theory that supports the idea that increased human capital will help bring change in the microeconomy of a specific group.

Gary Becker's Human Capital Theory (HCT) (Hanushek, Jaminson, Jaminson, & Woessmann, 2019) explains why both individuals' decisions to invest in human capital through education and training and the pattern of individuals' lifetime earnings correlate. Individuals' different levels of investment in education and training are explained in terms of their expected returns from the investment. Because people who are expected to work less in the labor market and have fewer labor market opportunities, such as women, are less likely to invest in human capital; they may have lower earnings. Because of this, they are much more likely to be in poverty (McKernan, & Ratcliffe, 2002).

Both of these economic theories point to the education gap as a key reason why women have continued to make less money than men in many third world countries. The dropout rates correlate with the average year one would get their periods. The education gap can be explained by the lack of Menstrual Health Management (MHM). Women who are forced to drop out of school, are obviously at a disadvantage compared to men who can complete their primary education and have a higher chance of secondary education.

### Why Menstrual Health Management is the Solution

Since the turn of the millennium, there has been a new focus on Menstrual Health Management (MHM). MHM is defined as the ability to access what is needed to manage one's menstruation so that one can be as comfortable as possible. MHM comes through menstruation knowledge as well as effective menstrual protection, water toilets, and spaces to change, wash, dry, and throw away products (Menstrual Hygiene, 2018). Menstrual products, such as disposable pads, tampons, or reusable cups, were first introduced in the 1930s. Recently, new innovations have improved their range, quality, safety, and availability of menstrual tools (Tellier & Hayttel, 2018). However, it is still hard for girls who live in poverty to benefit from the menstrual product developments that have been going on, mostly, in the western world. We know that there is an economic benefit that comes from educating girls, due to the importance that is found in their role as human capital. An increase in MHM will alleviate the burden that women in poverty have by allowing them to have access to economic mobility.

The challenge that menstruating girls have to deal with is more than just the tangible. Yes, access to sanitary products, sanitation tools, water, and infrastructure are big parts of what makes it hard to be a woman menstruating in a third world country, but a lot of the issues they face are rooted in social norms and cultural belief systems (World bank, 2018). In many cultures, menstruating women are considered impure and are systematically excluded from participating in every-day activities, such as education, employment, and cultural and religious practices.

In the most prevelant religions, Judaism, Christianity, Islam, Hinduism and Buddhism, there are similar taboos. The common practices include, but are not limited to: isolation, exclusion from religious activities, and restraint from sexual intercourse. Even in the most popular and

seemingly "modern" religions, women are banned from entering religious buildings and temples (Bhartiya, 2013).

The old-fashioned idea of social impurity that has been pushed not only by the culture and society, but also by societal institutions, limits what information women are open to receiving (Bhartiya, 2013). I believe that the only way to open up conversations for these girls in their country, is through education on MHM and stigmas. If we are able to have open conversations about menstruation there will be big changes made in MHM (Tellier, 2018). To be able to refer to menstruation as a natural bodily cycle, instead of a shameful secret will make it easier to deal with the economic aftermath that has been left plaguing the microeconomy of women.

In my research I contacted Anna Dalquavist, author of *It's Only Blood: Shattering the Taboo of Menstruation* (2018). In our conversation we kept returning to one question: What is the best way to attack this situation to make lasting change? She answered by saying:

I believe the most important aspect [of change] is challenging the silence and stigma by talking openly about it and by making it what it should be - a normal biological function that needs to be addressed on a public level (as well as being a private matter). And to spread knowledge to get rid of all myths surrounding it, making sure it reaches men as well.

Educating girls is the best way to decrease period stigmas. This can be proved by looking at which MHM organizations and attempts have been able to make the most change in the areas they work in.

In countries in sub-Saharan Africa, where companies like Johnston and Johnston have been commissioned by the government to give out pads through one mass donation, there have been much lower estimated continuation rates of girls buying and using pads. Pads are often expensive and only providing girls with pads once does nothing in the grand scheme of it all (Dahlqvist & Olsson, 2018). Organizations like Zana Africa, who's main goal is to not only provide young girls with physical and institutional aid, like menstrual products, but also teach girls about menstruation have a much more long lasting impact in the areas they work in (Zana Africa, 2019).

At this moment, Zana Africa is in the middle of an investigative project, with the goal to determine whether providing girls with reproductive health education and menstrual hygiene products positively impacts their education and well-being. They are doing this by conducting a case study involving more than 5,000 adolescent girls in 140 primary schools in Kilifi, Kenya.

The Nia study is an experiment that is split up into four sections. The people at ZanaAfrica split up the 5,000 plus girls into their respective schools and created four groups of 35 schools. One group of schools received sanitary pads, the second school received only reproductive health classes, the third received both, and the fourth group received neither. Although the case study is not complete, all data so far has pointed to the third school as having the most measurable impact. And aside from the control school, the first school has had the least amount of measurable growth (Nia project, 2017). Although the Nia project is one of the first randomized controlled trial of its kind, and is not yet a finished product, the data they have reported is pointing to one conclusion—the biggest impact is made when both education and menstrual tools are introduced to girls.

It's obvious that MHM is going to create platforms to help aleve some of the sanitation issues women and adolescent girls face. What's not as obvious is the rippling effect it will have in

safeguarding the dignity, bodily integrity, and the economic opportunities offered to women all over the world (UNPA, 2010).

## **Should Menstrual Health Management Be the First Step?**

It has been proven that the easiest way for a population of people to increase their human capital skills, and therefore impact on the economy, is through education. For many, education is the gateway out of poverty. It gives people to opportunity to work higher paying jobs, create technology, invest in their economy, and much more.

One question plaguing economists everywhere is how one measures the impact of education on an economy. Some argue that the cognitive skills of people in a country are the best indicator of human capital (Hanuskek et al., 2019). Increasing the average number of years of schooling attained by the labor force boosts the economy only when the increased levels of school attainment also boost cognitive skills (Patrinos, 2016). The same people that believe this would argue that the first step we should be taking to help alleviate some of the impacts that menstruation has on the female microeconomy is investing in schools. They would say that education, without purpose means nothing. And while there is some major truth to their argument, the first steps we should take for women should involve MHM.

Even if females in the country had access to better education, it is estimated that in sub-Saharan Africa 20% of school are missed every year, collectively by girls due to menstrual issues. That is still a great chunk of school that these girls are missing due to their menstrual cycle. In tests done across the fifty countries, each additional year of average schooling in a country increased the average forty year growth rate in GDP by about 0.37 percentage points

(Hanuskek, etc al., 2019). However, when calculating this data they did not make an effort to examine the days missed due to menstruation.

We should focus on MHM first because if we do not take steps to try and eradicate the issues that females face in their access to work and education there will be no great change. Having access to good education does nothing if the girls do not benefit from it. Once girls are in school, local and state governments can work on increasing the quality of the education children receive (Bourne, 2014).

## **Action Plan**

One big risk that comes with focusing on just distributing pads it the possibility of it simply ending there without any attempt to address the big issue of cultural stigma. In many cases, passing out sanitation tools is a "one-time event" of giving out free pads. To make a true change we have to partner with invested groups and Non-governmental organizations (NGOs), not corporations who mass send out pads or tampons. There has to be education paired with passing out pads, or else we risk no change happening.

One of the biggest misconceptions that I tackled in this thesis is the idea that providing pads at girls will fix all the issues. The Nia Project has proven that, if anything, constant education is the best way to tackle the injustices that are caused by the lack of MHM. Although, the Nina project is set up in Kenya, there are women and girls in my community that are suffering as well. Lack of MHM has led to a covert form of shame. I know that I feel uncomfortable telling boys that I am on my period. I know girls who hide their pads and tampons in their sleeves, even when in the girls' bathroom. There is a need for education, even in a nation like the United States.

My plan of action is to start a chapter of the organization *PERIOD*. at my school. *PERIOD*.'s main goal is to educate, advocate, and provide services to the local community. My club would meet once a month to talk about stigmas, to look at case studies of girls all over the world who struggle with menstruation issues, hold MHM product drives, and pass out pads to women shelters in and around our community.

One major thing I want to do involves an organization called Dignity Period. Dignity Period is an organization that buys pads from a female-run factory in Ethiopia and distributes the eco-friendly pads out to girls in the Afar and Tigray regions of Ethiopia and St. Louis, United States. They make an effort to not only distribute pads but with the pads, they educate both girls and boys on menstruation health through a book they developed and direct conferences within the schools in the regions (Educational equality).

They buy the pads from Mariam Seba Sanitary Products Factory, which was started by Freweini Mebrahtu. Mebrahtu is a chemical engineer who opened up her factory 2005, which produces 750,000 pads a year for women in Ethiopia who lack access to sanitary products. Mebrahtu makes an effort to hire women. She has also partnered with Menilik University to educate 300,000 plus college students, both female and male, about the stigmas of periods and the idea of "menstrual equity" (Toner, 2019). Mebratu has also recently been honored as CNN's Hero of the year (Escobedo, 2019).

In order to keep the factory running Dignity period buys the female produced pads and distributes them out in the northern Ethiopian tribes and St. Louis area. Since opening Dignity periods has reached 175 schools, educated over 135,000 people, and they have seen a 24% decrease in school absences among girls in Ethiopia. Because Dignity Period is a charity, all the

money they use to buy the pads is donated to them. I plan to hold an event in my area, in accordance with my club, PERIOD., to raise money for Dignity Period (Educational equality).

#### Conclusion

"It gives freedom, self confidence, a sense of being seen and acknowledged - if we talk openly and address the needs related to periods. That is a foundation for sustainability regarding education, and work." -Anna Dalquavsit

The Human Capital theory and the aggregate production function help us understand the key factors of economic growth. Because of these theories, we know that menstruation damages a crucial part of the ability for a microeconomy to grow and thrive- human capital (Coppock & Mateer 2017). Women's human capital value is at stake when we do not highlight the issue of menstruation.

In order for girls all over the world to have the ability to take control of their economic mobility, revolution has to happen everywhere. The silence that goes on all over the world needs to be broken. As long as we keep silent about the topic of menstruation, the problems plaguing and crippling girls all over the world will only continue. My goal is for those who menstruate to feel comfortable asking for health advice. I want women to have access to pads, tampons, menstrual cups, and every form of sanitary aid they need. I want women all over the world to understand that they are not "dirty" or "unclean" because they are on their period. Like what Ms. Dalquavist said, menstruation needs to be talked about like the biological function it is and not a shameful monthly cycle. When menstruation is looked at like a normal bodily function and not something that helps lead too and justify the disparity between women and men all over the world, a real difference will be made.

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